```
900
atggccttcc tgggcgcaga gctgaaaagc ggcattgaga ttgtcactca ggcgctcaat
                                                                     960
cttgaagaac atattcacga ctgcacgtgg gtgctgacgg gggaagggcg catcgacagc
                                                                     1020
cagagcataa atggcaaagt gcccgtcggc gtggcgagcg tcgccaaaaa ataccataag
                                                                     1080
ccagtgatag ggattgccgg aagtctgacg caggatgtgg gtgtggtgca tcagtacggc
                                                                     1140
atogatgogg tgttcagogt actgaccogc atoggetcac tggaagaggc gttccagggc
gogtatgaca acatttacog ogcotogogg aatatogogg coacattgca ggtaggcatg
                                                                     1215
eqtagecagg ggtga
<210> 4049
<211> 1437
<212> DNA
<213> Enterobacter cloacae
<400> 4049
tetececata teaataacte acacetgeae ettetgaete geaategetg gegateggaa
tottataaaa acaaccagtt accotacaaa ataagcgagt goocaatgaa tatggcaaca
                                                                      180
aacagcagtg tgattgtgag tgattcccct gcggcaaggc gggcgggaat gagcgaaagc
quatggcgag aggcgatcaa atttgacagc accgatacgg gctgggtcat catgagtatc
                                                                      240
                                                                      300
gggatggcta teggegeggg categtttt etteeggtge aggtegggtt aatggggetg
tgggtgtttt tactctcgtc gataattggt tatccggcta tgtacctgtt ccagcgcctg
                                                                      360
tttattaata ogotggogga atcacoggaa tgcaaagatt accogagogt cattagoggt
                                                                      420
tatttaggta aaaactgggg catcttattg ggtgcgcttt atttcgtgat gctggtgatc
                                                                      480
                                                                      540
tggatgtttg totattocac ggotatoacc aacgacagog cotoctattt gcacacotto
                                                                      600
ggcgtaaccg acggtttgct gtcggaaaat ccgttctacg gcttattcct gatctgcatt
ctggtcgcca tctcgtcgcg cggagaaaaa ctgctgttta aagtctccag cctgatggtg
                                                                      660
                                                                      720
ctgaccaaat tatttgtagt ggcggcgctg ggtctttcga tgattggcct ctggcattta
gccaacgteg gtatgetgee geogatgggg etgetgatta aaaacgeeat tattacgetg
                                                                      780
cettteacet taacetecat tetgtttatt cagaetttaa geoogatggt gattteetat
                                                                      840
                                                                      900
cgttcacggg aaaaatccgt agaggtggcg cgtcataaag cgctgcgggc aatgaatatc
gootttggeg tgotgtttgt gaeggtettt ttotacgegg tetcetteac getggegatg
                                                                      960
                                                                      1020
gggcacgacg aggcggtaaa agcctacgag cagaatattt ccgccctggc aatcgcagca
cagttcatca geggtgacgg tgcgggctgg gtcaaaatcg tcagegtgat cctcaacatt
ttegeogtga tgacegegtt etttggegte taretegget ttegtgagge gacgcaggge
                                                                      1140
atogtgatga acatootgog cogcaaaatg coggoggaaa aaatoaatga aaatgoogto
cagogoggaa ttatgotgtt ogcoatootg otggootgga gogogattgt attaaaogog
                                                                      1260
                                                                      1320
coggtgctga gcttcacctc catctgtage cctattttcg ggatggtggg ctgcttaatt
coggogtggc tggtctacaa agtgcccgca cttcataaat ataaaggcgt atcgctggta
attatogtaa ttacoggget gotgotttgt gttteteett teetegeett eteatga
                                                                      1437
<210> 4050
<211> 1515
 <212> DNA
 <213> Enterobacter cloacae
<400> 4050
actgaactaa ggccgtttga ggttgatatg caatacatca aaatccattc gctggataac
                                                                      60
                                                                      120
gttgccgtcg cgctggccga tttagccgaa gggacggaag tgaccttcga caaccagtcg
 gtgacgttac gccaggccat tggacgtgga cataagtttg ccctgatccc catcgcgaaa
                                                                      180
 ggggagaacg tggtgaagta cggtttgccc atcggtcatg cgctggcgga tattgcgccg
                                                                      240
 ggtgaataca tteatteeca caataceege accaatetea gegatetgga egagtacage
                                                                      300
 tatcaacctg acttccaggc agaagaagga caggcggccg atcgtgaggt gcagatctac
                                                                      360
 egeogogoca geggegaggt ggggateege aatgaactgt ggateeteee gaeegtegge
                                                                      420
                                                                      480
 tgcgtgaacg ggatcgcgcg tcaaattcag acgcgtttcc tgaaagagac taacaatgct
 gaaggcaccg acggcgtgca totgttcagc cacacctacg gttgttccca gctgggcgac
                                                                      540
                                                                      600
 gaccacatca ataccegcac catgetgcaa aatatggtge gecaccegaa egegggggeg
 gtgctggtga ttggcctcgg ctgtgaaaac aatcaggttg acgccttccg cgatacgctg
                                                                      660
                                                                      720
 ggegagtteg atcetgageg egtgeacttt atggtgtgte ageaceagga egacgaagtg
                                                                      780
 gaagegggeg tegaacaact geaceagetg tacgaggtga tgegteaega caagegegag
                                                                      840
 ccgggcaagc tgagcgaact gaagtttggc ctggagtgcg gcgggtctga cgggctttct
 ggcattaceg ctaaccegat getgggeege tteteggatt atgtgattge caacggegge
                                                                      900
 accaeggtgc tgaccgaagt geeggagatg tteggegeag agegeattet gatgageeac
                                                                      960
```

```
tgtcgcgacg aagagacgtt tgagaagacc gtcaccatgg tgaacgactt caaacagtac
                                                                    1080
tteattgeec acaateagee gatttaegag aaccegtege egggggaacaa ggegggegga
                                                                    1140
atcaccacge tggaggagaa atccctcgge tgcacccaga aagcggggge cagccaggtg
gtggacgttc tgcgctacgg cgaacgcctg aaaacccacg gcctgaacct gctgagcgca
                                                                    1260
coqqqtaacq atqcqqtcqc caccagcgcg ctggcggggg cgggttgtca catggtgttg
ttcagcaccg gtcgcggtac gccgtacggc ggatttgtgc caacggtgaa aatcgccacc
aacagcgaac tggcggcgaa gaaaaagcac tggatcgatt tcgacgcagg ccagctgatc
                                                                    1380
cacggcaaag cgatgccaca gctgctgacg gagttcgtgg atactatcgt ggagtttgct
                                                                    1440
 aacggcaggc agacctgtaa cgagaagaac gacttccgcg agctggcgat ctttaagagt
                                                                    1500
ggtgtgacgc tttaa
 <210> 4051
 <211> 1395
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4051
 gatactggtt tttcagatcc tgcgtatact gccagagggc tttgtcagtc gcgaaatcat
 gcgtgcccgg gtagcgtttt tccagcaccg caccgagctt tcccgcggca atcaggtcac
                                                                     120
 gaacctggga aagtaaatgc teeggatagc eetggagata agteagetgg tteatcaaaa
                                                                     180
 ccccaaaata gtgtgaaaac gggtatactc acgcaccctt ttcagggata cgccaaattt
taccattcag gagggccgat gagccactta gacaacggtt tccgttcact caaccttaaa
                                                                     300
                                                                    360
 cqtttcccqq aaacqqacqa cqtgaacccq cttcaggcqt gggaagcggc ggatgaatat
                                                                    420
ctgctgcaac agttggatga gactgaaatc agcggcccgg ttctgatcct gaatgacgct
tttggcgcgc tggcctgcgc gctggcggaa catgcgcctt acagtatcgg cgattcttac
                                                                    480
                                                                     540
ttaaqcqaac tqqcqacqcq tqaaaacctq cgccataacg acatcgaaga gtccagcgtg
                                                                     600
aagtteeteg acagcacege ggactaceeg caggegeegg gegtggtget gattaaggtg
                                                                     660
ccaaaaacca tggcgctgct ggagcagcaa ctgcgcgcgc tgcgtaaagt cgtcacgcca
gaaaccegca ttatcgcggg tgccaaagcg cgtgatattc acacctcgac gctggagctg
                                                                     720
                                                                    780
ttcgagaagg tcctcggccc gaccaccacg acgcttgcct ggaaaaaagc acgcctgate
aactgcacct teagegeace ggegetggee gaegegeeag aaacgetgag etggaaactg
                                                                     840
gaaggtaccg actggaccat ccacaaccac gcgaacgtct tttcccgtac cggtctggat
                                                                     900
ateggggege gtttetttat ggaacatetg eeggaaaate ttgagggtga gattgtegae
                                                                     960
ctgggctgcg gcaatggcgt gattggcctg acgctgctgg cgaagaaccc ggaggccagc
gtggtgttca gcgacgaatc gccaatggcg gtggcctcca gccgtctgaa cgtggaaact
                                                                     1080
                                                                     1140
aacctgcctg aagcgctgga tcgctgcgag tttatgatca ataacgcgct gtcgggcgta
 gageetttee getteaacge ggtattetgt aaccegeegt tecaccagaa geacgeeetg
 acggataacg tegegtggga gatgttccae caegegegee getgeetgaa aatcaacgge
                                                                     1260
 gagetgtata tegtggegaa eegecacetg gaetaettee acaagetgaa gaagattite
                                                                     1320
 ggcaactgcg tcaccattgc caccaataac aaattcgtgg tgctgaaatc ggtgaagctg
                                                                     1395
 gggcgtcgtc gctaa
 <210> 4052
 <211> 938
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4052
 qtttcccqqc ctcqcqqatc qggtgctggt aatgcatcag ggcgtgctca gcggcgagct
 geogegeeae geogteagee togaceggat gatggegetg gegtttggag ggeaateatg
 aagatottac tgaaaaaccg cgagetgage gegttteteg ccattetgge getgttegee
                                                                     180
 gtgctggtgg cgctgaaccc gtcgtacctg agcttacaga cgctggggat gatcttcgcc
                                                                     240
 300
 attgacgtct ccgtcggctc cacggtcggg ttgtccgcca ttgccgtcgg cgtggcgctt
                                                                     360
                                                                     420
 aacagegget acageetgee egttteeatt etettegege tgtegategg egegetggee
                                                                     480
 ggggegttca acggttttct ggtggtgggc ctgcgcattc cggcgattgt cgccaccctc
                                                                     540
 qgcacgetgg ggctttateg eggggegatg etgetetgga eeggegggaa gtggattgaa
                                                                     600
 gggetgeege eggggetgaa atecetetet gageetgeeg eegteggtat ttegeegete
                                                                     660
 qqcatgetqq tgttgattat cgcggccaca ggcgcgtgga cgctgtcgcg caccgccttt
                                                                     720
 ggacgtattt tttacgccgt gggggataac ctcgccgccg cgcgccagct gggcgtggcg
 qtqaaccqca cocqcatgat cgcctttacc ctgaacggcc tgctggcggc ctgcgccggg
```

```
840
atogtotttg cogegeagat tggattogtg cocaaccaga coggoagegg getggagatg
                                                                     900
aaaqccateq ctqccctqcq tqctqqqqqq catctcgctg ctgggcggca ccggcacgct
                                                                      938
gatetaatte aacegeeggg etggaaggae caaegeat
<210> 4053
<211> 774
<212> DNA
<213> Enterobacter cloacae
<400> 4053
qtaatqaqta acqacatett cccqaataaa tttaaagegg ccctcgegge gcaccagatt
cagattggct getggtctgc getggccaac eccatcagca ecgaagtgct gggcetggce
                                                                      120
gggttcgact ggctggtgct ggacggcgaa catgcgccaa acgatatcaa cacgtttatt
                                                                      180
ccgcagctga tggcgctgaa aggcagccac agcgcgccgg tggtgcgtgt gcccaccaac
                                                                      240
                                                                      300
gageeggtga teateaageg tetgetggat ateggettet acaaetttet gateeegttt
                                                                      360
gttgaaacgg aagaagaagc ggtgcaggcc gtggcggcga cccgctatcc accggaaggg
                                                                      420
atcogogog tgtcogtoto gcacogogoc aacatgtttg gcacogtgoc ggactatttc
                                                                      480
teccagteca acaagaacat caccattetg gttcagateg agagecagea gggggtegat
                                                                      540
aacgtogacg etattgeege gacggaggge gtegaeggea ttttegtegg eeegagegat
etggeggeeg cetttggtea tetgggtaac gecageeate eggatgtgea gegegeaatt
                                                                      600
cagcacattt ttgcccgtgc caeagcgcac ggtaaaccgt gcggcattct ggcgccagtg
                                                                      660
                                                                      720
quaqccqatq cocgccqtta cotggaatgg ggcgcaacgt ttgtcgccgt cggcagcgat
                                                                      774
cteggegtat teegegeege caegeagaaa ttageggaeg ettttaaaaa ataa
<210> 4054
<211> 912
<212> DNA
<213> Enterobacter cloacae
<400> 4054
                                                                      60
ccatcattga ggaaacagat tatgacgctg aaagtgggtt ttattggcct gggtatcatg
                                                                      120
ggcaaaccaa tgagcaaaaa cotcatcaaa gcaggttact cactggtggt titagatogt
aattcagacg cggtggcaga ggtgattgcg gctggcgcag aaacggcgac aaccgcaaaa
                                                                      180
                                                                      240
gcaattgetg agcagtgega cgtgattate accatgetge caaacteece gcacgtgaaa
gaggtggcgc tgggtgagaa cggcattatc gatggcgcga agccgggtct ggtggtgatc
                                                                      300
gacatgagtt ctategeace getggeaage egegaaatea gegaggaget gaaagegaag
                                                                      360
ggcgtggaga tgctggatgc gccggtcagc ggcggcgaac cgaaagccat cgacggcacc
                                                                      420
ctgtcggtga tggtaggggg cgataaagcc gtgttcgaca aatactacga cctgatgaaa
                                                                      480
gocatggctg getcegtggt geacaceggt gaaattggeg caggcaacgt caccaagetg
                                                                      540
gcaaaccagg tgattgtggc gttgaacatc gcggctatgt cggaggcgct aacgctggcc
accaaagegg gegttaatee ggatetggte tateaggeea ttegeggtgg tetggeggge
                                                                      720
ageaccgtgc tggatgccaa ggcgccgatg gtgatggatc gtaacttcag gccgggcttc
                                                                      780
egeategate tgeacattaa ggatetggeg aatgegetgg ataceteeca eggegtgggg
                                                                      840
gegeagetge egetgaetge egeegteatg gagatgatge aggegetgeg tgeggatggt
                                                                      900
ctgggcaccg ccgatcacag cgcgttagcg tgctattacg aaaagctggc gaaggttgaa
                                                                      912
attqctcqct aa
<210> 4055
<211> 933
<212> DNA
<213> Enterobacter cloacae
<400> 4055
                                                                      60
gogcagaata ttatgaatac tattatteta cogaaaactc agcacctcgt ggtatttcag
gaagtcatca aaagtggete cataggttet getgeaagae aactgggget gaegeaacet
geogteagea aaateateag egacategaa testaetttg gggtggaagt gatggtgegt
                                                                      180
aagaacaccg gcgtaaaact cactgccgcc ggtcaggtgc tgctgtccta cgctgagtcg
                                                                      240
                                                                      300
atcaccegeg aaatgaaaaa catggtgage gagatcaaca geeteagttt cagtacegte
                                                                      360
atggacgtct ccttcggcta tccgtcgcta attggcttca ccttcctgtc cgggatgatc
aaaaaattca aggaagtgtt coogaaagcg cgtgtctcaa tgtatgaagc gcagctctct
                                                                      420
```

teatteetge eegecatteg egatggeegg etggattteg ceateggeae getgagegae

```
qqqatqcaqc ttcaqqatct tcacqttqaq ccactqtttq aatccgagtt tgtgctggtg
gcgagtaaat cacgaacgtg caccggcccg accagactgg catcgctcac gcacgagcag
                                                                     600
                                                                     660
tgggtgatge egeaaacega tatgggetae tacaacgaac ttetgaceae cetgeaagae
aaccacatca gcattgaaaa catcgtccag accgattccg tcgtcaccat ctataacctt
                                                                     780
gtoctcaatg cogattacct gaoggtgate coccgtgaca tgattgegee atteggeteg
                                                                     840
gaccagttea ttgtcctgcc ggtggaagat gaattacccg tggcgcgtta tgccgccgtg
                                                                     900
tggtcaaaaa attacagtat taaaaaatcg gcgtcagtat tagttgaact ggcaaaacaa
                                                                     933
tattegtega tgaatacega aaaacgacga tag
<210> 4056
<211> 1029
<212> DNA
<213> Enterobacter cloacae
<400> 4056
ctttgcctga aaacaatgaa ttattataac gaggatatta tgcacattac ttacgatctc
                                                                     120
ccqqtqacca ttgaagatat tcaggacgcc agaaaaagac tggcgggaaa gatctataaa
accggtatgc egegeteaaa ttatetgage gaacggtgta agggtgagat atteetgaaa
                                                                     180
                                                                     240
tttgaaaata tgcagcgtac cggttcgttt aaaatacgtg gggcgtttaa taaattaagc
tegetgaceg atgeggaaaa acgeaaggge gtggtggeet gtteegeagg gaaceaegeg
cagggggtot etetetettg egecatgete ggeategacg geaaagtagt gatgeegatg
                                                                     360
ggegegeega aatecaaggt tgeegeeaeg egegaetaet etgeegaagt ggtgetaeae
                                                                     420
                                                                     480
qqcqaqaact ttaacgacac catcgccaaa gtgagcgaaa tcgtcgagat ggaagggcgc
                                                                     540
atttttatcc cgccttacga cgatccgaaa gtgatcgccg gtcagggcac catcggcctg
gaaatcotog aagatttata tgacgtggat aacgtgattg tccccatcgg cggcggcggt
                                                                     600
ttaattgccg gtattgcgac agcaattaaa tccatcaacc caactatcaa tattatcggc
                                                                     660
gtgcagtctg aaaacgtgca cggaatggcg gcatcgtatc aggccggtga aataacgaac
                                                                     720
caccgcatta coggcacatt agcagacggt tgcgatgtgt ctcgcccggg taatttaacc
                                                                     780
ttegaaattg ttegtgaatt agtegatgae attgtgetgg teagegaaga egagattege
                                                                     840
                                                                     900
aacagcatga tegegettat teagegaaat aaagtggtea eggaaggtge tggegeaetg
                                                                     960
gegtgegegg egttattaag eggeaagetg gaccactata tecagggeeg taaaacegte
tgcattattt coggoggcaa tatogatoto tocogtgttt cocaaattac oggottogtt
                                                                     1029
gacgcataa
<210> 4057
<211> 1509
<212> DNA
<213> Enterobacter cloacae
<400> 4057
etcacgaaaa aaacgtogga etctggaaat tggtgtgata actttgcage atctgaacat
aagetttetg aegeteeegt aatgaggaag aegataatga caeegtttat gaeegaegat
                                                                     180
tttctqttaq ataccgaatt tgctcgccgc ctgtaccacg actacgcaaa agaccagccg
attttcgact accactgcca tttaccgccg cagcaggttg ccgaaaatta ccgtttcaaa
                                                                     240
aacctgtatg atatctggct gaagggtgac cactataagt ggcgcgcaat gcgcaccaac
                                                                     300
ggcgtggccg agcgcctgtg taccggcgac gcgaccgatc gcgagaagtt tgacgcctgg
                                                                     360
googotactg ttccccacac catcggtaac cogttatacc actggacgca cotcgaactg
                                                                     420
egtegteegt ttggtateae eggeaagetg eteteteeeg eeaeggegga tgaaatetgg
                                                                     480
gateagtgca acgacctgct ggcgcaggat agcttctcgg cgcgcggcat catgaagcag
                                                                      540
atgaacgtga agatggtggg caccaccgac gatcctgtcg actctctgga gcaccacgcg
                                                                      600
gttgtcgcga aggacagcac gtttgacatc aaagtgctgc caagctggcg cccggataaa
                                                                      660
geetteaaca tegagetgee gaeetttaac gaetatatgg egaagetgge ggaagtgtet
                                                                      720
gacaccgata teegtegett tggegatetg caaaccgege tgaccaaacg tetggateac
                                                                      780
tttgccgcac acggctgtaa agtgtctgac cacgcgctgg acgtagtgct gttcgcggaa
                                                                      840
                                                                      900
tecagegaag etgagetgga eageattetg gegegtegte teteeggega ageeetgagt
                                                                      960
gagcacgaag tggcgcagtt caaaacggcg gtactggtgt tcctcggtgc ggaatatgcc
                                                                     1020
egeegegget gggtteagea gtateacate ggegegetge gtaataacaa ceagegteag
ttcaaactgc tgggcgcgga cgtgggcttt gactccatca acgaccgtcc gatggcggaa
                                                                     1080
                                                                     1140
gagetgteaa aactgetgag caaacagaac gageaaaate tgetgeeaaa aaccateett
tactgootga acccaegoga taacgaagtg otgggcacca tgatcggcaa ottocagggo
                                                                     1200
```

qaaqqqatgc cgggcaagat gcagttcggt tccggctggt ggtttaacga tcagaaagac

```
ggeatggage gtcagatgac geagetggeg cageteggee tgttgageeg ettegttgge
                                                                     1320
                                                                     1380
atgctgaccg acagoogoag titoctotoc tataccogoo atgaatattt cogooggatt
                                                                     1440
ctgtgccaga tgattggccg ctgggtgcac gcgggcgaag cgccagcaga tatccagctg
etgggegaaa tggtgagaaa catctgettt aacaatgege gtgactactt egecattgaa
ctgaactaa
<210> 4058
<211> 1575
<212> DNA
<213> Enterobacter cloacae
<400> 4058
tocotgoacg gttgtaaata tagttoaccg totacgottt tgaacattat taaatotaaa
                                                                     60
aatcatttgt tcaatagcgg agcgatgatg acaccacttc tcgacgcgcg tgatatcagc
                                                                     120
                                                                     180
aagcagtttt caggegtace ggtettaaaa ggeattgatt teaegetget tgeggggeag
gtgcatgcgc tgatgggcgg taacggcgcg ggaaaatcga cgctgatgaa gatcatcgcc
                                                                     240
                                                                     300
ggggtagaaa coccggattg cggtgaactt tcggtggcgg gtgagtcttt tacacggctt
accoeggete aggegeacag gttaggeatt tatetggtge egeaggagee getgetgttt
                                                                     360
                                                                     420
cecaacetga eggtgeggga aaacateetg titegtetge egegagageg egategggaa
                                                                     480
aaacgtctgg cggaaaaact ccggcaattg caatgccagc ttaacctcga cgccaccgcc
agcacceteg aggtggetga ceageagatg gtggagatee tgegeggget gatgegeaac
                                                                     540
qccagaattc tgatcctcga tgaacccacg gcctcgctga cgccaggtga aaccgaacgg
                                                                     600
                                                                     660
ctgtttcgcc agatecgcgc cttgcaggat cttggcgtcg gtattgtttt tatctcgcat
                                                                     720
aagetgeegg agatteggea getggegagt cacgtetegg tgatgegega eggegeegtg
gtgeteageg gegaaacege geagtttgae gataacgeee tgategeege catgacgeea
                                                                     780
gtaagccggg agaceteeet gagcgatacg caaaagetgt ggetggeget geegggcaac
                                                                     840
egeegeacee aggegeagga ttttcccgtg etgegggtgg aggatettae eggggaaggg
                                                                     900
                                                                     960
tttatcgate teageettga gatetacgee ggggagateg teggeetgge egggetggta
ggctccgggc gcaccgagtt tgccgaaacg ctctacggcc tgcgtcccgt acgcggcggg
                                                                     1080
eqqqtqtqqc tqqaqaacca qqaqatcacc accgaaccgg tgggttcacg tetggaaaaa
gggctggttt atctgccgga agacaggcag gtgtccggcc tgtttctcga cgcgccgatc
egetggaaca cegtggeget gaacgageeg tegetetgge ageagegaaa gegggagtet
                                                                     1200
geggtagtgg aacgetatea eegggegetg gggateaage teaaceatge ggateaaace
                                                                     1260
gtgcgcaege teteeggtgg taateageag aaggtgetge tggcgegetg tetggaggee
                                                                     1320
aacccgctgc tgctgatcgt cgatgaaccg acgcgcggcg tggacgtctc ggcgcgcgcc
                                                                     1380
                                                                     1440
gatatttatc agetgetgaa aagegtggeg gegeagaacg tggeggtget gatgatetca
agegateteg atgagtttcc eggeetegeg gategggtge tggtaatgea teagggegtg
                                                                     1560
ctcagcggeg agetgeegeg ccacqccgtc agectegacc ggatgatgge getggegttt
ggagggcaat catga
<210> 4059
<211> 813
<212> DNA
<213> Enterobacter cloacae
<400> 4059
ggagctcgta tgagcagcac cgattcatcc gcagagaagc gcatcaccgg caccagtgaa
                                                                     60
                                                                     120
aggogagage agatoattoa goggttgogg gogcagggaa gogtgoaggt taacgatott
totottttat toggogtgto gaoggtgaog atoogtaatg acctggcott totggaaaag
caggggattg cogttogogo ttacggoggo gogotgattt gogaaggcaa tgccccoggo
gtggagccat ccgttgagga caaaagttcc cttaatacgg cagtgaagcg cagtatcgcg
                                                                     300
                                                                     360
caggoggogg ttgaactggt gaagcogggt caccgcatta ttctggactc cggcaccacg
acctttgaaa ttgcccgcat gctgcgccag cacaccgatg tcattgccat gaccaacggg
                                                                     420
                                                                     480
atgaacgtgg caaacgcgct gctggaagcg gaaggcgtag agctgctgat gaccggcggg
catttqcqcc qtcaqtcaca qtccttctac ggcgaccagg cggagcagtc cttacagaat
                                                                     540
                                                                     600
taccattttg acctgctgtt totgggcgtc gatgccatcg atctcgaccg gggggtgagt
acgcataacg aggatgaagc cogtetgaac cgcaaaatgt gcgaggtggc ggagcgtatt
                                                                     660
atogttgtca cggactccag caagtttaat cgttcaagcc tgcataaaat tattgatacc
                                                                     720
categaateg acatgattat egitgatgaa ggcatteegg eggaaageet ggaagggtta
                                                                     780
                                                                      813
```

cgcaaaagcg ggatcgatgt ggtgctggtc taa

```
<210> 4060
<211> 1335
<212> DNA
<213> Enterobacter cloacae
<400> 4060
cttatgagca acacagaaag cattategtt ggccagacaa aaacgtcctc ctggcgtaaa
totgatacca cotggacgot oggootgttt ggtacogoca ttggcgcagg cgtgctgttc
ttocctatoc gtgcaggott tggcggottg atcoccatoc tgctgatgot ggtactcgcg
                                                                     180
                                                                     240
tteccqattq cettttactq ccaccqcqcg ctggcgcgtc tgtgtttgtc cggcagtaac
qtctccqqca acatcaccga aacggtggag gagcattttg gtaagaccgg cggggtggta
                                                                     300
atcaccttcc totacttott tgccatttgc cogctgctgt ggatttacgg cgtcaccatt
accaacacet ttatgacett ctgggaaaac cagetecaga tgecegeeet gaacegegge
                                                                     420
gtggtggcgc tgttcctgct gctgctgatg gcctttgtta tctggttcgg taaagacctg
                                                                     480
                                                                     540
atggtgaaag tgatgageta cetggtgtte cegtteateg ceageetggt gttgatttet
                                                                     600
ctotegetga tecegtactg gaacteggeg gtgategace aggttaacet gagegatate
geotteaceg gtcatgaegg cattetggte aeggtgtgge tgggggatete cateatggte
                                                                     660
                                                                     720
tteteettea acttetegee tategtetee tegtttgtgg teteeaageg egaagagtae
                                                                     780
gaaccggagt togggaaaga gtttaccgag cagaaatgtt ccaaaatcat cggtcgccc
agcotgotga tggtggcggt ggtgatgtto ttogcottta gotgoctgtt tacactotot
                                                                     840
cegcagaaca tggeggacge caaagegeag aacatteegg tgetetetta cetggegaac
                                                                     900
cactttgcgt cgatgtcagg cagtaeatec acgttcgcca ccgtgctgga gtacggcgcg
                                                                     960
                                                                     1020
tocatcatog cgctggtcgc tatotttaaa toottottog gccactatot gggcacgctg
gaggggctga acggcctgat catcaagttc ggctacaagg gcgacaagaa gaacgtctcc
                                                                     1080
                                                                      1140
gtcggcaagc tgaacaccat cagcatggtc ttcatcatgg gctccacctg gattgtggcc
tacqccaacc cgaacattet ggacctcatt gaagccatgg gegegecaat tategeetet
etgetgtgee tgetgeegat gtaegeeate egeaaggeae eggegetgge gaaatacaaa
                                                                     1260
ggccggaccg agaacatott cgtaaccgtg gtcggtctgc tgaccattct gaacatcgtg
tacaaactgt tttaa
<210> 4061
<211> 1239
<212> DNA
<213> Enterobacter cloacae
<400> 4061
accaaagoto aggaagagog gagocataco atgattgagt ttooggtagt actggtoatt
                                                                      120
aactgoggat ogtoctotgt taagttotog gtgotggaeg cogcaagotg cgatgoootg
atgacgggca ttgcggacgg catcaacasa gaaaaagcct ttatttccgt gaatgggggt
                                                                      180
gagooggtoa gaotggotoa coaggactao gaaggggege tggoogcoat ogcoottgag
                                                                      240
ctggagaaac gcaacctgat gggeagegtg getttgattg gecategeat tgcccaegge
ggtgacctet teagegagte gaccetgate aeggaagagg tgatggegea gateegeeag
                                                                      360
gteteccege tggegeeget geataactae geeaacetga geggegtgga ageegeegag
                                                                      420
egectgttee eeggegtgea geaggtggeg gtatttgata eeagetteea eeagaceatg
                                                                      480
cogcogcagg ogtatotgta oggottgcog tacogotatt ttgaagaget gggogtgcgc
                                                                      540
egetaeggtt tecatggeae eteteaeege tatgtgtegg egeaggegea egegetttte
                                                                      600
gggctctctc ccgatgacag cggcctggta attgcccate tcggcaacgg ggcgtccate
                                                                      660
tgcgcggtgc gtaacggcgt aagcgtggac acgtccatgg ggatgacgcc gcttgaagga
                                                                      720
etggtgatgg geacgegetg eggagaegtg gattttggeg egatggegtg gattgceegg
                                                                     780
cagacoggoc agtogttoga ggatotggag ogogtggtoa acaaagagto ogggotgotg
                                                                      840
                                                                      900
gggatotocg gtatotocto cgatttgcgc gcgctggaga aagcctggca tgacggcaac
gagegggege ggetggeaat aaagacettt gteeacegga ttgegeggea tategeeggt
                                                                      960
catgoogogt cootgoacog totggatggo gtggtgttta coggogggat cggtgagaac
                                                                     1080
tooqtgotta toogogogot ggtggoggag catotgaagg tgtttggcat catoctcgac
                                                                     1140
gagtocaaaa atgoootgoo gggoagogog ggogagogog tgatotocao ogagtogtoo
egegeggeet gegeggtgat coctaceaat gaagaaaaaa tgategeget ggacgeeete
                                                                      1239
cgtcttggga aggttactcc ggetgegget tacgcetga
```

<sup>&</sup>lt;210> 4062 <211> 2307 <212> DNA

## <213> Enterobacter cloacae

```
<400> 4062
agegagaate tgatgaaagt aacaategat aegggegteg egeettacag egaegeatgg
gccgggtttc gtggtgaaga atggaaaaac gccatcaacg tacgcgattt tattcagcat
                                                                     180
aactacaccc cttatgaagg cgatgaagct ttcctcgcgc aggcgacgcc agcaacgacg
                                                                     240
gegetgtggc agaaggtgat ggteggeatt egteaggaga atgeeaceca egeteeggtg
                                                                     300
gatttcgaca ccaacatcgc cactaccatt accgcgcacg ggccgggcta tattgatcag
gagetggaga egategtegg cetgeaaace gacaageege teaagegege eetgeateeg
                                                                     360
                                                                     420
tacggcggga tcaacatgat ccgcagctcg ttcgaagcct acggtcgcga gatggatccg
cagtttgaat atototttac cgacetgege aaaacccaca accagggegt gtttgaegtt
                                                                     480
tactccccgg agatgatgcg ctgccgcaaa tcgggggtgc tgaccggtct gccggacggc
tacgggcgcg gacgcatcat cggcgactac cgccgcgtgg cgctgtacgg catcagctat
                                                                     600
ctggtgcgcg agcgtgaact tcagttcgcc gatctccagg ggaaactgga gcgcggcgaa
                                                                     660
                                                                     720
gatetggagg ccaegateeg eetgegegaa gagetggegg ageacaageg egegetgetg
                                                                     780
cagatocage agatggcgge gaactatggg titgatatat caegteegge gatgaacgee
caggaagegg tgcagtggct ctattttgcc tacetggegg eggtgaaate eeagaaegge
                                                                     840
                                                                     900
ggagccatgt cgctggggcg cacggcctcg ttcctcgata tctacatcga acgcgacatg
                                                                     960
caggetggge ggetgaatga ggtgeaggee eaggagetga tegaceaett cateatgaag
atcogcatqq tqcgcttcct gcgtacgccg gagttcgaca cgctcttctc cggcgatccg
                                                                     1020
atotgggcca oggaagtgat tggoggcatg gggctggacg ggogcacgct ggtgactaaa
                                                                     1080
aacagettee getaeetgea taccetgeae accatgggge etgegeegga gecaaacetg
                                                                     1140
                                                                     1200
acgatectet ggteegaaaa actgeegate gegtteaaga aataegeege acaggtgteg
atogtoacet ectegetgoa atacgagaac gacgatetga tgegeacega etteaacage
                                                                     1260
gacgactacg coattgootg otgogtoago cogatggtga toggoaagoa gatgcagtto
                                                                     1380
ttoggogcac gogccaacot ggogaaaacg ctgctgtacg caatcaacgg cggggtggat
gagaagetga agateeaggt eggteegaaa acegageege tgetggatga ggtaetggat
                                                                     1440
tacgacaccg taatggcgag cotogateac ttoatggact ggctggcggt acagtacatc
agogogotga atotoattoa otatatgoat gataaataca gotacgaago otogotgatg
                                                                     1620
gegetgeacg accgggaegt ctaccgcacc atggeetgeg geattgeegg getgteggtg
                                                                     1680
geggeggatt coetgtegge cateaaatac gecaeggtaa aaceggtacg egaecacact
ggtotggcgg togatttoat catogaaggo gactatoogo agtacggcaa caacgacgat
                                                                     1740
egegtggaca gtategeetg egatetggtt gagegettta tgaagaaaat ceaggegetg
                                                                     1800
cogacgtacc gcaacgeggt accgacgeag togatectga ccatcacctc caatgtggtt
                                                                     1860
tacggccaga agaccggcaa cacgccggac ggacgtcgcg gcggcacgcc gtttgcgcct
                                                                     1920
ggegecaacc cgatgcacgg gcgcgacaga aaaggggcgg tggcgtcgtt aacctcggtc
                                                                     1980
gecaagetge egtteaceta tgecaaagae gggattteet acacettete categtgeeg
                                                                     2040
caggcactgg gcaaggacga gccggtgcgc aaaaccaacc ttgtcgggct gctggacgga
tacttccacc acgaagcgac cattgagggc ggtcagcacc tgaacgtcaa cgtgatgaac
                                                                     2160
agggagatge tgetggatge categeceat ceggagaact atcegaacet gaegateege
                                                                     2280
gtttcaggct atgcggtgcg gtttaatgct ctgacgcgcg agcagcagca ggatgtgatt
```

<210> 4063 <211> 1398 <212> DNA

<213> Enterobacter cloacae

togaggacgt ttacgcaggc gatgtaa

<400> 4063

```
aggogtateg etggtaatta tegtaattae egggetgetg etttgtgttt eteettteet
egeettetea tgaggttaaa taaggtegta aegatgtetg agcaaattaa teetttatgg
                                                                     120
aaccatttta ttcgcgccgt gcaggaagag gtaaagcctg cgctgggctg taccgaaccc
                                                                     180
                                                                     240
gtctcgctgg cgctggcgtg tgcgatggct gccggacagc tttccggtga ggtaacgcgt
ategaggegt gggtategee gaacetgatg aaaaaeggge ttggegtaae ggtgeeegge
                                                                     300
                                                                     360
accegetateg tegetttace categoggee gegetggggg egacaggegg taatgcacac
geogggetgg aggtgttgaa agacgegteg geogaggege taacgegege caaagcattg
                                                                     420
                                                                     480
ctgaacgegg gtctggtgca ggtaaaattg caggageegt gegatgagat cetttattea
                                                                     540
egegeetige tttacgeegg tgaateeteg gegatggtga ceategetgg egggeacaet
cgcgtggtgg aggtagtttg tcagggcgaa acgtgcttca ggcttgacga tcgtcagagc
cagaacaacg acgatcoget ggoggtactc togaccacca cgctgtcaca gatcottgag
tttgtggage aggtgccgtt cgacgcgate cgctttatec tcgatgcggg gcggctgaac
```

```
gatgegetet eccgegaagg tttgegtgge aactggggge tgeatattgg egegaegete
                                                                     840
aataaacagc gcgcacgcgg ctggatggcg caggatctgg gttcagacat tattatccgc
accagegeag ecteggatge cegeatggga ggegegaege tgccagegat gagcaacteg
                                                                     900
ggttccggga atcagggcat caccgccacc atgccggtag tggtggtggc tgagcacgtt
                                                                     960
caggetgatg acgaacgget ggegegggeg etgatgetet egcatetgte ggetatetat
atceattace agetteegeg ettgteegeg ttgtgegegg egacaacege eggaatgggg
gcageggegg ggatggegtg getgatggge ggatettace agaecattge catggegate
                                                                     1140
ggcagtatga teggcgacgt gagegggatg atctgegatg gggettetaa cagetgtgea
atgaaggtet egaceagegt caccagegee tggaaageeg tgatgatgge getggatgat
                                                                     1260
                                                                     1320
actgccgtga cgggtaacga ggggattgtg gcgcacgacg tggaacagtc gatctctaac
                                                                     1380
ctgtgcgccc tggcgtgccg ctcaatgcag gcgacggacc ggcagatcat tgagattatg
                                                                     1398
qcgagtaagg tgttgtga
<210> 4064
<211> 972
<212> DNA
<213> Enterobacter cloacae
<400> 4064
aggtatggae getgeattgt tagecagata ttetgeetgg tatgtteaaa ttteetgaat
gagaacgaga tggctaaaga gagagcattg acgcttgagg cgcttcgcgt catggacgcg
attgacagge geggeagttt tgeegeggeg geagatgaac tggggegegt teegtetgeg
                                                                      180
                                                                      240
ctgagctaca ccatgcaaaa gctggaagag gagctggatg ttgtgctctt cgatcgctcc
ggtcatcgaa caaaattcac caacgttggg cggatgctgc tggagcgcgg ccgcgtattg
ctggaagcgg cggataagct gacgaccgat gccgaagcgc tggcccgegg ctgggaaacc
catctgacgt tagtgaccga agcgctggtg cccaccgaag cgctgtttcc gctggtggac
                                                                      420
                                                                      480
agactggccg cgaaagccaa tacccagctg tcgatcatca ccgaggtgct ggccggggca
tgggagcgtc ttgagacggg cagggcggat atcgtgattg cgccagacat gcatttccgc
                                                                      540
                                                                      600
tcatcgtcag aaatcaattc gcgcaagetc tacagcgtga tgaacgtcta cgtcgccgcg
                                                                      660
coggatoacc ctatecatca ggageoggag cogetetetg aggteaegeg egtgaaatac
egeggegtgg eggtegegga tacegecega gagegeeegg tgttaaeggt acagttgetg
                                                                      780
gataaacago ogogactgac ggtaacgtog otggaagata agogacaggo gotootggog
gggctgggcg tggcgactat gccgtacccg tttgtcgaaa aggacattgc agaagggcgg
                                                                      840
                                                                      900
ttgcgcgtcg tcagcccgga atacaccagc gaagtggata ttattatggc gtggcgtcgc
                                                                      960
gatagcatgg gcgaagccaa atcgtggtgt ttgcgtgaaa ttcccaagct ctttgcccac
                                                                      972
cacaacaaat aa
<210> 4065
<211> 1611
 <212> DNA
 <213> Enterobacter cloacae
<400> 4065
cagegaggca agetcatgag ttacetttta gegttagatg cagggacagg cagegttege
googtgattt togatttaca gggcaaccag attgccgttg gccaggccga gtggaagcac
                                                                      120
                                                                      180
ctgagcgtgg agaacgtgcc ggggtcgatg gagttcgatc tcgacaccaa ctggcggctg
gcctgccggt gtattcagca ggcgctggag cgcgcacggc ttagcgcggc ggatattcag
                                                                      240
 teegtegeet getgetegat gegegaaggg attgtgetgt acgacegeaa eggegagget
                                                                      360
 atctqqqcct gcgccaacgt cgacqcccgc gccagccgcg aggtggctga actcaaagag
 atocacgact accggtttga atocgaagtg tatgaggtot coggocagac gotggogctg
                                                                      420
 agegecatge egegeetget gtggetggeg caccacegte eggatattta eegcaagget
                                                                      480
gcgactatca ccatgatcag cgactggetg gcggcgaagc tetecggcga gctggcggtc
                                                                      540
 gaccogtoca atgogggcac caccggtatg etggatetet tetecogega etggegteeg
                                                                      600
 gegetgeteg acatggeegg getgegegee gatateettt eeceggtgaa agagacegge
                                                                      660
                                                                      720
 accgtgctgg gcgcgataac cagacaggcc gcgcagcagt gcggcctgcg tgaaggcacg
 ceggtggtga tgggcggcgg cgacgtgcag ctgggctgtc tggggctggg cgtggtccgc
                                                                      780
                                                                      840
 gcoggacaaa eggeggtget gggeggeace ttetggeage aggtggttaa cetgeegeag
 gtgcgcaccg atcctgagat gaacatccgc gtaaacccgc acgtcatccc cggcatggca
                                                                      900
                                                                      960
 caggeggagt egateagett etttaceggg etaaceatge getggtteeg egaegeettt
 tgcgccgagg aaaagctgat tgccgagcgg atggggatgg acacctattc cctgctggaa
```

gagatggcga geogegteee ggegggetee caeggegtaa tgecaatett eteegaegeg

```
1140
atqcatttta agcagtggta tcacgccgcg ccgtcgttta ttaacctctc catcgacccg
gaaaagtgca acaaagcgac gctgttccgc gccctggaag agaacgcggc gatcgtctcg
                                                                     1200
                                                                     1260
gcctgcaacc tggcgcagat ttcgcgcttc tccggcgtga cgtttgagag tctggtgttt
gegggeggeg gggecaaagg egeeetgtgg agteagattt taagegaegt taeeggeetg
                                                                     1320
ccggtgcgcg tgccggaagt taaagaggca acggcgctcg gctgtgccct tgccgcagga
                                                                     1380
                                                                     1440
gctggcgcgg ggctgtttgc ggatatggct tcgacgggcg agcggctggt gaagtggagc
                                                                     1500
egegagttea egecaaacce geageaeegg gaactgtaeg aeggeatgat geagaaatgg
                                                                     1560
caqqeqqtqt acqeeqacca getegggetg gtggacageg ggetgaceae gtegatgtgg
caggegeegg ggetggtgeg ggeateceee teaceeegge esteteeeta a
                                                                     1611
<210> 4066
<211> 1005
<212> DNA
<213> Enterobacter cloacae
<400> 4066
acqtttatga tacgtttcgc agtcatcggt acgaactgga tcacgcgcca gttcgtcgac
                                                                     60
geogeocacg aaaccggcaa atataagete accgcagtet attecegcag cettgagcag
                                                                     180
gcgcagagtt ttgcgaatga ctacctggtt gaacatctgt tcacctcgct cgatgagatg
gegeaaageg aegecattga egeggtetat attgecagee egaattetet geattteeeg
                                                                     240
caaacgaagc tgttcctcag ccacaaaaaa cacgtgattt gcgagaagcc gctggcctcg
                                                                     300
aatattgagg aagtggaagc cgccattgcg ettgcccggg aaaaccaggt ggtgctgttt
                                                                     360
gaagegttea aaacegeeag eetgeegaac tteetgetgt tgeageagte eetgeegaaa
                                                                     420
attggcaaag tgcgtaaagc ctttatcaac tactgccagt attcctcgcg ctaccagcgc
                                                                     480
                                                                     540
tacctggaeg gegaaaacce gaacacettt aacceggeet tetegaatgg etegattatg
                                                                     600
gatatoggtt tttactgcct ggoctotgcg gtcgccctgt ggggtgaacc gcacggcgta
acggccaccg ccagcctgct ggagagcggc gtggatgcac atggcgttgt ggtgctggac
                                                                     660
tacggtgatt teagegtgac gttgcagcac tegaaggtca gtgacteegt actgecaage
                                                                     780
gaaattcagg gcgaagacgg ctcgctggtg atcgaaaaaa tctccgaatg ccagaagcta
agcategtte eccgeggegg caaagegeag gagetgaege agceteagea tattaacaet
                                                                     840
atgetetatg aggeagaggt ettegeeegt etggtagaag acaacgaagt gaaccacceg
                                                                     900
                                                                     960
qqqctqqcaa tcaqccqcac cacggcgaag ctgcaaacgg agatccgccg acagactggc
gtgattttcc ccgcagacgg cgtgaatgtg gaagccgtcg cgtaa
<210> 4067
<211> 1245
<212> DNA
<213> Enterobacter cloacae
<400> 4067
cgtatgagca cacaatcacg cggtctgttc gcgcgcctgg cgcagggcag tcttgtaaaa
                                                                      60
caaattotgg togggttggt actgggtatt otgotggcca tggtgtogaa acctgccgcg
gaggecaegg gactgetegg gacgetgttt gtgggegece tgaaggeegt egeeeeggta
                                                                      180
ctggtgctga tgctggtgat ggcgtcgatt gccaaccacc agcacggaca aaaaaccaac
                                                                      300
attogeceta ttetgtteet gtatetgetg ggaacettet etgetgeett aaeggeegtt
                                                                      360
gtgtttaget tectgtteee gtotaegetg cacetgaeca gegeggeegg tgatateace
cogcogtocg ggattgtgga agtocttogo ggootgotga tgagcatggt ototaaccco
                                                                      420
atcaccgcac tgatgagcgg aaactacatt ggcatcctgg tctgggcgat tggtctgggc
                                                                      480
ttegegetge gteatggeaa egagaceaeg aaaaacetgg teaaegattt gteeaatgee
                                                                      540
gtgactttca tggtgaaget ggtgattege tttgeaceag teggtatett tggtetggtt
                                                                      600
tottogacgo tggccactac eggtttegac geactgtggg getacgegea getgetggte
                                                                      660
gteetggteg getgtatget getggtggeg etggtgatea accegetget ggtgttetgg
                                                                      780
cagatecqcc qcaacccqta tecgetggtg ctgacttgcc tgcgcgagag cggcgtgtat
gccttcttta cccgcagctc ggcggcgaac attccggtca acatggcgct ggcggagaag
                                                                      840
                                                                      900
etgaacetgg ategegatae etatteegtg tegateeege tgggtgegae egtgaacatg
gegggtgegg egateaceat eacegtgetg acgetggegg eggtgeatae getgggtatt
                                                                      960
coggtggatc tgccaaccgc getgetgetg agegtegttg catcactgtg tgcctgtggc
                                                                      1020
                                                                      1080
gcatcoggog tggcgggcgg ategetgetg etgatcocgc tggcctgtaa catgtteggt
                                                                     1140
atoccgaacg agattgccat goaggttgtc goggtcggct tcattatcgg cgtattgcag
                                                                      1200
gatteetgeg agactgeget gaacteetet accgaegtge tgtttacege egeageetgt
```

caggoggaag acgogoggtt agcgaagaac gocotgogca gttaa

```
<210> 4068
<211> 1347
<212> DNA
<213> Enterobacter cloacae
<400> 4068
gttgttgccg tgtcccgaca cggaaataac ataacgatga ggttttacat gcgtaaaatt
aaagggttac gttggtacat gatcgcactg gtgacgctcg gcaccgtgct gggctacctg
acacgtaaca cogtggcage ageggegeea acgttgatgg aagagttaca tateteeacg
                                                                     180
cagcaatact cttacatcat tgcggcttac tctgccgctt acaccgtaat gcagcctgtt
                                                                     240
gcaggttatg ttcttgatat tctgggtaca aaaattggtt atgccttctt tgctgtagcc
                                                                     360
tgggccgtct tctgtggggc gaccgcgctg gccggcagct ggggcggact ggcgctggcg
                                                                     420
cgtggtgcgg taggtgctgc cgaagcggcg atgatccccg cgggtctgaa agccagctct
                                                                     480
gaatggttcc cggcaaaaga gcgttctatc gctgtcggtt acttcaacgt gggctcctcc
atcqqqqcqa tgattgctcc gccactggtg gtgtgggcga ttgtgatgca cagctggcag
                                                                     540
atggcgttca tcatctccgg tgtgctgagc tttgcctggg ccatggcgtg gctgattttc
                                                                     600
tataaacacc cgcgcgacca gaaaaagctg tctgacgaag aacgtgacta cattattaat
                                                                     660
                                                                     720
ggtcaggaat cccagcatca gaccgacaac ggcaaaaaga tgtccgtctg gcagatcctg
ggcacccgtc agttctgggg tatcgccctg ccacgettcc tggcagaacc ggcctggggt
                                                                     780
acgtttaacg cctggatccc actgttcatg tttaaagtgt acggctttaa cctgaaagag
                                                                     840
ategegatgt tegeetggat gecaatgetg tttgcagaee tgggetgtat egteggegge
                                                                     900
tacctgccac cgctgttcca gcgctggttt ggcgtgaacc tgattgtgtc ccgtaagatg
                                                                     960
qtggtcacca tgggcgccct gctgatgatc ggcccgggta tgatcggcct gttcaccagc
ccttacgtgg ctategeect gctgtgtate gggggctttg ctcaccagte tetgtccggt
                                                                     1080
                                                                     1140
gegetgatta egetetegte egaegtgttt ggtegtaacg aagtegecae egecaacgge
                                                                     1200
etgaceggga tggeegeetg gacegeaagt accetgtttg egetggtggt eggegegetg
                                                                     1260
goggatacga ttggtttcag cocactgttc goggtactgg ctgtcttcga cctgttgggt
goggtggtta totggaoggt gotgaaaagc aaatoogcag atgaacttgc gaaagagtco
                                                                      1347
etegggggae eggegaegea gagttag
<210> 4069
<211> 414
<212> DNA
<213> Enterobacter cloacae
<400> 4069
ttotggaaca oggottacgo ogtaacacaa tggaaggttt otataatgaa atacogcato
                                                                      60
accotggete tggccctttt ttetttaage acagetteet tegetatgte tetttgteag
                                                                      120
gagaaagaac aggatatcca acgcgaaatc agttatgccg aaaagcataa caatcagcac
                                                                      180
cggatcgacg gactgaaaaa agcgttgagc gaagtgaaag acaactgtac ggacagcaag
                                                                      240
                                                                      300
ctgcgtgccg atcatcagga aaaaatcgct gaacagaagg acgagatagc cgagcgccgt
caagacctgc aagaagcgaa agagaaaggt gatgcggaaa aaattgccaa gcgcgagagg
                                                                      360
aagttgcaag aggcgcagga cgaactgaaa gcgctggaag ctcgcgatta ttga
                                                                      414
<210> 4070
<211> 300
<212> DNA
<213> Enterobacter cloacae
<400> 4070
gtcgtgagcg acaaagccga acgtcaaaag cggaaagcgt atctgttgag ccaaatccag
                                                                      60
cagcagogac tggatctgtc tgccagocgt cgcgactggg ttgaagccac gcatcggttt
                                                                      120
                                                                      180
gaccgcggct ggaacacggt cctgagcctg cgttcatggg cgctggtcgg cagcagcgtg
atggcgatct ggtcggttcg gcatcctaac atgctgatcc gctgggcacg tcgcggcttt
                                                                      240
ggcgcctgga gcgcctggcg tctggtgaaa accacgctgc gacagcagca gttgcggtga
                                                                      300
<210> 4071
<211> 717
<212> DNA
```

```
<400> 4071
                                                                     60
agagaggtca agtttatgat tacgacaaga acagegaaac agtgeggaca ageegattte
ggttggttge aggecegeta cacettttee tttggacaet actttgacee taaacteete
                                                                     120
ggttacgctt cactgcgtgt attgaatcag gaagtgctcg ccccgggcgc gtccttccag
                                                                     180
                                                                     240
ccgcgcacgt acccgaaagt cgatateetg aacctgatee tggaaggega ggeagaatae
                                                                     300
egegatageg agggeaatea tgteeaggeg aaggetggeg aggegetgtt aatttetaet
                                                                     360
cagccaggta ttagctacag tgagcataac ctcagcaaag acaaaacgct gacccgcatg
                                                                     420
cagetgtggc tggatgcctg tccggagcgg gaaaatccgc tggtgcaaaa gatcgatctg
                                                                     480
aagggegate aacagcaget gattgeeteg eeagaeggea gcaaaggeag ettgeagttg
cgccagcagg tgtggctgca tcatatcgaa ctgaaaaaag gtgaacaggc gagcttccag
                                                                     540
cttcatggcc cgcgtgccta tttgcagtcc attcacggaa cggtgcatgc ggtcacgcat
                                                                     600
acggaagaga aagaagcgct cacctgcggt gacggggcgt ttattcgtga cgaagcgaat
                                                                     660
atcactctgg ttgccgatac gccgctgcgc gcgctgttga ttgatttgcc ggtttaa
<210> 4072
<211> 1575
<212> DNA
<213> Enterobacter cloacae
<400> 4072
acaatggoog atattgaaat togacaggog togoogacgg cgttctatat aaaagtgcac
                                                                     60
gatactgata acgtggcgat tattgtcaac gacaatggct taaaagctgg cacccgcttt
coggatggcc tggagctgat tgagcacatt cogcaggggc ataaagtcgc actggtggat
                                                                     180
ateceggete acggtgaaat cgtgcgctac ggcgaagtea tcggctatgc ggtgcgcgct
atcccgcagg gtagctggat tgaggagtcg ctggttgagc tgcccaccgc cccgccgctg
                                                                     300
                                                                     360
gagacgttgc cgctggctac ccgcgtccct gagccgttgc ctccgctgga gggttatacc
                                                                     420
ttcgaaggtt accgcaatgc ggatggcagc gtgggaacca aaaacctgct tggcatcacc
                                                                     480
accagegtge attgegtgge gggegtagtg gattacgttg tgaaaattat tgagegegat
                                                                     540
ctgttgccga aataccccaa cgttgacggc gtggtgggtc ttaaccacct gtacggctgc
ggogtggoga toaacgegee ggcageggte gtgeegatee gtacgattea caatategee
                                                                     600
cttaacccaa actttggcgg tgaggtaatg gtgattggtc tcggctgtga aaaattgcag
                                                                     660
                                                                     720
ccagaacgcc tgttgcaggg tactgaggat gtgaaagcca ttccggttga cgatgccagt
gttgtgcgtc ttcaggatga acaccatgtc ggcttcagat cgatggtcga cgacatttta
                                                                     780
caggitggcag aacgccatci ggagaagitg aacaaacgcc agcgigaaac cigcccggcc
                                                                     840
totgaactgg togttgggac acagtgtggc ggcagcgatg cgtttccgg cgtcaccgct
                                                                     900
aaccoggogg taggttatgc etcegatetg ttegtgeget geggegeeae ggtgatgtte
                                                                     960
                                                                     1020
tocqaaqtca ocqaagtacg tgatgctatc cacctgctca cgccgcgcgc cgtcaacgaa
gaggtgggca aacgcctgct ggaggaaatg gcctggtacg ataactatct cgacatgggc
                                                                      1080
aaaactgacc gcagcgccaa cccgtctccg ggtaacaaga aaggcggcct cgcgaacgtg
                                                                      1140
                                                                      1200
qtqqaaaaqq ccctcgggtc gattgccaaa tccggccaga gcgcgattgt ggaagtgctc
toacotggoo agogaccaac caaacgoggo otgatttaeg oggcaacgoo tgccagtgat
                                                                     1260
ttogtttgeg geacceagea ggtggettee ggeattaegg tacaggtett taccaceggg
                                                                     1320
                                                                     1380
cgcggaacgc cgtacggcct gatggcggta ccggtgatca aaatggcgac ccgcaccgag
ctggcaaacc gctggtatga cttaatggat accaacgegg gcaccatege caceggggaa
                                                                     1440
gagagtattg aagaggtggg ctggaagctg ttccacttca ttctggatgt ggcaagcggg
cggaagaaaa ccttctccga tcaatgggga ttgcataact cgctggcggt gtttaacccg
                                                                     1560
qeqeeqqtga egtga
<210> 4073
<211> 1326
 <212> DNA
 <213> Enterobacter cloacae
<400> 4073
atgccaacac catccgaaat ggagaggaaa gtgaaacatc tgacagaaat ggtggaacaa
                                                                      60
cataaacggg ggaatacaaa cgggatttat gccgtctgtt ccgcacatcc actggtactt
quaqetgeaa taegttaege ecatteacaa cagaegeete tgetgattga agecacetea
                                                                      180
                                                                      240
aaccaggtgg atcagtttgg cggctatacc ggtatgacgc ccgccgattt ttatgggttt
gtetgcaage tggegggate ceteggttte cecaceteae agetgateet tggeggegat
                                                                      300
catttaggte caaacegetg gcaaaacetg ccagetttge aggegatgge gaacgeegae
                                                                      360
```

```
420
gatotgatca gaagotacgt ggoggoogga tttaaaaaaaa ttcacctoga ttgcagcatg
tectgegaag acgaeceggt teetttaace gatgeaateg ttgeeggeg tgeegetegg
                                                                      480
                                                                      540
ctggctaaaa ttgccgaaac cacctgtotc gagcaatttg gcgtagccga tctggtctac
                                                                      600
gttatoggca oggaagttoo ggttoocggt ggggcacacg agacgctgac ogagcttgag
                                                                      660
gtcaccacgc cagaggcggc acgcgccacg cttgaggcac accgccacgc attcgagaag
                                                                      720
gaagggttaa gcgacatctg gccgcgcatt attggcctgg tcgttcagcc tggcgttgag
                                                                      780
ttcgaccatg egcacgtttg tgactatcaa cegcataaag cegtegeget gagcaagatg
gttgaageet acgacacget ggtatttgaa gcacacteta cegattacca gacgeegeag
                                                                      840
gegetgegee agttggtgaa agatcactte gecattetga aagteggeee tgegetaace
                                                                      900
                                                                      960
ttegegetge gegaageget gtteteactg geageaattg aagaagaget getgeeggea
aaagcetget cagggetgeg teaegteetg gaaaaegtga tgetegateg eeeggaatae
                                                                      1020
tggcaaagec actateaegg cgaeggcaat geeegtegee tggeeegegg ttacagetat
tecgacegeg tgcgctatta etggccagae agecagattg acgacgcett tgageggetg
                                                                      1140
gtacgcaacc tggcggatga accgatcccg ctgccgctga tcagccagta tctgccgttg
                                                                      1260
cagtacagea aagttegega tggtgetete ageteeacae caegggaact cateetegae
                                                                      1320
cacatteagg acatacteea teagtaceat geogeotgeg aaggegtaac gacteaacae
gcataa
<210> 4074
<211> 942
<212> DNA
<213> Enterobacter cloacae
<400> 4074
togacotget gegeaaatog cotgaacoca oggogootgo ggoocagaaa gaggaatttg
aagatggcat ctaatcacac caccotgoog ggogtgtotg aaagtgaaga gacactgotg
                                                                      180
accggcgtga atgaaaacgt ctacgaagat cagagtattg gcgctgagct aacgaaaaag
gatattaacc gtgtcgcctg gcgttccatg ctgctacagg cctcgtttaa ctacgagcgt
                                                                      240
                                                                      300
atgcaggeet eeggetgget gtatgggeta etgeeegege tgaaaaagat eeacaccaat
aagegggaee tggegegege catgaaagge catatggget tetttaacae coaccegttt
                                                                      360
                                                                      420
ctggtgacct tcgtcatcgg cattattctg gcaatggagc gttccaagca ggatgtgaac
                                                                      480
agcatccaga gcactaaaat tgccgttggc gcaccgctcg gtggcattgg tgacgccatg
ttctggctga cectgctgcc catttgcggg gggattggcg ccagcctggc gctacaggga
                                                                      540
tocattettg gegeegttgt etttategtt etgtttaaeg tggtgeatet eggeetgegt
                                                                      600
tttggtctgg cgcactatgc ctaccgaatg ggtgtcgccg cgatcccgct gatcaaggcc
                                                                      660
                                                                      720
aacaccaaaa aggttggtca tgctgcgtcc attgtcggaa tgacagtgat tggcgcgctg
gtggcaacct atgtgcgcct gaataccaca ctcgagatta aagccgggga cgcggtcgtc
                                                                      780
aaactgcaaa cogatgtgat cgacaaactg atgcccgcct ttctgccact ggtctacacc
                                                                      840
ctgatcatgt tctggctggt acgccgtggc tggagcccac tgcgcctgat tggtatcacc
                                                                      900
                                                                      942
gtggtgctgg gcgttgtcgg taaattctgt cacttcctgt aa
<210> 4075
<211> 1050
<212> DNA
<213> Enterobacter cloacae
<400> 4075
tetgttttgt egegtggete acatttteac gtegegecat caegaacata tgatetaaat
                                                                      60
ttttataaga gttcaattat gagcgataaa cgcactgcgg aagaaggacg gtttgccggg
ctggcactgg cggaagagga gctggtggcg cgcgtggcct ggtgctacta ccacgacggg
                                                                      180
ctgacccaga acgacatcgg cgaacggete gggctgeege geetgaagat etecegeetg
                                                                      240
ctggagaagg geogteagte eggggtgate egegtgeaga teaacteeeg etaegaggge
tgcctggcgc tggaaaccga gctacagcag cgctttggcc tgaagctggt gcgcgtgatg
                                                                      360
cetgecetga atacceegee gatgaacgtg eggetgggea ttggegegge geagtegetg
                                                                      420
                                                                      480
atgggcgtac tggagcccgg ccagctgtta gcggtggggt tcggtgaaac caccatgagc
agtotgcaac acttaagogg otttatoago togcagoaga toogcotggt gaogetetee
ggeggegteg ggecgtatat gaceggtate ggecagetgg atgeggeetg tagegteage
                                                                      600
atgateceeg eccegetteg egtgteatee getgaagteg eegggatett aaagegegaa
accagegtge gggaegtgat cetegeegee accgeggetg acgtggeggt ggtegggatt
ggeteggtaa accagegeeg egaegeaaeg ateetgeget eeggetatat eagegaaggt
                                                                      780
gaacagotga tgtacgooog caaaggogog gtgggogata tootoggota tttootoaat
                                                                      840
```

```
900
gccgaagggg aatgcgtcga ggagctggag atccacaaag aattactggg cgtcacgctc
                                                                      960
gatgaactgg cgcagctgcc caccattgtc ggcgtggccg gaggggaaga gaaagccgat
gcgatttatg ccgcactgaa aggtcgccgt attaatggcc tggtgacgga agagacgaca
                                                                      1020
gcccqcgcgg tgctggctct ggccggataa
<210> 4076
 <211> 2064
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4076
 ctcatccgac cacataacaa taattttaca ctggaagaga ctatgagccg ctacccgtcg
ttattcgccc ctctcgatct ggggttcacc accctcaaaa accgcgtgct aatgggctca
                                                                      180
 atgcacaccg ggctggagga gcgtccggac ggggctgaac gtctggcagc cttctatgcc
gaacgegege gccacggagt ggegetgatt gtcaceggeg gegtageece tgeecettee
                                                                      240
ggggtgacga tggagggcgg cgcggtgttg aatgatgcgt cacaactgtc gcaccaccgc
attgtgaccg acgeggteca ccgcgaggge ggcaaaateg ccctgcaaat tctgcatacc
                                                                      360
                                                                      420
 gggcgctaca gctatcaacc gaacctggtt gccccctcgg ctattcaggc gccgattaac
                                                                      480
cgctttactc ctcacgccct tagccacgac gagatcctgg cgctgatcga cgattttgcc
                                                                      540
egetgegeeg egetggeaag ggaageagge tacgaeggeg tggaggtgat gggetetgaa
                                                                      600
qqctatctga ttaacgaatt tctcgccgca cgcaccaacc agcgcgacga cgaatggggt
                                                                      660
ggegactatg cocgocgcat gogttttgcc gtggaggtgg tgcgcgcggt gcgtgaacgt
                                                                      720
gcgggtgcgg attitattat catcttccgc ctgtcgatgc tcgacctggt ggaaggcggc
                                                                      780
ggcaccttcg acgaaaccgt gcagctggcg caggcaattg aagccgccgg tgccaccatt
atcaacaccg ggattggctg gcacgaagcg cgcatcccca ccatcgccac gccggtgccg
                                                                      840
                                                                      900
cgtgcggcgt tcagctgggt aacgcgcaag ctgaaaggca aagtctccgt tccgctggtg
                                                                      960
accactaacc gcattaacga cccgcaggtg gcggacgatg tgatetcacg cggcgacgcc
gatatggtet egatggegeg teegtteete geggatgeeg aactgetete caaagegeaa
                                                                      1080
agoggoogtg oggatgagat caacacetge atoggotgta accaggootg totggatcaa
atottogotg goaaagtoac etectgootc gttaaccccc gegeotgoca tgaaaccaaa
                                                                      1140
atgeeggtgg ttaegacggt caataaaaaa cgeetggeeg tggtgggege aggeeceget
 gggctggcgt ttgcggtgaa tgccgcctcg cgcgggcacg gcgtgacgct gtttgatgcg
                                                                      1260
 cagggggaga ttggcgggca gtttaatatc gccaaacaga tccccggcaa agatgagttc
tacgaaacgc tgcgctacta ccgccggatg atcgaggtga cgggtgtcga tctgcggctt
                                                                      1440
 aaccagtttg tcagcgcggc ggatctgatc ggtttcgacg aggtgatcct cgcgagtggg
 atogoccogo gcaccoctgo gatogagggt atogatoato ogaaggtatt gagotatotg
                                                                       1560
 qacqtgctgc gcgacaaagc accggttggc gagaaggtgg cgattatcgg ctgcggcggg
                                                                       1620
 ateggttttg atacegegat gtatttaage cageegggeg aagecaceag ceagaacate
 getgagttet gegtggaatg gggeattgat accagtetea gteagteegg eggtttaege
                                                                       1680
                                                                       1740
 coggaaggge egeagetgee gaaaageeeg egteagateg tgatgeteea gegtaaggee
 agcaagccgg gtgaaggget gggcaaaact actggetgga tecacegege caccetgete
                                                                       1800
                                                                       1860
 tegegegggg tgaagatgat eeeggeggtg agetaceaga agategaega egaegggetg
 catgtgctga teggtggtga accgcagetg etgegegtgg atcatgtgat tttgtgegee
                                                                       1920
 ggacaggage caaagegega tetggeegat eegetgegeg aagegggtaa aaeggtgeat
                                                                       1980
 ttgateggeg ggtgegaegt ggegatggag etggatgege ggegggegat tgegeaggge
                                                                       2064
 acceagettg caetggttat trag
 <210> 4077
 <211> 519
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4077
 aacgccggtc tttatgaaat acgaagacca actgatgtct tgcctgatgc tgctgcccgt
                                                                       60
 cgttctgctg gtgtttggcc tggtcgggtc cctggtcgta ctgtggaaga agaaatacgg
 ggccaggggt taacgatggt tateteceeg etegegetge geogettete ttacgccate
                                                                       180
 gtogogotga tgatgttcag cgctcttatc ctgctgtggt ctgcgctaca gcatcaggag
                                                                       240
  togacgotgg ctatoogtoo tgtgagocag ggaaccagog tgccggatgg tttttccato
                                                                       300
                                                                       360
  tggcatcatc tcgacgcaaa cgggatccgc tttaagagca tcacgccgca aaacgatgta
  ctactgataa aatttgactc cagtgcgcaa agcgccgcgg cgaaagccgt gctggaccgc
                                                                       420
```

acgetgeege agggttacat cattgegeaa caggatgatg acagecaegt egecteetgg

<212> DNA

<213> Enterobacter cloacae

```
519
atqtcacqqt tacgcgacac gtcgcatcga tttggttaa
<210> 4078
<211> 471
<212> DNA
<213> Enterobacter cloacae
<400> 4078
tocotggacg ggtgtgggta ttggcgccgc agtgggtgtg gtgctgggtg tcctgctgac
                                                                     60
qcqtcqttqa ttatggaaga tccacgtcac gcacaagggc ctgctaaaaa cgtcctcggc
                                                                     180
attggccage gtattettae gaegetggte gggattgeeg aaaegegegt eeggettgeg
                                                                     240
gtagtggagc tggaagagga gaaagccaac ctcttccaga tgctgctcat gcttgggctt
acgatgetet ttgccgcgtt tggtctgatg agectgatgg tgttaatcat ctgggctate
                                                                     300
                                                                     360
gatocacagt atogtotgaa ogogatgatt gogactacog tggttotgot ggtggoggog
ctgataggeg gtatctggae cetgcataaa gegegeaegt egacetteet gegteataeg
                                                                     420
                                                                     471
egocaggage tggccaacga cegegeeetg etggaggatg ataagtegtg a
<210> 4079
<211> 414
<212> DNA
<213> Enterobacter cloacae
<400> 4079
tgtggttecc tggagagtaa aatgaaaaaa ttagaagatg ttggtgtact ggtagegegt
attotgatgo caattotgtt catcacogca ggotggggca aaattacogg ctatgogggo
actcagcagt atatggaagc gatgggcgtg coggggttoc tgetgecact gaccattetg
                                                                      180
cttgagttcg geggeggeet ggcagtgetg tteggtttce tgaccegeac caeggegetg
                                                                      240
ttcaccgcag getttaccct getgaccgcg ttcatettcc acagcaactt tgcggaaggc
gtgaactccc tgatgttcat gaaaaacctg accategegg gtggetteet getgetgget
                                                                      360
                                                                      414
atcaegggee egggegeeta cagcategae egtettetga ataagaagtg gtaa
<210> 4080
<211> 1059
<212> DNA
<213> Enterobacter cloacae
<400> 4080
                                                                      60
gcaggetata etgattaeat teaaagegag gagacatete etegettitg etatetgaeg
 gaggagaaaa aaatgggaca actogtagac ggogtotggo aggatgtotg gtatgacaco
 aaatocaccg gtggacgett taagegetet gttteggeet teegtaactg getgacegee
                                                                      180
 gacggcgcac ccggcccgag tggcgaaggg ggctttgcgg cggagaaaga tcgttatcat
                                                                      240
 ctgtacgttt ctctcgcctg tccgtgggcg caccgcacgc tgattgtacg caagcttaaa
 ggcctcgaat cgttaattcc ggtttcggtg gtcaacccgc tgatgctgga aaacggctgg
                                                                      360
 acqttcqaca gtgacttccc tgccgcgacg ggtgatgagc tttatcatca cgatttcctg
                                                                      420
 tatcagetet atetgegege egateegeae tacaceggae gegtaaeggt geeggtgetg
                                                                      480
 tgggacaaga aaaaccagac gatcgtcagc aatgaatccg ctgaaatcat tcgcatgttc
                                                                      540
 ahtaccgcgt ttgacgcgca cggcgcccgc gccggggatt actacccggt tgagctgcgc
                                                                      600
 gagaaaattg acgagetgaa eggetggate tacgacaacg teaacaacgg egtetataaa
                                                                      660
 gegggetttg ccaccagtea ggaagegtae gaegaagegg teggeaaegt gtttggatee
 ctggagcgcc tggagcagat cctcggccag catcgttatt taacgggcga tcgcctcacc
                                                                      780
                                                                      840
 qaaqcagaca toogootgtg gacgacgotg atoogottog atooggtgta tgtcacccac
 ttcaagtgcg acaagcatcg catcagcgat tatctgaacc tgcacggttt cctgcgcgac
                                                                      900
                                                                      960
 atctatcaga tgccggggat tgcggagacg gtcaattttg accatattcg cacccattat
 ttccqcagtc ataagaccat caacccaacg ggcattatct ccattggccc gtggcaggac
                                                                      1059
 ctggatgaac cgcacgggcg cgacgtgcgt ttcggataa
 <210> 4081
 <211> 489
```

```
<400> 4081
aaagaggaaa acgctatgcc aaacattgtc ttatgccgca ttgatgaacg cctgatccac
ggtcaggtgg gcgtacagtg ggtggggttt gcgggggcga acctggtgct ggtggcaaat
                                                                     180
gacgaggttg cagacgatcc ggttcagcaa aacctgatgg agatggtgct tgcggaaggc
                                                                     240
ategeogtge gtttetggte tetgeaaaaa gtgategaca acatteateg egeogoogae
                                                                     300
cggcagaaaa ttctgctggt ctgtaaaaca ccggctgatt ttttaacgct ggtcgagggc
                                                                     360
ggcgtgccca tcaccogtat taacgtcgga aatatgcatt acgccagtgg caaacagcaa
                                                                     420
attgccaaaa cggtatctgt agacgcgaac gatatcgccg cgtttaacgg cctgaaggcg
geoggagtgg aatgettegt teagggegtt ceaacagaga etgetttgga tetetttaaa
                                                                     480
                                                                      489
ctgctctga
<210> 4082
<211> 1176
<212> DNA
<213> Enterobacter cloacae
<400> 4082
acttgcaege tgtegegagg aagegeeege egaggaaggg atatgageea getgetgege
                                                                      60
gegegtegte tgettacegg geaaggetgg etggatgace ateagetgeg tatggataga
ggcgtcatca ccgccatcga gccgattccg gcaggggtta acacccgcga ggcagacctg
                                                                      180
etttgeeegg catacattga tatecaette caeggeggeg egggtgtgga tgtgatggat
                                                                      240
                                                                      300
gatgcccccg acgtgctgga ccggttagcc ttacataaag cgcgtgaagg cgtaggggcg
                                                                      360
tttctgccta ccaccgtcac cgcttcgctg gaggcgatcc atggcgcgtt acggcgcatt
geeeggeget gteatgeegg tggeeeegge gegeagetee tgggeageta tetggaagge
                                                                      420
                                                                      480
ccgtacttta caccgcagaa caaaggggcg cacccgccag aactgtttcg cgagctggat
ctcgcggaac ttgatgaget gattgcggtt tcgcagaaca cgctgcgggt ggtggcgctt
                                                                      540
gotooggaaa aagtggatgo ootgaaggog atooatoaco toaagcaaaa agggatacgo
                                                                      600
gtcatgetgg gccacagege egetacatae gegeaaacee tggcegeatt tgatgeagge
                                                                      660
geagacggge tggtgcactg ctacaacggc atgacgggat tacaccaccg ggagccgggc
                                                                      720
                                                                      780
atggttggcg cogggettac ggacccacgc gcgtggctgg agcttattgc cgacgggcat
                                                                      840
cacqttcatc ctggagccat gcggctatgt tgttgctgcg cgaaggatcg tacggtgctg
attaccgatg ccatgcaggc ggcgggtatg cctgatgggg gctatacgtt gtgtggtgaa
                                                                      900
agtgtcgaga tgcagggcgg cgttgttcgc acggcctcgg gcgggctggc gggcagcacg
                                                                      960
ctogogotgg atgocgocgt goggaatatg gtggagcata ogggggtogo cocagaaaac
gctatccata tggcctcgct gcatcccgcc cgtctgctcg gtatggatca cctgctggga
                                                                      1080
tegttageac caggeaaacg egecaatatt attgegeteg atgegggttt acaceteegg
                                                                      1140
                                                                      1176
cagatetgga tecagggtea ggetetttee etgtag
<210> 4083
<211> 1146
<212> DNA
<213> Enterobacter cloacae
<400> 4083
gttatgccac aaaccactac caccaccggc acctggaccg aaaaagagat ccgccagcag
ccaqccaget ggettegete getcaacaat attgataate tgegegegte gategacagt
tttctgacgc cactgttgcg caagcccgat ctgcggatcg ttctgaccgg cgcgggtacg
totgetttta toggegacat cattgegeca tggettgeca gecacaegag aaaaaatate
                                                                      240
                                                                      300
accepcgatac ctacgaccga totggtcacc aaccegatgg attacttcag coctgegcac
cogetgetge tggtetettt egecegtret ggeaaragee eggagagegt egetgeegtt
                                                                      360
                                                                      420
gagetggega atcagtttgt teeggagtge taccacetgt egateacetg taatgaageg
                                                                      480
ggeageetgt ateagaatge egtegaeage gataacgeet gegetetget catgeeagee
gaaacgcacg atcgcgggtt cgcgatgaca agcagcatca ccaccatgat ggcgagctgc
                                                                      540
                                                                      600
ctggcggtat tegeacegga aacgateaac ageaaaacgt teegegaegt gteegatege
                                                                      660
tgtcaggcga tcctcacgtc gcttggcgat ttcagccccg gcgtctttgg taacgaaccg
                                                                      720
 tggaaacgca ttgtttatct gggcagcggt ggattacagg gcgccgcacg ggagtcagcg
                                                                      780
 ttgaaggtgc tggagctgac cgccggcaag ctggcggcat tctacgattc gccaacgggt
 ttccgtcacg ggcctaagtc gctggtggac aacgaaacgc tggtcgtcgt gtttgtctcc
                                                                      840
                                                                      900
 agceateogt acacgegica glacgatetg gatelgeteg cegagetigeg acgegategit
                                                                      960
 caggetatge gegtggtage cattgeagee gaaacggate eggteattga agetggeeeg
 catatoctgc tgccgccttc ccgttcattt aacgatatgg agcaggcgtt ctgcttcctg
```

```
atgtacqccc aggttttcgc actgacccag tctctgcacg ttggcaatac gccggatacg
ccatccgcca gcggtacggt taaccgtgtg gtccagggcg tegttattca tccgtggcag
                                                                     1140
                                                                     1146
gcttaa
<210> 4084
<211> 885
<212> DNA
<213> Enterobacter cloacae
<220>
<221>unsure
<222>(613)
<400> 4084
gaggacagge teatgagtat tatttetace aaatatettt tgeaggaege acaggegaag
ggotttgccg ttccggottt taacatccat aacgccgaga cgatccaggc gatcctcgaa
                                                                      180
gtotgtagog aaatgogato googgtgato otogogggta ogooggggao gtttaaacat
                                                                     240
attgcgctgg aagagattta cgccttgtgc agcgcgtatt cccttactta tgacatgccg
                                                                      300
ctggegetae acctegatea ccacgaateg ctggacgaca ttcgccgcaa agtccatgcc
ggogtacgta gcgcaatgat cgacggtagc cattacccct tegaacaaaa cgtcaagctg
                                                                      420
gtgaaatogg tegtegattt etgecacete aacgaetgta gegtegagge egaactggge
egactgggtg gggtggaaga tgacatgage gtegacgeeg aaagegegtt cetgacegae
                                                                      480
                                                                      540
cogcaggaag caaaacgott tgtcgaactg acaggegtgg acagcetege cgtcgccate
ggtaccgcgc acggteteta taccaaacgc ccaaaaatcg acttecagcg getggccgag
                                                                      600
atccgcgagg tantgacagt gccgctggtg ctgcatggtg caagcgatgt gccggatgag
                                                                      660
gatgtgegee geaccattga getgggegte tgeaaagtta aegtegeaac agagetgaaa
                                                                      720
                                                                      780
ategeettet etgaegeagt caaageetgg tttgeegaga acceacaggg caaegateeg
egettetaca tgegegtegg catggatgee atgaaagagg tggteagaag caaaateace
                                                                      840
gtttgcggct cggcgaaccg gctgctgctt ccggctgaag cctga
                                                                      885
<210> 4085
<211> 546
<212> DNA
<213> Enterobacter cloacae
<400> 4085
aggogogtoc ttaagcogga cagcgcotto cattatocta aaaatoogag gagtooctac
                                                                      60
atgacacagg aaaagtcgtt taaatcgaaa gcgtgggagt ttttccagag cctgggaaag
acgtttatgt toccggtete getgttggee tttatggggt tgttgttagg tateggtagt
                                                                      180
tetgtcacca gecettecae cateaaaagt ttteeettte tgggeggega gttaacgeag
                                                                      240
ctcacctttg gttttatcgc catggtcggc ggctttgctt ttacctatct gccgctgatg
                                                                      300
                                                                      360
tttgccatgg cgatcccgat gggccttgcc agacgtaata aagcggtggg cgcttttgcc
                                                                      420
ggattegttg getacatget gatgaacatg ageatcaact actacetgae egecacecae
                                                                      480
cagettgegg aegeegeeae catgagaeag gtgggaeaat ceategtget tggtatteaa
acgetggaga tgggegtget eggeggeatt gtggtagggg tgatcaceta etteetgeae
                                                                      540
                                                                      546
gaaaac
<210> 4086
<211> 537
 <212> DNA
<213> Enterobacter cloacae
<400> 4086
gtatacccgt tttcacacta ttttggggtt ttgatgaacc agctgactta tctccagggc
                                                                      60
                                                                      120
tatcoggago atttacttto coaggitogi gaccigattg cogogggaaa gotoggitgog
gtgctggaaa aacgctaccc gggcacgcat gatttcgcga ctgacaaagc cctctggcag
                                                                      180
 tatacgcagg atctgaaaaa ccagtatctt aagagegeee egeegatcaa caaggtgatg
                                                                      240
                                                                      300
tacgacaata agatccatgt gctgaaaaac gcgctcggcc tgcataccgc catctcccgc
                                                                      360
gtgcagggcg gcaagctgaa ggctaaagcg gagatccgcg tcgcgaccgt ctttcgcaat
gogooggaag cotttotgog gatgatogtg gtgcacgago tggcgcacct gaaagagaaa
                                                                      420
                                                                      480
gagcacgaca aagcottota ttooctgtgo tgocacatgg agccacagta ccaccagetg
```

	1612						
gagtttgata	cccgtttgtg	gctgacgcat	ttatcgttaa	agagtaatgc	gcagtag	537	
<210> 4087 <211> 999							
<212> DNA <213> Enter	robacter clo	pacae					
<400> 4087							
		taaggaaaat cgtgctcatc				60 120	
		gagcgtcaag				180	
		cgccgccttc				240	
		actogootto				300	
		ctggctgatg				360	
		gtacggcgtt				420	
		gattacccag caaaatggcg				480 540	
		gttccggggt				600	
		gaacggcctg				660	
		cgtgattttc				720	
		cgttctgacc				780	
		aggegeggea eggtateaag				840 900	
		ggtgtttggc				960	
		taagaagcag		5 - 5 - 5		999	
<210> 4088							
<211> 810							
<212> DNA <213> Enter	cobacter clo	pacae					
<400> 4088							
		gcctggagcg gctgaaagat				60 120	
		tttcattgcg				180	
egegaageca	tcatcatgct	ggaagtggaa	gggtatgttg	aggtacgcaa	aggtteegge	240	
		ggegaaacac				300	
		gcttctccag				360 420	
		gaccaagcag tttccgcgat				480	
		cacggcgctg				540	
		gaagaaattg				600	
		ccagattett				660	
		gcatctggag cgctgaccgc				720 780	
	cgaccaatct		caceceeeg	cogacaacco	ggccgcccac	810	
<210> 4089							
<211> 663							
<212> DNA <213> Enterobacter cloacae							
<400> 4089							
		actgaacgcc gctctacttt				60 120	
		tttaccgggc				180	
		tttcccgcaa				240	
ctgggctgct	gggtgagtta	cattcagggg	egatggetgg	gtaacacgcg	aatcgttcag	300	
		ggcccattac				360	
		gateggeege cetgageage				420 480	
	,					100	

1613	
ggottgotgt gggtgotgat cotgacoacg otoggotacg ogotgggtaa aacgooggto tttatgaaat acqaagacca actgatgtot tgcotgatgo tgotgocogt ogttotgotg gtgtttggeo tggtogggto ootggtogta otgtggaaga agaaatacgg ggcoaggggt taa	540 600 660 663
<210> 4090 <211> 330 <2212> DNA <213> Enterobacter cloacae	
<400> 4090 cggaaatcte aacaggagag aatcatgtca aaagatacaa cttcagaaaa totgegeget gaactgaaat octggegga cacectggaa gaggtgetga actettetge egataaatcg aaagaagaag teageaaact gegeageaaa geggageag cactgaaaga gagecgttac egtetgggtg aaaceggtga teegtgggg aaacagacee gegaagegge tgegeggeg gaggaatatg taegtgataa teeetggaeg ggtgtgggta ttggegegee agtgggtgtg gtgetgggtg teetgetgae gegtegttga	60 120 180 240 300 330
<210> 4091 <211> 387 <212> DNA <213> Enterobacter cloacae	
<400> 4091 ctgattaaga ggcaaggaaa aatggactgg tatttaaagg tactgogcaa ctattttggt tttggtggcc gtgcccgccg taaagagtac tggatgttcg tcctggtgaa cttgtcctg attatggtgc tggcatgt ggacaagatc ctcgctcgg aacgcagag gggtgaaggec attccacac ccattattgg ttggttagtt ctgctgctct atgggccgc actgttccc cgtctccacg acaccgatcg tccgcgtgg tggctgctgt tgctgtgat cccgcttatc ggctggatcg tggattgat ttcaacatgt cagagcggaa cgccgggcga aaaccgctt ggctcggatc ctaaggcaag cgcgtaa	60 120 180 240 300 360 387
<210> 4092 <211> 864 <212> DNA <213> Enterobacter cloacae	
<400> 4092 aggeggeegg agtggaatge ttegtteaag gegtteeaac agagactget ttggatetet ttaaactget etgaggatt cacaatggaa ateagtetgt tgeaggett egeetgggg etgetgatgge etgagatgg etggetgatg ttaaacacat geacegteea gtggtgetgg gegeatggt tggeetgat etgaggggt taacacacat geacegteea gegeggtaat tagaactggt etggetgatg etggeggggggggggggggggggg	60 120 180 240 300 360 420 480 540 660 720 780 840 864
<211> 471 <212> DNA <213> Enterobacter cloacae	
<400> 4093 attotgtcac ttcctgtaaa aagcaaagag gttgcgatgt taggcattat tttgacgggt	60

```
cacggoggtt ttgccagogg cotgcaacag gogatgaagc aaatectogg cgaacagoog
                                                                     120
cagtttateg ccategattt teeggaaage teeaceactg egeggetgae egegeagett
                                                                     180
                                                                     240
gagcaggcag tgaatgaact ggatgcagag cacgatatcg tgtttctcac cgatcttctc
                                                                     300
ggeggtacgc egtttegtgt ggeetetace etegegatge agegeeeegg eagegaagtg
                                                                     360
attaceggea ccaateteea gettttgetg gagatggtte tggagegega eggattaage
                                                                     420
agtgaagcct ttcgtttgca ggcgctggag tgcggccatc gcggcctgac cagcctggtg
                                                                     471
gatgaacttg cacgotgtog cgaggaagog coogcogagg aagggatatg a
<210> 4094
<211> 1842
<212> DNA
<213> Enterobacter cloacae
<400> 4094
cgcgaagcca ggcttaacag tcaccacgga ccatttgcaa tggtgaacaa tatgaccgac
ttaaccgcgc aagaagccgc ctggcagact cgggatcatc tcgatgaccc ggtcattggc
gaactgcgca accgttttgg gccggatgcc tttactgttc aggccacccg caccggggta
                                                                     180
cccgttgttt gggtgaageg tgagcaarta etggaagttg tegattteet caagaaattg
                                                                     240
ccaaaacctt acgtcatgct gtttgactta cacggcatgg acgaacgtct gagaacgcac
cgccagggte tecetgeege ggatttite gtittetace acetgatete aatagacege
                                                                     360
aacacggata teatgeteaa ggtggcattg tetgaaaacg acatgeatet geegaegate
                                                                     420
accaaacttt tecegaacge caactggtae gagegtgaaa cetgggaaat gtteggeatg
                                                                     480
accttogacg gccaccogca totgacgogc atcatgatgo ogcagacotg gaccggccac
                                                                     540
cogotgogta aagactacco ggcacgogco accgaattog accogtttga gotaaccaaa
                                                                     600
gccaagcagg atctggagat ggaagcgctg accttcaagc cggaagactg gggcatgaag
                                                                     660
egeggeaceg aaaacgagga etteatgtte etcaaceteg gteegaacea eeegtetgeg
                                                                     720
                                                                     780
cacqqtgctt tccqtattat ccttcagctt gacqqcqaaq agattgtcqa ctgcqtqcct
                                                                     840
gacatogget accaccacog tggtgccgag aagatgggcg agcgtcagtc ctggcacagc
tacattcogt ataccgaccg tatcgaatac ctcggcggct gcgtgaacga aatgccatac
                                                                     900
                                                                     960
qtgctggccg ttgagaaact ggcaggcatc accgtcccgg atcgcgttaa cgtgattcgc
gtaatgotgt otgaactgtt cogtattaac agocacctge tgtacatote cacgtteatt
caggacgteg gegegatgae geoggtette ttegeettta ecgacegtea gaaaatetae
                                                                     1080
                                                                     1140
gatetggtag aagegattac eggttteegt atgeacceag cetggtteeg categgtggt
gtggcgcacg atctgccgcg cggttgggac cgtctgctgc gtgaattcct cgactggatg
                                                                     1200
                                                                     1260
cogaaacgto tggcgtotta cgagaaagot gcgctgcgta actocatcot gaaaggccgt
toccagggog ttgctgccta cggcgcgaaa gaagcgctgg agtgggggac taccggtgct
ggcetgcgtg cgaccgggat tgatttcgac gtgcgtaaag cgcgtcctta ctctggttac
                                                                     1380
gagaacttcg actttgaagt cccggttggc ggcggtgttt ccgactgcta cacccgcgtg
                                                                      1440
atgctgaaag tggaagagct gcgccagagc ctgcgcatcc ttgagcagtg cctcaacaac
                                                                      1500
atgeeggaag geeegtteaa ggeggateae eegetgaega egeegeeaee gaaagagege
                                                                      1560
acgetgeaac atategagae cetgateace eactteetge aagttteetg gggeeeggte
                                                                      1620
                                                                     1680
atgccggcac aggaatcett ccagatgatt gaagcgacca agggtatcaa cagctactac
                                                                     1740
ctcaccageg acggcagcac catgagetac egeaccegeg tgegtacgcc aagettegeg
                                                                      1800
cacttgcage agatecegge egecattege ggeagtetgg teteegaeet gattgtgtat
                                                                      1842
ctgggtagta tcgattttgt tatgtcagat gtggaccgct aa
<210> 4095
<211> 996
<212> DNA
<213> Enterobacter cloacae
<400> 4095
cetteaggag geaaaageat gagttggtta acgeeggate ttategaeat eetgetgage
attotgaaag oggttgtgat totgotggtg gtggtcacct goggogggtt catgagettt
                                                                      120
                                                                      180
ggtgaacgtc gtctgctcgg tctgttccag aaccgttacg gaccgaaccg cgtgggctgg
ggtggttcac tocagotggt ggcggacatg atcaagatgt totttaaaga ggactgggtt
                                                                      240
                                                                      300
cogcgcttct oggacogogt gatctttacg ctggcgccga tgatcgcctt cacctcgctg
                                                                      360
ctgctggcgt ttgctatcgt tccggtcagc ccgacctggg tggtcgctga cctgaacatc
                                                                      420
 ggcattetgt tetteetgat gatggeagge etegeggttt acgeggtget gttegeagge
 tggtccagta acaacaaata ctcgctgctg ggtgcgatgc gtgcttccgc gcagacgctg
                                                                      480
 agctacgaag tgttcctggg tctctccctg atgggcgtgg tggcgcaggc cggttcattt
```

```
aacatgaccg acatcgtcaa caaccaggec gacatctgga acgttatccc gcagttettt
                                                                    600
                                                                    660
gggtttatta cotttgccat cgcgggcgtg gcggtgtgtc accgtcaccc gtttgaccag
ccagaagccg aacaggaact ggccgacggt taccacattg aatattccgg tatgaagttc
                                                                    720
                                                                    780
ggtetgttet tegtgggega gtacateggt ategteacea ttteggegtt gatggtaacg
ctgttctttg gtggctggca tggcccgttc ttaccgccgt tcatctggtt cgcgctgaaa
                                                                    840
acceptett teatgatgat gtteattttg attegegeag egttacegeg teegegttat
                                                                    900
                                                                    960
gaccaggtaa tgtccttcgg ctggaaagtg tgcctgccgc tgacgetcgt caacttgttg
gtaacggcgg ctgtcattct ctggcagcag ccataa
                                                                    996
<210> 4096
<211> 693
<212> DNA
<213> Enterobacter cloacae
<400> 4096
                                                                    60
tttccggtcc gggcaaatac ccggaatata acttctaccg gatggcgggt atggcaatcg
taccgtaagg agagggcaat ggaattcgct ttttatatct gtggccttat cgccatcctg
gctacgctgc gagtgatcac gcacaccaat ccggtgcatg cgctgctgta tttaatcatc
                                                                    240
                                                                    300
tegetgetgg ctattteegg ggtgttettt gegetgggeg egeacttege eggtgegetg
gaaatcatcg totacgccgg ggccatcatg gtgctgttcg tgttcgtggt gatgatgctc
                                                                    360
aacctgggeg getetgaaat tgagcaggaa cgtcagtggt taaaaccgca ggtgtggatt
                                                                    420
ggcccggcga ttctgtcggc catcatgctg gcggtgattg tttacgccat tctgggcgtc
                                                                    480
aacgaccagg gtatcgacgg gacgccaatc agcgcgaaag ccgtgggtat caccctgttt
                                                                    540
ggtccgtacg ttctggcggt tgagctggcc tcgatgctgc tgctggcggg tctggttgtg
                                                                    600
gccttccacg ttggccgcga agagcgtgtc ggcgaggtgc tgagcaaccg cactgacgac
                                                                    660
cgcgcgaaaa gaaaaacgga ggaacgcgca tga
                                                                    693
<210> 4097
<211> 1311
<212> DNA
<213> Enterobacter cloacae
<400> 4097
cagggagagg ttegegtgea etegattite etegegetge aaageetgeg caeteagett
                                                                    60
gegcaageat tgcctgctat acceggttta egccattteg atgtetettt eeegttaaac
                                                                    120
                                                                    180
gacgccttcg atcogctggc ctggctgggt gtgcagcgat gctatcctca gttttactgg
caacagegca geggegatga agaacttgcc gegcteggaa gectegecca gtttgattet
                                                                    240
ctggcttcgg cctcgcggtt tttgcatgcc catgacgtag ccaatgacac ccgtatctgc
ggcctgaacg ccttcaaccc ggcgcagggc aagctgtttt taccgcgcct tctctggcga
                                                                    360
eggtetggeg gggtegeeac getgegtetg caactgtgga gegaaacgte getgegggaa
                                                                   420
gatgecogtg aggegetgaa ttttgtegat aacctgegeg acgeegege gateegeeg
                                                                    480
ttgtccgtgc agattgtgca ggaaacccat catccggaaa aaccggactg gctggcgttg
                                                                    540
attegteagg egaeggatae cettgetege ggtgattttg agaaagtggt getegeaegt
                                                                    600
                                                                    660
qctacaqacq ttcaqtqcca qcaqcccqtq aacqccatcq cqctqatqqc tqcaaqccqc
gegetaaace teaactgeta teatttttgt atggtetttg acgecageaa tgeetteete
ggctcgacgc ccgagcgcct gtggcggcga cgcggcacgc tgctgcgcac tgaagcgctg
                                                                    780
geaggeaceg tegecageea ttetgaegat aageaggeee agegtetggg egaetggetg
                                                                    840
atgaacgacg ataaaaatca gegggaaaat atgetggtgg tggaagatat etgeeagegt
                                                                    900
cttcaqcacc atacccqqac gctqqaqatc ctqcctqcqc aqqtqctqcq tctqcqcaaq
                                                                    960
gtgcagcatt tacgccgctg tatctggacc gaacttaaac agcctgacga cgaacagtgt
ctgCatattt tgCaaccgac ggcggcggtg gccgggctgc cgcgacaggc ggcccgagaa
tttattgcga aagtcgagcc gtttgaccgg gagtggtacg ccggttcggc gggctattta
                                                                    1140
tegegegate agagegaatt etgtgtggca ttacgeteeg ecegegttea caacgetgeg
ctgcgtcttt atgcgggggc gggcatcgtc agcggctccg atcctgagca ggagtggcag
                                                                    1260
gagategaaa acaaggeege egggetgegt teeettetee taagggatta a
<210> 4098
```

<sup>&</sup>lt;211> 822 <212> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 4098
                                                                     60
eggegegeag aagetgeaac atetgettge geaggtgagt eacetgtgat eetegeagge
gteteccage caggaaatee aggetaccee tggetggttt teetgeaegg ttttteegge
gactgtcgcg agtggcaggc tgtcggggcg tcgctgcatg actacccccg gctctacatt
                                                                     180
qacctgcccq qqcacqgtqq ttcaqcqqat acqqqcqtqa cqqqqtttqc aqaqgtaagt
                                                                     240
gaattgetet egeataceet tgttagttae aacatactaa gatactgget egtggggtae
                                                                     300
tooctoggeg geogeattge gatgtteeat geotgecage atectgeggg gttagaeggg
                                                                     360
gtgattgtgg aaggtggaca cccgggcctg caagacgccg atgcgcgcca ggcccggctg
                                                                     420
atototqace geogotggge gtcacggttt cgcagtgage cgctggagge cgtctttgcc
                                                                     480
gactggtate aacageeggt etttgeetea ettaeggatg ateagegeag ggegetgate
                                                                     540
gegetgegca geeggaacaa eggeeegagg etggeagaga tgetggagge eacetegett
                                                                     600
                                                                     660
googttcagc ctgatttacg tcccgcgctc atcgcgcgtg atttttcttt tgactatctc
tatggcgaac gtgacgggaa gtt:gcagc: atcgccactg aacttaacgc cacgcgtcat
                                                                     720
qetateecte acqccqqaca caacqcccac cqqqacaacc cqqaaqctqt tqccqcqaqt
                                                                     780
ctggctcaga tactgcgtta tcgaacaaag gacacgctat ga
                                                                     822
<210> 4099
<211> 1617
<212> DNA
<213> Enterobacter cloacae
<400> 4099
gecaacgctg accggcagcc togacaaggt gcgcgagcag gttgcggcgg cccatgccgc
                                                                     60
agggetgacg geggtgatca gttcatccat cgaatccagc eteggeetga egeagetgge
gegeateget geatggttaa egeeggacae egtteeeggt etegataege taaacetgat
                                                                     180
geaggeerag etgattegee agtggeetgg cageacettg cegtgeeteg aegtegggge
                                                                     240
                                                                     300
gctggagcca ttgcgatgag ttttaccgac tggccgtggc ggcactggcg cacccggcgt
gccgataaac ccgcgctgcg tttagacgat gtaacgctca gttggactca gctgggcaag
                                                                     360
cgtatcgatc gtctggcagc cggttttcag tctcagggcg ttgctgacgg tgacggcgtc
                                                                     420
atgetgeteg eccacaacca coegeagace etgetggeet ggetggeget getteagtge
                                                                     480
ggcgcccgca ttttgccggt gaaccttcag cttccccgtc cgctgctgga cgtcctcctg
                                                                     540
cogcagatga coctgogttt tgcgctggtg citaacggtg agtatgacgg tctgcccgcg
                                                                     660
ctggcattaa gagagggcga ggggcagggg ggcgtgacgt ggcgggcaga acgactggcc
tcaatgacgc tcacctcogg ctccaccggt ttgccaaaag cggcggtgca cacctgtgcc
geceacettg ccagegcaaa aggggtgctg gegetgatge ettacggega tagegaegae
                                                                     780
tggctgctct ctctgccgct gtttcacgtc tccggtcagg ggattttgtg gcgctggtta
                                                                     840
cagggeggag geegteteac egtacgegaa aaacageege ttgageagge getacaggge
                                                                     900
tgtacccacg cctcgctggt gccaacgcag ctgtgggggc tgcttaattc acaccatccc
                                                                     960
gtogogotga aagcogtgot gotoggoggg goggaaatoo cogttgogot gacogaacag
                                                                     1080
gcgcgcgagc agaggatecg tacattetgc ggctacggtc tgaccgagtt cgcctccacc
gtotgogoca aagaggooga oggogocog gaogtgggoa gogogotgoo gggoagagac
                                                                     1140
gttcaggtgg taaacggtga agtctggatc cgggcggaaa gCatggcggc gggctactgg
                                                                     1260
cqaqacqqcq cattattqcc qctqqtcaat qcqcaqqqct qqttcqccac ccqcqatcqc
ggcgagtggc atgacggacg cctgaccatt ctgggccgaa tggacaatct ctttttcagc
qqcqqaqaaq qqatccaqcc qqaaqcqctq qaqcqcqtta tcqccacqca tccqcaqqta
                                                                     1380
agecaggegt ttgtegttee getggatgat getgagtaeg ggeaaegtee ggtggeggta
                                                                     1440
gtggaatgeg ageegggeae ggatateaeg etgetgeegg agtgggttea gggeaggetg
                                                                     1560
qcqcqctttq aqcaqccqqt acactqqctg acqctqccqt caqaactgaa aaatqgcqqq
attaaaatct cccgccaggc gttaaagcag tgggtcaatg ccctgttgag gggctaa
                                                                     1617
<210> 4100
<211> 513
<212> DNA
<213> Enterobacter cloacae
<400> 4100
gacagagaac agaccaatca ccacgacgat aaactgcacg ccgtcggaga gatgaacgct
                                                                     60
gtcgaaggta aaacgataaa ccccggtgtt ggcatccacg ccgacggtgg ccagactgag
gocaatcaac goagacaaaa acgacttoag oggattotgo gocatcatgo tgoogagaca
                                                                     180
```

ggcgatggcg aacaccatca gggcaaaata ctcggccgga ccaaacgcca gcgaccactg

```
ggccagcgcc ggggcgaaga ggatgatgcc gccaatggcg atcagggagc caaagaacga
getgacggeg gaaatagaga gegeeaegee geegegteee tgetgegeea ttggatagee
                                                                      360
atccagcgcg gtcataatgg cggcggcatc gccgggcacg ttaagcagaa tcgaggaaat
                                                                      420
acgccccccg tattegcage cgatataaac cgtcgccage aggatcageg ccgattecge
                                                                      480
                                                                      513
aggcaggtgc agcgcaaagg ccagcggcag taa
<210> 4101
<211> 729
<212> DNA
<213> Enterobacter cloacae
<400> 4101
aacaataacc tttcatttcc ctttcactgc gacaccaact ttacaggatg tgatatgcgt
ctcttactgg cggaagataa tcgtgagctg gctcactggc tggaaaaagc gctggtacaa
aacggatttg ccgtggattg cgtcaacgat ggacgggcgg ccgatcatct tttgcaggga
                                                                      180
gaaaactatg ecgtegegat cettgatate ggeatgeeeg gtitegaegg getggaggtg
                                                                      240
gtgcatcggc tgagaaageg cgggcagacg ttgcccgtgc tgtttcttac cgcccgcagc
                                                                      300
                                                                      360
aacgtggcag acagggttaa ggggctgaat gccggggcgg atgactacct gccgaaaccg
ttegagetgg aggagettga tgecegeetg egtgegetge tgegeegeag tgaagggega
                                                                      420
acceaggage gecagegget gggagagetg gagtacgatg atgaaggett tittetgetg
                                                                      480
egegatgaac coettteeet caegeegege gaactetett tgetgaaggt getgatgeac
                                                                      540
egteggacce gtecegtete eeggeaacag ettttegace aggtgtteag eetgaacgae
                                                                      600
gacgtcagce cegagageat cgatetetat atteacegee tgegtaagaa getgacegge
                                                                      660
                                                                      720
ageggegtge ggateaceae ceteeggggg etgggetaeg tgetggagtg eggegatgaa
                                                                      729
qtqqqttaa
<210> 4102
<211> 366
<212> DNA
<213> Enterobacter cloacae
<400> 4102
eggegtaage ageeggtaat gattgagggt gatgaegtge tgetgggtga aetetgegee
aacetgetgg agaacgegat caaatacacg ceggageagg geategtgae ggtgtaeetg
                                                                      180
cgcacggcta acgatgccgt tgagctgagc gtggaggaca gcggaccggg tattgctgaa
gaccagatet cocaggocat gergeegttt categtetgg aaaacgtggg tgatgeegee
gggtccggca ttggcctggc gctggctaac gatattgccc gcctgcaccg cagccatctt
                                                                      300
                                                                      360
cagetgatge ecagtgaaaa tetgggtggg etgagegtga aaatgegett tetgatgetg
                                                                      366
atataa
<210> 4103
<211> 672
 <212> DNA
<213> Enterobacter cloacae
 <400> 4103
                                                                       60
 atgccgatat tatcaaatcg ttacaaacta attgcctgcc gcacgtggag tccattgatc
                                                                       120
 acacaggcag gcaggttaaa atctcgcggt ttttggacat ctctgaataa attgtgcggg
                                                                       180
 atcacgacaa tgaaaaaagt ggcattaatg ggcttaagcg gcctgatgtt tgtttcagca
 geggeaaacg caattteett caacggeteg gegggacaag attataceca tetgggette
                                                                       300
 ggtettggca eggacagege aggeetggca atgaceggeg getggacgca taacgacgae
                                                                       360
 gacggcgatg cggcaagcet gggcctcggc ttcaacgtgc cgttgggtcc cttcctggcg
                                                                       420
 accgtegggg gtaaaggcat ttacaccaac cegaacgacg gegacgaagg ctacgeggeg
                                                                       480
 gcagtgggcg gcggcttgca gtggaaaatt ggcgacagct ttggcctgtt cggtgagtac
                                                                       540
 tactactete etgatteeet etceagegge ategacaget ateaggaage taaegeegge
 gegegetgga ccatcatgeg tecaatcace ategaagegg gttategeta tetgaacetg
                                                                       600
 geoggtaaag aeggeaaceg egacaaegee etggeagaeg geoegtaegt tggegttage
                                                                       660
                                                                       672
 gccggtttct aa
```

<210> 4104 <211> 1371

```
<212> DNA
<213> Enterobacter cloacae
<400> 4104
aaggccacgg aggctgttat gctcagtatc ttcaaacctg cgccgcatcg ggcgcgactg
                                                                      60
ccagaggcag agatcgatcc teteracege egtergegtt ggcaaatett cetegggate
                                                                      120
ttottogggt atgoggogta ctatottgta ogtaaaaact ttgogotogo catgoogtat
                                                                      180
etggtggate agggettete tegeggegae etgggetteg egetgteggg gateteeate
                                                                      240
gcctacggtt tttccaaatt catcatgggt tccgtgtcgg accgctcgaa tccgcgcgtg
                                                                      300
                                                                      360
theetgeeg eeggtetgat eetegeggea geggteatge tgtteatggg etttgtgeeg
                                                                      420
tgggcgacgt ccagcattgc catcatgttc gtgctgctgt tcctctgcgg ctggttccag
qqqatqqqqt qqccqccqtq cqqacqtacc atqqtqcact qqtqqtcqca qaaqqaqcqt
                                                                      480
                                                                      540
ggeggeattg tgteggtgtg gaactgegeg cataacgteg ggggeggget tecacetetg
                                                                      600
ctgttcctgc tggggatggc ctggttcaac gactggcacg cggcgctcta catgcctgcc
tttggtgcta ttctggtggc gattattgcc ttcgccctga tgcgcgacac gccgcagtcc
                                                                      660
tgcgggctgc cgccaatcga agagtacaaa aacgactatc cggatgacta cagcgagaag
cacgaagaag agetgaeege gaaacagate tteatgaagt aegtgetgee gaacaagetg
                                                                      780
ctgtggtaca tcgcggtggc gaacgtgttc gtatacetgc tgcgctacgg catecttgac
                                                                      840
tggtcccega cctacctgaa agaggtgaag cacttcgcgc tggataaatc ctcctgggcg
                                                                      900
tacttcctgt atgaatatge egggateeeg ggeaegetga tttgeggetg gatgteggae
                                                                      960
aaagtgttta aaggcaaccg cggcgcaacg ggcgtgttct ttatgaccct ggtgaccatc
gegactgteg tttactgget taaccegeeg ggtaacceat cagtagacat ggeetgtatg
                                                                      1080
                                                                      1140
atcattatcg getteetgat ttacggeecg gtgatgetga teggtetgea egegettgag
ctggcgccga aaaaagcggc gggcacggcg gcaggcttta ccggtctgtt tggctacctc
                                                                      1200
ggtggttccg tcgcggcgag cgctatcgtg ggctacaccg ttgacttctt cggctgggac
                                                                      1260
                                                                      1320
ggeggettta tggtgatgat eggeggeage gtgetggegg ttetgetget ggttgttgtg
atgateggeg agaaaegtea ceaegeggaa gtgetggege gtegteaata a
<210> 4105
<211> 444
<212> DNA
<213> Enterobacter cloacae
<400> 4105
gcaatgagta tgtcaacate cacagaagte ategeteate actgggcatt egcaatettt
ettattgrag coattggeet gtgctgcctg atgttagtcg geggctggtt cetgggcggt
egegeeegeg caaggeacaa aaacacacet ttegaateag gtattgatte agtaggtaee
                                                                      180
getegettac geotgtetge caagttttac etggtageca tgttettegt cattittgac
                                                                       240
                                                                       300
 gtggaagege tttacetett egegtggtet acetecatte gegaaagtgg ttgggtggge
                                                                       360
 tttgtcgagg ccgcaarttt cattttagtg ttactggccg gtctggttta tctggtgcgt
                                                                       420
 ateggegege tggactggac acctgtgegt teaegeogtg aacacatcaa eeeggaaaac
                                                                       444
 agtateteta ategteagea gtaa
 <210> 4106
 <211> 690
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4106
 cagogaggoa ataagatgga ttataogoto accogoatag atootaacgg tgagaatgac
 cgttaccccc tgcaaaaaca ggagatcgta accgaccccc tggagcaaga agtcaacaaa
 agegtgtaca tgggcaaget egaacatgee atgeacgaca tggtcaactg gggtegtaag
                                                                       180
                                                                       240
 aactocatet ggccatacaa etttggcett tettgetget aegttgaaat ggtgaegtea
                                                                       300
 tteactgegg tgcatgaegt tgcgcgtttt ggggecgagg tactgegtge ttetecgegt
                                                                       360
 caggetgace tgatggtggt ggcagggace tgetttacea agatggeace ggttatteag
 egtetttatg accagatget ggagecaaaa tgggttatet eeatgggege atgtgeaaac
                                                                       420
 teeggeggta tgtacgacat ttatteegtt gtgeagggeg ttgataagtt catteeggtg
                                                                       480
                                                                       540
 gatgtgtata teeegggttg eeegeegegt eeagaggeet atatgeagge getgatgetg
                                                                       600
 ctccaggagt caattggtaa agaacgccgc ccgctttcat gggttgttgg cgatcagggt
 gtotategeg cgaacatgca gtotgagege gagegtaaac gtggtgaacg tattgeegte
                                                                       660
```

accaacetge gtacgeetga egaaatttaa

<210> 4107 <211> 1356

```
<212> DNA
 <213> Enterobacter cloacae
 <400> 4107
 cetgetggag cagtacaaat gaaaactgta attegtactg etgagaegca teegetgace
                                                                      120
 tggcgtctgc gtgatgacaa acagccggta tggctcgacg aatatcagag caaaaacggc
                                                                      180
 tatgccggtg cgcgtaaagc cottggcggc atggcgccgg acgacatcgt taacgcggtg
                                                                      240
 aaagagtotg gootgaaagg cogoggtggt gogggottot coaccggtot gaagtggago
 etgatgeega aagatgaate catgaacate egttaeetge tgtgtaaege egatgaaatg
                                                                       360
 gagoogggta octataaaga cogtotgotg atggaacago tgcogcacct gotggtggaa
                                                                       420
ggcatgctga totccgcgtt cgcgctgaaa gcgtaccgtg gctacatott cctgcgcggc
 gaatacateg aageggegga aaacetgegt egegegattg eegaagecae egaageggga
                                                                       480
 etgetgggta aaaacateet gggeaceggg tttgaetteg agetgttegt geacaceggt
                                                                       540
 gccgggcgtt atatotgcgg tgaagaaacc gcgctgatta actocctgga aggccgccgc
                                                                       600
 gegaacecge geteeaagec accetteect geaageteeg gegtgtgggg taaacegace
                                                                       660
tgegtcaaca acgtcgaaac cetgtgtaac gtcccggcga teettgcgaa eggcgtggag
                                                                       780
 tggtatcagg gcatetecte aagcaaagat geeggtacca agetgatggg etteteeggt
                                                                       840
 egegtgaaga accetggegt etgggagetg eegtteggea eeacegeaeg egaaattett
 gaagactacg ceggeggeat gegegatgge etgaaattea aageetggea geegggtggg
                                                                       900
                                                                       960
 geagggaegg actteetgae egaageecae ettgaeetge caatggagtt egaaageatt
                                                                       1020
 ggtaaagcag gtagccgtct gggtaccgcg ctggcgatgg ccgtcgacca cgagatcggc
 atggtatece tggtgcgtaa eetggaagag ttetregeee gegagteetg eggetggtge
                                                                       1080
                                                                       1140
 acaccgtgcc gtgatggtct gccgtggagc gtgaagatcc tgcgtgctat cgaacgtggc
 gaaggccagc ctggcgatat cgagacactt gagcaactgt gtcgattctt aggaccgggt
 aaaacettet gtgeecacge aeegggegee gtegageege tgeaaagege gattaaatat
                                                                       1320
 ttccgcgacg aattcgaagc aggcatcaag cagccgttca gcaataccca ttcgatcaat
 ggtattcage egaacetget gaaagegege tggtaa
 <210> 4108
 <211> 2760
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4108
 egeteggttt eggeegagee aactggaage atgetaatgg etaegattea tgtagaegge
 aaagaatacg aagtcaacgg ggcggacaac ctgctggaag cttgtctgtc tcttggcctc
 gatattccgt acttttgctg gcatccggcg ctgggcagcg tcggtgcttg ccgccagtgt
                                                                       180
 geggtgaage aatateaaaa egeggaagae aegegtggte geetggtgat gteetgtatg
                                                                       300
 acqccagccg ccgaaggcac ctttatttcg attgatgacg aagaagccaa acagttccgt
  gaaagcgtgg tggagtggtt gatgaccaac cacccgcacg actgtccggt gtgtgaggag
                                                                       360
  ggeggtaact gecacettea ggatatgace gteatgaceg gteacagett cegtegetat
                                                                       420
  cgctttacca aacgtaccca ccgtaaccag gatctggggc cgttcatctc tcacgaaatg
                                                                       480
  aaccgctgca tegeetgcta eegetgegtg egttactaca aagattatge agaeggteag
                                                                       540
  gatetgggcg tgtatggegc gcatgacaac gtetactteg gtegteegga agaeggtaeg
                                                                       600
                                                                       660
  ettgaaagtg aatteteegg taacetggta gaaatetgte egaceggegt atteaeggat
  aaaacccact ctgaacgtta caaccgtaaa tgggacatgc agtttgcgcc aagcatctgc
                                                                       780
  cagcagtget ceettggetg taacaccage eegggtgaac gttaeggega actgegtegt
                                                                       840
  atogaaaaco gttacaacgg tacogttaac cactacttcc totgogaccg oggtogtttc
  ggctatggct atgtgaacct gaaagaccgt ccgcgtcagc cggttcagcg ccgtggcgat
                                                                       900
  gacgteatta cocteaacge tgagcaggeg atgeagggeg eggeagatat tetgegteag
                                                                       960
  tegaagaaag tgateggeat tggeteeeeg egtgeeagea tegaaageaa ettegegetg
                                                                       1080
  cgcgagctgg ttggagcgga aaacttctac accggtatcg cccagggcga gcaggaacgt
                                                                       1140
  ctccagctgg tgctgaaagt gctgcgtgaa ggcggtgttc acacgcctgc gctgcgcgaa
  ategaateet atgatgeggt tetggtgete ggggaagaee tgaegeagae eggegeaege
  geggeeetgg eggttegtea ggeggtgaaa ggeaaageae gtgaaatgge ageggegeag
                                                                       1260
  aaagtggetg actggeagat tgeggecatt cteaacattg gteagegege gaagcateet
                                                                       1320
  ctgtttgtga ctaacgtcga caacacccgt ctggacgata ttgcggcgtg gacctactgc
                                                                       1380
  gegeeggttg aagateagge gegtettgge tttgeeattg eccaegeget ggacaacaac
                                                                       1440
```

```
tcaccggccg ttgagctgga tcgcgacctg caaaacaagg tcgacgtgat tgttcaggcg
                                                                     1500
ctggcggggg cgaagaaacc totgattatt tocggtacca acgccggtag cgctgaaatc
                                                                     1560
                                                                     1620
attcaggccg cagegaacgt tgccaaagcc ctgaagggac geggegetga egttggtgtg
accatgattg ecceptgeggt gaacagcate ggtetgggta tgattggegg eggetegetg
                                                                     1680
                                                                     1740
gaagacgcgt taagcgaact ggaatccggt gccgctgacg ccgttgtggt gctggaaaat
                                                                     1800
gacetgeate gecacgette egeegegegt gttgaegeeg egeteteeag agegeegetg
gtgatggtta togaccatca gogcacogog atcatggaca aagogcatct ogtactotot
                                                                     1860
gcggcaaget tegcagaaag tgacgggacg gtgatcaaca acgaaggeeg egcacagegt
                                                                     1920
                                                                     1980
ttettecagg tttatgacce ggestactae gaeageaaca eegtgatget ggaaagetgg
                                                                     2040
cgctggctgc actctctgca cagcaccgtg cagagccgtg aagtggactg gacgcagctc
gaccacgtta togacgcggt tgttgagaaa ctgcctcagc tggcgggtat taaagatgcc
gegeeggaeg caagetteeg cattegegge cagaaactgg egegtgagee geacegetae
                                                                     2160
ageggtegta cegegatgeg egecaacate agegtgeacg aacegegtea geegeaggat
                                                                     2220
aaagacacca tgttcgcctt ctcgatggaa gggaacaacc agccgtctgc gccgcgttcg
                                                                     2280
caaatcccgt ttgcatgggc accgggctgg aactccccgc aggcatggaa caaattccag
gctgaagtgg gcggtcacct gcgccacggc gatccaggcg tgcgtctgat tgaagcctcc
                                                                     2400
gaaaccggtc tggacttctt caccaccgtt ccggcgagct tccaggcgca ggaaggtcac
tggegcattg caeegtacta ccatetgtte ggtagegaeg aaatgteeea gegtteteeg
gtattcccgc agegtatgcc gcagccgtac atcaagctca acccggcgga tgccgcgaag
                                                                     2580
cttggcgtta acgcgggtgc gaacattgcc tttagctacg acggccagac aatcagcctg
                                                                     2640
cogetgatta tttctgaacg cetgtcagca gggcaggtgg gtctgccgat gggtatgcet
ggcatcgcgc cggtcctggc gggtgcgcat cttgataacc ttcaggaggc aaaagcatga
                                                                     2760
<210> 4109
<211> 1851
<212> DNA
<213> Enterobacter cloacae
<400> 4109
gttgegtgga tgaacatget tgecttaace attatttte egetgattgg ettegtgetg
etggegtttt etegeggeeg etggtetgag aatetgtetg eeaeegtggg eattggetet
                                                                      180
ateggeetgg etgegetggt cacagegtat gegggtateg acttetttaa caatggaegt
                                                                      240
caggectaca gegtaceget gtggaactgg atgteggteg gtaactteaa categgttte
aacctggtgc tggatggtct gtctctgacc atgctctccg tggtcaccgg cgtcggcttc
ctgatccaca tgttcgcctc ctggtacatg cgcggtgaag agggatactc ccgcttcttc
                                                                      360
                                                                      420
geotacacca acctgtttat egocageatg gtggttetgg tgetggeega taacctgetg
ctgatgtatc tgggctggga aggcgtgggt ctgtgctctt acctgctgat cggtttctac
                                                                      480
tacaccgate egaagaatgg egeageggee atgaaagegt tegtegtgae eegegtgggt
                                                                      540
gacgtettee tegetttege getgtteatt etetacaaeg aactgggeae getgaaette
                                                                      600
egegaaatgg tggaactgge geeggegeac ttegaageag geaacaacat getgtggtgg
                                                                      660
gcaacgctga tgctgctggg tggcgccgtg ggtaaatccg cgcagctgcc gttgcagaca
                                                                      720
                                                                      780
tggctggccg acgcgatggc gggtccaacc cctgtctccg cgctgatcca cgccgcgacc
                                                                      840
atggttaceg ceggtgteta cetgattgeg egtacecatg geetgtteet gatgaceceg
gaaattetge atetggtggg tattgteggt geggttaege tggtgetgge aggetttgee
                                                                      900
gegetggtge agaccgacat caaacgegtt etegegtaet ecaccatgag ccagattggt
                                                                      960
                                                                      1020
tacatgitcc tggcgctggg cgttcaggcg tgggacgcag ccattitcca cctgatgacg
cacgogttet ttaaageget getgtteete teateeggtt eggtgateet ggeetgeeae
                                                                      1080
cacgagcaga acatetteaa aatgggegga etgegtaagt ecateceget ggtetatgte
                                                                      1140
tgetteetgg tgggeggege ggegetggeg geactgeege tgattaeege gggettette
agtaaggacg aaatcottgc gggcgccatg gcgaatggtc atatcaatct gatggttgcg
                                                                      1260
ggtetggteg gtgegtteat gaesteestg tasasettes gtatgatttt categtette
                                                                      1320
 cacggtaaag aacaaattca cgctcacgca gggaagggga ttacccacca cctgccgctg
                                                                      1380
                                                                      1440
attgttctgc tggtcctgtc caccttcgtt ggcgcgatga ttgtgccacc gttgcagggt
gtactgccgg caacaaccga gcttgagcac ggtcgcgttc tgacgcttga aatcacctcc
                                                                      1560
 ggcgtagtgg ctatagcggg catcctgatt gccgcatggc tgtggctggg caaacgcacg
 ctggtaactg ccgttgccaa cagcgcgccg ggccgtctgc tgggcacctg gtggtacaac
                                                                      1620
 gegtgggget tegactgget gtacgacatg atettegtga agecgtteet gggcattgeg
                                                                      1680
                                                                      1740
 tggctgctga agcgcgatcc actgaacagc ctgatgaata tcccggcgat cctctctcgc
```

tttgcaggta aaggcctgct gtttagcgag aacggttatc tgcgctggta tgtggcgtcc atgageateg gtgeggttgt egtgetggeg etgetgatgg tgttgegttg a

1800

```
<210> 4110
<211> 1536
<212> DNA
<213> Enterobacter cloacae
<400> 4110
atogocatgt tactaccotg gotaatatta attocottca toggoggott cotgtgotgg
cagaccgaac getttggegt gaagatgeeg egetggateg egetgateac catgggattg
acgetegege ttggcetgea actgtggttg cagggtgget actcactgae ceagtetgeg
                                                                     180
                                                                     240
ggcetteege agtggeagte tgagtttate etgeegtgga teceaegttt eggtateaeg
                                                                     300
atocacctcg cgattgacgg totgtcgctg ctgatggtgg tgctgaccgg totgctcggc
                                                                     360
gttctggcgg tactttgctc ctggcgagaa atcgaaaaat accagggctt cttccacctg
                                                                     420
aacetgatgt ggateetggg eggegtgate ggegtgttee tggecatega catgtteetg
                                                                     480
ttottottet tetgggagat gatgetggtg cegatgtact teetgatege getgtggggt
cacaaggcat cegacggtaa aacgegtate acggeggeea ecaagttett catetatace
                                                                     540
caggogagtg gtctggtgat gctgattgcc atcctggcgc tggtgtttgt gcattacaac
gogacoggtg totggacott caactacgaa gacotgotga agacocogat gtoccacggo
                                                                      660
gtggaatacc tgctgatgct gggcttcttt atcgccttcg cggttaaaat gccggtggtt
cogetgcatg getggetgee agacgegeae tetcaggege caacggcagg ttecgttgae
                                                                      780
etggegggca tettgetgaa aaccgegget taeggtetge tgegtttete eetgeegetg
                                                                      840
                                                                      900
ttcccgaacg cctccgcaga gttcgcgccg attgccatgt ggctgggcgt gatcggtatc
ttetacggtg catggatgge etteacgeag tacgacatea aacgtetgat tgettacace
                                                                      960
teegttteee acatgggett egtgetgatt gecatetaca eeggeageea getggegtae
                                                                      1020
cagggegegg ttatecagat gattgcgcac ggectgteeg etgeeggtet etteateetg
tgtggtcagc tgtacgaacg tctccatacc cgcgacatgc gtatgatggg cggtctgtgg
ggcaaaatga aatggetgee ggegetetee atgttetteg eggtggegae tetgggtatg
                                                                      1200
                                                                      1260
cogggtacog gtaacttogt oggogagttt atgatoctgt toggcagott caacgtggta
cogacgatca cogtoatoto cacctttggt otggtgtttg cotocgtgta ctcgctggcg
atgotgoacc gegettactt eggtaaageg aagagtgaaa ttgetgeaca agaattgeeg
                                                                      1380
gggatgtege tgegagaget gttcatcate etgetgetgg tegtaetget ggtgetgttg
                                                                      1440
ggettetate egcageegat tetggatace tegcacteeg egatgggtaa cateeageag
                                                                      1536
tggtttgtta attetgette tactacaagg eegtaa
<210> 4111
<211> 1464
<212> DNA
<213> Enterobacter cloacae
<400> 4111
ttogocatga caataactoo acaacaactg atogogotgo tacogotgot gatogtogga
ttgacggtgg tggttgtgat gctctccatt gcgtggcgac gcaatcactt cctgaatgcg
                                                                      180
accetgiceg tictgggtet gaacgeigeg tiagteteee tetggitigt tggeeaggeg
ggagegatgg acgtcacgcc gctgatgcgc gttgacggct acgccatgct ctacaccggt
                                                                      240
ctggtgctgc tggcgagcct ggcaacctgt acctttgcgt acccgtggct cgaaggatac
                                                                      300
aacgacaaca aagaagagtt ttacctgctg gtactgattg ctgcactggg cggcattctg
                                                                      360
                                                                      420
ctggcgaacg cgaaccacat ggccgcgctg ttccttggta ttgagttgat ctcactgccg
etgtteggee tgattggtta egeetteegt eagaageget etetggaage ggetateaag
                                                                      480
                                                                      540
tacaccatte tgtetgetge egegtegteg tteetgetgt teggtatege getgetgtat
gcacagaegg gtaacetete etteetggee ateggtaaga geeteggega eggeatgatg
                                                                      600
                                                                      660
catgagoogo tgotgotggo gggtotgggo atgatgattg ttggoottgg otttaaacto
                                                                      720
 tototggttc cgttccacct gtggacgcca gacgtctacc agggtgcgcc tgcaccggtc
 totacottce tggcgacgge gagtaaaatc gctatcttcg gcgtggttat gcgtctgttc
                                                                      780
                                                                      840
 ctgtacgccc cggtgggtga cagcgaagcg gttcgcgtgg tgctgggcat tatcgcgttc
                                                                      900
 gtttotatca tottoggtaa ootgatggog otgagocaga ocaacatcaa gogtotgotg
                                                                      960
 ggctactcct ctatctccca tetgggttac etgetggtgg egetgattge getgeaaage
 ggtgagatgt cgatggaaac cgtgggtgtg tatctggccg gttacctgtt cagcagcctc
                                                                      1020
                                                                      1080
 ggegegtteg gegtggtgag cetgatgtee ageeogtace gtggcccgga tgcagattee
 etgtteteet accgtggaet gttetggeae egteegatte tgtetgeggt aatgacegtg
                                                                      1140
                                                                      1200
 atgatgetet etetggeggg tatecegatg acgetggget ttateggtaa gttetaegtg
 ctggccgtcg gtgtgcaggc gggtctgtgg tggctgacgg cgggtgtcgt tatcggctcc
                                                                      1260
```

gegattggte tetaetaeta cetgegegta geggtgagee tgtaeetgag egegeeteag

<212> DNA

<400> 4114

<213> Enterobacter cloacae

```
1380
 cageteaace gegatgegee gtecaactgg cagtacageg ceggeggtat egtggtgeta
                                                                      1440
 atotocgogo tgotggtgot gatottoggt atotatocgo agoogotgat tgatatogtg
                                                                      1464
 caqeqaqeqa tgccgctgat gtaa
 <210> 4112
 <211> 339
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4112
 ttaccggact ggtgtactaa catggagaaa aatatgtcat ttcaatcctg ggatacccga
 gtogacgacg acctgacgot gotaagogaa acgotggaag aagtgotgog otottoaggo
                                                                       180
 gatoctgccg atcagaagta cattgagctc aaagcccgcg ccgagcaggc gctgcatgac
                                                                       240
 gtgaaaaacc gcgtcagtaa cgcctccgac aattattact accgcgccaa acaggcggtt
 tategtgeeg acgattatgt geatgaaaaa eegtggeagg geattggggt eggtgeggee
                                                                       339
 gtagggctgg tgctgggtct gctgttagcc cgtcgttaa
 <210> 4113
 <211> 1767
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4113
 gggattaata ctgattcgtg caatcccgat tcatatcaaa attctgactt tttctattat
 ttatactgtg togcattott gatactggac aatotcatgt cagtaagtto ttttaaccga
                                                                       180
 egetgggegg eggtgateet tgaageeetg accepteatg gtgteaggea tgtgtgtatt
                                                                       240
 gccccgggct ctcgctccac gccgctcacc cttgctgccg cggaaaaccg ggcttttatt
 caccacaccc attttgatga gcgtggtctg ggccatctgg cgctcgggct ggcgaaagtc
                                                                       300
agtaaagege eegtggeggt gategteace teeggeaegg eggtggegaa eetetateeg
                                                                       360
 gogotgatag aagogggatt aacoggogaa aagotgattt tactcacego cgaccgtoco
                                                                       420
 coggaactta togactgogg cgctaaccag gcgattcgtc agcctggcat ttttgcctcg
                                                                       480
 catcottcac agacggtete gttgccgcgc cccacccagg acattcccgc cagetggctg
                                                                       540
                                                                       600
 gtotcaacco togaccacgo catgaacgca otgogcagog gegggetaca cattaactgo
                                                                       660
 cogtttgcog agcogctgta cggtgaaatg aacgatactg gcctcgtctg gcaacagcag
 ctgggagaet ggtgggagag cgaaaaaccc tggctgcgcg agcagacgca tctggaaagc
                                                                       780
 gctaaacagc gcgactggtt cttctggcgt cagaagcgcg gcgtggtgat agccgggcgg
 atgagtgcgg cggaaggtaa gettgcggcg gagtgggcac aaacgettgg ctggccgctg
                                                                       840
                                                                       900
 attggtgacg tgctttceca gacgggccag ccgctgccct gcgccgacct ctggctgggg
                                                                       960
 aacgcgaaag eggtcaccga getggegeag gegeagattg tegtceaget gggategage
 ctgacgggga agegtctgct ccagtggcag gccacctgta cgcctgaaga gtactggctg
                                                                       1020
 gtggaccege tegaaggaeg certgaceeg gegeaceate gtggeegeeg eetggtgage
                                                                       1140
 gatattaaca getggetgga attgeateeg geggaaaaac geaaaccetg ggeggtggag
 atcccggcgc tgtcacgtca ggcgtgggaa ctcaccaaag cgcagtgcga ggcgttcagt
  gaagceggge tggcgcaccg tatccgcaaa tatcttcccg agcagggaca actttttgtc
  ggtaacagcc tggtggtgcg cctgattgac gccttttcgc agctgccggc gggttatccg
  gtgtacagca accggggcgc gagcggcatt gacggcctga tctccaccgc cgctggcgta
  cagagggcca gegcgaaatc caegetggeg attgtggggg atctctcage cetetacgat
                                                                       1440
                                                                       1500
  ctcaacgcgc tggcgctcct gcgtcaggcg tcggccccgt tcgtgctgat tattgtgaac
                                                                       1560
  aataacggcg ggcagatttt ctcgttgctg ccgacgccgc aaagcgagcg tgagcgcttc
                                                                       1620
  tatetgatge egcaaaacgt geagttegaa caegeegeeg eeatgtteag eetgaagtac
                                                                       1680
  categoogg aaaaetggga egegetggag aeggegetga acaeegeetg geggeageet
                                                                       1740
  qqcqcqacgc tcattgagct ggtggtaaac gatgctgacg gcgcgcagaa gctgcaacat
                                                                       1767
  ctgcttgcgc aggtgagtca cctgtga
  <210> 4114
  <211> 1068
```

cgccaccatg ctgttctata tgaccgaaga gggtcaggaa gggcgcaacg cgttcaacga

```
aaaacgccag ccagacttca gcaaatacaa acggaacccg taatgcgtcg cgtgcaggtt
                                                                     120
taccgctggc agataccgat ggacgcgggc gtggtgctgc gtgaacggcg gttaaaaacc
                                                                     180
                                                                     240
cgtgacggct ttttcgtgca cctccgggag ggcgagcggg aagggtgggg cgagatagcc
ccactteegg getttageet ggaaacgete gaegaggege aggeegeget gatggeetgg
                                                                     360
acgcacgcct ggcgcgaggg agaagatccg gcgctgccgg acgttccttc cgtcgcgttc
ggcatcagct gcgcgctggc agagctggac ggcagtttgc cggaggcggc gaactatcgc
                                                                     420
geogegeege tetgtactgg cgateeggat gaactitteg egeteetite egegatgeet
                                                                     480
                                                                      540
ggcgagaagg tggcgaaaat aaaggtcggc ctgtacgaag cggtgcgcga cgggatggtg
gttaatetgt tactggaage cattecegat etgeacetge geetggaege caacegegee
                                                                      600
                                                                      660
tggacaccgc tcagggcgca gcagtttgcg aagtacgtca acccggcgta ccgcagccgc
                                                                     720
ategegttte tegaagagee gtgcaaaaeg egegaegaet etegegeett egecegggaa
                                                                     780
accggcateg ccatcgcctg ggatgagage ctgcgcgaag ccgatttcgc gtttgccgcc
gageegggeg teagggeegt ggtgattaag ceaacgetga eeggeageet egacaaggtg
                                                                      840
                                                                      900
egegageagg ttgeggegge ceatgeegea gggetgaegg eggtgateag tteatecate
gaatecagee teggeetgae geagetggeg egeategetg catggttaae geeggacaee
                                                                      960
gttcccggtc tcgatacgct aaacctgatg caggcccagc tgattcgcca gtggcctggc
agcaccttgc cgtgcctcga cgtcggggcg ctggagccat tgcgatga
<210> 4115
<211> 1122
<212> DNA
<213> Enterobacter cloacae
<400> 4115
ceggeagegg egtgeggate accaecetee gggggetggg etaegtgetg gagtgeggeg
atgaagtggg ttaageegea gtcgctttac ctgcaacttt tgctttttct gggtttgeeg
etgetgetgt tatggggget gteageettt aacagetaeg ttagegeget acaggeggeg
                                                                      180
acgcaggcct atgaccgcac gctgttatcc tcggcgcgca cggtgtcaga gcggctggtg
                                                                      240
gtgcacaacg gcaageteca ggtgaacgtg ccgtgggtcg tgctcgacag cttcgagctg
                                                                      360
aacatgaacg atogoctota ctacaaggto gtggaccotg acgggcggac gatotooggc
                                                                      420
tatgacgate tgccgaatat gcccccctcc acgtcgcgca cctcccacta tccggcgctg
gegtggtttt atcatacega gtategeggg caggegatee gegtggegaa getgeteeag
coggttaacg aggacagtgt gttcggcatg gcggaaatct acgtcgccga aacgttgcag
                                                                      540
                                                                      600
tegeggeget atetggecae teagetgetg tttteetege tegtgtegea ggggetgetg
                                                                      660
qtgctgctga cgctggtcct gaccgcgtgg ctgctgcgtc gcgtgctgcg cccgatgcgg
cagetetett egetgatggt gegeegtgag eeegggetge tggeteeget geeggagetg
                                                                      720
                                                                      780
ctgccctggt cggaaacgcg gctgctgatt gtggcattta accgctatat cgacaggtta
cgcggcgtgc tttcgcgaca ggcgcgcttt aatgctgacg cctcacacca gctcaaaacg
                                                                      840
                                                                      900
ccgctggcgg tgctgaaaac ccaggtatcg gttgccctga cgcgtaacga tccggccctg
                                                                      960
tgqcaggaga gcttacgggc gatgaacgtc acgctggata acaccatcgt gctgacagaa
aggetgttge agetttcage ggtgaagega aaagageagg gggagegaea gtttgeeeet
                                                                      1020
                                                                      1080
gtegatetgg tgcaggtggt gcaaaactge tgetttteee ggetggegea ggegegeage
aagggtateg ateteggtta tgaeggegta ageageeggt aa
<210> 4116
<211> 1221
<212> DNA
<213> Enterobacter cloacae
<400> 4116
ccattgaaat gggagaacac aatgataaac gtggaaatgt tatccactgg cgacgaagtg
                                                                      60
cttcatgggc aaatcattga taccaatgcc gectggctcg ccgatctctt ctttgagcaa
                                                                      120
                                                                      180
ggattacegt taacgcgccg caacaccgta ggtgacaacc ttgagtcgct ggtcaacgtt
ctgcgcgagc gcagcgaacg ctgcgacgtg ctgattgtga acggcgggct gggacctacc
agegacgate teagegeget ggeegeegee aeggeeaaag gegaaggeet ggteetgeae
                                                                      300
gaggegtgge tggcgcagat ggagegettt ttercegage gtggccgcgt gatggcccce
                                                                      360
agcaacegca agcaggetga aattcccgcc agegeggaac tgattgataa cccggtegge
                                                                      420
accepting ggtttgccgt toagttgaac cgctgcctga tgttcttcac tccgggcgtg
                                                                      480
                                                                      540
ccgtcggaat ttaaagtgat ggtcgagcag cagatcctgc cgcgcctgcg cgcgcgcttt
acgctgcetg aaccgccgct gtgcctgcgt ctgaccacct ttggtcgctc ggaaagcgat
ctcgctcaga gectcgatca cctgcaactg cctcccggcg tgtcgatggg ctatcgctcc
```

```
720
tocatgooga ttattgaact gaagetgace ggaceggegt cagagaaage egetatgetg
                                                                      780
gcactgtggc cggaagtgcg gcgcgtcgcc ggggaaagcc tgattttcga aggcacgaaa
gggetgeegg egeagatege agegeatttg cagteeegee agetgagegt gaegttaage
                                                                      840
gagcagttta coggtggget tetggegett cagettacce gggegggtge geegetgetg
                                                                      900
gccagtgaag tggtgccgtt ccagcaggag acgctggcgc agacggcgcg ctgggcatcc
                                                                      960
gagogcagag tgaagcattt ogcoggactg gegetgtttg tgggcgggct ggatgaggag
                                                                      1020
cacetcaaet ttgeeetgge aaegeeggaa ggaaegeaeg eeetgegegt eaggatgage
                                                                      1140
attaccegee acageetgge egtacgteag gaggtgtgeg egatgatgge getgaacatg
ctgcgccgct ggctgaacgg gaaagaggtc gccagtgagc acggctggat caacgtcgtg
                                                                      1200
                                                                      1221
quatcgctgt tcgtagagtg a
<210> 4117
<211> 2637
<212> DNA
<213> Enterobacter cloacae
<400> 4117
atgagogaco ttgogagaga aattacacog gttaacatog aggaagagot gaaaagotoo
                                                                      120
tatotggact atgcgatgtc ggtcattgtt ggccgtgcgc tgccggacgt ccgcgatggc
ctgaagccgg tacaccgtcg cgtactatac gccatgaacg tattgggcaa tgactggaat
                                                                      180
aaagootaca aaaaatotgo cogtgtogtt ggtgacgtaa toggtaaata coatcotcat
                                                                      240
ggtgatateg eggtgtacgg caccattgte egtatggege agecettete getgegttac
                                                                      300
atgetggtag atggtcaggg taactttggt tetategacg gegacteege egeggcaatg
                                                                      360
cgttatacgg aaatccgtct ggcgaagatt gcccatgagc tgatggctga cctggaaaaa
                                                                      420
gagacggttg atrtcgttga taactacgac ggcacggaaa aaattcctga cgtcatgcca
                                                                      480
acgaagatee caaacetget ggtgaacggt tegteeggta tegeegtegg tatggcaace
                                                                      540
aacattoogo ogcacaatat caoggaagtg atcaacggot gootggoota cattgacgat
gaagacatca gcattgaagg gctgatggaa cacatcccgg gcccggactt cccgacggcg
gcaatcatca atggccgtcg cggtattgaa gaagcgtacc gtaccggtcg cggcaagatt
tacatccgtg cccgcgccga agtggaagcg gacgccaaaa ccggccgtga aaccattatt
                                                                      780
                                                                      840
gttcacgaga tecegtatea ggtgaacaaa gegegaetga ttgaaaaaat egeegagetg
gtaaaagaaa aacgcgttga aggcatcagc gcgctgcgtg acgagtctga caaagacggt
                                                                      900
atgogcatcg tgattgaaat caagegegae geggtgggtg aagttgtgtt gaacaacett
                                                                      960
                                                                       1020
tactoccaga ctcagettea ggteteette ggtateaaca tggttgeget geaccatgge
cagoogaaga toatgaacot gaaagagato otgagogogt togtgogtea cogoogtgaa
gtggtgactc gccgtaccat cttcgaactg cgcaaagcgc gcgaccgtgc ccatatcctt
                                                                      1140
gaagcactgg ccgttgcgct ggcgaacatc gacccgatca tcgagctgat ccgccgtgcg
cogacgocag cagaagcgaa ggcgtcgctg gttgcgcgtt catgggatct gggcaacgtg
                                                                       1260
                                                                      1320
geggegatge tggaaegtge eggegatgae getgegegte etgagtgget ggageeggaa
 tteggegtge gtgaeggtea gtactacetg actgaacage aggeecagge gattetggat
                                                                       1380
 ctgcgtttgc agaaactgac cggccttgag catgaaaaac tgctcgacga gtacaaagag
                                                                       1440
 ctgctggagc agattgccga gctgctgcat atcctgggta gcgcagagcg cctgatggaa
 gtgatccgtg aagagctgga gctggttcgc gatcagttcg gcgatgagcg tcgcaccgaa
                                                                       1560
 atcacggcca acagctotga tatcaacatt gaagatotga tcaaccgcga agacgtggta
                                                                       1620
 gtgacgctgt ctcaccaggg ctacgtgaag tatcagccgt tgaccgacta cgaagctcag
                                                                       1680
                                                                       1740
 egteggggeg gtaaaggcaa atetgeggeg egtattaaag aagaagaett cattgategt
 ctgctggtgg cgaacaccca tgacacgatc ctctgcttct ccagccgggg ccgtctgtac
                                                                       1800
 tggatgaaag totatcagot googgaagoa agoogtggog ogogtggacg tocaatogto
                                                                       1860
 aacctgctgc cgctggaagc gaacgaacgt atcaccgcca tactgccggt acgcgagtac
                                                                       1920
                                                                       1980
 qaaqaqqqqq tgaacqtctt tatggcgacc gcgagcggta ccgtgaagaa aaccgcactg
                                                                       2040
 accqaqttca gccgtccacg ttctgccggg attatcgcgg tgaacctgaa cgaaggcgac
                                                                       2100
 gaactgateg gegtggatet gaegteeggt tetgatgaag tgatgetett etetgeegee
                                                                       2160
 ggtaaagtgg tgcgctttaa agagaacgcc gtgcgcgcaa tgggtcgtac ggcgaccggc
 gtgcgtggta tcaagctggc gggtgaagac tccgttgttt ccctgatcgt tcctcgtggc
                                                                       2220
                                                                       2280
 gaaggogcaa tootgacogt caccoagaac ggotacggta aacgtacggo ggaaagtgaa
 tacccaacca agtcacgcgg cacgcagggc gttatctcca tcaaagtgac cgagcgcaac
                                                                       2340
                                                                       2400
 ggttccgttg ttggcgcggt gcaggtggac gacgcggacc agatcatgat gatcaccgat
 geoggtacge tggtgegtae eegegtgtea gagateageg tggtaggteg taacacceag
                                                                       2460
                                                                       2520
 ggogttatcc tcatccgcac tgcggaagat gaaaacgtcg tcggtctgca acgcgttgct
```

gagooggtag atgacgaaga gotogactot ategacggca gogtogogga aggggatgat

gaaatcgccc cggaagcgga catcgatgat gaagcagcgg atgacgctga cgagtaa

```
<210> 4118
<211> 2871
<212> DNA
<213> Enterobacter cloacae
<400> 4118
coccgacggc ggagcctcgc ccctttgaaa tacctcgtct cctttcgtac cacgttaaaa
gtotocogot atotgtttog ggogottgog ctactgotat ggttgotggt ggcactgoto
                                                                     180
toggtgtttt acatogttaa ogogttacac cagaaagaag oggagatoog ocaggagttt
aatttgaget eggateagge teagegetat atecagegta egtetgaegt gatgaaagag
                                                                     240
                                                                     300
cttaagtata ttgctgagaa tcgactgacg gcggagaacg gcattcttgc catccgcggt
cgggatgaaa aaaccgaagt gootgattto gaaccgotot toccggatto cgattgttoo
                                                                     360
gccatgggca aagectggcg tggttcactg gagtccctgt catggtttat gcgctactgg
                                                                     420
cgcgataact tctcggccgc ttacgatctg aaccgcgtct atctgattag caacgaaaat
                                                                     480
ctctgcatgg cagatttcgg cctgcgggat atgcccgtcg aacgtgaaga cgcgctgaaa
                                                                     540
agtotgcatg agogcatagt gaaatatogc aatgogcotc aggaagagog cgggaacaac
                                                                     600
atettetgga taagecaggg geogegeatg ggggtegget atttetatge cetgacteeg
                                                                     660
gtttaceteg gaaacegeet geaagegetg etggggattg aacaaaceat eegcatggaa
aacttottoa ogoogggoag totgoogatg ggogtgacca ttotggatga aaacggocat
                                                                     780
                                                                     840
cogotoatot coottacogg gootgaaaac cgcotgaagg tggaacccag otggatgcag
gageggteat ggtttggeta taccteeggg tteegegage tggtgeteaa gaaaagttta
                                                                     900
                                                                     960
ecgecategt egetgageat tgtctacteg etgeeggtgg ataaggtget ggagegeatt
egcateetga teettaacge cattttgttg aacategegg taggtgtege getgtttatg
ctggcgagaa tgtatgagcg gcggatcttt attccggcgg aggcggatgc tcagcgtctg
                                                                     1080
gaggagcacg agcagtttaa ccgtaaaatt gtcgcctcgg caccggtagg gatctgcatc
                                                                     1140
etgegtacte aggaegggae aaatateete agtaaegage ttgeecataa etacetgaae
                                                                     1200
atgotoacgo atgaagaccg coagoggtta acgoagatca totgtgggca acaggttaac
                                                                     1260
tttgtggatg tgctgaccag cacccacacc aacctgcaaa tcagcttcgt ccattctcgc
                                                                     1320
                                                                     1380
taccgcaatg aaaacgtggc catttgcgtg ctggtggacg tctctgcgcg cgtgaaaatg
gaagagtogt tgcaggatat ggcgcaggcg gcggagcagg ccagtcagtc gaaatcgatg
                                                                     1440
ttoctogoga cogtoagtoa tgagotgogt acgoogetgt acggtattat cggtaaccto
                                                                     1560
gatetgetee agaecaaaga getgeegaaa ggggtegaee ggetggtgae ggeeatgaae
aactegteea geetgetget gaaaateate agegatatte tegaettete taaaattgaa
                                                                     1620
                                                                     1680
toogageagt tgaaaataga googogogag ttotoocogo gogaggtgat gaaccatato
                                                                     1740
tgcgccaact atctgccgct ggtggtgcgt aaacagcttg ggctgtactg ctttatcgag
coggatgtgc cootgacgct gcatggcgat cogatgcgtc tgcaacaggt catctcaaac
                                                                     1800
                                                                     1860
etgetgagea acgecateaa atteacegat ateggetgta ttgtgetgea egtetgtegg
gcaggggagt acctgaccat tcgcgtgcgc gacacggggg tgggggattcc ggcgaaagaa
                                                                     1920
                                                                     1980
gttgttcgcc tgttcgatcc gttcttccag gtgggaaccg gcgtccagcg taarttccag
                                                                     2040
gggaccgggc ttggtctggc tatttgcgag aagettatca gcatgatgga cggggatatc
tetgtegata etgageeggg tatgggeage eagtteacea ttegtattee getetatteg
                                                                      2160
gegeattate eggegaaaac caeggtegae ggeetgageg ataagcaetg etggetggeg
gtgcacaacg cotcottaca tgatttcctg acctcaatgc tgaccagcag cggcgtgcgg
                                                                     2220
                                                                     2280
gtttegeget acgaaggeea gaegeeggge geggatgaea tgetgateae egaegttgag
coggageagg catgggeggg gegeggegtg gtgatgttot geogeogtea tateggtatt
                                                                      2340
cogettgage gttegeetgg ggtatgggtg cacagegtgg egacacegea egagetgetg
                                                                      2400
ggcttgctgg cgcgcattta cagcgtgcag cttgaagaca gcgacggcgc caccgtgctg
                                                                      2460
getteccetg atgagetgge gteggtgaat gaegatatga tgattetggt egtegaegat
cateegatta accgtcgtct gctcgcagac cagettggct ctctgggcta tcagtgtaaa
                                                                      2580
                                                                      2640
acggccaatg atggcgtgga tgccctgaat gtcttaagta agaaccatat tgatattgtg
ctcagcgatg tgaacatgcc taacatggac ggctaccgtc tgacgcagcg tatccgacag
                                                                     2700
ctggggctga cgctgccggt ggtgggggtg acagccaacg cgctggcgga ggagaagcag
                                                                     2760
cgctgtctgg agtcgggaat ggacagctgc ctgtcgaagc cggtcacgct ggatgtactg
                                                                     2820
                                                                      2871
aagcagacge tateegteta tgeggagegg gtacgaaaag egagacaata a
```

<sup>&</sup>lt;210> 4119 <211> 537

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 4119
tatogatttt gttatgtcag atgtggaccg ctaattatgc acgagaatca acaaccacaa
                                                                     60
                                                                     120
accgaggett ttgagetgag tgaageagag egtgeegeea ttgageaega gatgeaeeae
tacgaagacc cgcgtgcggc gtccattgaa gcgctgaaaa tcgtacagaa acagcgtggt
tgggtgccgg atggggcgat ctatgcgatc gcagaagtgc tgggcattcc ggcaagtgac
                                                                     240
gtagaaggcg tagccacgtt ctacagccag atcttccgtc agccggtagg ccgccatgtg
                                                                     300
atcogctact gtgacagcgt ggtctgccac atcaccggtt atcagggcat tcaggctgcg
                                                                     360
                                                                     420
attgagaaga aactcaatat taageetgge cagaccaegt tegaeggaeg tittaetetg
                                                                     480
etgecaacet getgeetggg taactgegae aaggggeega eeatgatgat tgatgaggae
acteacagee atetgacgee ggaagegatt cetgacetge tggageagta caaatga
<210> 4120
<211> 423
<212> DNA
<213> Enterobacter cloacae
<400> 4120
tgctggaaag ctggcgctgg ctgcactctc tgcacagcac cgtgcagagc cgtgaagtgg
actggacgca getegaceae gttategaeg eggttgttga gaaactgeet eagetggegg
gtattaaaga tgccgcgccg gacgcaagct tccgcattcg cggccagaaa ctggcgcgtg
                                                                      180
                                                                      240
ageogeaeeg etacageggt egtacegega tgegegecaa cateagegtg caegaaeege
gtcagcogca ggataaagac accatgttog cottotogat ggaagggaac aaccagcogt
                                                                      360
etgegeegeg ttegeaaate cogtttgcat gggeaceggg ctggaactee cegeaggeat
                                                                     420
ggaacaaatt ccaggetgaa gtgggeggte acetgegeea eggegateea ggegtgegte
                                                                      423
tga
<210> 4121
<211> 651
<212> DNA
<213> Enterobacter cloacae
<400> 4121
ccaggtaatg toottoggot ggaaagtgtg cotgoogotg acgetegtea acttgttggt
aacggcggct gtcattotot ggcagcagcc ataaggggct ttgagatcat gaccttaaaa
                                                                      180
gaattattgg taggtttegg cacceaggta egeagtatet ggatgategg eetgeatgeg
tttgccaaac gcgaaacccg gatgtacccg gaagagccgg tatatctgcc gccgcgctac
egtggaegta tegtgetgae gegegaeceg gaeggtteeg agegttgegt tgeetgtaae
ctgtgtgcgg tagcgtgtcc ggtgggctgt atctctctgc aaaaagcaga gacggtagac
                                                                      420
ggccgctggt atcctgagtt cttccgcatc aacttctcac gctgcatttt ctgcggtctg
tgtgaagaag cgtgcccaac cacggcgatt cagctgactc cagactttga gctgggtgag
                                                                      480
tacaagogto aggacotggt gtacgagaaa gaggatotgo tgatttoogg toogggcaaa
                                                                      540
                                                                      600
taccoggaat ataacttota coggatggog ggtatggoaa togacggoaa agataagggo
gaagcagaga acgaagccaa gcctatcgac gtcaagagcc tgttaccgta a
<210> 4122
 <211> 336
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4122
                                                                      60
 egacegegeg aaaagaaaaa eggaggaaeg egeatgatee eettaacaca tggaetgate
                                                                      120
 ctcgctgcga ttttattcgt tctgggctta accggtctgg ttatccgccg caatctgctg
 tttatgetga teggtetgga aateatgate aacgetteeg egetggeett tgtggtegee
                                                                      180
                                                                      240
 ggcagctact ggggccagac cgatggtcag gtgatgtaca ttotcgccat cagcctcgcg
                                                                      300
 getgetgaag egagtattgg cetggegetg ttgetacage tecategteg cegecagaac
                                                                      336
 ctgaacatcg attcagtaag tgagttgcgt ggatga
 <210> 4123
 <211> 498
```

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 4123
tataacgtga tgaaccccag gaaggagaaa cacatgatcc agtggcaaga tctacaccac
agequaetga cogtgougte actotacgos etgeteuaac tgogotgtga agtottegtg
                                                                     120
                                                                     180
gttgaacaaa cctgcccgta tcaggatatc gacggcgatg acctggtcgg cgagaaccgg
cacatcotog gotggogoga taacgagotg gtggogtatg cgaggattot gaaaagogaa
                                                                     240
gaggaatttg accotgtogt cattgggogc gtcattatca gtggcogcgc gcgcggtgaa
                                                                     360
aagctgggct atcagctgat ggaaaaaacg ctggacgcat gccagaaaca gtggccggac
aaggogttat acctgggcgc gcaggegeat ttgcaatcat totatggcca ttttggtttt
                                                                     420
accceggica eggacattta egacgaagae ggeateecae acateggeat ggeacgegaa
                                                                     480
                                                                     498
gcgaaacagg cgcaatag
<210> 4124
<211> 207
<212> DNA
<213> Enterobacter cloacae
<400> 4124
gogatattaa cagotggotg gaattgoato oggoggaaaa acgoaaacco tgggoggtgg
                                                                      60
agatecegge getgteacgt caggegtggg aacteaccaa agegeagtge gaggegttea
gtgaagccgg gctggcgcac cgtatccgca aatatcttcc cgagcaggga caactttttg
                                                                      180
                                                                      207
teggtaacag cctggtggtg cgcctga
<210> 4125
<211> 969
<212> DNA
<213> Enterobacter cloacae
<400> 4125
egecaegegt catgetates etcaegeegg acacaaeges caeegggaca acceggaage
tgttgccgcg agtctggctc agatactgcg ttatcgaaca aaggacacgc tatgatctat
                                                                      180
cetgatgaac acatgettta egegeeggtt gaatggeagg actgeteega aggetacace
                                                                      240
qacattegtt accacaaate egeegatggt ategecaaaa teaccateaa eegteeacag
                                                                      300
gtgcgcaacg cgtttcgtcc gttgaccgta aaagagatga tccaggcgct ggcggatgcc
                                                                      360
cgctatgacg acactgtcgg cgtcatcatc ctcaccgggg aaggggagaa agccttctgc
                                                                      420
teeggeggeg ateagaaagt eegeggtgae taeggeggat accaggatga tgegggeaeg
                                                                      480
caccacctga acgtgctgga tttccagcgc cagatccgca cctgtccaaa accggtggtc
                                                                      540
gcgatggtgg cagggtattc catcggcggc ggtcacgtgc tgcacatgat gtgtgacctg
acqatcqcqq cggaaaatgc cattttcggt cagactggcc cgaaagtcgg ctctttcgac
                                                                      600
                                                                      660
ggcggctggg gcgcgtccta tatggcgcgc attgtcggcc agaaaaaaagc ccgcgaaatc
tggtteetgt geogteagta caatgegeag gaagegetgg atatgggget ggttaacace
qtqqtgccga tcgccgatct ggaaaaagag accgtgcgct ggtgtcgcga aatgctgcaa
                                                                      780
aacageecaa tggegetgeg etgeetgaaa geggeeetea aegeegactg tgaeggteag
                                                                      840
gogggcottc aggagotggc aggtaacgcc accatgetgt totatatgac cgaagaggt
                                                                      900
                                                                      960
caqqaaqqqc gcaacgcgtt caacgaaaaa cgccagccag acttcagcaa atacaaacgg
                                                                      969
aacccqtaa
<210> 4126
<211> 1191
<212> DNA
<213> Enterobacter cloacae
<400> 4126
ettettegge tgggaeggeg getttatggt gatgategge ggeagegtge tggeggttet
gctgctggtt gttgtgatga tcggcgagaa acgtcaccac gcggaagtgc tggcgcgtcg
tcaataagga gcattgcgat gaaattaact ccattaacca ccggcctgct gctggcaggc
ctgatgactg gctctgccct ggcggccgat aaaatcgtta tcgcccaccg cggtgccagc
                                                                      240
ggotatotgo oggagoatao gotgooggog aaagogatgg ottatgooca gggogoggat
                                                                      300
tacctggage aggatetggt gatgaegaag gacgaecage tggtegteet geatgaecae
                                                                      360
                                                                      420
tatettgace gegteacgga egtggeggag egttteeegg acegegegeg caaagaeggt
                                                                      480
eqttactacq ceategactt taccetggat gaaatteget etetgaagtt taccgaagge
```

```
And the state of t
```

```
540
tttgagattg aaaacggcaa gaaggtgcag gtctacccgg gacgcttccc gatgggcaaa
                                                                     600
totgacttoc ggatccatac cttccaggaa gagattgagt ttgttcaggg gctgaaccac
                                                                     660
tocaccggga aaaacatcgg tatctacccg gaaatcaaag cgccgtggtt ccaccatcag
gaagggaagg acattgccgc gaagacgctg gaggtgctga aacagtacgg ctacaccagc
                                                                     720
aagaaggata aagtttacct gcagtgtttt gacgccgccg agctgaagcg catcaaaacc
                                                                     780
gagetggage egaagatggg gatggatete aatetggtge agetgattge etaeacegae
                                                                     840
tggaacgaaa cccaggagaa acagccggac gggaagtggg tgaactacag ctacgactgg
                                                                     900
                                                                     960
atgttcaagc egggegegat gaagcagatt geteagtacg etgaeggeat egggeeggat
tatcacatgc tggtggcgga aggctcaacg cctggccacg tgaagctgac ggcgatggtg
                                                                      1080
aaagaggege aegecageaa gatgeaggtg cateegtaca eggtgegtge egaeeagetg
                                                                     1140
cogcoatatg ccaccgatgt gaatcagett tacgaggtgt tgtataagca ggcggacgtg
                                                                      1191
gacgggctgt ttacggattt cccggataaa gcggtgacgt tcttaaaata g
<210> 4127
<211> 741
<212> DNA
<213> Enterobacter cloacae
<400> 4127
ttogtgagaa agatgootot ggoattgaaa aatacatcag ogacattgac gottacgtca
                                                                      60
agagettget gtageaaggt ageettatae atgaacaata tgaacgtaat tattgeegat
                                                                      180
gaccatcoga ttgtactgtt oggtattogc aaatcacttg aacagatoga gtgggtgaat
                                                                      240
gtagtcggtg aatttgaaga ttccacagcc ctcattaaca acctgcctaa acttgatgcg
                                                                      300
cacgtgetea ttacegatet etecatgeet ggagataaat aeggtgatgg gateaegete
atcaaataca ttaaacgcca ctrocoggac atrtogatca ttgttctgac catgaacaat
                                                                      360
aacceggega tootgagege egttetggat etegatattg aagggattgt getgaaacaa
                                                                      420
                                                                      480
ggogcaccta cogatotgoc aaaagogotg goggogotac agaaagggaa gaaattcact
ectgaaageg teteacgeet gettgaaaaa ateagegegg gtggttatgg egacaagegt
                                                                      540
                                                                      600
ctctcgccta aagagagtga agttctgcgt ctgttcgctg aaggtttcct ggtcactgaa
atogocaaga agotgaacog cagtattaaa accatcagta gocagaaaaa atoogogatg
                                                                      660
                                                                      720
atgaagetgg gtgtggataa cgatategee etgetgaact atetetette egtgaegetg
                                                                      741
agegeaacgg acaaagactg a
<210> 4128
<211> 2328
<212> DNA
<213> Enterobacter cloacae
<400> 4128
ggcgggggat attttttatt tcacggacag gtaaaaaccc acatgaatca gagtetgctg
gtgacaaagc gcgacggtac caccgagcgt atcaatctgg acaaaatcca tcgagttctc
                                                                      180
gactgggcag cagaaggact gaacaacgta totatotooc aggttgaact gcgttctcac
atteagttet aegaeggeat caaaaegtet gatateeaeg aaaceattat caaageageg
                                                                      240
gcagatotga totocogoga ogcacoggat tatoagtaco togotgogog totggogatt
ttccacctgc gtaaaaaagc ctacggtcag tttgagccgc cgaagcttta cgatcacgta
                                                                      360
                                                                      420
qtqaaaatgg ttgagctggg caaatacgac acgcatctgc tggaagacta tacggaagaa
gagttegage agatgaaegg gtttategat caetggegeg acatgaaett etectaegeg
                                                                      480
goggtgaage agetegaagg caaatacetg gtteagaace gtgtaacegg tgagatetae
 gaaagegeee agtteeteta tattetggtg geogeetgee tgttetetaa ttateeaege
                                                                       660
 gaaaccegte tggactacgt gaagcgttte tacgatgegg tgtegaegtt caagatttet
 etgectacge caatcatgte tggcgtgcge acceptacce gteaatteag etectgegtg
 ctgatcgagt gcggtgacag cctggattcc atcaacgcga cctccagcgc catcgzgaaa
                                                                       780
                                                                       840
 tacgtttccc agcgtgccgg tatcggcatc aacgccggtc gtatccgtgc gcttggcagc
                                                                       900
 cogatocgcg goggtgaago gttccacaco ggotgtatoc ogttctacaa goacttccag
                                                                       960
 acggcagtaa aatcctgotc tcagggcggc gtgcgcggtg gcgctgcgac cctgttctac
 ccgatgtggc acctggaagt ggaaagcctg ctggttctga agaacaaccg cggcgtggaa
                                                                       1080
 ggcaaccgcg tgcgtcacat ggactacggc gtgcagatca acaagctgat gtacacccgc
 ctgctgaaag gggaagacat caccctgttc agcccatccg acgtcccggg cctgtatgac
                                                                       1140
                                                                       1200
 gegttetteg ecgateagga tgagttegag egtetgtaea ecaaatatga aaaagaegae
 agcatccgta agcagcgcgt gaaggcggtc gatctgttct ccctgatgat gcaggaacgt
                                                                       1260
```

gettetaceg geografeta catecagaac gttgaceact gcaacaceca cagecegtte

```
1380
gateeggtgg ttgccccagt gegecagtee aacetgtgcc tggagatege cetgeegace
aaaccgctgg acgatgtgaa cgacgaaaac ggcgaaatcg cgctgtgtac getctetgeg
                                                                     1440
                                                                     1500
ttcaacctgg gtgcgattaa gagcctggac gagctggaag agctggcggt gctggctgtt
                                                                     1560
egtgeceteg aegeeetget ggaetaceag gattaceeaa teeeggegge aaaaegegge
                                                                     1620
gcaatgggce gtegcacttt aggtategge gtaateaact tegectaetg getggegaaa
aacggcaage gttactccga cggcagegee aacaatetga egeaccagae gttegaageg
                                                                     1680
atecagtact acctgatgaa ageetetaac gagetggega aagagcaagg egegtgeeeg
                                                                     1740
tggttcaacg aaaccactta cgcgaaaggc attctgccga tcgacaccta taaaaaagac
                                                                     1800
ctggatgcga tcgtcagcga gccgctgcac ctcgactggg aaggcctgcg cgagtccatt
                                                                     1860
                                                                     1920
aaaactcacg gootgogtaa otocacgoto totgoootga tgoogtooga gacotottog
cagateteca aegecaetaa eggtattgag eeacegegeg ggeaegteag eattaaageg
                                                                     1980
togaaagacg gogtgotgog toaggtggta coggattacg aaacgotggg tgacaactac
                                                                     2040
                                                                     2100
gagetgetgt gggaaatgee aaacaacgae ggetacetee aactggtggg tateatgeag
augtttateg accagtegat etetgecaat actaactacg accegaegeg ettecegtee
                                                                     2160
ggcaaggtac cgatgcagca gctgctgaaa gacctgctga ccgcctacaa atttggcgtg
                                                                     2280
aaaacgctgt actatcacaa cacccgtgat ggtgcggaag acgcccagga cgacctggcg
cogtomatto aggacgatgg ctgcgmaagc ggcgcatgta agatotaa
                                                                     2328
<210> 4129
<211> 1221
<212> DNA
<213> Enterobacter cloacae
<400> 4129
coetetecca cagggagagg gaactettte coeeteteee tgtgggagag ggeoggggtg
                                                                      120
aggggaaata acaccacagg actcaccgca atggcatata ccaccttttc acagacgaaa
                                                                      180
aacgaccage teaaagagee gatgttette ggeeageegg teaaegtgge acgetacgat
cagcaaaaat atgacatett egaaaagetg attgaaaage aacteteett ettetggegt
                                                                      240
                                                                      300
coggaagaag ttgacgtttc cogcgaccgt atcgatttcc aggcgctgcc ggaacacgaa
aagcacatot tootoagcaa ootgaagtac cagacgotgo tggactocat toagggacgt
                                                                      360
                                                                      420
agtocgaacg tggcgctgct gccgctaatc tcgattcctg agctggaaac ctgggtagaa
acctgggegt teteegagae gatecaetee egetettaea eecacateat eegeaacatt
                                                                      480
gtgaacgate eggeggtggt gtttgacgat ategteacea aegaacagat ecagaagege
                                                                      540
                                                                      600
gccgaaggca ttgcgcacta ctacgacgag ctgatcgaga tgaccagcta ctggcatctg
                                                                      660
ctgggcgaag gcacgcataa cgtgaacggc aaaaccgtta ccgtaaacct gcgggccctg
aaaaagcagc totatotgtg cotgatgagc gtcaacgcgc tggaagcgat cogettetac
                                                                      780
gtgagetteg cetgeteett egeetttgee gagegeaage tgatggaagg taacgeeaaa
attateogte tgategeoog tgacgaagee etgeacetga eeggeaceea geatatgeta
                                                                      840
                                                                      900
aacetgetge geageggtge ggaegaeeeg gagatggegg aaategeega agagtgeaaa
caggagtgct acgacctgtt cttgcaggcc gcccagcagg agaaagagtg ggcagactac
                                                                      960
ctgttccgcg acggctccat gattggcctg aacaaagaca ttctgtgcca gtacgtggag
                                                                      1080
tacatcacta acatcogcat gcaggoggtt ggtctggacc tgccgttcca gacgcgctct
aaccogatto ogtggatcaa cacetggotg gtatoogata acgtgcaggt tgcgccgcag
                                                                      1140
gaagtggaag tgagctctta totggtoggt cagattgatt otgaagtcaa caccgacgac
                                                                      1221
ctgagcgact tccagctctg a
<210> 4130
<211> 1530
 <212> DNA
 <213> Enterobacter cloacae
<400> 4130
ctaacggagc acgctatgga tacctggatc tatctctctc aggggttcgc ggtagcgatg
 accoggaaa acctggtgat egecetgate ggetgttteg tegggaceat egteggeetg
ctgecgggcc ttggacctat caacggcgtg gcgattttac tgccgctgge ctttgcgctg
                                                                      180
cacetgeetg eggaategge getgateetg etggegaegg tttatategg etgegaatae
 ggggggggta tttcctcgat tctgcttaac gtgcccggcg atgccgccgc cattatgacc
                                                                      300
 gcgctggatg gctatccaat ggcgcagcag ggacgcggcg gcgtggcgct ctctatttcc
                                                                      360
                                                                      420
 googtcaget egitetitgg etecetgate gecattggeg geateateet ettegeeeeg
 gegetggecc agtggteget ggegttiggt ceggeegagt attttgecet gatggtgtte
                                                                      480
```

gccatcgcct gtctcggcag catgatggcg cagaatccgc tgaagtcgtt tttgtctgcg

```
ttgattggcc tcagtctggc caccgtcggc gtggatgcca acaccggggt ttatcgtttt
                                                                    600
                                                                    660
accttegaca gegtteatet eteegaegge gtgeagttta tegtegtggt gattggtetg
ttototgtot cagaaatott actgatgotg gaacatacca geagegggea gacgetggtg
cgtaaaaccg gacgtatgct ctttaatgcc aaagaggggg cgcagtgtgt gggtgccacc
                                                                    780
etgegttegt eggtgategg tttettegte ggeattetge eeggegeggg ggetactate
                                                                    840
gecagogoca teacetacat gacogagaaa aagetgagog gtaacagoga cagettoggo
                                                                    900
aaaggegata teegeggegt ggeggegeeg gaggeggega ataaegeete ggeetgegge
                                                                    960
tegtttatec egatgetgae ceteggegtg cegggeteeg geaccaegge ggtaatgatg
                                                                    1020
ggegegetga egetetataa cateacceeg ggteeggega tgtttacega geageeegat
                                                                    1080
                                                                    1140
atogtotggg gtttaattgc cgccctgctg atcgccaacg tgatgttgct ggtaatgaac
                                                                    1200
atcccgctga tcggcctgtt cacccgcatg ctgaccattc ccctgtggtt cctggtcccg
                                                                    1260
gccatcgccg ccgtctctgc ggttggggtg tacgcggtgc acagcaccac cttcgacctg
gtgttgatgg tgctgctcgg cgtgctgggc tacattctgc gcaagatgca cttcccgatg
                                                                    1380
ctctccatca gcaacggcaa catggggatc ctgtgggaga gcagcgtaac gaagatcctg
                                                                    1440
                                                                    1500
ctggcaatgg cgattatggt gattgtcgtg ccgccggtgc tgcgctggat ccgccgacgc
                                                                    1530
cagcacaaac cgcagccgga tatcggctga
<210> 4131
<211> 1050
<212> DNA
<213> Enterobacter cloacae
<400> 4131
gcagggcgta gagtgactgc acggtcagtt cgctgtggtg tagatettgc caetggatca
tgtgtttctc cttcctgggg ttcatcacgt tatactaaac cccttcccat tcggcaaagg
                                                                    180
getgattgeg ttatggaact gattittetg ggtaegteeg ceggggtgee aaccegetea
cgaaacgtga cggcgattet getggatett aageateeta ceegeggtgg getgtggetg
                                                                    240
                                                                    300
tttgactgcg gcgagggtac gcagcatcag atgctgcata cttcatacca cccggggaaa
                                                                    360
gtggataaaa tatttatcac ccatctgcac ggcgaccatc tgtttggcct gccgggcctg
                                                                     420
etgtgcagec gttcgatggc cggtaacgct aaccegetga ccatttatgg ceetgcgggt
                                                                    480
attcaggaat ttgttgaaac cacgctgogc ctgagcggct cgtggaccga ttatccgctg
gaggtggtgg agateggega aggtetggtg ttegaegaeg gagattatea ggtgegeget
                                                                    540
taccegetta accateeggt ggaatgttac ggetategeg ttgaggagea tgacaageee
                                                                    660
ggtgegetga acgeegeege gttgeaggee gatggggtga aacetggeee getgtteeag
cgtctgaagc acggcgagac cgtcacgctg gaagacgggc gcgtcatcaa cggtcaggat
                                                                     780
tacetcgecc caccgcagee gggcaaaaaa etggetattt ttggggatae egeeccetge
                                                                     840
cotteggege teaggettge egggggtgtg gatgtgatgg tgeatgagge gaegetggaa
                                                                     900
geggegatgg aagaaaaage caacageegg gggcacaget caacgegtea ggeggegeag
ctggcgcgtg aggctggcgt ccggaaactg attgttactc acgtcagctc acgctatgac
                                                                     960
gtccgcggcg ctgaaagcct gctggcagag tgtcgggaag tatttccggc atgcgagctg
                                                                     1020
                                                                     1050
goggaagatt ttgctcaggt cagcgtttag
<210> 4132
<211> 744
 <212> DNA
 <213> Enterobacter cloacae
<400> 4132
ggagtaaaag cgcccatgaa tgccgaaaaa tccccggtgg ctcacaacgt tgaccacgaa
gagattgcca aatttgaagc ggtggcgtcc cgctggtggg atctcgaagg tgagttcaaa
cetetgeate gtattaacce getgegtetg ggetatateg eggagegtte eggeggtetg
                                                                     180
 tteggtaaga aagtgetega egteggetge ggeggeggea teetggegga aagtatggeg
 eqtgaagggg ccacegteae eggtetggae atgggetteg aacetetaca ggttgegegt
 cttcatgcgc tggagtccgg catacaggta gaatacgttc aggaaaccgt ggaagagcac
                                                                     360
 geggeaaaac atgegeacea gtatgaegtg gtgaeetgea tggagatget ggageaegtt
                                                                     420
 ecegateege agteggtegt cagegeetgt geaaacetgg ttaaaceggg tggacaggte
                                                                     480
                                                                     540
 ttottotoga coatcaacog caacggcaaa gootggotga tggcogtggt aggegoggaa
 tatgtgctgc gcatggtgcc gaaagggacg cacgacgtga agaagttcat caagcctgcc
                                                                     600
 gaactgctgg gctgggttga ccagacatgg cttaaggagc agcacatgac gggcctgcac
                                                                     660
 tacaaccegt tgaccgataa attcaaactt gccccgggcg tggatgttaa ctatatgttg
                                                                     720
```

```
744
cacacaacco ccaaaaacga ctaa
<210> 4133
<211> 201
<212> DNA
<213> Enterobacter cloacae
<400> 4133
aagoototaa ogagotggog aaagagoaag gogogtgooc gtggttcaac gaaaccactt
                                                                     120
acgegaaagg cattetgeeg ategacacet ataaaaaaga cetggatgeg ategteageg
                                                                     180
ageogetgea ectegactgg gaaggeetge gegagteeat taaaacteac ggeetgegta
actocacgot ctctgccctg a
<210> 4134
<211> 288
<212> DNA
<213> Enterobacter cloacae
<400> 4134
tgccgtccga gacctcttcg cagatctcca acgccactaa cggtattgag ccaccgcgcg
ggcacgtcag cattaaagcg tegaaagaeg gegtgetgeg teaggtggta eeggattaeg
                                                                     180
aaacgctggg tgacaactac gagctgctgt gggaaatgcc aaacaacgac ggctacctcc
aactggtggg tatcatgcag aagtttatcg accagtcgat ctctgccaat actaactacg
                                                                     240
                                                                     288
accegacgeg cttcccgtcc ggcaaggtac cgatgcagca gctgctga
<210> 4135
<211> 1659
<212> DNA
<213> Enterobacter cloacae
<400> 4135
atgetaaaaa acgaacatag aggaaaggea atgacaatte acgateeacg etacagegat
gtgattatea ttggeggtgg egeaacegge geeggeateg caegegaetg egeecttege
                                                                      180
ggettaageg teaegettet ggagegeeac gatattgeea eeggegegae ggggegtaae
                                                                      240
caeggeetge tgeacagegg egegeggtat geggteaceg aeggtgaate egegegegaa
tqtatcgctg aaaaccagat cctcaagcgt atcgcccgac actgcataga gccgaccgac
ggeetettta ttaccettce egaagatgae etegeettte agteaacett tataacegee
                                                                      420
tgtactgcag cgggcattca ggcggaggcc atggatccgg cgctggcccg gcggctggag
                                                                      480
ccgtcggtga acccgacgct gatcggcgcg gtaaaagtac cggacggaac cgttgatcct
                                                                      540
ttoogootga cogoogocaa tatgotogac gogogggaac atggogocca gatootgaco
gggcatcacg tcaccgggct tattcgcgaa gggaataccg tgcgcggagt gcgcgtgttt
                                                                      600
gatgcgcagt acaacgaaca ccgcgagctg tatgccgccg tcgtggtcaa cgcggcgggg
                                                                      660
atctggggcc agcgcatcgc ggaatacgcg gacctgtcgg tgcgcatgtt cccggcgaaa
                                                                      720
ggotogotgo tgatoctoga coacogoato aataaccatg toatcaacog otgoogtaaa
                                                                      780
cogtotgacg cogatatoot egtgccgggg gacaccattt cgttaatcgg cacgacctca
                                                                      840
atgcatgtgg actacagcga aattgattac aaccgcgtca ccgctgaaga ggtggatatc
                                                                      900
ctgctgcgcg aaggggaaaa gctggccccg gtgatggcgc agacgcgtat tetgcgtgcc
                                                                      960
tacgcgggcg tgcgtcccct cgtcgccagc gataacgatc cgagcgggcg taacgtcagc
egeggeateg tactgetega teaegeegaa egtgaeggea tggaeggatt tateaeeatt
                                                                      1080
                                                                      1140
accggeggca agctgatgae ctaccggetg atggeccagt gggccaccga tgccgtetgc
                                                                      1200
cgtaageteg gcaacacege geegtgegtg aeggeggaac aggeeetgee eggetegeag
                                                                      1260
caatcgacag aaaaaacgct gcacaaaatc atttcactcc ctgccccgct tcgcggttcg
gcgatttacc gccacggcga ccgcaccccg acctggctcg gtgaagggcg actcagccgc
                                                                      1380
agcctggtgt gcgaatgcga agccgtgacc gcaggcgagg tgcagtatgc cgtggaaaac
                                                                     1440
ctgacggtaa acaacctget cgatttacgc cgccgcacgc gcgtcgggat gggcacctgt
caggggage tgtgcgcctg ccgtgccgcc gggctgctgc aacgttttca cgccaccacg
                                                                      1500
                                                                      1560
 toaacccagt cgcttgccca actcagcgat tttttaaacg agcgctggaa aggcattcag
 coogtogoot ggggcgatgo cotgegegaa agegaattta coogetgggt ctateagggg
                                                                      1620
                                                                      1659
ctttgcggtc tggagaagga gcacaaccat gaaatttga
```

```
<211> 1320
<212> DNA
<213> Enterobacter cloacae
<400> 4136
                                                                     60
aaatotttac gocatoggot oggttotggg ogggtacgat occgtggogc agggotgogg
tggcggcgtc tgcgccgtca ccgcgctgca tgtcgcggag cagattatcc agcgcaggga
                                                                     180
qaqaqcacaa tgaacgacac ccgatttgaa agctgtatca aatgcacggt ctgcaccacg
                                                                     240
gtttgcccgg tcagcggcgt cgatccgcgc tatcccggcc cgaaacaggc cggtcccgac
                                                                     300
ggggagegte tgegeetgaa ggatggegeg etetaegaeg aggegetgaa ataetgeate
aactgcaaac gotgcgaagt tgcctgcccg tcggacgtga aaataggcga tatcatccag
                                                                     360
egegeeegeg coegetacag tacgeaaaaa eegaegetge gtgaegegat actgageeae
accgatctaa tgggcagcct ctcgacgcct ttcgcgccgg tcgtcaatgc cgccaccgcc
                                                                     480
ctgaageegg tgegeagget getggatgeg acgeteaaaa tegaecatea eegeagtetg
                                                                     600
cogaaatatt eteaeggcac etteegeege tggtataaat eegtggegge agaacaggeg
                                                                     660
cagttogotg agcaggtogo ettottocac ggotgotacg tgaactacaa coatcogoag
ctgggaaaag acctgctgaa agtgctgaac gccatgggga cgggcgttca gctgctgagc
                                                                     780
aaagaaaagt getgeggegt teegetgatt gecaacggtt teategacaa agegegeaag
caggogagea geaacgteac etetttaegt gaggegateg tegacaaagg gataceggta
                                                                     840
ctggcgacgt cgtcaacctg taccttcacg ctgcgcgatg aatatccgca tctgctggat
                                                                     900
gtggataaca ceggeetgeg egageacatt gagetggega ceegtttet etggegeaaa
                                                                     960
ctggacageg ggcagaegtt accgetggge aaattgeege tgaaggtggt atateacaeg
                                                                     1020
                                                                     1080
ocatgicata iggagaagai gggetggteg atetataege tigagetget geggetgate
coggggetgg agetgacggt getggactca egetgetgeg geategetgg cacetaegga
                                                                     1140
ttcaagcgtg aaaactaccc aacgtcacag gccattggcg cgccgctgtt ccggcagatt
gaagagagcg gcgcagatat cgtggtgacg gactgtgaaa cctgcaagtg gcagatcgag
                                                                     1320
atgtecacca gcaaacgctg tgaacatecc attacettge tggcaaaage gctggcgtaa
<210> 4137
<211> 1032
<212> DNA
<213> Enterobacter cloacae
<400> 4137
aaggccagca titotottga gggtagaatg gataatttoc agaaagatat tgatgacagg
                                                                     60
gcgaacetga ccctgtccaa ccgttttgaa ctgttgctgt tccgtcttgg cacctctctg
aacgaaaata aatccgagct gttcggcatc aacgtgttca aattgcgcga aattgtgccg
                                                                     180
                                                                     240
atgccgacct tcaccaaacc ggcgggaatg aagtctccgc tgatggggat ggtgaacatt
egegaceagg tgateceggt gategatetg geegeegteg eeggetgeaa geeageeace
                                                                     300
                                                                     360
gggetgaaca teetgetgat caeegaatat geeegeageg tgeaggegtt tgetgtggaa
                                                                     420
toggtggaaa acatoatgog totggaotgg aagcaggtge atgotgogga aactgoogte
agoggtogot acattaccag cattgootgo etggacgaga agacggatac caacgatetg
                                                                     480
gcgatggtgc tggacgtgga gcagatcctg tacgacatca ccccggcgaa ccacgatctg
                                                                     540
cacgocacco atotggaaac caccaaattt aacatcaago otggetetgt egegattgtt
                                                                      600
                                                                      660
gcagaagatt cgaaagtggc gcgctcaatg ctggagaagg gattgcaggc gatggagatc
                                                                      720
coggoccage tgcatatcac oggoaaagac gogtgggaga aaatcactca gttggcogcg
                                                                      780
caggotcagg ctgagggcgt coccgttacc gataagattg coctggtatt gaccgacctc
gaaatgeegg agatggaegg etttaegetg acgegcaaaa teaaaacega eeeggtaetg
aaagatatto eggtggtgat coactegtet ettteeggea acgegaacga agateatatt
                                                                      900
                                                                      960
cgcaaagtga aggcggacgg ctatgtggcg aagtttgagc taaatgagct atcgtcggtg
attgaagagg tgctggaccg ctcgatgaag aagattgaag ggccgcttat aagcaggaag
cagttagctt ag
<210> 4138
<211> 546
<212> DNA
<213> Enterobacter cloacae
<400> 4138
tacgtcagct ggaataattg gggtgcgtcc tgcattaccc cggacgaaag gttcgcgagt
```

caagaatttg atctattttt aactgataat ccgtctaatc ttactgcctc aggettgctt

```
ttaagcgatg atgagccagg cgtgcggaaa atcggccctg ggcagctgcg cgtcaatttt
                                                                     180
                                                                     240
aatatgagca atgcaatgca ggaagctgta ttacaactga ttgaagagaa tctggcgcag
                                                                     300
gaagagatee tggagteace gttaggegge gatgaaaatg eegaaeteea tgeeagegga
                                                                     360
tattattogo tottogttga tacagtacca gatgatgtta agoggttgta tactgagtco
                                                                     420
gctgcgcagg attttgcagc gctggcacag acagcacacc ggcttaaagg ggtgtttgcc
                                                                     480
atgettaate tggtteeegg caageagtta tgtgaaaege tggaacatet aattegtgag
                                                                     540
aaagatgoot otggoattga aaaatacato agogacattg acgottacgt caagagottg
                                                                     546
ctgtag
<210> 4139
<211> 1053
<212> DNA
<213> Enterobacter cloacae
<400> 4139
cttggttggg tattcacttt ccgccgtacg tttaccgtag ccgttctggg tgacggtcag
gattgcgcct tcgccacgag gaacgatcag ggaaacaacg gagtcttcac ccgccagctt
                                                                      180
gataccacgo acgooggtog cogtacgaco cartgogogo acggogttot otttaaagog
                                                                      240
caccacttta coggoggeag agaagageat cactteatea gaaccggaeg teagateeae
googatcagt togtogoott ogttoaggtt cacogogata atcooggoag aacgtggacg
                                                                      300
getgaacteg gteagtgegg tittetteac ggtacegete geggtegeea taaagaegtt
cacqueetet tegtaetege gtaeeggeag tatggeggtg atacgttegt tegetteeag
                                                                      420
                                                                      480
oggcagcagg ttgacgattg gacgtccacg cgcgccacgg cttgcttccg gcagctgata
                                                                      540
gactttcatc cagtacagac ggococggct ggagaagcag aggatcgtgt catgggtgtt
cgccaccage agacgateaa tgaagtette ttetttaata egegeegeag atttgeettt
                                                                      600
accgccccga cgctgagctt cgtagtcggt caacggctga tacttcacgt agccctggtg
                                                                      660
agacagogtc actaccacgt cttcgcggtt gatcagatct tcaatgttga tatcagaget
                                                                      720
gttggeogtg attteggtge gacgeteate geogaactga tegegaacea getecagete
                                                                      780
ttcacggate acttccatca ggcgctctgc gctacccagg atatgcagca gctcggcaat
                                                                      840
                                                                      900
etgetecage agetettigt actegiogag cagittitea tgeteaagge eggicagitt
ctgcaaacgc agatccagaa togcctgggc ctgctgttca gtcaggtagt actgaccgtc
                                                                      960
acgcacgccg aattooggot ocagecacto aggacgegca gogtcatoge oggcacgtto
caqcategee gecaegttge ecagatesea tga
<210> 4140
<211> 1095
<212> DNA
<213> Enterobacter cloacae
<400> 4140
acgcgcaacc agcgacgcct tegettetge tggcgtegge geaeggegga teagetegat
gategggteg atgttegeea gegeaaegge eagtgettea aggatatggg eaeggtegeg
cgctttgcgc agttcgaaga tggtacggcg agtcaccact tcacggcggt gacgcacgaa
                                                                      180
                                                                      240
egegeteagg atetetttea ggtteatgat etteggetgg ceatggtgea gegeaaceat
gttgataccg aaggagacct gaagctgagt ctgggagtaa aggttgttca acacaacttc
                                                                      300
                                                                      360
acceaecgeg tegegettga tttcaatcae gatgegeata cegtetttgt cagactegte
acgcagcgcg ctgatgcctt caacgcgttt ttcttttacc agctcggcga ttttttcaat
                                                                      420
cagtogogot ttgttcacct garacgggat ctcgtgaaca ataatggttt cacggccggt
                                                                      480
tttggogtcc gcttccactt cggcgcgggc acggatgtaa atcttgccgc gaccggtacg
                                                                      540
                                                                      600
gtacgettet teaatacege gaeggeeatt gatgattgee geegteggga agteegggee
egggatgtgt tecateagee etteaatget gatgtettea tegteaatgt aggecaggea
                                                                      660
gccgttgatc acttccgtga tattgtgcgg cggaatgttg gttgccatac cgacggcgat
accggacgaa ccgttcacca gcaggtttgg gatcttcgtt ggcatgacgt caggaatttt
                                                                      780
ttccgtgccg tcgtagttat caacgaaatc aaccgtctct ttttccaggt cagccatcag
                                                                      840
ctcatgggca atcttcgcca gacggatttc cgtataacgc attgccgcgg cggagtcgcc
                                                                      900
gtcgatagaa ccaaagttac cctgaccatc taccagcatg taacgcagcg agaagggctg
                                                                      960
cgccatacgg acaatggtgc cgtacaccgc gatatcacca tgaggatggt atttaccgat
 tacgtcacca acgacacggg cagatttttt gtaggettta ttecagtcat tgcccaatac
                                                                      1080
                                                                      1095
gttcatggcg tatag
```

```
<211> 291
<212> DNA
<213> Enterobacter cloacae
<400> 4141
agtcaacacc gacgacctga gcgacttcca gctctgatga cgcgcgtaac gctgagcctt
                                                                      60
tetggcaccg aagtgctgtg ccaggaagag caccetteee tgetggtgge gettgaageg
                                                                      120
                                                                      180
catcaggtgg aggtagagta ccagtgtcgt gaaggctatt geggeteetg eegetgeegt
ctggtcgcag gccaggtgga ctggctgacc gaaccgctgg cctttatcag tgaaggggaa
                                                                      291
attttgccct gctgctgccg ggcaaaaggc gatattgaga tcgagatgta a
<210> 4142
<211> 1329
<212> DNA
<213> Enterobacter cloacae
<400> 4142
acgagogotg gaaaggoatt cagooogtog cotggggega tgccctgego gaaagcgaat
                                                                      120
ttaccogotg ggtctatcag gggctttgcg gtctggagaa ggagcacaac catgaaattt
gataccgtga ttgtgggtgg ggggctggcg ggcctgctgt gcggcctcaa actgacgcag
eggggtetge getgegeeat tgteactege ggteagagtg etetgeactt eteeteegge
                                                                      240
togotggatt tactgggogo gotatogtto googatotgo ogootgaaca tocotacogo
                                                                      360
ctgacgggeg cagagaatat ggcccgcttt gcctgcgaaa ccgaacacct gctcactgcc
tgeggegeac gcatgcaggg tgacgeegag caaaaccate agegegteac gecaetegge
                                                                      420
accetgegeg cegeetgget tageceggaa gaggtgeetg tegeteecat egetgeegag
                                                                      480
egegtgeggg tggtggggat cageggttte ettgatttee agceacatet ggeegeegeg
                                                                      540
tototoagac agcagggtgt toaggtggat acagoggaga ttgatotoco ogagotogac
                                                                      600
gtgctgcgcg aaaaccccag cgagtttcgt gcggtgaaca ttgcccgcct gctggataat
                                                                      660
gaaagttact ggccgcagct gtacgcggcg cttcaaccgc tcggcgagac ctgcgacgcc
                                                                      780
etgtttatge eegectgttt tggettaacg gacaaccgge tetggegetg geteteggeg
                                                                      840
egectgecet gtacgetegg tttactgeeg acgetecece etteegtgee eggeattegt
                                                                      900
etgeatacce agetteageg teagtttgte geceagggtg gegtetggat ggeaggegae
gaagtgaaaa aaatcaccct ggttgagggc gcggtaagcg atatctggac ccgcaaccac
                                                                      960
                                                                      1020
qgcgacatcc cgcttcgcgc acgctatacg gtgctggcaa gcggcagttt cttcagtaac
ggtctgctga gcagccggga tggcgtgcgt gaggcaatac tcgggctgga tgtccggcaa
agegetteec gegeggactg gtateaaage gatttettea eccegeagee etggeageag
 tteggegtga tegtegaeag ecaactgege cegeggetgg geggggaace ggttgaaaat
 etttaegeca teggeteggt tetgggeggg taegateeeg tggegeaggg etgeggtgge
                                                                      1260
 ggcgtctgcg ccgtcaccgc gctgcatgtc gcggagcaga ttatccagcg cagggagaga
                                                                      1329
 gcacaatga
 <210> 4143
 <211> 984
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4143
                                                                      60
 acgatgaaaa aacaattact ttetaccett getgcaageg tattgetgtt gagtgeetet
 gtogtocagg ogcaggaege gocatocogt accgaatgta tegecoegge caaaccegge
                                                                      120
 ggoggottog acctgacetg taagetgatt caggtcagee tgetggagae gaaggecatt
                                                                      180
                                                                      240
 gagaaaccga tgcgcgttac ctacatgccc ggcggcgtgg gcgcggtagc ctataacgcc
                                                                      300
 ategtogece agogecetge egaageggge acegtggtgg egtteteegg eggttegetg
 ctgaacctgt cacaggggaa atttggtcgt tatgacgtga atgacgtgcg ctggctcgcc
                                                                      360
                                                                      420
 acceptaggea cogattacge catgategee gtgegegegg actetecgtg gaaateeetg
                                                                      480
 aaagatotgo tgacogocat ggaaaaagat cogaacagog tggtcattgg cgcgggcgcc
 totattggca gocaggactg gatgaaagco gogotgotgg ogcagcaggo caaagtggat
                                                                      540
                                                                      600
 ccgcacaaga tgcgttacgt ggcctttgaa ggcggcggcg agccggtgac ggcgctgatg
                                                                      660
 ggcaatcacg tocaggoggt atogggogat otcagogaaa tggtgcccta cctgagoggg
                                                                      720
 gataagatce gtgtgctggc ggtettetca gaaaaccgte tgccgggcca gctggcagac
 gtoccaacog ccaaagagca gggttataac ctggtctggc cgatcatccg cggcttcttc
                                                                      780
 gtogggocaa aagtgacoga ogcogaatac cagtggtggg tggatacott ogcaaaactt
                                                                      840
```

```
cagcaaaccg aggagttcaa aaaacagcgc gatctgcgcg ggctgtttga gttcaacctg
                                                                     900
                                                                     960
aacggcaagc agctggacga gtatgtcaaa aaacaggtga atgactaccg cgtacaggcg
                                                                     984
aaagcetttg gtctggcgaa ataa
<210> 4144
<211> 768
<212> DNA
<213> Enterobacter cloacae
<400> 4144
cgctaccagg actctcgcca gcgcagaaaa ggccgagtaa agaaggttag cgaggtttta
cactggacac ctgaccatgc cgaacataaa ggaaaaatga tgaaatcaga ttacgccaaa
cagattgaac tgatttccgg gccgctggaa gcggcaatgg aagcactcgc aggtacgttg
                                                                     180
tcagcgaacc aggagatagt cctgcataac ctcaccacgc cagagcagtc cgtggtaaaa
atcattaacg ggcacgtcag cggcagaaaa gcgggcgaca atcttttatc cggtcctgaa
                                                                     360
aaagacaaag gatttgeeet gttacttaaa aacaataagg acagcaceee ggttacggtt
aaaaattata aaaccactac ggcgtccgga cggatcctga acagcgcctc gacaatttac
                                                                     420
tacagegagg aaggggtace gttgatgget ttttgcatca atategatae eteteettat
                                                                     480
gagcaaatgc gcaagtgcct cgacgcaata acaggcagcc cgcttgccga ttcagacccg
                                                                     540
                                                                      600
caggatatga acctgggcgg catcattgag cagtetatcc aggaaatcat cgataaacat
                                                                      660
teggtteegg gcaaaaaggt acagaaageg cageggetta aaatagtege tgaaatgeae
gctaaaggca ttttcaaaat geggggtggc gtccagcacg eggegeaggc eetgggegta
                                                                      768
accogotata eggtgtataa egatettgag gtgatgggtg aaaaataa
<210> 4145
<211> 348
<212> DNA
<213> Enterobacter cloacae
<400> 4145
gatttattaa tgacgttaac gaaaagctt: gctgcactca tggttgcagt atccattgaa
gttatcgcca caaccttatt atcgctatca aacagttttc agcgccccgt tgtgggactg
tcagcgataa taagctatgg cttaagttat tatttttat cgattgcatt acgccgaatt
                                                                      180
                                                                      240
catctoggog tggoctacgo tatotggtca goggtoggtt tattoagoat gacogttata
cagaccoget titttgacta tattgtatcg cagagagcat ggatgggtet gggaatggtt
                                                                      348
atogotggaa caattacgot caatotggog atcaagcaaa acaaataa
<210> 4146
<211> 2463
<212> DNA
<213> Enterobacter cloacae
<400> 4146
aaagcagcat totggaaaag atoggaattg gotgcatogt cacogggotg gogatoatog
                                                                      60
ccttttaaca ggagaaacgg catgacgaca gagatgcttt ccttgcgcgt ggtgcagctt
                                                                      180
cgtgaagett atetteagge aaaacettte gteteggege ategggeegt gagtgtaaee
                                                                      240
caggtetata aagacaatee gggaatgaac aacageetge teagggeact ggeetttegg
egegeetgtg agaetgegee tetgeatgtg gegeaaaatg aactgategt eagecateeg
                                                                      360
gctggcggcg cacgcggggg agaggtttcg cctgaaatca gctggcgctg gctggccgac
gagetggaaa eeetteeege gegggegeag gaeeettate agattgatga ggaaacaaag
                                                                      420
                                                                      480
cgtctgcttc gcgaagaagt attcccatac tggcagggcc gttccctcga tgaaatggcg
caaacgcagt taaagactca egggetatgg caetggtgte atgatgatgg catetgegat
                                                                      540
gtcacgatca aaacacaaaa cggtggcggc gattcctgtc cgggatatga caatatttta
                                                                      600
ctgactaaag gaataaaggg gatccgtgaa gaagcggcag cactgctgct cgcgcttgat
cetgetacce cegagggetg tgatgcette aatttttata cegecatget geatacetgt
gacggagtgg tgacttatgc cogacgttat gctcactatc tgaatgcgct tgcggaaaaa
                                                                      780
gaaggogate egetgegteg egatgagetg etgeaactgt eegggatatg eageegggtg
                                                                      840
                                                                      900
 cctgaacagc caccacagca tttccatgat gcgttgcagg cgatatggtt cgtacattct
 ctctttatgc tggaagaaaa tcagaccggc atatcactcg gccgtgtcga ccaatatett
                                                                      960
 tggccactgc tggaacgcga tctgcacgat ggcacgctca atcttcaaca ggctgaggaa
```

ctcctctgct gctggctcat aaaaatggcc gaaaccctgt ggatttgtag cgaatctacc

```
1140
gocatgtatt ttgctggcta ccagccgttt attaacctgg tggttggcgg ccagaaacgt
gaaggtggcg atgcgaccaa cccgctgacg ctgatgataa tggattgttc agcccgttta
                                                                     1200
aaaatctacc agcogggttt agcagtacgt atacataatc agtoccotca googtttatg
cgcaaagtcg tcgacgtggt acgcagtggc atgggttttc cggcctgtca tttcgacgat
                                                                     1380
gcgcatatcc ggatgatgct tcataaagga tttagctatg aagacgcacg ggactactgt
ctgatgggct gcgtcgaacc ccaaaaatca gggaaaatgt accagtggac gtcggtaggc
                                                                     1440
tataccaect ttactgogge aatogagotg gotttgoata atggtogaac ccaaaatggg
                                                                     1500
aagcagtgcg gccccgccac tggcgatgta tctcagttca gtcgttatga agaggttgaa
teegeggtee ggacteaget etetgetate gteagaaaag eegeagagge gacgettate
                                                                     1620
                                                                     1680
gtacaaaago tacatgcaga acatgcccga aaacccctga tgtcatgcct gattgaggga
tgtattgcca cagcaaaaga tgtcacgcag ggaggcgcac gcctcaatgc ggggccaggc
                                                                      1740
                                                                     1800
ctcatctgga ccgggcttgc tgattgtgta aattcgctga tggccatcag gacgctggtt
                                                                     1860
ttogacaceg ecogotteac getaeggeag etegtggagg etetegaaca taattttgte
                                                                      1920
ggctatcagg aaatacttac tgcctgccag cgagcaccga aatatggcaa tgatattcgt
gaagtggatg atategeeeg egagetggtg egttttettg ageaggagea eegeeagtae
                                                                      1980
eggatgetgt atgegeegtt tgegttegge accettteta ttteaaacaa cacecegttt
gggettatea coggtgeget geoctotgge cgactggegg gtaageeget ggetgatgge
                                                                      2160
atcagecegg etcageaaac ggattacete ggacetactg caataatcaa etcegttagt
eggateaacg tegaagagat ggatattgge atggtgeata acateaaget eatgttegge
                                                                      2280
atgettgaaa cacctgaggg tcagaacage ctgatecace tgetgegtae agegageatt
                                                                      2340
ctgggaaatg ctcaactcca gttcagctac gtggatgatg agacgctgag aaaagcacaa
                                                                      2400
aaacaccccg ctgactatcg caacctgatg atccgggtgg cgggctacag tgctttcttc
                                                                      2460
qttgaattaa gcaaagaggt gcaggatgag attatcagca gaacgacgca gcggcatttc
                                                                      2463
taa
<210> 4147
<211> 234
<212> DNA
<213> Enterobacter cloacae
<400> 4147
ggtataggca ttaagatgaa aaaattggtt gcagtaataa gtctggcatt tgtgaccctc
acggttgcgg ggtgctccag cgactatgta ttacaaaaga aaaatgggga aatgattatt
                                                                      120
acccatggaa aaccggaagt ggatgatgat aacggtotta taacttatga ggatgttgct
                                                                      180
                                                                      234
ggtaatgaac atgctatcaa cogcgatcaa attattcaga tgatcgagaa ataa
<210> 4148
<211> 1149
<212> DNA
<213> Enterobacter cloacae
<400> 4148
cgtgaagggg tatcagcagg ggctgaacgc ggatatggtc tggtacgatc gcgttatgaa
gtagetttte eccectetee etetecegtg ggagaggggg tegttegtge atatttteag
gataacgatt ttcccatgee acatctttcc accegegtge ttcagggtet getgactete
                                                                      180
                                                                      240
etgeteaege tgtteggget aetgetggte aegtttgege tetetgeett tteeeeggte
gategegtat tgcagategt eggegateac gecagecagt ecaettaega teaggtaege
                                                                      300
caccagettg ggetggateg gecectgeeg gtgeagttet ggeactacet geaaaacete
                                                                      360
                                                                      420
gctcacggtg atttaggcac cgccagcgct accggtcagc cggtattgca ggacctgctg
 caegeettte eegeeaeget ggaactggea aegetggege taattategg eacagtaete
                                                                      480
                                                                      540
 ggcgtaattg cgggtgtgct gtgcgcccgc tacgccggtt cgccactgga cttagcgatc
                                                                      600
 agaacgetca ccctgctcgg caattcggtg ccgatattct ggctcggcct gctgatgctg
 getetgttet aegegaaact acagtggage getggceeeg geaggetgga egacatetgg
                                                                      660
                                                                      720
 caattcaccg togagccacg aaccggattt gcgctggtgg atacctggct ttccggcgac
 cgcgaggcgt tccgcaacgc catcagccac etggtgctac eggtgctget getggeetac
                                                                      780
 tactogotgg caagcatcae cogootgacg ogotocgoot gtotgagoga gatgaacaaa
                                                                      840
 gagtacatat tgctcgcccg cgccaagggc gccggagaga tgaccatcct gctgcgtcac
                                                                      900
 gtgctgccga acattcgcag cacgctgctg acggtgattg cgctggccta cacaagcatg
                                                                      960
 ctggagggcg cggtattaac cgaaaccgte ttctcgtggc cgggcatcgg gcgctacctc
 accacggccc tgttcgccgg tgacaccacc gccgtgatgg gcggcacgct gctgattggc
                                                                      1080
 gtctgctttg ttctgatcaa taaccttacc gacctgcttg tgcgggcgac cgatcccagg
                                                                      1140
```

0

```
1149
gtgcgctaa
<210> 4149
<211> 966
<212> DNA
<213> Enterobacter cloacae
<400> 4149
ttgccgacgg catgcaggtc atttttgacc agtggtggat tgccgccatt ccaggcgggg
cgattctgtt tgccagcctg gcctttaacc tgctgggcga tggcctgcgc gacgtactgg
agecacagea tgactgaaca cogogteate gtogatgege tgaatatoga etacceogee
                                                                     180
gcgcgcgtgg tcaacaacct gagctttacg ttgggcaaag agcggctggc gctggtggga
                                                                     240
quatcogget coggonages catgeotgec cgcgccctga tggggetggt gcgcaagccc
                                                                     300
                                                                     360
ggcatcgtga gcgctaagcg gcttaacgtg cttggcaacg acctgctgac cctgaacagc
                                                                     420
egecgetgge aggegetgeg eggcaacgge attgegatgg ttetacagga ecegegetae
                                                                     480
gegetaaacc eggtgaaaac egtegeegee cagettgatg aggegetgae eetecateag
egectgeece gegeegaacg actggegege atteacgata teateegege egtggggetg
                                                                     540
                                                                     600
aacgagcacg tgctccagcg ctatcccggt gaactttccg gcggcatggg ccagcgcgtg
                                                                     660
atgatogoca ttgcgctcgt caacaacccg caggtgctga tcgccgacga accgacttcc
gegetggaeg caegeetgeg caaccagate etggagetge tggtacagea gtgegaggeg
                                                                     780
eggeagatgg egatgetgtt aateageeae gaettgeege tegtegegga acaetgegae
cgcgtgctgg tgatgtatca gggtgagaac gttgatgaaa tggcggcgag ccagttgccg
                                                                     840
caggoaaccc atooctacac gogoacgoto tggacotgoo gooogaacgo ogggacgtit
                                                                     900
ggcaagatgc tgccgacgct cgaccgttcg caaccgtgga aggaggacga caatggcact
                                                                     960
                                                                     966
cgttga
<210> 4150
<211> 894
<212> DNA
<213> Enterobacter cloacae
<400> 4150
gacgtttttg atatggaact togttatotg ogotattttg togoggtago acgcgagoga
                                                                      60
caetteacea gggeggeeaa agegetgggt attteacage etectetgag teageagate
aaacggotog aagaggaagt gggcacgccg ctgttcagge gcctgacgcg gggcgtggag
                                                                      180
ctgaccgagg cgggagaagc cttctatgag gacgcctgta agatcctggc gctgagcgac
                                                                      240
gccgcgctgg agaaagcccg gggcatcgcg cgcgggctga acggcagcct gtcgattggc
                                                                      300
atcaccagtt cagatgettt teateceaaa atettegeee tgattegeea gttteaggta
                                                                      360
cagaacatgg eggtgcaggt tcaccaggtg gaagccaata tgtegteget gaegaegatg
                                                                     420
ctggcggagg gtgagctgga tatcgccttt gtgcgcctgc cgtgcgagag cagtaaggtg
                                                                      480
ttegagetaa aaateetega eegggageeg atgatggtgg egetgeateg egateateee
                                                                      540
                                                                      600
ctggcggcgt gtggcgatct ggcgctggag gagctgcggg atacgccggt ggtgctgttt
                                                                      660
ccccaggagg tcgcgccggg gctgtatgac cgcgtttacg gcagctgcga gcgggccggg
atogatatgo aacacacgot goaatottoa caactttoot ottoootgag catggtotoo
                                                                     780
gegggeggeg ggttegeget ggtgeegaaa tecatggeeg etatttetee geegaatgte
                                                                      840
acctaccatg cgctgcgctc gccagagctt tataccgata tcgcactctg ctggcggcga
                                                                      894
tttgagcgtt cgcggacggt gaagcggttt ctggcgatga tgagcgaggg gtag
<210> 4151
<211> 495
 <212> DNA
 <213> Enterobacter cloacae
<400> 4151
gecagegeca getegetgat atcetegege etgaacatee eggegeggeg attggecage
                                                                      120
accateagee eggegacege gttttgeage agettgegee aggegaeggt ggggaaatet
teegagaget caacegegea gegegtatea egaagegett egaceaceeg etgegeetge
                                                                      180
ggcacgtccg gcagcgtcag gcgcggtttg gcgcgcagcc agacggaggc atccggctcg
                                                                      240
                                                                      300
egetgggeag ggaaccagae cacegaggge agtacegttg egecattaac caaaggegea
agetgggett tetgetecae geegttttge agegegeaga ceaeggtgtt tteategeae
                                                                      360
```

agggcacgea gccacccggc gctgtcggca ttttgtgtcg ttttgaccgc caaaaaaacg

```
aggteaacgg ggcgcgtaat gacgctggga tcggtgagta ccggaccggg caccacaatt
                                                                     480
                                                                     495
tcaccctcat catga
<210> 4152
<211> 807
<212> DNA
<213> Enterobacter cloacae
<400> 4152
tgggtgaaaa ataacagttc coggegeatt cogttttacc aggttgacgc cttttctgac
                                                                      120
ggtcctttta cgggtaatcc cgccgccgtc tgcctgctgg acgcctggcc ggaacaaaaa
gtactccagc gtatcgctac ggaaaacaac ctttccgaga ccgcatttgt ggttcaacag
gatggcggct tegegetteg etggttcace eccgcagtgg aagtggatet etgeggccat
                                                                      240
gegacgettg cegeegegag egitetetta ageegtgacg aegeetgega aagegtgeat
                                                                      300
                                                                      360
tttttcaccc gcageggega gctgaccgtg acctcgcatg gtgageaata tacgctcgat
                                                                      420
ttcccgcagg cgatcccctc ccgaattacc gcgccggaag ggttgtttaa ggctctgggt
ctggaggaaa acgccggaga aacctggcaa gcgtccgacc tcattgtcgt catcgatgat
                                                                      480
gaagacaagc tggatgetet gaagecegat tteacegeae tggaaaggtt taacaegege
                                                                      540
                                                                      600
ggcgtggtgg taactgcgtc ctctcgcact tttgattttc gctcccgctg gttcggccct
caggtggggg taaatgaaga tooggtgaca ggttoggete atacetttet ggcaccgetg
tggagtcaga aactgtcgaa gaaaagatta cacgcgcaac agggcgggag tcgtaaaggc
gaactgattt gccttattaa ggataacgga cgtatcgaac tcttgggcaa agcgagcctg
                                                                      780
                                                                      807
atgattgaag gagtetttat tetgtaa
<210> 4153
<211> 975
<212> DNA
<213> Enterobacter cloacae
<400> 4153
gcaaagaggt gcaggatgag attatcagca gaacgacgca gcggcatttc tgaacaggcg
tatggctgga totcaaacat toagoggttt togttacatg acgggccggg tatccgcago
                                                                      180
atcatctttt ttaaaggctg ccagatgcgt tgtgcctggt gcgcaaatcc ggaaggacaa
                                                                      240
actgeegaac gggatgtttt ttteeatgee gaeegetgte tgeattgtgg taactgegee
gacetgtgcc cgactgggct ccacagcatg aatcacaatg tgcatgttct tgaacgtgac
cqcaaatgcg ttggctgtca attatgtgaa gagcgttgtc ctgccgccgc gctcaatatt
                                                                      360
gtcggagaac atgttagcgc acaaaacgca tttgaaaggg tcatggctga tgaaatctgg
                                                                      420
                                                                      480
tttcgccagt ccggaggcgg tgtgacgcta agtggcggcg aggtggcaat gcagcctgaa
tttgctcgcg ttttaattga acagetcaaa geggaggata ttcacacege cattgaaace
                                                                      540
gotggotacg catootggca ogotattoat caggoaacgg cgggotgcga totgattotg
tacgatttaa agagogogga agatgtgotg cataccogtt toactggtgt cagtaataaa
                                                                      660
aggattgtge gaaatettge aeggetatta eagggtggge aaeagattat tateegtate
cocgtgatec cgcattttaa cgatgcaccg gatcaggctg ataaattact ggcgctcatt
                                                                      780
totgcactca cacaaggaaa aaagaatttt cagggtgtgg aattactccc ctatcacctt
                                                                      840
                                                                      900
tttggtacag gaaaatacaa attactcaac atggagtacg actggaacag aggttcagca
                                                                      960
aatgtegata aettettaag tatggegeat eactategte tgeeattaaa agtgtegggt
                                                                      975
acgctagcag gttaa
<210> 4154
<211> 1602
 <212> DNA
 <213> Enterobacter cloacae
<400> 4154
                                                                      60
aacaatcaca atatatttte tteagggate getatgacta aaaaactget geegttactg
gtgctggctg cgctctcaag cgctgctcac gccgctaccc cgcccaacac gctggttgtc
                                                                      120
geccagggte tggatgatat egtgageett gacceggeeg aagecaacga getttecage
                                                                      180
                                                                      240
atocagacog tgccaagoot gtaccagogt ctggtacago eggacogoga taateeggaa
                                                                      300
 aaaatcacgc cggttctggc agaaagctgg gacgcggacg cggcagcaaa aaccctgacc
 atcaagetta aaccegatge gaaattetee teeggcaace egetgegeee ggaagaegtg
                                                                      360
 atottetett ataccegege egrgaegetg aacaaateee eggegtttat eetcaaegta
                                                                      420
```

```
480
ctgggctggg acgccagcaa catcgccagc cagctaaaga aagtggacga ccataccctc
acgetteact ggaeggeega egttageeeg teggtggege tgaatattet etceaegeeg
                                                                     540
attgeeteca tegtegatga aaaacaggtt geggegaaeg tgaaggatga egaettegge
                                                                     600
aacgcgtggt taaaaatgca ctctgcgggc agcggcgcgt tcaaaatgcg cgtttaccag
                                                                     660
                                                                     720
cogcatcagg ccatcgtgct ggaagccaac gaatccgcgc ccggcggcgc gccgaagctt
aaaagcatca tcattaaaaa cgtccccgat cccgcttccc gccgcctgct gatccagcag
                                                                     780
ggtgatgegg acgtggcgcg cgatctgggt gcagaccaga taagegeect cagcggcaag
                                                                     840
ccgggcgtga aggtactgag catcccttct gccgagcaaa actatctggt gtttaacacc
                                                                      900
ggcaacagcg ctaacccgct gctgaataat ccagcgttct gggaagcctc gcgctggctg
                                                                      960
gtggattatg aaggcatcac caaagacctg ctgaaaggcc agtattttgt tcatcagagc
                                                                     1080
ttcctgccgg tcggcctgcc gggcgcgctg gaggacaatc cgttcacgtt tgacccggca
aaagcaaaag cgatcctcgc caaggcgggc atcaaagacg cgcatttcac gctggacgtg
gagaataaac caccgttcat caccatcgcg caatccatgc aggcgagctt tgctcagggt
                                                                     1260
ggcgtgaagg tggatetget gcccgctgeg ggtagccagg tgtacgcceg cgtgcgcgct
aagcagcatc aggcggcgat tegectgtgg ateceggatt acttegatge geactecaac
                                                                     1320
gccagcgcct tegcgtggaa egacgggaag tecagcaccg tggceggtet gaacggetgg
                                                                     1380
aaaatcccgg agctgaacaa ggccacgctg geggeggttg eegageegga teeggegaaa
                                                                      1440
egtetggate tgtataagaa gatgeaggaa eagttaeage ataactegee gtaegtgtte
                                                                     1560
gttgaccagg gcaaaactca gatcgtggtg cgcgataacg tgaaggggta tcagcagggg
                                                                      1602
ctgaacgcgg atatggtctg gtacgatcgc gttatgaagt ag
<210> 4155
<211> 864
<212> DNA
<213> Enterobacter cloacae
<400> 4155
tgtatcaggg tgagaacgtt gatgaaatgg cggcgagcca gttgccgcag gcaacccatc
cotacacgog cacgototgg acctgoogce egaacgoogg gaegtttggc aagatgotge
cgacgetega cegttegeaa cegtggaagg aggacgacaa tggcactegt tgaggitaac
                                                                      180
cageteeggg tgagttttgg tgaaaaaaaeg geggttteeg eegecagttt tgecategaa
                                                                      300
aaaggtgaaa cettcagcct gatcggtgaa tccggctgcg gcaaatcgac tcttctgcgc
gtgctggcgg ggctgctgcc cgagtggaat ggccacattt ccgtcctcgg ggaaaattta
                                                                      360
                                                                      420
cggccaggac gacgttttga aggcgcgctt cgccgcaacg tgcagatggt gttccaggat
cogtgggcgt ctttgcaccc gaaccacacc attgcccgca ccctgtcgga gccgttaaac
                                                                      480
atccacggeg aaagecaggt tgccgaaaaa gtggcggatg cgctgcaaca ggtaggtctg
                                                                      540
gctgccgatg cgggcaggcg ttacccgcat cagctttccg gcggacagcg tcagcgcgtg
                                                                      660
gocattgood gogogotgot gotgogodog dagettetgo tgotggatga accgaeotog
                                                                      720
gegetggata tgteggtaca ggeggagatt etgaatetge teaacegeet gaaggegeag
                                                                      780
cacqqcatqa cctacctgct ggtgagccac gatgcggacg tgattgcgca tatgtccgac
cgggcggcat ttatggcgca cggggagatc cagcgggtat ttgaccgtga agcaatgttg
                                                                      840
                                                                      864
cggggcgagc acaggatggg gtaa
<210> 4156
<211> 273
<212> DNA
 <213> Enterobacter cloacae
<400> 4156
cggtcggaca ggatcgacag cattaaagat ctgcactggg acattcgccc cagcccgcac
                                                                      120
 attagcacca tgcaggtgcg gtcgacggat aagccgctga cgctcaacaa cgcgattaat
                                                                      180
 atogootggo tgatocaggo cacgtoacac tggotgotga ccacgoggoo ttataagcat
                                                                      240
 caggaacggg attttctgcg gtacctcttt accgttttca ggtgtgtcgc tacggatagg
                                                                      273
 tggatattca gacgagccgt tatgcgtttt taa
 <210> 4157
 <211> 537
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4157
```

```
60
accataaggt cttttcagga tttccttaaa tggagtttta aacaaatggc tattcccgct
tatttatggc ttaaagatga cggcggcgct gatataaaag gctctgtcga tatatatgga
                                                                     120
egtgaaggta geategagat tategeetta aateaeggea taatgeagee caeggacaag
cataacggca aggcgacaag tottogcato cattocccot attottoga taaagagato
                                                                     240
gacgottoca goccotattt gtacaaggot grtagoacgg gocagaagot aaaatcegca
                                                                     300
gagataaagt tttaccgtat caacgatgct ggtcaggaag tggaatattt ttccaccctt
                                                                     360
ctggaaggeg tgaagatege cagegtetgt ccaatgatge ttgatateaa agateetgae
                                                                     420
                                                                     480
tatgagaago ataaccatot tgagotggta gagotgotot atgaaaaaat tacotggogo
tacgtggacg gtaacatcat gcattcagat agctggaatg accgtaagac ggcataa
<210> 4158
<211> 753
<212> DNA
<213> Enterobacter cloacae
<400> 4158
caggtgtegg eggtgatgat ggettteace gteatetegt teatggteag ggtgeeggtt
ttatccgagc agaccacggt catcgcgccc agggtttcaa ccgtcggcag cttgcggata
                                                                     180
ategocoget tgcgcgccat cgcctgtacg cccagagaga ggatgatgga gataattgcc
ggcagacett ceggtacgga ggcgacegec aggetaatca gggagagtag cagetegece
atogggatet egeggaacae caggetgaag acaaacageg eggecateat egecagaatg
atggcgaaga tegetttgcc cagcttgtcc atctgcacca gcagcggggt geggtgtttt
                                                                      360
                                                                      420
teaatgeeeg ceateatetg gttgatgtgg eegagttegg teteetggee egtggeaatg
accaegocca egeogocgoc egegetgace gtegtacegg aaaagaccag gttegtacgg
                                                                      480
togoccagog gtaattogoc gotcagoggg ttogtgtgtt tatocaccac ggtggattoa
                                                                      540
coggtcagaa tagoototto cacqoqtaaa ttatgogott cgattaagog catatoogoo
                                                                      600
                                                                      660
ggaatacgat ctcctgcgcg caacacaata atatcgcccg ggacgatttc cgtcgtcggg
atagtttcat ggttgccgtt acgaataacg cgcgcctcgc tggagagcat attgcgaata
ctetteaggg attttteege gttactttee tga
<210> 4159
<211> 663
<212> DNA
<213> Enterobacter cloacae
<400> 4159
cattcogcgt tgcagcgtat caaggctcgt gtttcaatca gggcttttac aattgacggg
aggaaaaatt tagtggcacg toogaagagt gaagataaaa aacaggoott actggaagca
gcaacggctg cgtttgcgca gtcaggtatt gccgcctcaa cggcgttaat tgcccgtaat
                                                                      180
gegggegteg ergaagggae actgtttege tactttgeta ecaaagaega tetgetgaat
                                                                      240
geoctetace tgeatetgaa geaggatete tgeeagacea tgetggegaa tetegatege
                                                                      300
accatcaccg agccaaaaga gcatacccgc aatatctgga acagctatgt ggactggggc
                                                                      360
attogtaacc ccctggcgca tgcgcctatc cgtcagattg gcgtcagtga aaagctgaac
                                                                      420
geogaaaceg ageaggeggt gaaagacatg tteeeggaac tgeatgaact gtgtegtegt
                                                                      480
togateegee eggtgtttat gtetgaegag tttaagacet teggtgatge aatgttetta
                                                                      540
                                                                      600
togotggotg aaaccaccat ggagttiged geologicgate ogtologitge ogtogattit
                                                                      660
aaagegetgg getttgaage catgtggege gggettgetg aggaagataa eeatggacag
<210> 4160
<211> 1452
<212> DNA
<213> Enterobacter cloacae
<400> 4160
ogcaatggag toaccatgaa tacgtoagtt gtttcaccgg gtcgtgcggg cctgatattg
                                                                      60
ctgttaaccg gccagatgct gccgttgatt gatacctcaa tcaccaacgt ggcgctggat
tecateacce attegttaca egecacegee aetgaactgg agetgategt egecetetae
                                                                      180
ggegtggcet ttgccgtctg cctggcaccc ggcagcaagc tgggcgataa ccttggccgc
                                                                      240
egtegeetgt ttatgtgggg egtggegtgt tttggeetgg eetcactget gtgeggeatg
gegggeaata tegaacagtt gettggegeg egeattatte agggtgeggg egeegegetg
                                                                      360
```

```
atcatgccgc aaattctcgc gacgttgcat gtgacgttaa aaggaacggc acacgccaaa
                                                                      420
 gcgatcagtc tgttcggcgg tatcggcgga attgcgttta tcgtcggcca gatgggtggc
                                                                      480
                                                                      540
 ggetggetgg tgteggegga categeeggg ettggetgge gtaacgeett etttateaac
 gtgccgattt gtctggtggt gctggcgttg agccgtcgct acgtaccgga aacccgccgc
                                                                      600
                                                                      660
 gacacgccgt cgcgcattga ctggaccggg actgtcctgc tgacggcaat actgtgctgt
                                                                      720
 etgetgttcc cgatggeget eggeeegeag tggeaetggt egtggeeget gaaggeegea
 ctgctggcga ttgtgccgct ggtctgtgta atggtgctga acgcgcgcaa aaaagagcgt
                                                                      780
                                                                      840
 gagaatgccc accogctcat cgcgccgcgc ctgttgcagc tgcgcagcat ccgctttggc
 gtgctaatcg ggatactctt tttcagcgtc tggtccgggt tcatgttctg tatggcgctg
                                                                      900
 accatgcaaa goggtotggg gatggogoog tggcagtoog ggaacagott tatogogott
                                                                      960
                                                                      1020
 ggcgtcacct attttatttc tgcctggttc gccccacgcc tgattgcccg ctacagcacc
                                                                      1080
 agogocatec tgctgacegg acttgcgatt cagettgtcg gtctggtggc gttgategcc
 acgttccgtc actggggaat gcagaatacc gcgctgacgc tggccccggc caccgggctg
                                                                      1140
 gtgggttacg ggcaggcgct gattgtaaac agcttctacc gtatcgggat gcgtgatatt
                                                                      1200
 cageetgaeg aegeggggge egegagegeg attttaagea egetgeaaca ggetgegetg
                                                                      1260
                                                                      1320
 gggcttggcc cggccatttt cggcgcgatt ttgctgcacg ggctgcaaaa tcatcacgga
 gattacacco aggoggicaa tgicticotg atggiggaaa cggccatgat ggiggigcig
 gogotggcca egotgcgtat gegecategt ergtgtttae eggtegteaa ggeetgteeg
                                                                       1440
                                                                       1452
 gcgacaaaat aa
 <210> 4161
 <211> 429
 <212> DNA
 <213> Enterobacter cloacae
<400> 4161
ctatattgta togcagagag catggatggg totgggaatg gttategetg gaacaattac
 getcaatetg gegatcaage aaaacaaata acaccaaaat taaacatgta tatcatactg
                                                                       180
aactgeettt tetggetaat tatttetgte actatggaag teaetggeac getattgett
cotgagacca ggaattttaa asatattoca ttaacaatto attgcctgac ttgctacgtt
                                                                       240
 atttottttt attogttato aatgottatg ggatatattt caccagteat ggottactoo
                                                                       360
 atotgggogg gactggggat tgtactgatt accgtgatga gcagcttatt ttatcgatta
                                                                       420
 aaaagcagca ttctggaaaa gatcggaatt ggctgcatcg tcaccgggct ggcgatcatc
                                                                       429
 gccttttaa
 <210> 4162
 <211> 879
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4162
 cottaccgac ctgcttgtgc gggcgaccga teccagggtg cgctaatgcc gttttatetc
                                                                       60
 ttettaegee geetgegeeg eteceetgee gegttttgeg ggetgatege eategegetg
                                                                       120
                                                                       180
 ctggtgctta tttccctgtt cgcgccgtgg cttgcgccgc aggatcccaa ctggcaggac
 geogeogogo gtotgoaaco geocaacgog cagcactggo tgggtactga cagetatggg
                                                                       240
                                                                       300
 cgggatctgc tctcccgatt aatctacggc acccgtccgg cactggggct ggtggcctta
                                                                       360
 gtcaccgtta ttaccctccc cgccggtctg ctggtgggga ttttgtcagg ctactacggc
 ggotggatgg agogoatcot gatgcgcttt toogacgtgg tgatgtogat googogootg
                                                                       420
 atoctogoot togogtttgt ggcgatgotc ggcccggggc tggtcaacgg cgcgctggcg
                                                                       480
  ctggccttaa cgacctggcc tgcctatgcg cgccaggcgc gcagtgaaat ccagcgtctg
                                                                       540
                                                                       600
 egecacageg attatetgge egecgeggag atgatgggea ttegeggeee gegeetgetg
  gtcggccata ttctgcccct gtgcctgccc tccgcgattg tgcgactggc gctggatctg
                                                                       660
  geogggatta ttetggeege tgeogggetg ggetteettg gtetgggege gegteeaceg
  atggcggaat ggggcgcgat gattgccgac ggcatgcagg tcatttttga ccagtggtgg
                                                                       780
  attgccgcca ttccaggcgg ggcgattctg tttgccagcc tggcctttaa cctgctgggc
                                                                       840
  gatggcctgc gcgacgtact ggagccacag catgactga
  <210> 4163
  <211> 1140
```

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 4163
cagacaacgg agtgcgccat gcccttaccc gacttcaaat cctctgaacc ttataccctc
                                                                     60
ggcattgagc tcgaactcca ggtggttaac ccgccgggtt acgatctgag ccaggactcc
tetgecetca tegeogoogt caaagacgae atcaaagggg gegaagtcaa acaegacatt
                                                                     180
accgaaagca tgctcgaaat cgccaccggc gtgtgccaga ccatcgacca ggcageggcg
                                                                     240
cagttetegg tgatgeagea gageateetg egegeggegg eggageatea eateeagate
                                                                     360
tgcggcggcg gaacgcaccc gttccagaag tggcagcgtc aggaggtgtg tgacgacgag
                                                                     420
cgctataacg tcacgctgga gcgctttggc tatctgattt tgcaggcgac ggtgttcggc
                                                                     480
cagcacgtac acgtoggotg toggacoggg gacgacgcaa tttatctact gcacggcctg
                                                                      540
togogotttg tgoogoactt tatogocotg googoogoat cacogtatat goagggcacg
                                                                      600
gacacgaagt tegecteate gegteteaac atettetegg getteeegga taacggacag
atgccgtggg tcaacagctg gcaggagttc gaggggctgt tccgccgctt gagttccacc
                                                                      660
                                                                      720
agcatgateg acagcattaa ggatetgeac tgggacatec geoccagece geattttgge
accgtggagg tgcgggtaat ggatacgccg ctgacgctcg gccacgcgat taacatcgcc
                                                                      780
                                                                      840
gggottatto aggogacgto gcactggotg ttgaccgcgc ggccgtataa gcatcaggaa
                                                                      900
egggattttc tgctgtateg ctttaacegt tttcaggcct gtcgctacgg gctggaaggc
                                                                      960
attotgacag acgtgcatac cggcgagcac aaaaccgtgg cggaagatat cgcctggctg
ctggagcagg ttgcgccgtc cgccgagaag ctcggcgcga caagcgcaat caaggaaatt
                                                                      1080
gecetgetgt taaageaggg caagagegag gegeagegea tgegggaett tategeegat
ggcggctcgc tgatttctct ggtgcagaag cactgtgagc tgtgggcgac gagtccgtaa
                                                                      1140
<210> 4164
<211> 267
<212> DNA
<213> Enterobacter cloacae
<400> 4164
ctgacgatta acattacgat gaaacacccg tragaatcgc tgctcaccgc agggggcatt
                                                                      60
ttgctgatgg coctgetete etgeetgetg ttacetgege egtegetggg tetggtgetg
                                                                      180
goggagaage tggtteagae ettteatatg gtegatetga ateagetgta caccattetg
ttctgtctgt ggtttttggt gctcggcgcc atcgaattct ttatcctgcg tttcatctgg
                                                                      267
egeegetggt tttcactggc gtcgtaa
<210> 4165
<211> 2181
<212> DNA
<213> Enterobacter cloacae
<400> 4165
ttttatggcg atagcaacca aggacgttca ataaaaatgt ttaaaaaataa taagataatg
                                                                      60
eggetetgge tactgagtet ggegacgace agegtegegg etcaggeaga aacgaaagaa
gaaacgatta cggtgacgca gggcgtgagt gaagagccca ctgcgcccgt aaaaggcatt
                                                                      180
                                                                      240
gtggcgacga aaacgctoto ogccaccaag accagegegg agategtgaa gaegeegeag
                                                                      300
toggtatogg tgatcaccog ogatcagatg aacatgcagg acgtcaccto ogtttogcag
                                                                      360
gegetgeget acteggeggg egtgtttace gagtaceggg getegtetaa eegtaacgae
                                                                      420
gaggtgtttg tgcgcggctt tagctacgtg ccgaaattcc tcgacggctt aagctttggc
gcaacggcct catcacagac gggcacagtt gacccgtggc tgctggagcg cgtggaactg
                                                                      480
gtgcgcggcc cggcctcggt cctgtttgga caggtcaatc ctggcgggtt aatcagcatg
                                                                      540
                                                                      600
accagcaage geeegacgge ggaggeeatt cacaaegtge agtteegeac eggeaataae
                                                                      660
gatetegeeg aaggtgegtt tgatttegge ggeaggetga gegaegaegg gegegtaetg
                                                                      720
tatogogtga acggtatogo cogtacgcag cataatcagg tggacgatta taaagagacg
                                                                      780
eggatggega tegeceegge aateacetgg taccegaacg ateagaceeg etttacgetg
etgaccaget accagaaaga teeggatgee ggataeegea actteetgee egegtatgge
                                                                      840
                                                                      900
acqqtqaaaa gtgccgacgg gaagtacatc ccgcgcgatt ttaacgtcag cgatccgaat
tacaatcaat cetggegega geagaegatg attggetaeg agetggaaca ceagttegee
                                                                      960
gacaacetca cetteegeea gaacgeeegt taegeeacca teaageagaa atategttat
etggtttacg ccaacagege ggccaacage acggtgttga cccgtegege ccagegtgaa
                                                                      1080
gegegeacga ccaacgaatt tggeettgat aaccagetgg aatateaget ggagacegga
                                                                      1140
                                                                      1200
ageqteagec acaccetget eggegggttt gattacaaga ccagcaagga taaacagetg
```

ctggegegeg ggageggete acagtatgae ettgactgga caaacceggt ttacggegtg

```
aacgtggatg aaagtacett caaaacggcg tocgacgagc agcaaaatot cgaccagatg
                                                                     1320
ggcctgtatc ttcaggatca gatgagctgg aataactggg agtggctggt ttccgggcgc
                                                                     1380
                                                                     1440
tacqactqqa qeqaagtqcg taccagegac ttcaccgata acagegttac gcagcagaac
gacagcaaat ttacctggcg cactggcctg ctgtacgcgt ttgattctgg cctgtcgccg
tacatcaget acageaeete gtttgaaceg aacetgeaaa ccaacegtge geegggegtt
                                                                     1560
                                                                     1620
gegeeettea ggeetactae eggggageag acegagattg gegtgaaata teageeggte
                                                                     1680
gacaccacgc tgatgaccct ggcgctgtac gatttaactc agaacaacgt cgcgacctat
aacagcgctg aaggctggtt cgaaaatgcg ggcaaggtgc gttcgaaagg cgctgaagcg
                                                                     1740
gaaatccacg ccacgctgat ggataacatc aacctgattg gctcctacac ttacaccgat
                                                                     1800
                                                                     1860
gcaaaaaccg aaagcaccac ggtggcggga actgaaggca aaacgcctgc gcgcattccg
gcacatatgg categgegtt egecagetat accgtteegg geggegeget gaagageetg
                                                                      1920
                                                                      1980
accordinged togggatged ctacategge accadetaed degatgegaa gaatacette
aaggtgecat eggtggatet gtatgaegeg atgetgeget aegaeetggg egagatgaae
                                                                      2040
                                                                      2100
cgcagcctga aaggggcaag cgtgcagttc aacgtcaata acgtggcaga cacaaagtat
gtggcgtcgt gcgcaagcga tacggcgtgc ttctacggga ttggccggac ggtgacggcg
                                                                      2160
                                                                      2181
acggtgaatt acagctggta a
<210> 4166
<211> 579
<212> DNA
<213> Enterobacter cloacae
<400> 4166
augacatgtt cccggaactg catgaactgt gtcgtcgttc gatccgcccg gtgtttatgt
                                                                      60
                                                                      120
ctgacgagtt taagacette ggtgatgeaa tgttettate getggetgaa accaccatgg
agtttgeege eegegateeg teeegtgeeg tegattttaa agegetggge tttgaageea
tgtggcgcgg gcttgctgag gaagataacc atggacagta aatccttgca ggaacatgcc
                                                                      300
agacqcgtcg cgctggagat gccttttacc gaacattgct ggccgtttgg cccggagtat
gacgtgttta aggtgggcgg gaaaattttt atgctgatgg cgaccgcaca cggtcgggcc
                                                                      360
                                                                      420
cacgtcagcc tgaaatccga tccggaaaaa tcgctgctca atcagcagat ctaccgtggc
qtggagcccg gttaccatct gaataaaaaa cactggatct ccctttatgg cacggacgac
                                                                      480
atcacgcctg aactggtcac cgacctgatt acggattcgt ggaatctggt cgttgataaa
                                                                      540
                                                                      579
ctqccqaaaa aagatcagaa gtggattcgc ccagcctga
<210> 4167
<211> 774
<212> DNA
<213> Enterobacter cloacae
<400> 4167
ttgttcgtct cagacgaaca gaataagege tegaategea ettatettt eeegettege
geggtaatet gettteettt caegeeegee egegggegaa ttteateace aggagttgtt
atggatatta tttctgtcgc cctgaaacgc cactctacca aggcgttcga cccagccaaa
                                                                      180
                                                                      240
aaactgaccg cagaagaagc ggaaaaaatc aaaacgctgc tgcaatacag cccgtccagc
accaactocc agcogtggca ctttattgtt gccagcactg aagagggtaa agcgcgcgtg
                                                                      300
gcaaaatccg cggcgggcac ctatgtgttt aacgaacgca aaatgctgga tgcctctcac
                                                                      360
                                                                      420
gtagtggtgt tctgcgcgaa aaccgcgatg gacgatgcct ggcttgagcg cgttgtcgat
                                                                      480
caggaagagg ctgacggccg tttcgccacg ccagaagcaa aagccgcgaa ccacaaaggc
                                                                      540
egetgetatt ttgccgacat geacegegtg gatttgaaag atgacgacca gtggatggcg
                                                                      600
aaqcaqqttt acctqaacqt cggcaacttc ctgctgggcg tggccgcgat gggcctggat
                                                                      660
geggtaceca togaagggtt tgacgccgcg atcctcgacg aagagtttgg cctgaaagag
aaaggettea ceageetggt ggtggteeeg gtegggeate acagegtgga agattteaac
                                                                      720
                                                                      774
qccacqctqc cgaaatctcg cctgccgctg tgcacgattg tgactgagtg ctaa
<210> 4168
<211> 1302
<212> DNA
 <213> Enterobacter cloacae
<400> 4168
 atttgcataa tagatcogca googocatta tggggetgca tcaatacagg agacgttatg
```

```
120
caggaattaa ttgctcaggt tgaagagtta gggattgaaa ttaatcacac cacctcttta
                                                                      180
gtgattatot ttggtattat ttttcttacg gccattatcg ttcattttat tctgcacaaa
gtggtgctgc gcgcattcga gaaacgcgcc caggccagea gccatttatg gttgcagatc
                                                                      240
attacgcaga acaagttatt toaccgtctg gcgtttaccc tocaggggat aatcgtcaac
gttcaggcgg ttctgtggct gcaaaaaggc agcgaagcgg cggaattact taccacctgc
                                                                      360
gogaaattgt gggtgatggt ttatgccctg ctctccttct tctcgttgct ggacgtgatt
                                                                     420
ttcaatctgt cgcagaaaat ggccaccgcg tcacagctgc cgctgaaggg gatattccag
                                                                      480
ggcatcaagc tggtaagcgc cattotggtg gggatactaa ttatotccct gctgatcggt
                                                                      540
cagteacceg ccattetgat aageggeetg ggtgegatgg etgeegttet gatgetggte
                                                                      600
                                                                      660
tttaaagacc cgatactcgg cctggtggcc ggtattcagc tctcagccaa cgacatgctc
aageteggeg actggetgga gatgeegaaa taeggegeea aeggeaeggt gaeegaeate
                                                                      780
ggcctgacca cogttaaagt gogcaactto gataacacca toaccaccat cocgaectgg
gegetggtgt cegatgegtt catcaactgg ageggcatgt cegecteegg tggtegeege
                                                                      840
                                                                      900
atcaagegea geetgaatat egataceace ageatteatt teetegaega geaggageag
caaaaactga ttcaggegaa actgctgaag ccgtatctgg cggcgcgtca tgaggaaatt
                                                                      960
aacctgtgga atcagcagaa cggcgaaggg gaatcggtat taaacctgcg caagatgacc
                                                                      1020
aatateggea cetteegtge etacetgaat gaatatetge gtaaceacce gegtattegt
                                                                      1080
                                                                      1140
aaagatatga cgctgatggt gcgccagctc gcgccggatg ctaacgggct gccgattgaa
atatatgett traccaacac ggrgatetgg geggaataeg aagatattea ggeegaeate
ttcgatcata ttttcgcggt ggtggatgaa tttggcctgc gtattcacca gtcgccaacc
                                                                      1302
ggaaacgata ttegeteeet ggetggegte ategegeaat aa
<210> 4169
<211> 786
<212> DNA
<213> Enterobacter cloacae
<400> 4169
egectgetgt ttteetgttt actteacett cacactgtee tgeggtatee eggeegeetg
gaggotggaa gtgaacagga cgacggagtg acagcgccag agcagacagg ttttccctcg
                                                                      180
tgogtgcage acatotoaca ogacattaca ggcattaage ttgaacetat tgtegeeete
                                                                      240
toctottcac gogoggtggg agoogaagtg otcagogtgo tgtogoogca toagcaaage
qaaaqctttt tocaggactg greagecace egggegettg tgttgetgga ageacagate
                                                                      360
geogegttaa aaaacccctt ceettgtgac aaccttttca taaatttgee gataaccgtt
                                                                      420
ctgaccatac cggaaatgtt ccagcgttta ctgcaactta acagcccacc gctgaacatt
quactogtgg accotgoote gttettttca eteteagace eggtacgtea gagggtgagt
                                                                      480
                                                                      540
 tgtgegette ageagttgae egegegggga caceggatet ggetggaega tattgatgaa
                                                                      600
 gegteaggge aageattitt atcetgtege etgeegttat geggaataaa aategataag
                                                                      660
 atogotttot ggogtttacg tgaaacgoog gogotgacac agotggtoac cotttgttca
 aaaattgotg cgaatgtgot tattgaaggo attgaaacag aacgggaccg tacatgogcg
 cttcatgctg gcgcgcgctt cggtcaggga tattattggc catcctggag atggcaggag
                                                                      780
                                                                      786
 gactga
 <210> 4170
 <211> 297
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4170
                                                                      60
 ttaateteaa ggaaaaaggt tatgaaaaaa acgaetgeta ttttgatggg egetgeattt
                                                                       120
 ctgtttacca ccaatacctt tgcggctgaa ctgctgacga aaaacgagtt tgagaaagtt
                                                                       180
 gaatcacagt atgaaaaaat cggtaccgtg agcacggcta acgaagtetc tgtcgacgat
 gcgaaaaaag agctggtcga aaaggccgat aaagaaggtg ctgatgtact ggtgctgact
                                                                       240
 tooggtaata caaacaacaa aattcacggc accgccgata tttacaagaa aaaataa
                                                                       297
 <210> 4171
 <211> 1986
 <212> DNA
 <213> Enterobacter cloacae
```

<400> 4171

```
caqqaaqeeg etatgggcag accectcaaa teegtattta aaaaagaaca tegegacgat
 atcagtaacc geagegetaa eeeggtatte teegaggttg eagaagtgtt eetetegege
                                                                       120
 egeegtttte tecagatggg ggeegtageg ggggetgeeg tateatteee gtatetgate
                                                                       180
  acaecegaaa atgecattge egeggtateg aageetteeg egetggeaaa ageggtttee
                                                                       240
 ctqqqcttta ccaqcatcqa cgtctctacg gaagacacgg tcagggtgcc ggaaggttat
                                                                       300
                                                                       360
 ategecegee egitetateg etggggegat eegaegggga teaaggacaa eatgeeggee
  tttaaqccqq acqccaqcaa taccacagac gaacaggctg tgcaggcggg catgcaccac
                                                                      420
 qacqqcatqq cqtqgtttag cctgccgcag ggggcgcaaa acccggagca tggcctgctg
                                                                       480
 gogetgaace atgagtacat ogacaacgga atgetgtita cegaeggtac ggcgaactgg
                                                                       540
                                                                       600
 aqteteqaca aggeaegeaa ggggeagaac gegatgggeg tgteggtggt ggaagtgaaa
 aaaacgggca geggetggga ggtagtgegt cegtetteet tegeceggeg tattacegte
                                                                       660
  aatacgccga tgcagcttac eggcccggcg cggcatcagg atttaatgaa aaccgccgcc
 gacccqcaqq qggaacgcgt tctgggcacc atgcagaact gcgccaacgg ccacacgccg
                                                                       780
 tggggcacct atctcacctg cgaggagaac tggtcggaca tttttgtcaa aaaagccgat
                                                                       840
                                                                       900
 ctcaacccqc tggaaaaacg ctacggcatc agcgacagcg atgaatcgta ccgctggaac
                                                                      960
 qaggtggatg ageggtteag egttgataaa accectaacg aacceaaceg ttteggetgg
 gtggtagaga togatoccta caacoogaec tocaccooge gcaagcacac cgcgcteggc
                                                                       1080
 cqcttcaaqc atgaggggc cgccgtcacg ctcgccgccg ataatcgcgt ggtggtctac
                                                                       1140
 atgggggacq accagaagtt tgagtacatc tataagtttg tctccgacaa aaaatacgat
 cccqcqaacc qggaagccaa tatgcagctg ctgacgtccg gcacgctgta cgtcgccagg
                                                                       1260
ttcaacgagg acggcagcgg cgactggctg ccgctgatct tcgggcaaaa tggcctggat
                                                                       1320
 aaaaqcaacq qttttgcaag ccagggcgat ctgctgatta aaacccgtct ggcggccgac
                                                                       1380
 gtggtgggg cgacgaaaat ggatcgcccg gagtggatag ccgtcgatcc gcacgccagc
                                                                       1440
qqcaqcqtct actgtacqct gaccaacaac agcgatcgcg gtaaagaggg caaggcgccg
 gtggatgccg ccaaccegeg cgctaataac gtgtttggtc acatcatgca ctggcacgaa
                                                                       1560
 qaqqttqccq atcctgccgc cgcacgctit aagtgggata ttctggtcat ggccgggcgc
 acegacggcg acgateccaa agecaaaggc togatgcagg gcgcggcatt tggcageccg
                                                                       1620
 gatgggttgt cgttcgatca ccagggcgtg ctgtggatcc agaccgacgt ttcctccagc
                                                                       1680
 accatcaata agaaageeta cgaggggatg ggcaataacc agatggtggc caccattccg
                                                                       1740
 ggcaccaacg agtategeeg ttteetgace gggcegegeg ggtgegaaat caceggeatt
 gegtttacgc cggacaaccg cacgctgttt atcaacattc agcatccggg ggagggeggg
                                                                       1860
                                                                       1920
 qatqatatta cogaccoggo caatcogogo gotgtttoca actggocaga cgocagecog
                                                                      1980
 aacgggcgtc cgcgatcgtc aacggtggtg attaccaaag cggacggcgg gatcatcggg
                                                                       1986
 tegtga
```

<210> 4172 <211> 1392 <212> DNA

<213> Enterobacter cloacae

<100> 1172

<400> 4172						
ggcgtgaaag	acgcgtcatc	egetteagge	catggtagcg	ctgaagcete	gtcggatcag	60
		trtgcaaaat				120
qcaatcggta	cegggetett	teteggeate	ggccccgcta	ttcagatggc	cggtccggcg	180
gtgctgctgg	gttacggtat	cgccgggatt	ategeettee	tgatcatgcg	ccagetegge	240
gagatggtcg	ttgaagagee	ggtgtccggc	tecttegeae	actttgccta	taaatactgg	300
gggccgttcg	caggtttcct	ctccggctgg	aactactggg	tgatgttcgt	gctggtcggg	360
atggeegage	tgaccgccgc	cggcatctat	atgcagtact	ggctcccgga	cgtgccaacg	420
tggatttggg	cegeggeett	cttcatcatc	attaacgccg	ttaaccttgt	gaacgtccgc	480
ctgtatggcg	agaccgagtt	etggttegeg	ctgatcaagg	tgctggcgat	tatcggcatg	540
ateggetttg	gcctgtggct	getgttetee	ggccacggcg	gegagegege	cacgatcgat	600
aacctgtggc	agcacggcgg	ctttctggcg	actggatgga	aagggctgat	cctctcgctg	660
gcggttatta	tgttctcctt	aggaggatg	gagcigattg	gcatcaccgc	ggctgaagcg	720
egegateege	acaaaagcat	tccgaaagcg	gtcaaccagg	tggtgtaccg	tatectgetg	780
ttttacatcg	getegetggt	ggtgctgctg	gegetetace	cgtgggtgga	agtgaaatct	840
gacagtagcc	cgttcgtgat	gatettecae	gatttgaaca	gcaacgtggt	cgcttcggcg	900
ctgaacttcg	teattettgt	ggcgtcgctg	teggtetaca	acageggggt	ttactccaac	960
agccgcatgc	tgtttggcct	ctccgtacag	ggcaacgcgc	cgaagttcct	cactcgcgtc	1020
agccgtcgcg	gegtgeeggt	caactcgctg	ttectttetg	gegetateae	ctcgctggtg	1080
gtgctgatca	actatctgct	geegaaagag	gegtttggee	tgctgatggc	gctggttgtc	1140
gecaegetge	tgcttaactg	gatcatgatc	tgcctggcgc	acctgcgctt	cegegeggeg	1200

```
1260
atgogoogca aggggegega gacgcagtto aaagegetge tetateegge ggggaactae
ctctgtatcg ccttcctcgg cctgattctg gtgctgatgt gcaccatgga tgagatgcgc
                                                                     1380
etgtcagcga tgctgctgcc ggtgtgggtg gtgttcctgt ttattgcatt taagctctcg
                                                                     1392
cgcaaaaagt ag
<210> 4173
<211> 1296
<212> DNA
<213> Enterobacter cloacae
<400> 4173
togattactt tttatttgaa ctgttttgta atcgattact ttttccgggt gaggcttatc
atggtgtcaa ctgagagtag tgaaaaggcg ataacgcaac accggetgct ggtgccgcgt
                                                                     180
etgtegetga tgatgtttet geaatttttt atetggggta getggteggt eacgettgge
ctggtgatga cccggcacaa catgtctttg ctgattggcg acgcgttctc tgccgggccc
                                                                     240
                                                                     300
ategetteca ttetttegee gttegtgete gggatgetgg tggacegett ettegeeteg
                                                                     360
cagaaggtga tggcggtgat gcacctcgcg ggcgcggtga tcctctggtt cgtgccgggg
                                                                     420
gegetgattg etgagaatgg egegetgetg attggeetge tgtttggeta eaegetetge
                                                                     480
tatatgeega cactggeget gaccaacaac attgegttte acageetgge gaacgtggat
aaaaccttcc cggtagtgcg cgtgttcggc accatcggct ggatcgcggc gggcattttc
                                                                      540
ateggegtea ceggegtege gtecagegte accatettee aggtegegge ggteagetee
                                                                      600
qtqctqctgg cggtctacag cctgacgctg ccgcacacgc cagcgccggc aaaaggcctg
                                                                      660
                                                                      720
coggttaagg tgogggatot ottotgogog gacgoottog ogotgottaa aaccogocac
ttettegtet teteegtetg egegatgetg atetetgtee egeteggeae etattaegee
                                                                      780
tacaccgcct cgtatotgge ggatgeogge attgeogacg teageaccge catgteette
                                                                      840
gggcagatgt ctgagatcgt ctrcatgrtg gtcattcctc tgctgttccg ccgactgggc
                                                                      900
gtgaaagtca tgctgctgat cggcatgctg gcgtggttcg tgcgttatgc catgttcgcg
                                                                      960
ttgggcgtca gcgaagaggg gcgcattctg ctgtaccttg gcattctget gcacggcgtc
                                                                      1080
tgctacgatt tottotttgt cgtcggcttt atctataccg accgcgtggc gggcgaaaag
gtgaaaggcc aggcccagag catgategtg atgttcacct aeggcategg catgetgete
                                                                      1140
                                                                      1200
ggetegeaga tttccggcgc getetacaac egcetggtgg caggacagac egtgccgcag
gegtgggtca cattetggtg gataceggeg gtggetgeeg eggegatege getgatttte
                                                                      1296
cttctcacgt ttaagtatga cgatgacaag gcgtaa
<210> 4174
<211> 1041
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4174
 cgttcaggag gtggtatgag gacaatgaaa ggaccgggca tttttctgtc gcagtttatt
                                                                      60
 ggcgcagaag cgccgtttaa ttcgctcgac gggcttgctg aatgggcggc aggtaaaggt
                                                                      120
 tataaggegg tgeagatece etgeaaceat ecgeacatet ttgaegtega gaaageegea
                                                                      180
 gagagecagg cetactgega egacateace gecaggetgg cegeacaegg getggttate
                                                                      240
                                                                      300
 agegagetgt egacceatet ggaagggeag etegtggegg tgaateeggt ttacagegag
                                                                      360
 gogtttgacc acttogcacc ogcogcogtg ogcggtaacg aggeggegeg cegggegtgg
 gegaeggaaa agetgaagea ggeggeggte getteggeea gattaggget gaaggegeae
                                                                      420
 gegacettet eeggeteget ggegtggeeg tttttetate egtggeegee geataaceag
                                                                      480
 cagogttttc aggaagogtt cgaggagotg gcaaccogct ggeggccaat actggatacc
                                                                      540
 ttcgacgage agggggtgga cgtctgcttt gagctgcatc cggggggaaga tctgcacgac
                                                                      600
 ggcgtgacct tcgagcgttt tctggcgctg gtggataacc atccgcgctg caacattctc
                                                                      660
 tacgacccga gccatatgct gcttcagcag atggactatc tggcctttat cgatatcttc
                                                                      780
 cacgegegea ttaaagegtt ccacgtgaag gacgeggagt teegeeecag egggegeage
 ggogtetacg goggotacca googtggato aaccgogoog gaogotttog otogoooggo
                                                                      840
                                                                      900
 gacgggcaaa tcgactttaa gggcatcttc agcaagctga cccagtacga ctacgacggc
                                                                      960
 tgggcggtgc tggagtggga gtgctgcctg aaggatggcg ataccggcgc gagtgagggc
 agogaattta toogooggca cattattooc gtttooggac gggegtttga tgatttogec
                                                                      1041
 geaggggget gecatgatta a
```

<210> 4175

<211> 420

```
<212> DNA
<213> Enterobacter cloacae
<400> 4175
taccacgcaa caatttcgcg agtggtggga ataatgttta agcgagaagc agagggggag
agcagtatga cgatttccgc tcaggtcatt gatacgattg tcgaatggat cgatgacaac
ctacaccago ogttacgcat ogaagagatt goodgccatg ogggttacto aaaatggcat
                                                                     180
ttacagegge tgtttatgca gtacaaagge gaaagtetgg ggegetacat cegegaacge
                                                                     240
                                                                     300
aagetgetga tggeggegeg egatetgegt gagteagaeg agegegtgta egatatetge
                                                                     360
etgegetacg ggtttgactc geageagacg tttaceegea tetttaceeg catetttace
                                                                     420
egeacettea accageegee eggggegtac egeaaagaaa accaeggteg ggegeactga
<210> 4176
<211> 2721
<212> DNA
<213> Enterobacter cloacae
<400> 4176
aggaaaaata ccatgaccaa aaaaaatttc tcgcagaata tgccacccgc aggcgggcag
gcgtaccage agaccgtaga gcaggtgctt gctcaggcgc agagccaggc taatggcctg
                                                                      180
gaccgcgccg aggcgcaggc acgtttgcag aaacatggcc cgaacgcgct gccggagaaa
aaaggcaage egggetgget gegtttete gegeattta acgatgteet gatttaegte
                                                                      240
                                                                      300
ctgctggcag ccgccgtatt aacggcagta atgggacact gggttgatac gctggttatt
ctgggcgtgg cggtaatcaa tgccttaatt ggccacattc aggaaagtaa cgcggaaaaa
                                                                      360
                                                                      420
tocotgaaga gtattogcaa tatgototoo agogaggogo gogttattog taacggcaac
catgaaacta teeegaegae ggaaategte eegggegata tiattgtgtt gegegeagga
                                                                      480
                                                                      540
gategtatte eggeggatat gegettaate gaagegeata atttacgegt ggaagagget
                                                                      600
attotgacog gtgaatocac ogtggtggat aaacacacga accogotgag oggogaatta
cecetgggeg acegtacgaa cetggtettt teeggtacga eggteagege gggeggegge
                                                                      660
                                                                      720
gtgggcgtgg tcattgccac gggccaggag accgaactcg gccacatcaa ccagatgatg
gegggcattg aaaaacaccg caccocgctg ctggtgcaga tggacaagct gggcaaagcg
                                                                      780
atettegeca teattetgge gatgatggee gegetgtttg tetteageet ggtgtteege
                                                                      840
                                                                      900
gagatecega tgggegaget getactetee etgattagee tggeggtege etcegtaceg
gaaggtetge eggcaattat etecateate etetetetgg gegtacagge gatggegege
                                                                      960
                                                                      1020
aagegggega ttateegeaa getgeegaeg gtigaaaeee tgggegegat gaeegtggte
                                                                      1080
tgctcggata aaaccggcac cctgaccatg aacgagatga cggtgaaagc catcatcacc
geogacacet getacegegt ggaeggeaac agetacgage eggtgggeaa eatetatete
                                                                      1140
                                                                      1200
gaaggeageg atgageeggt geagateeag eegggeaeeg tgetggagea gtaeetgege
accategace tgtgtaacga cagecagetg atteaggacg agegeggeet gtggggeate
                                                                      1260
accggcggcc cgaccgaggg cgcgctgaag gtgctggcgg ccaaagccca cctcgagccg
gtogtgacca cgctggttaa caagatcccg ttcgactctc agtacaagta catgagcacc
                                                                      1380
                                                                      1440
cactaccaga ttggcggtga ggagcagatt ttgatcaccg gcgcgccgga cgtgattttc
                                                                      1500
gccctgtgtg agcagcagca gacccgcaac ggtgcgcaag cctttgaccg cgcgtactgg
gaaacggaga tggagcgcta tgcgcgtcag gggctgcgca tggtcgccgc ggcgttcaag
                                                                      1560
                                                                      1620
ccagegaacg gtgagcagge attgactcae gaegatetga gecaeggeet gatetteete
ggcatcgccg ggatgatgga tccgccgcgt ccggaagcga ttgaggcgat taacgcctgc
                                                                      1680
                                                                      1740
cagcaggegg ggatccgcgt gaagatgatc accggcgatc acccgcagac ggcgatgagc
atoggccaga tgottgggat caccaacago gagcaggogg ttacoggota tcagctggag
                                                                      1800
aaaatggacg acgccgaget ggcggaagcg gcggtgaagt atgacatett cgcccgtacc
                                                                      1860
agcccggagc ataagctgcg cctggtgaaa gcattgcagg ataaaggcga aatcgtcggt
                                                                      1920
                                                                      1980
atgaccggtg acggcgtgaa cgacgcgccg gcgctgcgcc aggcggacgt gggtatcgcg
atgggcatca aaggcacgga agtgaccaaa gaggcggcgg acatggtcct gacggacgat
                                                                      2100
aacttegeea ceategeeag egeggtgaaa gaggggegte gegtttaega caacetgaag
aagaccatcc tgttcatcat gccgaccaac ctggcgcagg ggcttttaat tgtgattgcg
                                                                      2160
ctgctggcgg ggaacatcat tccgctaacg ccggtgctga ttctgtggat gaacatggcg
                                                                      2280
acctecgeca egeteteett eggeetggee tttgaggeeg eegagegeaa catcatgege
egecegeege gecagacegg geageaegta atggaegeet aegeegtetg gegegtggee
                                                                      2340
                                                                      2400
ttegteggea ccatgattge categeegee tttgegetgg aageetgget ggeecegege
                                                                      2460
gggcacagog eggagttcat cogcacogtg etgetecaga tgctggtetg egeccagtgg
gtgtacatga ttaactgccg caataccgaa gggttctccc tgaaccgcgg cetgctggcg
                                                                      2520
```

aacaaaggga totggotggt aacgggogta otgttootgo tocaggoggo gatcatotac

```
2640
ctgccattta tgcagatgct gttcggcacc gaagcgcttc cgctgcgcta ctggttcgtg
acgetggegg tggegggggt gatgttette gtegtegaaa tegagaageg actgaeeege
aggiteegta aggetgeata a
<210> 4177
<211> 1092
<212> DNA
<213> Enterobacter cloacae
<400> 4177
gggaaaacaa cgccgaggta cttcttaatg aaactcccac tcctgttcgc gctcctcgcc
tqcaccctgc aacccgcgtt cgccgcagtc attcccgtgc gtgttgccac cgtggagcaa
accgcccacg ccgccgagcg ccaaattccg ggccgcattg aagctatcca caccgttgaa
                                                                     180
                                                                     240
ctgcgtgcac gtacggaagg cgtcatcacc agaatccact tccgcgatgg ccagtatgtg
aaaaaaggeg aegtgttgt: cgaactggae gaegeegage egegeege eetgegtetg
                                                                     300
qcqcaggccg aagtgagaag cgccgaagcc acgctgcgtc aggcgcagca gcagctgtcc
                                                                     360
cgettegaaa geettggeag cagtaacgee atcageegee acgaegtgga caaegeeege
                                                                     420
                                                                     480
atgcagogog acgtcgccag cgccgcactg gagcaggoga aagcccgtct cgacacccgc
                                                                     540
agegteacte tegactacae gegeattatt teacegattg aegggegegt ggggcacage
aactttcacg toggcagoot ggtgaatoot gccagoggtg tgotggtgga ggtggtgcag
                                                                      600
ctogatocga toogcatogo otttgcgctg gaagagggog ogtttgccac caaagccgga
                                                                      660
                                                                      720
cagcatgogg atatcagogo catgaagcag gootggcagg cgctgattga cagcaacggc
cagogoatca goggggaact cacotoogtg gacaacogca togaccogcg tacogocago
                                                                      780
gtgatgctgc gcgccgagtt cgccaacccg cgccatcagc tgctgcccgg cggcaatgtg
                                                                      840
aacgtttacc tgcgtccggc aagcgagcta ccggtgctga ctctgcccgc cgctgccgta
                                                                      900
caccagaatg gcgacgggtt cttcgcctgg gtgattaacg ccgaggataa agccgaaatg
                                                                      960
egteegetga aggtegeegg geagategge eageagttee agattgeete eggegtgaag
                                                                      1080
cccggtgagc gagcgattac tgacggtgcg cagcgcgtgc agccaggcgt tgccgtccag
atactgaatt aa
<210> 4178
<211> 3165
<212> DNA
<213> Enterobacter cloacae
<400> 4178
ggagccatca tgctgacgtt tttcatcaaa cgcccgcgct ttgcgatggt gattgcgctg
                                                                      120
gtcatcacco tgctgggggc catcgcgctg aggattattc cggtggagca gtacccgcag
                                                                      180
atcacccogo eggtegtgaa tgtgtcageg tcatggeegg gegeeagete ggetgaegtg
                                                                      240
qeqqaggeea tegecaegee getggagaeg cagetgaaeg gggtggatea tatgetetat
atggagtcca ccagttctga cgaaggcacg tacagcctga acatcacctt tgcggcaggc
                                                                      300
                                                                      360
accgaccogg atotogoogo catogacgtg cagaaccgcg tggcgcagge cgtggcgcag
ctgccgaccg aggcgcagca aaacggcgtg caggtgcgca agcgcgccac caacctgatg
                                                                      420
                                                                      480
atgggggtaa gcctttactc accgaacaac acccacacgc cgctgttcgt cagcaactac
gecagcacce aggtgegega ggegetgteg egtetgeegg gegtegggea ggtacagatg
                                                                      540
                                                                      600
tttggcgcac gggactacag catgcgcatc tggctgaggc cggaccgcat gaacgccctg
                                                                      660
aacgtgacca gcgatgacgt ggcgcaggcg ctgcgcgagc agaacgtgca gggggggggcg
ggccaggtcg gcacgccgcc ggtgtttaac ggtcagcagc agacgctgac cattaacggg
                                                                      720
                                                                      780
ctggggcgct taaaccaggc cgacgactit gccaatatca ttatccgcgc cggggagatg
                                                                      840
gggcagctgg tgcgcctgaa ggacgtcgcc accatcgagc ttggctcgct cagctacagt
                                                                      900
 totggcgcgc agctgaacgg gcatgactcc gcctatttgg gtatctaccc gacgccgtcc
gctaacgccc tgcgcgtggc cgatgcggtg cgcgcggagc tggaacggtt atccacgcgc
                                                                      960
 ttocoggacg atotggtota tgaagtoaaa ttogacacca cotogtttgt ggoogocacc
 atcaaagaga ttggcgtete gctggcgctg acgatgctgg cggtggtggt cgtggtgtcc
                                                                      1080
                                                                      1140
 ctgttcctgc aaagctggcg cgcgacgctg attgtcgccc ttgccattcc ggtgtcgctg
 gtgggcacct tcgcggtgct ctatacgctc ggctactccg ccaatacgct gagcctgttc
 gocatcatte tggegetgac catggtggtg gatgaegeca tegtggtggt ggagagegte
                                                                      1260
 gaaacgctga tggcggaagg gcagagccgc acggcggcga ccgcgctggc gctgcgccag
                                                                      1320
                                                                      1380
 attgccgggc cagtgattgc caccacgctg gtgctgctgg cggtgtttgt accggtggcg
 ctcctgccag ggatcgtggg cgagctgtac cgccagttcg cggtgacgct ctcgaccgcc
                                                                      1440
```

gtcacgetet caageetggt ggcgetgace etgacgeeeg egetetgege getgetgetg

tqa

```
1560
egceegegae eggeacagee egeegeegtt tteegtgggt teaacegegg getggaegee
                                                                     1620
acgogcacgo tttacaccog gatogtgago gtgttcaacc tccgtccgtg gctggcgctg
etggecaceg caggegege ggeggtggtg gtattcaget ttatgtegat gccaaaggge
                                                                     1680
ttcctgcccc aggaggatca gggctacttc ttcgccagcg tccaactgcc ggaggcagcc
                                                                     1740
tegetggage geaccgaage ggtgatgace accgegegeg agetgatege taaaaacceg
                                                                     1800
goggtagaag acgtgattca ggtctccggg tttaacatcc tcaacggcac cagcgcatcg
                                                                     1860
aacggcgggt ttatctccat catgctcaaa gactggageg agcgteegee getggatgag
                                                                     1920
gtgatgggca coetteageg acagetgetg geeetgeegg aageeaceat catgacettt
                                                                     1980
gegeegeega egetgeeggg getgggeaac geeteegget tegacetgeg eatteaggeg
                                                                     2040
                                                                     2100
caggogggge aaagcccggc ggagctggag cgcgtgacgc gtgaggtgct ggcgaaagcc
aaccagcacc cgcagctgag ccgcgtgttc accacctgga gcagcaacgt gccgcagatg
                                                                     2160
acgeteaceg ttgacegega gegegegee egectegaeg tgeeggtgte acgeatette
agcageetge aaacegeett tggeggeaeg egegeegggg attteagegt caacaacege
                                                                     2340
gtotaccacg tagtgatgca gaacgagatg cagtggcgcg agcgcgcgga gcaaatcagc
gagetttteg tgegeageaa eageggegag egggtgegte tgageaacet egteaceate
                                                                     2400
acgoogaccg toggogogoc atttattcag cagtacaacc agttoccgto ggtatcggtg
                                                                     2460
ageggetegg cageggaagg ggtgageage ageacegeaa tggeggegat gggegagatt
                                                                     2580
ctggcggaaa acctgccago cgggtacgac tacgcctgga gcggcatgtc gtatcaggag
                                                                     2640
cagcagaceg gcaatcagge gatatggate gtgctggegg eggtggtgat ggegtggetg
ttcctcgtcg cccagtatga gagctggacg ctgccggcga gcgtgatgct ctcggtgctg
                                                                     2700
                                                                     2760
ttegecateg geggggeget ggtetggetg tggetggegg getatgeeaa egaegtgtae
gtgcagattg gtctggtgct actgatagec ctcgccgcca agaacgcaat tcttatcgtg
                                                                     2820
gagtttgecc gegeeeggeg catggaegga atggegattg tegatgeege aegggaggg
                                                                     2880
                                                                     2940
geategegee getteegege ggtaatgatg accgeegtgt egtteattat eggegteetg
cogatgatgc tggcgaccgg ggcgggcgcc cagagccgcc gcatcatcgg cactacggtc
tteageggea tgetggtgge gaccgtggtg gggatagtgt teatecegge getgttegtg
                                                                      3060
                                                                      3120
ctgttecage gcctgegega gtggggecae ggccttaegg actegtegee caeageteae
agtgettetg caccagagaa atcagegage egecategge gataa
<210> 4179
<211> 306
<212> DNA
<2'3> Enterobacter cloacae
<400> 4179
ggeogegtgg teageageca gtgtgaegtg geetggatea geeaggegat attaategeg
tigtigagog teageggett ateegtegae egeacetgea tggtgetaat gigegggetg
                                                                      120
gggcgaatgt cccagtgcag atctttaatg ctgtcgatcc tgtccgaccg tcaggcggat
                                                                      180
cgcctgatgg agtgggacat acgcaacggc gtgatccagc gctatggccg caggcacggg
                                                                      300
attgcggtgc ccgtcagcga tgtggtggtg ccgctgctgg cggcggggag cgaggggccg
                                                                      306
gggtga
<210> 4180
<211> 723
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4180
 cacagetetg atgetacaet gttttcagte etcattacet cateaaataa atttatgaet
                                                                      120
 accgctgatt tcaaacgccc taaactagaa ctcccaaacg gggctgataa actgctgctg
                                                                      180
 cactcetgtt gcgctccgtg ttctggtgag gtaatggagg cgatccaggc ctcagggatc
 gactacacca tettetteta caateegaac atteateege agaaagagta tetgattegt
                                                                      240
                                                                      300
 aaggatgaga atattegett tgeegaacag caeggegtae egtttatega tgeggattae
                                                                      360
 gatacagata actggtttga gcgcgccaaa ggcatggaat gggaacccga gcgcggcatt
 cgctgcacca tgtgttttga catgcgcttt gagcggactg cgctttacgc cgctgaaaat
                                                                      420
 ggottcaacg tgattagcag otcactgggo atototogot ggaaaaatat gcagcaaato
                                                                      480
                                                                      540
 aacgactgcg gtcagcgagc cgccgccac tatccgggta tggtctattg ggactataac
 tggeggaaac agggeggtte gtegegeatg attgaaatea geaagegega geagttetae
                                                                      600
                                                                      660
 caqcaggaat actgoggotg ogtttattca ctgogtgaca gcaacctgca cogcaaatco
 cagggoogto ototoattoa gatoggtaag otttactacg gtaaagaaga ogaccaggco
```

```
<210> 4181
<211> 804
<212> DNA
<213> Enterobacter cloacae
<400> 4181
ataaagttga agaggacggg catgatgatg cattcatctg catgcgactg tgaggcgagt
ttatgegaga cectgegtgg gttetegget cageateetg acagegtgat etateagaca
togotaatga gogocotgot aagoggogto tacgaagggg agacgaccat cgccgacctg
                                                                      180
                                                                      240
etggeacacg gtgattttgg teteggtace tttaacgage tggacggtga aatgattgee
                                                                      300
ttcagcagec aggtgtacca getgegegee gaeggeageg eeeggegeege gaageeggag
caaaaaaacgo cgttcgcggt gatgacctgg ttccagccgc agtaccgcaa aaccttcgac
                                                                      360
                                                                      420
gggccggtca gccgtcagca gatccacgac gtgatcgacc agcaggtccc ctccgataac
etgttetgeg egetgegeat egaeggeaat tteegecaeg egeacaceeg eaeegtaeeg
                                                                      480
egecagaege cacegtaceg ggegatgace gaegtgetgg atgaceagee ggtgtteege
                                                                      540
tttaaccagc gegagggegt getggteggg tteegeacce egeageatat geaggggata
                                                                      660
aacgtggegg getateaega geaetttate aeegaegaee greagggegg gggeeaeetg
                                                                      720
ctcgactatc agctggagaa cggcgtgctc accttcggcg aaatccacaa gctgatgatt
gacctgooog cogacagogo gtttttacag gocaatotgo accccagoaa cottgatgog
                                                                      780
                                                                      804
gctatccqcq ccqtcqaaaa ctaa
<210> 4182
<211> 834
<212> DNA
<213> Enterobacter cloacae
<400> 4182
eccgetgetg atgggccage tecateteag coagattttg tgaatcaata taaggacaga
                                                                      60
gaaatgcaaa aagtggctct cgtaaccggc teeggeeagg ggattggcaa agegattgeg
cttegeetgg tgaaggatgg ttttgeegtt getattgegg attataacga agagaeggeg
                                                                      180
aaageggteg eggatgagat caceegeaac ggegggaagg eegtegeegt gaaggtggae
                                                                      240
gtototgaco gogagoaggt gttogoggog gtggaaaaag coogoacogo gotgggoggt
                                                                      300
tttaacgtca tcgtcaataa cgccggggtg gcgccgtcca cgcccatcga atccatcacg
                                                                      360
                                                                      420
coqqagattg togacaaggt ctacaacatc aacgtgaaag gggtgatctg gggcattcag
geogeaattg acgoetteeg caaagagggg caeggeggea aaateateaa egeetgetee
                                                                      480
caggogggee atacoggcaa cooggaactg goggtotaca gotocagcaa gttogoggtg
                                                                      540
egtggettaa cecagaeege egegeggat etegegeege tggggateae egttaaegee
tattgcccgg gcatcgtcaa aacgccgatg tgggcggaaa tcgaccgtca agtctccgag
                                                                      660
geggeggta aacegettgg ctaegggaeg gaaacetttg ccaaaegeat taegettgge
ogtttgtccg agccggaaga cgtggccgcc tgcgtctctt acctcgccgg gccggattcc
                                                                      780
                                                                      834
gactacatga coggteagte getgetgatt gatggtggga tggtgttcaa ctaa
<210> 4183
<211> 258
<212> DNA
<213> Enterobacter cloacae
<400> 4183
aaaccgcege egacccgcag ggggaacgeg ttetgggeac catgcagaac tgegecaacg
                                                                      60
gccacacgcc gtggggcacc tatctcacct gcgaggagaa ctggtcggac atttttgtca
aaaaageega teteaaceeg etggaaaaac getaeggeat cagegacage gatgaategt
                                                                      180
accgctggaa cgaggtggat gagcggttca gcgttgataa aacccctaac gaacccaacc
                                                                      240
gttteggetg ggtggtag
<210> 4184
 <211> 1245
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4184
```

```
aggatggcga taccggcgcg agtgagggca gcgaatttat ccgccggcac attattcccg
                                                                     60
                                                                     120
tttccggacg ggcgtttgat gatttcgccg cagggggctg ccatgattaa cgtcgggatt
ateggeageg ggtttattgg ceeggeacae ategaggege teaggegtet egggtttgtg
                                                                     180
caggtggtcg cgctctgcga cggttcgctc gttaaggcgc aggaaaaggc gcgccagcta
                                                                     240
aatgtcccgc atgcttacgc cagcgtggaa gaactgctcg cgcaccccaa tctgcatgcg
                                                                     300
gtgcacaact gcacgccgaa ccacctgcac gcggagatta accgccagat cctgcgcgcg
                                                                     360
ggcaagcacg tgttttccga aaagccgctg tgcatgacgc cggacgaggc gcgcgagctg
                                                                     420
gtggcgctgg cagagcaggc gggcgtggtg catggcgtga gctttgtcta tcgtcagttt
                                                                     480
gegatggtgc gccaggcggc gagcatgatg cgcgcgggca ccgtcgggcg gctgttcgcc
                                                                     540
                                                                     600
togcaeggca getatttgca ggaetggatg etgetggaaa eegaetacaa etggegggtg
                                                                     660
gaggeegege teggeggege gtegegggeg gtggeggata teggtteeca etggtgegat
acggtacagt atgtgacagg caggcgcatt accgaggtga tggctgattt atccatcgtc
tggccgaggc gcaaggccag cgcgggtggt tatcagacct tctcccatga cgagcaggcg
                                                                     780
                                                                     840
gagtatgaag tcaaaccggt caccaccgaa gattttggct cggtgctgtt ccgctttgac
gacggcagca agggcagett tagcgteteg caggtgageg eggggegaaa aaacegeetg
                                                                     900
                                                                     960
acctttgaaa ttaacggcag cgagcagtcg gtggcgtggg atcaggaaat cccgcagcag
                                                                     1020
ctgtggatcg gccatcgcgc gcgggcaaac cagacgctca ccgacgatcc aggcctgatg
                                                                     1080
aaccetgacg tggccgacag cgcccacttc cccggcggac atatcgaagg ctggccggac
                                                                     1140
gcetteaaaa atatgatgge gcagttetae egegeegtge aggegggege gatgeeggat
acgccgcagt ttgcgacgtt tcacgatggc gcaaacgtga tgtatatcat tgatgccatt
                                                                      1245
qtqaaaagcc atcagcagca gcgctgggtg cgcgtggaac aataa
<210> 4185
<211> 1020
<212> DNA
<213> Enterobacter cloacae
<400> 4185
atttatggta gcctgcacaa aacgctaacc gcaggatgtg tcgtcgctat gtcaattcag
aaaatcgete agetggeegg ggteteegtg gegaeggtet coegegtget gaataacage
                                                                      180
gacacegtga aggegaaaaa eegegagege gttetgeggg egatteagga gageaactae
cagecaaacc tgctcgcccg tcagctgcgc accgcccgca gctatatgat cctggtgatg
                                                                      240
gtgteeaaca ttgeeaacce gttetgegee gaagtggtga agggeatega ageegaggeg
                                                                      300
                                                                      360
gaaaagaacg gctatcgcat tctgctgtgc aactccggct cggatattga gcgctcccgc
togggettaa geetgetete eggeaaaate gtegaeggea ttateaceat ggatgeatte
                                                                      420
tegaaactgc eggaactggc egegetgatt ggcaacgege egtgggtaca gtgegetgaa
                                                                      480
tacgccgatg cgggcgcggt ctcctgcgtc ggcatcaatg atgtggacgc ttcacagcat
geogteagee agetggeega eggeggeege aagegtateg egatgateaa ecaegatete
                                                                      600
                                                                      660
agetacaaat atgecegeet gegegaacge ggetacaaga gegtgateea eetgegggat
ctggactate aggeggtgga gtatgccage gateteaget ceggggeggg catggeggeg
atgcaaaacc tgttaaaaga taatccgccg gatgcggtat ttgccgtttc cgatacgctg
                                                                      780
                                                                      840
gcggcgggcg cgctgcgcgc cattcagcag gcaggtcttc gggtgccgga ggatattgcc
gtggtcggct ttgacggtac ggagctggcg gacatgattt cgctcaccac catcgaacag
                                                                      900
cogtogoggg atatogggcg caaggoggto gatotgctot taaataagat cgacaaccog
                                                                      960
gacgegecca eggaaagggt gatgatggae tggegettta ttteeegege eageacetga
                                                                      1020
<210> 4186
 <211> 309
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4186
 aacgacaaca ggagatgttg gatgagcaaa aagattattg actgggacga actcagagct
                                                                      60
qaactqttaa gcgattcaga agttcaggct tcctttgatg cagaagagcg caaggaacgc
                                                                      180
 etgegggaga tgetggegea atggegeaat catgetggte tgaegegege eeaggtggeg
 gagoggatgg gogtcagogc accgaoggta toacgaatgg aagcaaatat taccogggog
                                                                      300
 agtotogata cattaacgog tratgogotg gtgtgcgggg taaagcatco gcagataacg
                                                                      309
 ctttactga
```

<210> 4187 <211> 1632

```
<212> DNA
<213> Enterobacter cloacae
<400> 4187
tattqcaaat tattaccatt tgcattagcg ttgttaacaa atttcgttgg ggaacaagcg
                                                                    60
                                                                   120
gtaatgaaga gggtatggag tgggttgctg ttggggatcg gcgcgctgcc cgccgtggcg
gcaacgtgcg agcagacgtc ccggcagggc gatattcagg gaaagtttga tgccagcggc
                                                                   180
gaagtotget totooctgoc tgaactgggt gaaaactacg tttccgccac gctgaatggc
                                                                    240
gtgacggatg cgcgcctgct tgatgggcaa aaccgccgca tccgcacgct gatcgaaaat
                                                                    300
ggtcctgcgg acggggaaca cacgctgctg tttgccctgc cggtgaaaca gaacacctcg
                                                                   360
ctggtgctac acggagaage cggtaagecg tggcgttttc agtggeggat gaaagagace
                                                                   420
teteogttae caegegtgea gatgetggeg eetgaaagee egaegetgaa ggegetggea
                                                                   480
agogtcattt ctgccggtgg aagtaccgag gcgttctggc aggcgcagcg tcgacaggga
                                                                    540
acgccgatgg tggagccggt agatgcgagc cataagcgcg tgacctttct gtggcgcggc
                                                                    600
                                                                    660
gcgcgggata acgtcttcat totoggctct ccggcggggg atcacgatcc gctgttccgc
ctgggcaaca gcgacgtctg gttccgcagc tatgtagtcc ccgctgatac ggtaatgcag
tacaageteg egeocgatgt geogategte gagggtteca caegegatea aegeogegee
                                                                    780
                                                                    840
atectggtaa gegegeagge egateegett aaccegaata cettegggga geagaagace
gategetgga ategettte tetgetegat eteageeegg egegetattg eteegtteag
                                                                    900
gccacggcaa agccgctggt gcacgggacg ttgagccgtc agagtttttc cagccacatc
                                                                    960
                                                                    1020
cttggcaacg cccgcgacgt gatgatctac caaccgcgcg gcgcacagcc tgcacgctgg
                                                                    1080
acgctcatcc ttttcgacgg acaggtttat caggacgaat accattttgc caacgtgctg
gacggtetga ttgccaggca tcacctgccg ccgattaacg tggtgtttat cgacagcctc
                                                                    1140
gatcacgege geogeggeaa egagetgeeg eegaaceegg attitigetga ettiatggeg
                                                                    1200
                                                                    1260
cacgagetge tgeegtgget gegggggaag ggeateggea tgeageggea gaaaacegta
ctggcaggat ccagctacgg gggaattgcc tetteatggg tggcgctgcg ctatecgcgc
                                                                    1320
ctgtttggca acgtgctgag cctttccggt tcttactggt gggcgccgga aggtgacgcc
                                                                    1380
ccaggetgge tgaegegtca gtaccaacag tetecacegt atceggtgeg ettetggtta
                                                                    1440
caggeoggga agtttgaaac egeggggeeg ggeggeggea tetategeac caegeaggat
                                                                    1500
                                                                    1560
tttgaacagg tgctgaggaa aaaaggctac cgcgtcagct tccacccctc atccagcggc
                                                                    1620
cacgactacg eggectggtg tgaagegetg atccaeggga tgegegatet caetggetta
                                                                    1632
cgacgccagt ga
<210> 4188
<211> 894
<212> DNA
<213> Enterobacter cloacae
<400> 4188
 cecatgtotg actatocaac cattgegetg acaggaceeg gtgegattgg gaecaccate
 gccgcggtgc tgcatgaagc gggccgcacg ccgctgctgt gtggtcgcac cgcgcatccg
 180
 cccagegica ttacgegece egitgacete gittittigg eggicaaaac gacacaaaat
                                                                     240
 geogacagog eegggtgget gegtgeeetg tgegatgaaa acacegtggt etgegegetg
                                                                     300
 caaaacggcg tggagcagaa agcccagctt gcgcctttgg ttaatggcgc aacggtactg
                                                                     360
 cceteggtgg tetggttccc tgcccagcgc gagccggatg cctccgtctg getgcgcgcc
                                                                     420
                                                                     480
 aaaccgcgcc tgacgctgcc ggacgtgccg caggcgcagc gggtggtcga agcgcttcgt
 gatacgcgct gcgcggttga gctctcggaa gatttcccca ccgtcgcctg gcgcaagctg
                                                                     540
                                                                     600
 etgcaaaacg eggtegeegg getgatggtg etggecaate geeggeegg gatgtteagg
                                                                     660
 cgcgaggata tcagcgagct ggcgctggcc tacetgcgcg aggggcttac cgtctcccgc
 gccgaagggg cgaagetgga cgatgcggtg gcggaggaga tcctggcgaa cttccaacgc
                                                                     720
 gegeegtgg atttaggtae gtcgattete getgaeegee aggeggateg eeegatggag
                                                                     780
 tgggacatec gcaacggcgt gatecagege tatggccgca ggcacgggat tgcggtgccc
                                                                     840
                                                                     894
 gtcagcgacg tggtggtgcc gctgctggcg gcggggagtg aggggccggg gtga
 <210> 4189
 <211> 1779
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4189
```

```
ttgacctgcc cgccgacagc gcgtttttac aggccaatct gcaccccagc aaccttgatg
                                                                      60
eggetateeg egeegtegaa aactaacagg agaactaceg tgaacagtga gaaacagtca
cgtcagtggg cgcacggcgc cgatatggtt gtcggccagc tggaagcgca gggtgtgaag
                                                                     180
caggigited gcatacogg cgcaaaaatc gacaaggiet tigactccct gciggactcc
                                                                      240
                                                                      300
tecategaga ttateceggt gegteaegag gegaaegegg egtttatgge ggeageggta
gggeggetaa eeggeaagge egggtegeg etggteacat eegggeeggg etgeteeaac
                                                                      360
ctgatcaccg gcatcgccac cgccaacagc gaaggtgacc cggtggtcgc gctgggcggg
                                                                     420
                                                                      480
qeqqtqaagc gggcagataa agcgaagctg gtgcaccaga gcatggatac cgtcgccatg
ttcagcccgg tgaccaaata cgccgtggag gtcaattcgc ctgacgcgat tgccgaggtg
                                                                      540
                                                                      600
gtgtcgaacg cgtttcgcgc tgccgagcag ggcaggccgg gcggggggtt tgtcagcctg
                                                                      660
cogcaggata ttgtogacca goccaccacg ggggcgattt taccegccag caccgeggeg
ctgatgggcc cggcgccgga gtcagccatc aacgaggtgg cgaagcttat cgcgaaggcc
aaaaacccgg tcatcttact cggcctgatg gccagccagc ccgccaacag cgccgcgctg
                                                                      780
                                                                      840
cataagetge tggagagaag cegtatteeg gteaceagea eetateagge egeeggggeg
gtgaatcagg aacactteac cegettegec ggacgegteg gtetgtttaa caaccaggeg
                                                                      900
ggcgatcggc tcctgcatct ggcggatctg atcatctgta tcggttacag cccggtggaa
                                                                      960
tacgageogt ccatgtggaa cageggtgac gecacectgg tgeacattga cgtgctgecc
gcctatgagg agcgcaagta tgttcccgat ctggaactgg ttggggatat tgccgccacg
                                                                      1080
                                                                      1140
ctgaatctgc ttgccagccg aatcgagcac aagettgaac tcagccagcg cgcctcggaa
attettgteg ategecagea teagegggae etectegace gtegeggege ategettaac
                                                                      1200
cactttgecc tgcatccgct gegcatcgtg egegccatge aggacategt gaacaacgae
                                                                      1260
gtgacgetea eegtegacat gggeagette cacatetgga tegeeegeta eetetacage
                                                                      1320
                                                                      1380
ttccgcgcgc gtcaggtgat gatctccaac ggtcagcaga ccatgggcgt ggcgctgccg
tgggegattg gegegtgget ggttaacceg gggegeaagg tggtgteggt eteeggggae
                                                                      1440
ggeggetttt tgcagtcgag catggagetg gaaacegeeg taegeeteaa egecaatatt
ctgcacatca tctgggtgga taacgcctac aacatggtgg ccatccagga agagaaaaaa
                                                                      1560
                                                                      1620
taccagogto totooggogt ggagttoggo coggtogatt toaaagoota tgoogacgog
tteggegeaa aaggtittge egtegagagt geegaegege tegaacegae getgegtgee
                                                                      1680
                                                                      1740
geaatggatg tegatggeec ggeegtggtg geeatteeeg tegaetacag egataaceeg
                                                                      1779
etgetgatgg gecageteea teteageeag attitgtga
<210> 4190
<211> 240
<212> DNA
<213> Enterobacter cloacae
<400> 4190
cccagaccgc cgcgcgggat ctcgcgccgc tggggatcac cgttaacgcc tattgcccgg
gcatogtoaa aacgccgatg tgggcggaaa tcgaccgtca agtctccgag gcggcgggta
aaccgcttgg ctacgggacg gaaacctttg ccaaacgcat tacgcttggc cgtttgtccg
                                                                      180
agcoggaaga ogtggcogco tgogtotott acctogcogg gcoggattoc gactacatga
                                                                      240
<210> 4191
<211> 765
<212> DNA
<213> Enterobacter cloacae
<400> 4191
gtsacetete tittegiteg ettittaace igetataaca aacteettae etticaggga
 gtcaccgccg tgcccgaaat caatcaacat ggtcaaaccg ttaacgatat tgtcccggac
                                                                      180
 tggaaatgeg eccgegegtt aaccegtact etgeteaceg gecagtattg eegeetggag
                                                                      240
 cogotggatg otgaccgcca ttoggotgat ttgtttgaag cotatgcgct gggtgacgac
 agegactgga cgtggcttgc cagcacccag cctgtgageg ttgaggccac tgcgcactgg
                                                                      300
                                                                      360
 gtgctgggaa aggtgctgga tgacgacctg gtgccctttg ccattatega tctgcgcacc
                                                                      420
 gaaaaggegg tagggetggt cagetatatg gegatagaac gettteaggg eteggttgag
 atoggocacy toacotygto gogoagaaty aagggoacco gogtgggtac cgaageggtg
                                                                      480
 tggctgctgc tgaaaaatgc ctttgagcat caatatcgcc ggctggagtg gaagtgcgat
                                                                      540
 togatgaaca togootcacg caacgoggog gagoggotgg ggtttgtotg ggaagggoga
                                                                      600
 ctgcgccaga agctggtgcg caaaggccgc aaccgcgaca gcgatatgct ttcgattatt
                                                                      660
 gacggcgaat ggccgcagcg cgatgcagag ctgcgcgcct ggctggcggc ggagaatttt
                                                                      720
                                                                       765
 gacggggaag ggcggcaggt caggcggctt gaggaatttc gctag
```

```
<210> 4192
<211> 2193
<212> DNA
<213> Enterobacter cloacae
<400> 4192
gageteatta tgaacaacac cacaatgeac aaaacgetge tggegattge categgegeg
gtaacccact cogettttgc ggcggatgag aaaaaagagg acaccatcgt cgtccagtcc
acqqcqqqqa qtqatttcaa acccqqcqqc qaccaqctqq tgcccqcctt ccttgacggg
caggtggega acggcgggcg catgggtatg ctcggtcagc agaacgccat ggacgtgccg
ttcaacatca tcagctacac ctcgaagctg gtggaagatc agcaggcaaa aaccattgct
                                                                     360
gacgtggttg ccaacgacgc gggcgtgcag ttcgttcagg gttacggcaa cagcgcggaa
                                                                     420
accttccgca ttcgcggcct gaagittgac ggcgacgaca tgacctttgg cggattgtcc
                                                                     480
ggggtgctgc cgcgtcaggt ggtggatgcc cagatggtcg accgcatcga gatcttcaaa
ggggccaact coetgatgaa eggtgeegea agetegggeg tgggegggat gateaacett
                                                                     540
                                                                     600
gagoctaaac acqcqqqcqa caccccqcaq qcqaaaqtqq qtqtqqacta cacctcqqat
toccagattq qcaccacqct qqatqcqqqc cqccqctttq qcgataacga ccagtttggc
                                                                     660
qeqeqqqtqa aeeteqtqca teqeqaaqgq gaaaceggeg tgcegaacga cegeegeege
accacgotgo totocacego cotggattac aagggogaco gtttcogcac otogotggac
                                                                     780
                                                                     840
etgggctace agaaaaaaac etteeacgge ageeegacea gegteaacat eteggeggtg
                                                                     900
gattttgtgc ctgaaccqcc gaagaacgat cgcaacttct cgcagaagtg ggcctacagc
gatategaaa acgagttegg gatgtggege agegagtatg acateacega tagetggaeg
                                                                     960
                                                                     1020
qcqtataccq qtctcqqcqc qcaqcacqcq cacqaaqaaq qqatctacag cgcgccgaag
                                                                     1080
ctoctogata agagoggtaa tgoggtggto agoogtottg ataccaaccg catcagogat
totytoagog goatggoggg cattogoggt aacttoacta coggattogt otogoacaag
                                                                     1140
                                                                     1200
gtcaatgttg gctattcggc gatgaccaaa aacgaaaaga tcgcgtggaa aatgtcggcg
acgaaggata atcogaccac caacatotac cacaacaccg gogtogatat googgacago
                                                                     1260
tocaacetea aeggeteagg eggeaaatae agegateege tgaccagegg gegeaceege
acgcagggtt ggctgctgag cgataccctg ggcgtgctgg acgacaagct gctgttcacc
                                                                     1380
gcaggegege ggcatcagaa agtggtgatt egegggtaca acaaaatcac eggtgeggaa
                                                                     1440
aacgacgegg acggtttega eggeageege tggatgeeca cetaeggegt agtetataaa
ccqtqqqaqq aaatttccct ctacqccaac cacaccgagg cgttacagcc cggtgaaacc
gogoctogot cagcaaacaa ctacggocag agcaccggta togttoacto taagcagaac
                                                                     1620
gaagtgggcg taaaggcgga ctttggccgc gtgggcggct ccctggcgct gtttgagatc
                                                                     1680
aaaatgeegt eggegateet tgaegaeage ggteactaeg geetggatge agaacagegt
                                                                     1740
                                                                     1800
aaccgcgcg tggagctgaa cgtcttcggc gagccaatgc tcgggatgcg tctgaacgcc
agegecacet ggttgcagge cgagetgace aaaaccaaaa aeggegtcaa teagggcaac
                                                                     1920
gatgcgatcq gtattccgag cttctacgcc gtgctgggcg cagagtacga tatcaagccg
attgaaggcc tgacggcgac tgcgcgcgtt aaccactccg gcacgcagta tgccgatctt
                                                                     1980
gegaacagca aaaagetgga cagetacace aegetggate tgggcatgeg ctategette
                                                                     2100
geggtgaace acaatgaaaa teagatgace gtacgggeag gtategacaa egtgaceaac
gagaactact ggtcaagcgt ggacgattcc ggtacttaca ttactcaggg cgagccgcgt
                                                                     2160
acctttaagg totoggttgg ctacgagttc taa
                                                                     2193
<210> 4193
<211> 489
<212> DNA
<213> Enterobacter cloacae
<400> 4193
caggoggtaa cagogatgaa oggtacaato acaaogtggt ttaaagataa aggotttgga
tttatcaeag atgaeaacgg cgacaaccgc tactttcatg tgatteaggt cgccaaccct
gatotgatta agaaagatgo ggoggtgaco ttogagocaa coaccaacag caaaggoott
                                                                     180
                                                                     240
teegegtatg eggtgaaggt gateecegaa agtaageace tetatattge aggegagege
                                                                     300
gtgaagetta ceteaattaa ateettegtg gtgtteageg aagaagagee egttgataet
aaaatcgaca aagagaacgo ggtgctgtog gtggggctgo tgatgaacag catcaaacca
                                                                     360
                                                                     420
aaaaccgaga aaaagccggg cgaaatgcgc acggtgaaga agctggcgat cactaccttc
                                                                     480
cagaacacga cgctgatett cactgaagat gagategaca tegatgccac ggtgaagetg
                                                                     489
ctgaagtaa
```

```
<210> 4194
 <211> 930
 <212> DNA
 <213> Enterobacter cloacae
<400> 4194
tgcagattaa gcaaaattaa ggagtcagcc agagcaatga aacgtccgga ctacagaaca
                                                                                                                             120
ctacaggcac ttgatgcagt tattcgtgaa cgcgggttttg agcgcgcggc gcaaaagctg
tgcatcaccc agtccgccgt atcacagcgt atcacacagc ttgaaaacat gttcgggcag
                                                                                                                             180
                                                                                                                             240
cogotgotgg tgogtacogt accgcogogt cogacagago aaggacaaaa gotootogco
ctgctgcgtc aggttgaact gctggaagat gaatggctgg gcgatgaaca aaccggctcc
                                                                                                                             300
acgccgctgc tgctgtcgct ggcggtgaac gccgacagtc tggcaacctg gctgctgccg
                                                                                                                             360
                                                                                                                             420
gcccttgcqc cggtgctggc cgactcccca atccgcctga accttcaggt tgaagacgag
accognacte aggaacgest gegeogtgge gaagtggttg gggeggteag tatteageeg
                                                                                                                             480
                                                                                                                             540
caggogotge caagetgtet ggtggatcag etgggegege tggattacet gtttgteggt
                                                                                                                             600
tcaaaaqcct ttqccqageg ctacttcceg aacggcgtga ctcgcgccgc gctgctgaaa
gecectaceg tegegttega ecatetggae gatatgeate aggeetteet geaacaaaac
ttegatttgc cgccgggcag cgtgccgtgt catatcgtta actcgtccga agccttcgta
                                                                                                                             780
cagetegege gteagggeae gaeetgetge atgateeege atttgeagat tgagaaagag
ttgaaaagtg gtgagetgat tgatttaacc ceggggetgt atcagegeeg gatgetetac
                                                                                                                             840
                                                                                                                             900
 tggcaccgtt ttgccccgga aagecgcatg atgcgcaacg tcaccgacgc gctgctggcg
                                                                                                                             930
 tttgggcata aggtgttgag acaggattaa
<210> 4195
<211> 237
<212> DNA
<213> Enterobacter cloacae
<400> 4195
egggegageg categocaat cacegageet ttgcccggca ggacactcag cageccggcg
                                                                                                                             60
                                                                                                                             120
ggcagcccgg cctgtttaaa aatccgcgcc agctccagcg ccatcagcgg cgtggcttcg
qeqqqettqa qqateaeege gtteeeggeg geaategeeg gtgegaeett etgeattteg
etggcaateg gegagtteea eggegtgatg geegeeacea egeeaagggg etegtag
<210> 4196
<211> 369
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4196
 tgtcgcgccc gtcgcggatc gccagatggc tgctgcactg gctcacgtcg cgcagttgct
                                                                                                                             60
egateaeegg etggeegace tgegeeaegt ceagegagge gatgtactea aagecaagae
                                                                                                                             180
gcagcacgtt catgcccagc gaaaaggtat tggtgcgcgt gttgcgctcc agaaagccca
 tgtactccag cgtctgcacc acgcgatagg cggtcgcctt cggcatatcc accagccggt
gcagetegge aaaagteaga tegegatget getegeeaaa ggeeaacage agetgtaaac
                                                                                                                             360
equipment of the equipm
                                                                                                                             369
cttagttaa
 <210> 4197
 <211> 765
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4197
 ttgcatacgg gaacaacatt cgttacgttg cgggctcgtt ttgacacgga gtgtaagatg
 teccqtaatq ttteteteqe qqteqetttt etggegaeag egeteteegg ccatgetetg
 geegaeggta tteacagttt eteteaggeg aaaacegeag gegtaaagat taacgeegae
                                                                                                                             180
                                                                                                                             240
 gtaccgggtg atttctactg cggctgtaaa attaactggc agggtaagaa aggggtcgtg
                                                                                                                             300
gatotgggat cotgoggota taaggtgogo aagaacgaga accgogocag cogaatogaa
 tgggaacatg togttcegge etggeagttt ggccaccage gecagtgetg geaggaeggt
                                                                                                                             360
                                                                                                                             420
 qqacqtaaaa attqcqcaaa aqatccqqtc taccqccaga tggaaagcga tatgcacaac
```

```
480
ctgcaacccg ccgtgggtga ggtcaatggc gaccgcggaa acttcatgta cagccagtgg
aacggtggcg aaggccagta cggtcagtgc gccatgaagg tcgatttcaa agagaaagtc
                                                                      540
geogaacege etgecegege gegeggtage ategecegea ettaetteta tatgegegae
                                                                      600
cgctacgatc tcaatctttc ccgccagcag acgcagctct tcaatgcctg ggacaagctc
                                                                      660
                                                                      720
tacccggtga cggactggga atgccagcgc gacgaacgta tcgccaaagt ccaggggaat
                                                                      765
cacaaccett acgtocageg ggettgecag gegeaaaaga getaa
<210> 4198
<211> 750
<212> DNA
<213> Enterobacter cloacae
<400> 4198
cacatggaat ttctgactat gcgcatccct cgcatctatc accctgaact gattacccca
ggeggegaaa tegecetgte tgatgatget geaaaceatg taggtegegt getgegeatg
                                                                      180
ggtgcaggcc aggcgattca gctctttgac ggctctaatc aggttttcga cgctgaaatt
                                                                      240
acgcgcgccg ataaaaaaag cgtgcacgtg aaggtgctgc gtggcgacgt ggacgaccgg
gaateeeege tgeacattea cetgggeeag gtgatgtege gtggggaaaa gatggagtte
accattcaga aatocattga actgggtgta agoctcatta cgccactttt ttctgagcgc
                                                                      360
tgcggcgtta aactggatgc ggaacgtctg aacaaaaaga tccagcagtg gcaaaaaatt
                                                                      420
                                                                      480
gecattgegg cetgegaaca gageggeege aategtatee eggagatteg eeeggegatg
gatctggagg actggtgtgc agaagaggaa agcgggctta agcttaatct tcatccgcgc
                                                                      540
                                                                      600
queagegeea geateaatae getgeegetg ceegttgage gtgtacgeet getgattgge
                                                                      660
ccggaaggcg gcctgtcggc tgacgaaatt gccatgacgg cgcgttacca gtttactgat
attetqttqq qacetcqcqt tetqcqcact gagacaacgq cactcaccgc cattaccgcg
                                                                      750
ctacaggtgc gatttggcga tctgggttga
<210> 4199
<211> 960
<212> DNA
<213> Enterobacter cloacae
<400> 4199
coqqaqaaqa aqatqattaa qetoqqoato gtgatqgaco ccategcaaa cattaacato
                                                                      60
aagaaagact ccagcttcgc tatgctgctg gaagcgcagc gtcgcggcta tgaactccac
                                                                      120
tacatggaga tgaacgatct ttacctgatc aacggtgaag cocgegcacg caccegcate
gttaacqtcg agcagaacta cgaasaatgg tacgaattcg gtaccgagca ggatattgcc
ctggccgacc'tcaacgtcat cctgatgcgt aaagatccgc cgttcgacac cgaatacatt
tattccacct atatccttqa qcqtqccqaa qaqaaaqqca cqctqatcqt caacaagccg
                                                                      360
cagagoctqc gcgactqcaa cgagaagctc tataccgcat ggttctctga cctgacgccg
                                                                      420
                                                                      480
gaaacgcteg tcaccegcag caaaacgcag etgaaagaat tetggcagaa gcacggegac
atcatcatqa aaccqctqqa cqqcatqqqc qqcqcqtcqa tcttccqqqt qaaagaaggc
                                                                      540
                                                                      600
gatecgaaca ttggcgtgat tgccgaaacg ctgaccgagc tgggaacccg ctactgtatg
                                                                      660
gcacagaact atotgccago cattaaagac ggcgacaago gtgtgctggt cgtagacggc
                                                                      720
gageeggtge ettactgeet ggegegtate eegcagggag gggaaaceeg tggcaacetg
geggetggeg geegtggega accgegteeg ttaagegaaa gegaetggga aattgeeege
                                                                      780
                                                                      840
egegteggee etaegettaa agecaaagge etgatetteg ttggeetega tateategge
gatogtotga cogaagtgaa ogtoaccago coaacctgca ttogtgaaat ogaagoggaa
                                                                      900
tteccqatct cgatcaccgg aatgctgatg gacgctatcg aaaaacgttt acagaaataa
                                                                      960
<210> 4200
<211> 318
<212> DNA
<213> Enterobacter cloacae
<400> 4200
                                                                      60
ttacgcaccg gatetttete etgegeegga aaggtatega ecaggegete gategeetge
geogracege gegtgtgeag egtggeeaac accagatgge eggttteege egeogteage
gocaggogta togtotogot gtogogoago toaccaagca gaatcacato oggatottoa
                                                                      180
egeagegege tgegeaggge eteggeaaag gaegggetgt geaggeetat etecegetge
                                                                      240
```

tggatcaggc aacqttcact ctggtacata aactccaccg gatcttcaag ggtcagaata

1657	
tgcccgtccg tctggtga	318
<210> 4201 <211> 327 <212> DNA <213> Enterobacter cloacae	
<400> 4201 tatgctgotg ocggggotgt ggatggogtt atgagtgoag ttagcccetg ogcogacggg ctggtttae ggotgtacat tcagccgaaa gccagcogg acagtattgt tgggotgcat ggcgacgag taaaagtcgo catcacggo cogcoggttg acggccagg gaatgcgcat ctgaccaaat attoggtaa acagtttog tcggctgat gccggcataa acagttcag gccggctat cattgagaaa gtcgcggct tgacagaaca ggactaa acagtaaaa atcettaacc cgcaatctat cocgacggaa gtcgcggctc tgacagaaca ggactaa	60 120 180 240 300 327
<210> 4202 <211> 597 <212> DNA <213> Enterobacter cloacae	
<400> 4202 accatgcaga aagttgttct cgccaccggt aacgccggta aagtgcgcg gctggcctcg ctattaaatg attttggct ggacgtggtg gctcagacg agctggcgt ggactccgc gaaggaccg gcctgacgtt tatcgaaaca gccattctga aagccgcca tgcggccag gtaaccggac tgccegcgat tgccgatgat tccggtctg cgctgggtg tttactccgc ccgctattcc ggccggacg caccagacca gcagacactg gaaaagctgc tttgggccct gaaagacgtc cctgacgaca acgctaccgc gaattccacc tgcgtttgt tctacatgcg ccacaggaa gatccacacc cgattgttct tcacagcagc tggccggcg tgatcacccg tgaagcggc gcaaaccgc gctttggtc caccgaaga attcccacc gtggacgcgc cctgaaactg ttactggaacta cccggaaga attcccacc gtggacgcg cctgaaactg ttacttgtcc gtggacgcgc cctgaaactg ttactggaag agcaaccgc gcgaaga gaaaaccga attcccacc gtggacgcgc cctgaaactg ttactggaag accagacga attcccacc gtggacgcgc cctgaaactg ttactggaaa aagctggca acctgcgtaa tggctaa	60 120 180 240 300 360 420 480 540 597
<210> 4203 <211> 387 <212> DNA <213> Enterobacter cloacae	
<400> 4203 gggaaagget gggagagtgt gggggtgcaa acaatacgtt catacgcaaa gcagctcaga cgcgagatgta cacaggaaga aagacggett tggtatttac tgcgcagcg ccgtttcgaa aattataaat ttcgccgaca gcacccggta ggtaactaca ttctggatt cgccgtttgc gcggctcggc tygccgttga gctggatggc ggacaacatg atgaaaatca ggaatacgat cgaccaaagga cattgtggtt aaaccataag gactggcag tcattcgatt ctggaacaac gaactctgga ataacgaaga ggcggtgtta gaaaggatcc ttgaaacgct gcaagcgctg <2210> 4204	60 120 180 240 300 360 387
<pre>&lt;211&gt; 1071 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacae</pre>	
<400> 4204 ttaagcgaat cgatgaccat gcaagcctct caattttcag cccaggtgct ggactggtac gacaaatacg ggcgtaaaac cctgccctgg caaattgaaa aaacgccgta caaagtatgg ctctccqagg tgatgttgca acaaacgcag gtcgcgacgg tcattcctta cttcgagcgt tttatggcgc ccttcccgac agtcaccgat ctggcgacag ccccgttgga cgaggtcgc caccgttgga ccgggcttgg ctattaccc cgcgcgcgca acctgcaca ggcgcacaag caggtcgcga cgcgcacaa cgcgaagcgc accctattcct tacgacggt cacaacttcccc ctcctttagg caacattcc cctattctcq acggcaacgt caacgcgcgc acccgctcg caggtcgcaca ccgggtaaga aagaggttga gaaacgcctg tgggagatca gtgaagcggt cactccgcg ccgggtaaga aagaggttga gaaacgcctg tgggagatca gtgaagcggt cactccgcg	60 120 180 240 300 360 420 480 540

```
600
aaaggggtgg agcgttttaa ccaggcgatg atggatctgg gcgcgatggt ctgtacccgt
tcaaaaccga agtgcgaact ctgcccggta aacaacctct gcgtggccta tgcgaaccac
                                                                      660
                                                                      720
acetgggege agtateoggg gaaaaaaceg aageagaege tgeetgaacg cacegggtae
                                                                      780
atgctgctga tgcagcatgg cgacgaggtg tttctcgctc agcgcccgcc gagtggcctg
                                                                      840
tggggtggtc tatactgctt cccacagttt gaggatgaag cctcgcttcg ggcatggctt
                                                                      900
gaacagegeg geattgegge egaaaceetg acgeaactea acgegtteeg teatacette
                                                                      960
agecatttee atotggacat tgtgeegatg tggetteeeg tgtceteatt cacgtegtge
atggatgaag geacegetet etggtataae ttagegeaae egecateagt egggetggeg
getecegtgg agegeetgtt acagcaatta egtgteggtg caatggttta g
<210> 4205
<211> 1260
<212> DNA
<213> Enterobacter cloacae
<400> 4205
acttectgtt egagggtaaa gaegteeaca tegaaggeta taegeeaceg gaaaaataat
aacgcgcagc tgctgcccgg ctgcgctgcg cttgcacggg cgtacggttt tgtaggtcgg
                                                                      180
gtaagegcag egecaceegg caacagcaac eecaaagcaa acacaacaeg caeteeegga
atgatgaaaa aacttttago gotagooott gttgogoogt tgottgtgto ttgttcttcc
                                                                      240
aaaaaaggeg atgaatacaa egaageetgg gteaaggaca ceaaeggttt tgacattttg
                                                                      300
atggggcagt ttgcccacaa catcgagaac atatggggat ttaacgaagt tcttattgcc
                                                                      360
ggaccgaagg actacgttaa gtacaccgac goctatcaga cccgtagcca catcaacttt
                                                                      420
gatgacggta cgattacggt tgaaaccatc gcggggactg aacctgcggc gcatttacgt
                                                                      480
                                                                      540
caggocatca ttaaaaccct getgatggge gacgateegg ggtetatega cetetaetet
gatgoogatg acatcaccat otocaaagag cogttootgt atggocaggt ogttgaccag
                                                                      600
                                                                      660
accegetcage egatecegete gegaaggeege gecaegaaat tegeogacta tetegeteeaa
acgcgcctga aaagccgtac caacggcctg aaagtgatct acagcgtcac catcaacctg
gtgccaaacc acctcgacaa gcgtgcgcat aagtatctgg gcatggtgcg tcaggcgtcg
                                                                      780
cgtaagtatg gcgtggatga gtcgctgatc ctggcgatta tgcagaccga gtcctcgttc
                                                                      840
                                                                      900
aacccctacg cggtaagccg ttccgacgcg ctggggctga tgcaggttgt gcagcacagc
geoggtaaag acgtgttccg cgcgcagggg aaatccggca cgccgagccg caggtacctg
                                                                      960
tttgacccgc agagcaacat tgataccggc acggcctatc tggcgatgct gaacaatgtc
                                                                      1080
tatotoggog ggattgataa cocaacotoa cgtcgctatg cggtgatcac cgcgtacaac
ggeggggega gtagegtgat gegegtettg tegaatgaca aagtgeagge egegaacate
                                                                      1140
atcaacagca tggcgccggg ggatgtgtac gataccctca ccacccgcca cccgtgtgcg
                                                                      1200
quatcccqcc getatatgta taaggtgaat acggcgcaga agaactatcg tcgccgttaa
<210> 4206
<211> 1683
<212> DNA
<213> Enterobacter cloacae
<400> 4206
aagatgatat attoagooga ootgttgata totogogtga tagttatgaa agtatogttt
                                                                      60
cagateaage tgtttattte getggtegee ttttteteag tgetgttege attactggge
                                                                      120
ggatattatt atgtcgatgt cggcaggcag ctttatcagg aaatgagcgc acgcgcaaaa
                                                                      180
atacaggetg aagaaattge gettatteea accetgegaa aagaagtega acaaaaggat
                                                                      240
atccagggca tecatgactt tatgcagaaa atagccgccc gcagcgacgc cagttttatt
gtgattggtg acaataaggg gctgcatctt ttccactccg tgtttgccga ccgggtaggc
                                                                      360
                                                                      420
aaaacgetgg ttggcggaga taacgacgag gtattacacg gcaaaagtac catcaccate
egeaagggeg ggttaggeat tteactgege ageaaagege ceatttttaa tgatgeeggt
                                                                      480
caggtggtgg ggattgtttc ggtaggetat ctcacaagct atctggacac catcaccgtc
                                                                      540
agcaaggtgg ttaatatoot gattgoogoo gtgotgotgo ttatogooot gtttatttto
                                                                      600
teetggttet teaccegeag cateaagaag cagatattet etetggagee gegegaaate
                                                                      660
                                                                      720
ggcctgctgg tgcgccagca aaaggcgatg atggaatcca tttatgaagg ggtgattgcc
atcgatgacg atctccgcat tgaggtgatc aaccaggcgg cgcgtaaatt attaggctta
                                                                      780
                                                                      840
eqceaqeeeq eccqcqaact geggggteaa etcateagee aggtgatege gecegteeeg
                                                                      900
ttottcaacg cgcaaaccat gottgcgaaa gacacccacg atgagatotg tcgctttaac
gateteaegg teattgeeag eegggtgegg ataatgetgg aagatgeatt geagggetgg
                                                                      960
```

gtgateacet ttegegateg caaegagate gaetegetea gegeecaget eagecaggtg

			1033			
etgteeggee teggaacaeg tgtggtttge gateeggeet atcateggga geeceggtgg eagggegteg aaaaegegeg ggeggtgeaa eeegeeaegg tga	tgctgcatat ctcaggaget tgcttggaaa gccgggtgga acttgctgga acgtgctgat gcatcacacc gcgatcatgg ttgaagttgc	gcgcatcatg gggcgttat gctggacttt ggcggccgc taaacgttc taacgcatt aaagctgaac ggagatccgc tattggcctg cgataacacc gcaccccgta	gacgaggcaa atctcgtccc gcgcgtgaaa ctgccgctgc gaagcgaccc gagcaggaac gaccggatct tatctgattg ccacgcggtg	ttegetacat getttagete aaggegttga tegaategga agegtgeace tgattattga ttgagegegg aaagetatgt ceattttete	acaggegeag teegaegetg getgagttte acttateteg getecegeat agtegeegae catcaccace cacacagget actgtttatt	1080 1140 1200 1260 1320 1380 1440 1500 1560 1620 1680
<210> 4207 <211> 639 <212> DNA <213> Enter	robacter clo	oacae				
atagagaacg ttcgggaatt atttcagcca atgtcgttaa acgtcagttg tccgcttcgt ataccaccgc ttggtagaaa gctttaccca	cttegetgte cgaacacgcc gtttetgtge cagattteag gaacegggatt caacgateag ctttagaace gegettecag	gaacaggtcg tgcgattgcg gacaggaccg agaaacgtcg ggttgcggta atcacaggta accacggttg ctggtcagcg accacgata ttcgtcagcc agatgectgc	ttagccacga ttccacagga cccaggtcca gcagtttcgg cccagcagac ttggccttggg attttggaca gcgaccattg agcagcggac	tetcagtece tagtttttge gaatetgete agaacteggt gtttggette cageaacgaa gagaatecag gaegageagg	tttgcggaag gtttttaagg ttcatctttg tgccacgcga gtcaaccaga ggtgttcgcg tacggtcagt ttctttcagt	60 120 180 240 300 360 420 480 540 600 639
<210> 4208 <211> 846 <212> DNA <213> Ente	robacter cle	pacae				
cagattaacg acaacgctcc gcagaagctt gcctgtaagg cgtctgaaca aaggtgtata tacagcggcc atggtcacg gccgtgcgtg ctgggcgacg gcggatgact accagcttcg	agtacggaag tgctaagcgg ttcaggccta atatggatgg agattgcttc tggcgaaaga tgatggacat ttgctctggg cagcggcggc tgggtgagaa actcttacga aaaaactggc	gacaccggct caacatcaig ctgtcagaat ctcactgaga aaaagctacg cgtgacggc cgtgaacggc tcacgtgaag ctctgeggc actggttaac tctgttgegg gaaactggtgag cgcagcagcat	aaaatgcgtg atggattcta gatgcgcagg cttgccccgg gacaacatta ttcgcgatgg aacgaagtgg aaagggatgc ggcattgtcg tcccagttct aaacgcggca gaaggccgtc	caatogget acggettgat tgaaageget caaacageac acggteagee ctaaacggetg aageggtgat aggttgeget geageetgte eccagegtea teaateeate aaageteeat	ggctgtggga gacctagge gagcgacgag ctacacgcag ggtgaactac tatccgcgta gggcaccaat ccagtcgcag ggagtcggaa aggtttagcc gtttgacgat	60 120 180 240 300 360 420 480 540 660 720 780 840 846
<210> 4209 <211> 1314 <212> DNA <213> Ente	robacter cl	pacae				
		agtttcacag caaaaaacgt				60 120

```
180
ggcacgattq cgcttttatt actcattatt atttcqtacq tcqatcqqqt aaatatctcg
                                                                      240
qtaatqattt taaacccqqa atttqccqaa cattttcaqt taaatqaaaa cagaatgtta
                                                                      300
cagggtatgc teatgacetg etttettetg ggttatggtt ttteegetet attattaaeg
coggttattg aaagcaaact toattatogg cagggattat taagcagcat tgcgatttgg
                                                                      360
geogegetet gegegetete geettegete geetegetga egggaatget categeoege
                                                                      420
                                                                      480
qtqattetqq qqatcqcqqa qqqtccqcta ttttcqctqa aaacqcqctt tatcaqcqat
aactttageg egeaagagat eggtaaacce aacgeegtga eegegetggg egtetegete
                                                                      540
                                                                      600
gggctggccg tgggctttcc gctggtgacc tggctgatgt cgcatctggg ctgggccgga
togttttata cactggegge aateaacett eteetegggg geagettaat etggegtttt
ctgcccgcgc cgcgcaagct cccgaccgcg aaaaaaccgg ggtttgtcca caccttcacg
ctggcctggc agacgccgct gctgggctgg atcatggtgg ttgaaatcgc caccctgagc
                                                                      780
tatetetggg ggageagege etggetgeee gegtggetge gegaegagea teattteteg
                                                                      840
                                                                      900
etgeatgeea egggetgget tgeggegate ceetteetge teageetggg gteaaagttt
                                                                      960
ctqqqqqqq tqctqctcqa caaaatqcqt ccqqaacagg caccgatgct gtttgtggtg
                                                                      1020
qqeqqqqqa tqaeqqeget gteegtggte gegetgatge teagceatea geetgeetgg
etggcgctgt ttatgctttc ggctaatgtc ttctgggggc tacagggggc ggctattccg
                                                                      1080
                                                                      1140
geggtgatee ageateaege egegegggaa geggtgggea gegettaegg cataateaat
gggatcggca atatctgcgc ggcgtttatt ccgctgctga tggggatggt gatgagatcg
                                                                      1260
qtqqqqtcqq tcaqttcaqq cttttcggtg ctggtcgtct cgcaggttgt caccetgctt
gccgggggaa tgttgctgct gcgcatgcgg cgcgcagcag caatcagcgc gtaa
                                                                      1314
<210> 4210
<211> 696
<212> DNA
<213> Enterobacter cloacae
<400> 4210
tqtcaqqccq ccqatcaccq gcgtaccggt acccggtgcg aatgccggat ccaggcagtc
gatgtcgaag gtcagataga caggcatgtc gccgacgatc tgcttaacct gagccagaat
                                                                      120
atogtocacg cogogatogt toacctggcc ogcgtogagt acggtgaagc cgttgtcttt
                                                                      180
gtegaacteg gtgeggatge egatetgeac ggagtggtte ggategatea ggcetteett
                                                                      240
eggegeegtg tagaacatgg tgeegtggte gaacteacag cegttegegt aggtgteggt
                                                                      300
qtqcqcatcq aaqtqcacca qcgccatttt accgaagtgc ttcgcgtggg cgcgcagcag
                                                                      360
eggeagggte acgaagtggt caccgccgaa ggagagcatg cgtttaccgg ccgccagcag
                                                                      420
etteteggeg tgegeetgea attttteget cateteaege gegtegeega aggegtacae
                                                                      480
cagatogoog cagtocacca ogttcagacg ctcgcgcatg tcgaagttcc acgggaagcg
                                                                      540
gttgtgctcc caggccaggt tagtggaaac ctgacggatc gccgccgggc catgacgacc
                                                                      600
accordeged coddacdttd coatdtodaa oddtacdccd gtgatcaccc agtccgcatc
                                                                      660
                                                                      696
getgtegtae ggetggaagt teateggaag gegtaa
<210> 4211
<211> 1425
<212> DNA
<213> Enterobacter cloacae
<400> 4211
                                                                      60
aaactgataa cccaactgga gggcataatg cctgacaata ataaacaggg gcgtacgtcc
aataaggcaa tgacgttott cgtctgcttc ctcgccgctc tggcaggatt actctttggc
etggatattg gegtaattge eggtgeatta eettteatea eegatgagtt eeagattage
                                                                      180
geacatacte aggaatgggt ggttagetee atgatgtteg gtgccgeegt eggegeggte
                                                                      240
ggcagcggct ggctctcctt taagctcggg cgtaaaaaaga gcctgatgat tggcgcgatc
                                                                      300
etgttegttg eeggeteact gttetetgee getgegeeta atgttgaagt getgateate
                                                                      360
teeegegtge tgeteggtet ggeagtggge gtggegtett atactgeece getgtacetg
                                                                      420
                                                                      480
totgaaatog otooggaaaa aatoogoggo agcatgattt ocatgtatoa gotgatgato
                                                                      540
accateggta ttetggggge ttatetete gatacegeet teagetacag eggegeatgg
egetggatge tgggggtcat catcattect gecatectge tgetgattgg egtettette
                                                                      600
                                                                      660
ctgccggaca gtccgcgctg gtttgccgcc aaacgccgct tccatgatgc cgaacgcgtg
                                                                      720
ctcttacgcc tgcgtgatac cagcgccgaa gccaaaaacg agctggaaga gatccgcgaa
                                                                      780
agcctgaagg tcaaacagtc cggctgggcg ctgttcaaag agaacagcaa cttccgccgc
geggtgttee teggegtget gitacagate atgeaacagt teacegggat gaacgteate
                                                                      840
atgtattacg cgccgaaaat cttcgaactg gcgggctaca ccaacaccac cgagcagatg
                                                                      900
```

			1661			
giggaceget atgggegtge geogtggega tgggtgetgt acegegacea actetgggta etcactatet	tgatcgtcgg ggggacgtaa tgggtaccat tgctgctgat gctctgagat actggattgc atgccaacac ggctggttcc gtcgtcctct	gccaaccetg gatgcacatg gtttateatt ccagcegetg caacatgate ettetgggte tgaaaccaaa	acgctgggct ggcattcact gggtttgcga aaaggacgtg gtcggcgcaa tacgccggtc catgtttcac	tcctggtgat ccccaacggc tgagcgccgg attttggcat cgttcctgac tgaacctgtt tggaacacat	ggccgtcggg acagtacttc tccgctgatt cacctgctct catgcttaat ctttattgtt	960 1020 1080 1140 1200 1260 1320 1380 1425
<210> 4212 <211> 453 <212> DNA <213> Enter	robacter clo	oacae				
gacttoggca cegeteactg ctcaaagagt gagcagcege gtctcegtta gagcacggtg	atgcctggcg ccaaaagcat cgctgaaagc ggcagccgga ttaccgcccg agctgcacga gcttccgggc gctatttcga	eggegteget taacgaegge egaegtgatt egegegeaag tgaacgtttg gttgaacaaa	gtgggtcaac acgccggact gtcggtctgc ttcgcgaaca agcaccgtcg ggcagcgtgg	ggatcacegg ggaacettat cgctgaacat aaatccatgg aggcaegege	caccgctcgc tgagcgcttg ggacggcacc ccgctttggt tggcctgttc	60 120 180 240 300 360 420 453
<210> 4213 <211> 420 <212> DNA <213> Enter	robacter clo	oacae				
ccagtagete gaacegeaeg aggtategae ccagatggee caccaageag aegggetgtg	ttgccaggtt atacagegec caggettece caggegeteg ggttteegee aatcacatec caggectate	acgegeege gecagttgat ategeetgeg gecgteageg ggatetteae	cetggacate tacgcacegg cegcacegeg ceaggegtat geagegeget	ctgacgcagc atctttctcc cgtgtgcagc cgtctcgctg gcgcagggcc	ttctgcgcca tgcgccggaa gtggccaaca tcgcgcagct tcggcaaagg	60 120 180 240 300 360 420
<210> 4214 <211> 717 <212> DNA <213> Enter	robacter cl	pacae				
teageegegg aaaaceaage gaaaactatg gacetgeaat cacttegact egecetattg ageaagteeg eegegettaa eagttegeeg aeggtagaca	ggaaaatgaa caacacgttg ctgcagagagg ctgcaggaagg ggcactttat ggtgtcacac agattccagc cattacgct ccctgcgcgg tagcacagca cgctttctct tgcgcatcgg	eggeegtget categeagaa egtagataag eggteegeta categategt gettaaegtg getgateget getgateget aatggetgta ggeatgteg	ccagaagaaa gcgatagccg attctcgctt cagtcgaaca ctgcgtatcg ctaattcaaa gatgcgctgg atcccggcgc gcatttgagg gatgatatgg	ttacgttgct ccggtcatcg tccgggaacg aaagccgtct ctacccgttt tcaacatcag cggcggacgt cagagtcaag cgcttaaagc aagccgcat	tgcagtcagc tgcctttggt gggaaatgca ggtagcagag gagcgaccag cgatgaaaac ggcggcgctg ttatgaaagg ggctatgac cgcggcaggc	60 120 180 240 300 360 420 480 540 600 660 717

<sup>&</sup>lt;211> 585 <212> DNA

## <213> Enterobacter cloacae

```
<400> 4215
ggaaacctga ggaacgccat gaagacgttg actttcctgc tttcaacggt cattgaactg
                                                                      120
tatacgatgg cgctgctgtt gcgcgtctgg atgcagtggg cccgttgtga tttttacaat
coattotoac aatttatogt gaaaatoacg cagoocattg tggggcogot togcogoato
                                                                      180
atteeggeaa tggggeegat tgaeagttea tetetgetga tggegtttat tetgagegtt
                                                                      240
                                                                      300
atcaaagcga tcgtgctgtt tatggtcatc actttccagc cgattatctg gatttcagcc
gttctgatcc tggttaaaac cgtcggctcg ctgatcttct gggtcctgct ggtgatggcg
                                                                      360
                                                                      420
atcatqaqct qqqtaaqccq qqqccqtaqc ccqqtqqaqt acqcqttgat tcaqctgaca
gaaccgttgc tgcgtccaat tcgtagcctg ctgcctgcga tgggcggaat cgacttctca
                                                                     480
                                                                      540
cogatgette tegttetget getgtaegtg etgaatatgg gtategegga actgttaeag
                                                                      585
gcgacgggta atatgctgct gccggggctg tggatggcgt tatga
<210> 4216
<211> 1173
<212> DNA
<213> Enterobacter cloacae
<400> 4216
aactgttact ggaagcactg cgtaatggct aatttgccgc ctctgagtct ttatattcac
                                                                      60
atcccatggt gcgtgcagaa atgtccgtac tgtgatttca actcgcacgc gctgaagggt
gaagtgccgc acgatgatta cgtcgcgcat ctgctggccg atctggatgc cgatgtaccg
                                                                      180
tacgcacagg gacgtgaagt gaagaccatt tttattggtg geggtacgcc gagcctgctt
                                                                      240
teaggeeegg egatgeagae getgetggae ggtgtgegeg eaegeetgaa eetggeageg
                                                                      360
gatgetgaaa ttaegatgga ageeaaceee ggeacegttg aggeegaceg ttttgtegag
taccagcgtg cgggcgtgaa ccgtatctct atcggcgtgc agagctttag cgagccaaag
                                                                      420
ctgaagcgtc tggggcgcat tcacggcccg gaagaggcaa agcgcgcggc aaacctggca
                                                                      480
acggggcttg ggctgcgcag ctttaacctc gacctgatgc acggcctgcc ggatcagtcg
                                                                      540
ctcqaaqaaq cqctqqacqa tttqcqtcaq qcqattqaac tqaacccqcc qcatctqtcq
                                                                      600
tggtatcagt tgaccattga accgaacacc ctgtttggtt cgcgcccgcc ggtgctgccg
                                                                      660
gacgacgacg cgctgtggga tatcttcgag cagggccacc agcttttgac cgcggcggga
                                                                      720
tatcaqcaat acgaaacgtc ggcgtatgcg aagccgggct atcagtgtca gcacaatctg
                                                                      780
                                                                      840
aactactggc gttttggcga ctatctcgga attggctgcg gtgcgcacgg caaggtgacc
ttcccqqacq qacqcattct gcqtaccgcc aaaacgcgtc atccacgcgg gtatatggaa
                                                                      900
ggccgctacc tggagcgtca gcacgacgtc gaggcggtgg ataagccgtt tgagttcttt
                                                                      960
atgaacogot toogtotgot ggaagoogot cogogogogg aatttacgog ttatacoggg
ctgccggagt cagtgattcg cccgcagatt gacgaggcgc tggcgcaggg gtatctgacc
                                                                     1080
                                                                     1140
gagtgtgatg tgtcctggca gatcaccgag cacggcaage tgttcctgaa ctcccttctt
gagttgttcc tcgctgaaaa tcctgaaggc tga
<210> 4217
<211> 1344
<212> DNA
<213> Enterobacter cloacae
<400> 4217
cgttgccaac tgatagaatt gcatcaaata acaaccctga atgttcctat aacaacatat
                                                                      60
ctcccgctca cttgtgagga aagtaacatg aaccttaagc tgcagcttaa aatcttgtcg
                                                                      120
tttctgcagt tctgcctgtg gggtagctgg ctgactacac tcggctccta tatgtttgtg
                                                                      180
acgctcaagt togatggtgc gtcgatcggt gccgtttaca gctcgctggg cattgcggct
                                                                      240
gttttcatgc caacgctgct cggtatcgtg gcggataaat ggttaagtgc gaaatggcta
                                                                      300
tacatgettt gecatetggt gggtgegggg aegetgttta tggeggeega agtgaeeaeg
                                                                      360
ccgggggcga tgtttatggt gatcctgctt aactcgctgg cgtatatgcc aacgcttggc
                                                                     420
ctgatcaaca ccatctccta ctaccgcctg aaatctgccg gactggatat cgtcaccgac
                                                                      480
ttcccgccta tccgtatctg gggcaccatc ggctttatca tggcgatgtg gggcgtgagc
                                                                      540
                                                                      600
ttegeggget tegagetgag ceatatgeag etgtatattg gtgeegeget eteegtgetg
                                                                      660
ctggcgctgt tcaccctgac gctgcccacc attccggtgt ctaaccagca gaaaaaccag
                                                                      720
agetggagea ccatgettgg cetggaeget ttegcaetgt teaaaaacaa gegeatggeg
atottottta tottotocat gotgotgggo goggaactgo aaatoaccaa catgttoggt
                                                                     780
```

aatacettee tgeacagett egataaegat eegetgtttg eegggagett tategtegaa

cogttettee tgagecgeta eggeateaag aacgteatge tgateagtat egeogeetgg 9 atgttgeget teggtetgtt egeetatgge gacecaageg egtteggeae egtgetgetg	00 60 020
tttgtggaaa aagagtgaa goctgaaato ogogocagtg ogoagggoat gitocigatg 1 atgaccaacg gotteggtig tattorggoo googigdaa goggtaaagt gitsaagtg 1 tacaccaaca acggcattaa agactggcag coggiftgaa tgatottogo ogggfactog 1 ctggfgctgt tottoggti catogogotg ticaagtaca agaatgtog ogitgoogaat 1	.140 .200 .260 .320
<210> 4218 <211> 828 <212> DNA <213> Enterobacter cloacae	
gtgcaatttt ctcaatgtt attccogcca cgggaacgc cgggaacccc gtacaggaac 1 tggaagatac cgactatgca acatgaact atcgaacgca cgggaacccc gtacaggaac 1 acaggactacgc aactgcacgc ggagcttatc ggtaaacatc cgcgtctgag gctggtggg 2 attgccgcgt cgctggccga cgcgcaggta caactggaga gcaaacagcc gaagctgatg 3 acccgcgcca actgctcgg gaagctatac acacctacacc ttacagcaa cccgatgct 3 acccgcgcca actgctcggt gatttcatc accgcaccac gcgatatga cacctgtagc 4 agccagtcg tggacggtt tggcgactt gcgaacagc agcgctctcg gaagctgct 4 agccagtcgc tggagcgtt tggcgactt gcgaacagc agcgctctcg gaagctgcc gaccagcaga actgcgactacacc ttatacagca cactgcaccacc actgcaccaccaccaccaccaccaccaccaccaccaccaccac	50 .20 .80 .80 .80 .80 .80 .80 .80 .80 .80 .8
<210> 4219 <211> 396 <212> DNA <213> Enterobacter cloacae	
ggtggoatgt ctgcacaacc cgtcgatctc cagattittg gccgttcact gcgagtgaat 1 tgtccgcctg aacaaaggga tgcctgatct cagettgcgg acgattgaa tcagcgggtg caagatctaa aagaacgaac tagagtcaca aatactgagc agctggttt actgccgcg 2 ttgaacatca gctatgaact gactcaggaa aaagcgaaga cccgcgatta cgcggcaagc atgagacag cgattaaaat gctcaaggaa acaatagaac aggcattgct tgatcaaggt 3	50 120 180 240 300 360 396
<210> 4220 <211> 693 <212> DNA <213> Enterobacter cloacae	
ctoggagatt coctetett tettetacog actaccatga etcaattece tgaagttet 1 getteacgee aggacateeg teagettatt egecagegetg gteegecett aaggegegag 1 caacaggaca attitgecca geagecgee gecegeatga tggectett agegegegag 2 atggaaaca cegtegecet gitteteteg titgatggtg agetggatac ceaaceget 3 ategaccage tetggegege egggaaaaaa gittatetge eggtgetaca tecetitage 3 egaggacate tgetgittet geactaccat eegacageg agetggtga aaategietg 4 aaaateaceg aacccaaact egacgigeg gacgigetge egctateta aetggatgg 4 cigattacg egetggigg gittgacaga caggecage gattaggat gageggaggg 5	50 120 180 240 300 360 420 480 540

<400> 4223

```
catgattgcc agggcgtgga ggtattaccc gtagagaaat gggatgtgcc gttgccggcg
                                                                     660
                                                                     693
gtggtgacgc ccagtaaaac ctggacctgg tag
<210> 4221
<211> 1041
<212> DNA
<213> Enterobacter cloacae
<400> 4221
ttccagcagc ctcgccatca gcggggcgta aatactctcg tggataaaca gccgcgaccc
ggcgatacac gcctgccccg ccgagctgaa aatgccgtag cagatcccgc gcgcggcctg
                                                                     120
ttcgatatcg gcatceteca gcacgatggt eggegatttg cegeocagtt ecagegagge
                                                                     240
egggateagt titteegeeg ceaegtgege eagatgaegg ceegtggtgg tgeegeeggt
aaaggaaatt ttccgcacgc gaggatgacg cgccagcgca tcgccaatca ccgagccttt
                                                                     300
                                                                     360
georggeagg acacteagea georggeggg cageorggee tgtttaaaaa teegegeeag
ctecagegee ateageggeg tggettegge gggettgagg ateaeegegt teeeggegge
                                                                     420
                                                                     480
aatogooggt gogacottot goatttogot ggcaatoggo gagttocacg gogtgatggo
egecaceacg ceaagggget egtageaget eagegteage agateegget ggegggggt
                                                                     540
                                                                     600
eggaagttee cetteeagea getegeagge ggeggeaaag tagegegeeg tteeegeege
geteateace ageoegegeg etteegeeag eggettgeeg ttateaegge tetgeatetg
                                                                     660
                                                                     720
cqccaqcgca tcgacgcggg attcaataag atcggcaact ttatgcagga tcttcgcgcg
                                                                     780
catgtgcggc agactgttac gccatgcggg atcgcgccag gcgcgctctc cggcggctac
                                                                     840
equetected aggleated gastggegge atteagegte gegttgageg accegnence
                                                                     900
eggaaagtgg ctctgcatcg ggttgccgcc gccgcgtcgc cactggccgc cgataaaaat
                                                                     960
cttcagatcg tccatcgtca ctcctcagct cagggccagc tcgcggcagg cgcgcaccgc
gotcagtgcc gccagggtgg aggttttagg attagaagcc agcggcagtc cgctcagttc
                                                                     1041
cagatggaac tegecgaata a
<210> 4222
<211> 1158
<212> DNA
<213> Enterobacter cloacae
<400> 4222
aacatggcaa aacacctgtt tacgtccgag tccgtatcag aaggacatcc tgataaaatt
gotgaccaaa totoogatgo ggtgotggat gogatootog ogcaggatoo aaaggogogo
                                                                     120
gtagcgtgtg aaacctatgt caaaaccggc atggttctgg ttggcggtga gatcaccacc
                                                                     180
aqeqeatqqq ttgatatega agagateace egtaacaegg tgegtgagat eggttatgta
                                                                     240
cattetgata tgggetttga tgccaaetee tgcgccgtac tgagcgcgat tggcaaacag
                                                                     300
totocggaca toaaccaggg cgttgaccgt gccgatccgc tggaacaggg cgcggggac
                                                                     360
cagggcctga tgttcggcta cgcaaccaac gaaaccgacg tgctgatgcc agcgccggtg
                                                                     420
                                                                     480
acctacgcac accgtctggt gcagcgtcag gctgaagtac gtaaaaacgg caccctgccg
tggctgcgtc cggatgcgaa aagccaggtg accttccagt atgacgacgg gaaaatcgtc
                                                                     540
ggtatcqatq ccqtqqttct ttccacqcaq catgctgaag agattgacca gaaatccctg
                                                                     600
                                                                     660
caagaagcgg tgatggaaga gatcatcaag ccggttctgc caactgaatg gctgagctct
gegaccaaat tetteateaa eecaacegga egettigita teggeggeee aatgggtgae
                                                                     720
                                                                     780
tgoggtotga coggtogtaa aatcatogta gatacctacg goggcatggc acgtcacggc
ggoggogcat totooggtaa agatoogtot aaagttgaco gttotgoogo gtacgotgca
                                                                     840
cgttatgtgg cgaaaaacat cgttgctgcc ggtctggctg accgctgtga aattcaggtt
                                                                     900
tectacqcca tegqeqtqqc tqaqccaacc tecateatgg tggaaacctt eggtactgaa
                                                                     960
aaagtgeett etgaacaget gaccetgetg gtgegtgagt tettegacet gegteeatac
ggtetgatte agatgetgga tetgetgeae ceaatetace aggaaactge agegtaeggt
                                                                     1080
cactttggtc gcgaacattt cccatgggaa aaaaccgaca aagccgccct gctgcgtgat
                                                                     1140
                                                                     1158
gctgccggtc tgaaataa
<210> 4223
<211> 570
<212> DNA
<213> Enterobacter cloacae
```

```
gogcacacga etgatectee tgegggagge geetettgeg eeteeeeget teeegettta
                                                                     60
tgctctgccc ctatgaaagc accccgtctc cccatcgcca ttcagcaagc cgttatgcgc
agectgeggg aaaaactege eeaggeeaac etgaageteg geegeaatta teetgaaceg
                                                                     180
aagctggtct atcagcagcg tggcaccgcg gcaggtaccg cctggctgga atcgtatgag
                                                                     240
atcogoctca accoggtgtt gatgatggaa aatcagcagg cgtttatcga agaagtggtg
                                                                     300
cogcacgage tggcgcatct gotggtgtgg aageactttg googcgtcgc googcacggc
                                                                     360
aaagagtgga agtggatgat ggaggeggtg eteggegtte eggeeegteg eacceateag
                                                                     420
                                                                     480
ttcqaqctqq aatcqgtacq ccgcaatacc ttcccctacc gctgccagtg ccagcagcac
                                                                     540
cagettaccq tecqeeqcea taaccqcqta qtqcqqqqcq aqqcgaccta ccgctgcgtt
                                                                     570
aaatgcggcg aaccgctggt tgcggaataa
<210> 4224
<211> 708
<212> DNA
<213> Enterobacter cloacae
<400> 4224
aategaageg gaatteeega tetegateae eggaatgetg atggaegeta tegaaaaaeg
                                                                      120
tttacaqaaa taacctgtga cagcgcctgt gtttatcccc atactgggcg ctgtcgcttt
ttaaaccagg aaacagtacc tctgacaatg aatttacagc atcactttct tattgccatg
                                                                      240
cotgetetee aggateegat tttccgccgc geegtggtet atatttgtga atacaacgaa
gacggcgcga tggggattat catcaataag ccgctggaaa accttcaggt tgaagggatt
                                                                      300
                                                                      360
ctggacaage tgaaaateee tgetgaageg eggetgeegg aaateegtet egataaaeeg
gtgatgctcg gcggtccgct tgcagaagat cgtggtttta tcctgcatac cccgccggtt
                                                                      420
                                                                      480
ttotogtoca gcattogtat otoogataac accgtogtoa coacctotog cgatgtgott
                                                                      540
quaacqctqq qcactgccag tcagccttct gaggtgctgg ttgcgctcgg ttacgcctcc
                                                                      600
tqqqaaaaag ggcagctgga acaagaaatt ctggacaacg cctggctgac ggcccctgcg
                                                                      660
gatatgaata teetgtttaa aaccectate geegateget ggegtgaege ggeaaaactg
attqqcattq atattctgac catgcctggc gttgcggggc acgcgtaa
<210> 4225
<211> 381
<212> DNA
<213> Enterobacter cloacae
<400> 4225
cttagogcaa cogocateag togggotgge ggeteccgtg gagegeetgt tacagcaatt
                                                                      60
acqtqtcqqt qcaatqqttt aqcatcqqca aqacaaaqaq qaatqaqtat qqccagaacc
attititeta ctttcctaca gogogacget gaaggocagg atttccaget ctaccogggo
                                                                      180
                                                                      240
qacctqqqta agegcattta caacgagatc tccaaagaag cctggggaca gtggcagaaa
                                                                      300
agacagacca tgctgatcaa cgagaaaaag ctcagcatga tgaacccgga acaccgcaaa
                                                                      360
ctqctqqaqc aqqaqatqqt qaacttcctq ttcgagggta aagacgtcca catcgaaggc
                                                                      381
tatacgccac cggaaaaata a
<210> 4226
<211> 1389
<212> DNA
<213> Enterobacter cloacae
<400> 4226
acacacaaaa taactaaggg gottattatg agcacaactg acgattcatt ctctgttacc
                                                                      60
cacgaccega ttgatattca geggecateg etcaaagage getggtggca tattatggat
                                                                      180
acctggaaaa teggeattat acctetgeeg etgttegtte tggegggege getgattgeg
attgattgcc tgggcggaaa actaccgagc gacattgtgg tcatggtggc cacgctggcc
                                                                      240
ttcttcggct ttgcctgcgg tgaattcggt aaacgcctgc cgattgtcgg caagctcggc
                                                                      360
qcqqcqqcaa tttqcqccac ctttatccct tccqcqctgg tctattacgg cctgctgccg
gatgtggtgg togagtocac caccaagtto tacaaatoca ccaacattot ctacctotat
                                                                     420
                                                                     480
atetyctyca ttatcytcyy cagcatcaty agtatgaacc gcaccytyct gatccagggo
ttoctgogca tottottocc gatgotgtgc ggtgaaatog toggcatgat tgtoggcatg
                                                                      540
ggtgttggge tggegetggg cetegageeg tteeagatet tettettat eattetgeeg
                                                                      600
                                                                      660
atcatqqcqq gcggcgtcgg ggaaggggcg atcccgctct ctatcggcta tgccaccctg
```

taa

```
ttgcatatgg atcagggcgt ggcgctcggc cgcgtactgc cgatggtgat gctcggcggc
                                                                     780
ctgacggcga tcattatete eggttgcete aaccageteg ggaaacgeta ceegcacetg
                                                                     840
accqqtqaag gecagetgat gecgaatege gecaatgeeg atgeeaccgt eteteageet
                                                                      900
gegtteteeg geaaagegga egtgaegaeg ategeeteeg gegegetget ggeggtgetg
etgtacatge tgggcatget eggteacaag etgattggte tgecagegee ggtgggcatg
                                                                      960
ctgtttatgg cggtgctggt gaagetetge aacggtgcct ctccgcgtct gctggagggc
                                                                      1080
tetcaggtgg tgtacaaatt ettecagace teegtgacet accegattet etttgeegtt
                                                                      1140
ggcgtggcca tcaccccatg gcatgaactg gtggccgcct tcacgctgac caacctgctg
gtgattatca gcaccgtctc cgcgctggtg gcaaccgggt tcttcgtcgg caaaaagatt
ggtatgcacc cgattgatgt cgccatcgtc tcctgctgcc agageggcca gggcggtact
                                                                      1260
ggtgacgtgg cgatcctgac cgcaggcaac cgcatgagcc tgatgccgtt cgcccagatt
                                                                      1320
gctacccgta tcggcggggc gattaacgtc tccatctctc tgctgattct gggcaacttc
                                                                      1380
                                                                      1389
ctcgtttaa
<210> 4227
<211> 1032
<212> DNA
<213> Enterobacter cloacae
<400> 4227
ggcggcagca tgcaatogca acccattgat tttcggcaca ccgttgtggc gaaacacccg
                                                                      60
                                                                      120
gaacgettaa gecagateeg etacetgetg geagacageg geettggeet ggacaacgae
                                                                      180
ateacgctgt ttgtcgaage etggtcegge gegeagetgg tgggttgege egggetgget
                                                                      240
qccaacqtca tcaaatqcqt ggcggtcaac gagcagcttc gtggggaaaa cctcagcgcg
                                                                      300
cgtctgctgg cagaggtgga aaatgcggcg ctggagcgcg gccattttca cctcttcctc
                                                                      360
tgcacccgtc cgtgcaataa ggagcgcttt ggccgcagcg gtttctggcc gattgcccag
                                                                      420
aqcqqqaaca acqcggtqct aatggagaac accccgcagg ggatcgcgcg ctactgccgt
accttaagcc ggatgcgaag gggcggggaa aaaattggtg ccattgtgat gaacgccaac
                                                                      480
                                                                      540
coattcacco toggocaccy toatotygty gagoaggogg cggcgcagty cgatgcccty
                                                                      600
catctqtttg tggtgcgtga agacgcctcg ttcttcccgt tcagcgcgcg ccttgaaatg
                                                                      660
gtgcgcgcg gcgtggcgca tctgccgaac gtggtggtgc atgaaggctc gcagtacatc
                                                                      720
atotocogog coacqtttoc ggootactto otgaaggaga coggoaaagt goagcaggog
tggagcgaga tcgacgtgct gatettccgg gactttatcg ccccggcgct gggcatcact
                                                                      780
                                                                      840
caccgettea teggetegga geogttetge gatateacce geoagtacaa ecagacgetg
cacqacetge tggectegea tattgacgtg gtggagatge egegeateaa ggecacegge
                                                                      900
aacgccattt cggcetegga agtgegeegt ttactcaaga cacagcagtt tteceggate
                                                                      960
eqqqaqattq teeeqqactc cacettegeq cacetegaag cacattateg tgegagtgeg
gaagtcgcat aa
<210> 4228
<211> 903
<212> DNA
<213> Enterobacter cloacae
<400> 4228
acaggocate aactgggggg cgctgaaatg agcaaactee geogeagtat getgtteetg
                                                                      60
cogggegeca atgcogccat getetetace geetttatet acegteecga etecateatg
tttgaccttg aggacgeegt ggeeetgege gagaaagaca eegcacgeat getggtgtte
                                                                      180
cacgogttgc agcaccogat gtatcaggat atcgaaaccg tggtgcgtat taacccgctg
                                                                      240
ageacgccqt ttqqcctqct qqatctqqaq gccqccqtqc gcgcqggcqt ggacqtgata
                                                                      300
egectgeega aaacegacac eeeggaegat atttaegage tggaaggeea eetegagegt
                                                                      360
atcgagcagg cgtgcggccg cgaggtgggt tccacccgcg tgatggcggc gattgaatcg
                                                                      420
gocattggcg tcatcaacgc cgtggcgatt gcccgcagct ccccgcgcct gatcggcatt
                                                                      480
                                                                      540
gegetggeeg cetttgacta egtgatggac atgeagaceg agegeggega eggeacegag
                                                                      600
ctgttctacg cccgctgcgc cgtgctgcac gccgcccgcg cggcaggcat cgacgccttc
gaegtggtgt ggtcagaegt taacgatgag geegggttee tgegegaagt egatetgate
                                                                      660
                                                                      720
cgcaagatgg gctttaacgg caaatcgctg attaacccgc gccagataga cctgctgcac
                                                                      780
aacgoctacg coccgacacg ggaagaagtg gaacacgcga aacgggtgat tgaggeggca
                                                                      840
gaagagggcg agcgtaacgg cctgggcgtg gtgtcgctca acggcaaaat ggtggatgca
ecgattatta accaegogea ggtggtgetg gagegegegg eggeeteegg egtgegtegg
                                                                      900
```

```
<210> 4229
<211> 621
<212> DNA
<213> Enterobacter cloacae
<400> 4229
gttcaccgac aaaatcgtcg gggtgatccg ctaccgcgac ggcagcgtga tcgacactgt
gcgacaggtg aaggaggaag tatgacttta gcgacacccg tgcgggcggg tgtcagcctg
                                                                     180
gaggaactgc tggcggcgaa agagcgccgc gcagcccgcc aggctgactg gcttacgcac
tatcaacaac cggtgatctc cctcacgctg gtcacgcccg gggaaatcaa agacagcctg
                                                                     240
cgctaccgca acaccatggg ggtggcgtta cagatgtgcg accagctgct gtgggaaaac
                                                                     360
eqetqqeaqq tqetqqaeeq eetqqtqete tqqetaeeca eeqqaeetqa aqeattqtqq
tgegtegege atccggegge ggaaateaaa gegeactgtg cagaactgga geagaegeac
                                                                     420
                                                                     480
ccgctcggca gactgtggga tctggacgtg atctgccctg aaaacggcct cgtgggccgt
                                                                     540
cagtegetag qttcacacet cagacqetgt ctgatttgcg acgagecege ccacgegtgt
toccgttcgc gccaccatcc cgttgagcag gtggtttccc gcgtggagaa gatgatcgat
                                                                     600
                                                                     621
gaetggtttg ctcgcgacta a
<210> 4230
<211> 771
<212> DNA
<213> Enterobacter cloacae
<400> 4230
ctttggataa tgcccgtttc ccgaacattc tcacaagcag acaactcttt tatgaaaaac
qacqtcattt caccggaatt tgatgaaaac ggtcgcccgc tgcgccgtat tcgcagcttt
gtccgccgtc agggacgcct gacaaaaggg cagcaacacg cgctggacaa ctactggccg
                                                                     180
qtqatqqqqq ttqaqttcaq cqaqcaaccg ctcgacttca ccgacctgtt tggccgcgac
                                                                     240
                                                                     300
gcgccagtga ccctggagat cggctttggt atgggcacct cgctggtcac tatggcgaaa
                                                                     360
gegegeecqq aqcaqaactt coteggtatt gaagtacatt cgccgggcgt cggcgcgtge
ctqqcaacqq cccatqaaga qggcgttgag aacctgcgcg tcatgtgtca cgacgcggtg
                                                                     420
quaqtqctqc acaaaatqat tcctqacaat tctttqaaca tggttcagct ctttttccct
                                                                     480
                                                                     540
qacccatqqc acaaaqcqcg tcataataaa cgccgtatcg ttcaggcacc gtttgccgag
ctggtgaaaa gtaagctcaa gctgggcggc gttttccaca tggcaaccga ctgggaacct
                                                                     600
tatqcqqaac atatqctqqa aqtqatqtcq tccctgqacq ggtataaaaa tcagtctgaa
                                                                     660
agcaacgact acqtaccgcg tccggattca cgtccggtga caaaatttga acagcgtggc
categoettg gtcacggcgt atgggactta atgttcgaga gggtgaaata a
<210> 4231
<211> 1998
<212> DNA
<213> Enterobacter cloacae
<400> 4231
tacaaagagt tgaggttogc tatgtotgac gacatgtott ogctttogcc ttogtoagca
                                                                     120
qqcqaacaqg gtgtactacg ttctatgcag gaggttgcga tgagctccca ggaagccagc
aagatgetge geacttacaa tattgeetgg tggggeaata actaetacga egttaacgag
                                                                     180
ctqqqccaca tcaqtqtctq cccqqatccq qacqtcccqq aagcqcqcqt qgatctcqct
aaactggtga aaacccgtga agcgcagggt cagcgcttgc ctgcactgtt ctgcttcccg
                                                                     300
cagatectge aacategeet gegttetatt aacgeegegt teaaaegege gegggaateg
                                                                     360
tatggttata acggcgacta tttcctcgtt tacccgatca aggtcaacca gcaccgtcgc
                                                                     420
                                                                     480
gtgattgagt ccctgatcca ctccggcgag ccgctgggcc tggaagcagg ctctaaagcg
gagetgatgg eggttetgge geaegeggge atgaceeggt eggtgategt etgtaaegge
                                                                     540
                                                                      600
tataaagatc gegaatacat togtotggca ttaattggcg agaagatggg ccacaaggtc
                                                                      660
tatetggtga tegagaagat gacegaaate gegategtge tggaagagge egagegtetg
aacgtgatcc cacgccttgg cgtgcgtgcg cgactggcgt cgcagggttc cggtaaatgg
                                                                     720
                                                                     780
caqtcttccq qcqqtqaaaa atccaaqttc ggcctcgcgg cgaaccaggt gcttcagctg
gtggaaatte tacgegageg eggtegtetg gacageatte agetgetgea ettecacete
                                                                     840
ggetegeaga tggecaacat tegegacate gecaceggeg tgegtgaate ggeaegttte
                                                                     900
tacgttgage tgcataaget eggegtgaat atteagtget ttgaegtggg eggeggeetg
                                                                     960
```

```
ggcgtggact acgaagggac cogctcgcag totgactgtt cggtaaacta tggcctgaac
                                                                     1020
gaatatgeea acaacateat etgggegatt ggegatgeet gegaagagea eggeetgeeg
                                                                     1080
                                                                     1140
caccegacgg tgatcacega atceggeege geggtcacgg egeaceatac ggtactggtc
                                                                     1200
totaacatca ttggcgttga gcgtagcgaa atcaccgaag ccacgcctcc ggcagacgat
                                                                     1260
qccccacqtt ccctqcaaag catgtgggaa acctggcagg agatgcacga gccgggcacg
                                                                     1320
egtegtteee tgegegaatg getgeaegae ageeagatgg acetgeaega tatteaegte
                                                                     1380
ggctactcgt caggcacatt cagcctgcaa gagcgcgcgt gggccgagca gctctacctg
                                                                     1440
aatatgtgcc acgaagtgca gaaacagete gaceegagca acegegegea eegteegatt
                                                                     1500
atcqacqaqt tqcaqqaqcg tatgqcqgac aaaatgtacg tcaacttctc cctgttccag
                                                                     1560
tegatgeegg atgectgggg tategaceag etgtteegg ttetgeeget ggaagggetg
aaccacgece eggaacgeeg egeegtgetg etggacatea eetgtgacte tgaeggegeg
                                                                     1620
attgaccatt acgttgacgg tgacggtatc gcaacgacga tgccaatgcc ggagtacgat
                                                                      1740
ccqqaqaacc cqccaatqct qqqcttcttt atgqtqqqqq cqtatcagqa gatcctcqqc
                                                                     1800
aacatgcaca acctgttegg tgatacegaa geggttgaeg tgtttgtett ceetgaegge
                                                                     1860
agegtggagg ttgagetgte cgaegaaggg gaeaeegtgg eggaeatget egaataegtt
                                                                     1920
cagetggate egaaaaaaet geteacceag tteegegate aggtaaaaaa caceggtetg
gacgatgcct tgcagcagca gttcctggaa gagtttgaag cgggtctgta cgggtacacc
                                                                     1980
                                                                     1998
tacctggaag atgagtag
<210> 4232
<211> 438
<212> DNA
<213> Enterobacter cloacae
<400> 4232
togattaaca aattogtoac attgtogott gacgaaacat toatogottt tatattgaco
                                                                     60
                                                                     120
gtattaaata agaaacagag tttcatatat gaaacaaaag cotggaggat cgtgatgagc
                                                                     180
tggataggcg tatgtgacgc agagcaagta caggaagatt tcccttttag cggcaacgtc
                                                                     240
qacqqtaaaq aqatcqqcqt ttacctgatc gacggtgaat attacgcgct ggaggacgta
                                                                     300
tgcccgcacg cetatgccet getgagtcag gggttcgtgg aagacggcaa ggtggaatgc
                                                                     360
ccqctqcacq aqqcqqtqtt cqacqtcaaa accqgccagt gtctgcacgg ccccggagga
                                                                     420
cgcaacctca accqataccc ggttcgggtc tttgaaaacc agattcagat taccttcgtt
                                                                     438
gaggagaccg tggcatga
<210> 4233
<211> 1116
<212> DNA
<213> Enterobacter cloacae
<400> 4233
acqcqqtqcq catqcacqac cagcagggcg agccgtggag cgacgccagc ttccgggcat
                                                                      60
                                                                     120
tottacaggt taacggctac tgagggcaac gcgatgacga cgaccgtaca acattatotg
gataaaggcc tgcgtggcct ctggtatccg gtgctggcga gctgggaagt gcagtctgcg
                                                                     180
ccggtgggca tcacccgcct gggcgagcag attgtggtct ggcgcaataa agatggccag
                                                                     240
                                                                     300
gtgcaggcgc tggaggaccg ctgcccgcac cgcggcgcgc gcctgtcgat gggctggaac
cteggggace geattgeetg etggtateae ggegtagagg tggegggeaa eggegaggtg
                                                                     360
                                                                     420
aaagacgtac cegeegtgga taaatgteeg etggteggee ageagtgegt gegeagetat
agegtgcagg aagegcaegg egecatette etetggtttg gegteaeege ggaccageag
                                                                     480
coggacgaac tgaccttocc ggacgagete gccgatacgg acagettcag caacttocte
                                                                     540
tqcaccqccq cqtqqaaatq caattaccag tacgcgctgg aaaacgtgat ggacccgatg
                                                                      600
caeqqeaeet atetgeaete etegtegeae tegatggegg aaggggateg caaggeegae
                                                                      660
atggtgctcc agccgaccaa aaccggtttt attttcgaga agaaagggca gagcggcgtc
aattttgact gggtggaget gggeaacage ggcacetget ggatgegeet etceatteeg
                                                                     780
tacaagaage gettegggee gggeggecae ttetttateg teggeatggt ggtgeeggaa
                                                                     840
                                                                     900
gataacgaca actgccgcgt cttcttctgg cgcattcgcc gggtgcaggg ctggcagcgc
                                                                     960
gatatgtggc gtttcatgta ccgcaaccgt ctggaaaaac tgcactggga agtgctggag
                                                                     1020
caqqaccqcq tqqtqctqqa aagcctgqcq ccaaacqcqc gcgatcatga gtacctgtat
                                                                     1080
cagcacgacg teggtettre gegeetgege egeatgatge aaaaggeege caaagageag
```

1116

ctggcgatgc gtgaagcaca gcagggagcc gcctga

```
<211> 552
<212> DNA
<213> Enterobacter cloacae
<400> 4234
gacgttactg aggagagtgt catgactgat tcaatcgtaa ccaacaaaac aggcatcaaa
                                                                      120
cetgaccate tgacgatgga agagtgggte gagtegegea tegegegett egaaggeegt
aaatacgact ggaacgcgct gaagttccag gccgattttg atccgaaata tcgccgggcg
                                                                      180
caqatqcqct acatcqqcac cqqcqcaacc qqcqtqqcqa acqacaccaa taccqtqcaq
                                                                      240
qeggaecatt ttacettete caccatggtg etgeegtega agtgegaagg accgetgeae
etgcacgacg acgtggaaga ggtgttette atgeteaagg ggcagateae getgatgate
                                                                      360
                                                                      420
caggacggeg acaactacac egaaacegtg etgegegage gtgacetgat etcegtteeg
                                                                      480
cogggcatct atogoggcct gtttaaccac ggtgaagaag aggcgctgat gtgcgtcatg
ctggggacca ataageegga aateeegace tateegteeg ateateeget tteeaaagtg
                                                                      540
aageggaaet aa
<210> 4235
<211> 780
<212> DNA
<213> Enterobacter cloacae
<400> 4235
gggggcatga tgacgggttt tcgtgaacag ggaagcggca ttccgctgat gctgctgcac
                                                                      60
                                                                      120
gggatcaget ccqqcqccqc ctcctqqcac aagcagatgg cgctgaacgg ttttcqcgtg
etggegtggg acatgeeggg etatggegaa ageeegatge tggeegtage gegggeaaac
                                                                      180
gegggggatt acgeegacge getggeggee atgetggate gegeeggtgt etggeaggea
                                                                      240
gtgctggtcg gccattccct gggggcgctg gtggccagcg cctttgcggc aaagttcccg
gategegtea tteatetggt getggeegae geggegeagg ggtaeggeaa tgeegegeeg
                                                                      360
qaqcaqcqqq aqcaqqtctq qcqcaaccqa qaqcaqcaqa tqqcqctqgq gggcgaaatc
                                                                      420
ctequecaqa eccququece qaagetgetg egecceggeg egegeggga agatategee
                                                                      480
accytcgcgg cgggcatgcg ggtgctgcgc ccggaaggct accttgccgc ctcgtggatg
                                                                      540
ctggcgcatg acgacatcca cggctggctg aagcgttatt ccggcagttt tgaagtctgg
tgcggcgagc aggatgccat cacccagccg gagctggttc agggtctggc gctgcgctac
ggcatgccgt ttatcgccat tccgcaggcc gggcacgcca gctatctcga taacgacgcg
tttttcaacc aacagetttt aegeattaac gaagaggtge gegatgaatg cacaaattga
                                                                      780
<210> 4236
<211> 1185
<212> DNA
<213> Enterobacter cloacae
<400> 4236
gaatcaacga gaggattcac catgtctgta attaagatga ccgatctgga tctggcaggt
aaacgcgttt tcatccgtgc cgatctgaac gtaccggtta aagatggcaa agtgaccagc
                                                                      120
gacgogoqta teegtgeate tetgecaace attgaactgg etetgaagea gggegetaaa
                                                                      180
gtgatggtca cctcccacct gggccgtcca actgaaggcg agtacaacga agagttctct
                                                                      240
ctgctgccgg ttgttaatta cctgaaagac aaactgtcca gcccggttcg cctggtgaaa
                                                                      300
gattacetgg acggcgtgga agttgccgaa ggtgagctgg ttgttctgga aaacgttcgg
                                                                      360
                                                                      420
ttcaacaaag gogaaaagaa agacgacgaa accotgtoca aaaaatacgo tgogotgtgo
                                                                      480
gacgtattcg tgatggatgc attoggtacg gctcaccgtg cgcaggcatc tacccacggt
atoggtaaat togcagacgt ogcotigtigda ggtocgotigd tiggotigacga actiggaagog
                                                                      540
ctgggtaaag cactgaaaga acctgctcgt ccaatggtcg ctatcgttgg tggttctaaa
                                                                      600
                                                                      660
gtttctacca aactgaccgt actggattct ctgtccaaaa tcgctgacca gctgatcgtt
                                                                      720
ggeggtggta tegegaacae ettegttget gegeaaggee acaaegtggg taaateeetg
                                                                      780
tacqaaqcqq atctqqttqa cqaaqccaaa cgtctqctgg gtacctgtga tatcccggtt
ccaactgacg ttcgcgtggc aaccgagttc tccgaaactg ctaccgcaac cctgaaatct
                                                                      840
                                                                      900
gttaacgaca tcaaagatga agagcagatt ctggacctgg gcgacgtttc tgcacagaaa
                                                                      960
ctqqctqaaa tccttaaaaa cqcaaaaact atcctgtgga acggtcctgt cggcgtgttc
gaattcccga acttccgcaa agggactgag atcgtggcta acgcaatcgc agacagcgaa
                                                                      1020
                                                                      1080
gegtteteta tegeaggegg tggtgacace etggeageaa tegacetgtt eggtateget
gacaagatet cetacatete caetggtggc ggcgcattee tegaattegt ggaaggcaaa
```

<211> 600

```
1185
gttctgccag cagtagcaat gctcgaagag cgcgctaaga agtaa
<210> 4237
<211> 855
<212> DNA
<213> Enterobacter cloacae
<400> 4237
atggaacaac ttgatgttgt agacagcatc aataacgcgg gtaactggct ggtgcgcaac
caggogetac tgctgageta cgccgtgaat attgttgccg ctattgccat catcattgtc
gggatgateg tggegegtat egtttegaac getgteaace gggtgatggt egeacgacae
                                                                     180
attgatgcca cagtegeega ttteetetee gegetggtee gttacggeat tategeettt
                                                                      240
                                                                      300
acqctgattg cggcgctggg gcgtgtcggc gtgcagacgg catccgtcat cgctgtgctc
ggtgetgeeg gtetggeeat tggtetggea ttgeagggtt cgetgtetaa cetggeggeg
                                                                      360
                                                                      420
ggcgtattgc tggtgacett ccgtccgttc cgttccggtg agtatgtgga tctgggcggt
attgccggta ccgtgttgca ggttcagatt ttctccacga ccctgcgtac cgtggatggt
                                                                      480
cgcattgtgg tagtcccgaa cgggaaaatc attgcgggca atatcattaa cttctcccgc
                                                                      540
                                                                      600
gageeggtge gtegtaacga getgateate agegtggegt acgaeteega tategateag
                                                                      660
qttaaqtete tqattaccaa catcattqet tcagatgace gtattetgaa ggacegegag
cagaccgttc gtctgaatga gctgggcgcg tcatctatta attttgtggt gcgcatctgg
                                                                      720
                                                                      780
agcaaaagca gcgatcttca aaacgtttac tgggatgtgc tggagcgcat caagcgtgat
ticgatgeta acqqcatcaq cttcccqtac ccqcaqatqq acqtaaacqt caaaaaaqtc
                                                                      840
aaagaagcag agtaa
<210> 4238
<211> 783
<212> DNA
<213> Enterobacter cloacae
<400> 4238
gocctgttaa cagggcactc ttogcaacat ggaggaatga cagtgaagtt taaggtgatg
                                                                      60
                                                                      120
qccctqqcqq cattagtaag tttaggtgcg gtgtcggtgc aggcgaatga actgccgaac
                                                                      180
ggcccgcaca ttgtcacttc aggcacggca agcgtggatg cggtaccgga tgttgcaacc
ctqqcaattq aaqtqaacqt qqcqqcqaaa qatqctqctt ccqccaagaa acaggcagac
qatcqtqttq cgcaatacct ctctttcctg gaacagaacg gtgtcgcgaa aaaagacatc
                                                                      300
agetetgega acetgegtac ccaaceggat tatgactace agaacggcaa aageateetg
                                                                      360
aaaggetate gegeegtgeg tactgtagaa gtgacegtge gecagettga taagetcaac
                                                                      420
                                                                      480
qqattqctqq atqqtqcqct gaaqqcaggq ctgaacqaaa ttcgttccgt ctcgctgggc
gttgcgcaac cggagaaata taaagacgaa gcgcgtaaag cggctattga tgatgccatt
                                                                      540
catcaggege ageagetgge atceggettt aaaageaage teggteeggt ttacagegtg
                                                                      600
                                                                      660
cgataccacq tttcaaacta ccagccaage ccgatggtgc ggatgatgaa ggeggacgec
                                                                      720
gcgccggttt ctgctcagga aacctacgag cagccaacca ttcagttcga cgatcaggtt
gatgtggtgt tccagctgga gccaactcaa actcagcaaa ctgaggcggc taaggcgcag
                                                                      780
tag
<210> 4239
<211> 384
<212> DNA
<213> Enterobacter cloacae
<400> 4239
cgaatgcgta tgtctataca gaacgaaatg cctggttaca aggatttaaa ccagttactg
aaccaqcaqq qaqtcqqtct qacccctqcc gaaatgcacg gtctgatcag cggcatactg
tgeggeggaa acagegacag etcatggeag eegetgatee acgaceteac caacgaaagg
                                                                      180
ctggcgtttg gccacgaact ggcggaagcg ctgcgtaaaa tgcacgccgc aaccagcgat
                                                                      240
                                                                      300
tccctqqaaq acqatqqctt tctttttcag ctttatctgc ctgaaggcga cgatgtcagc
                                                                      360
gtettegate gegeegatge getegegggt tgggtaaace actatettet tggeetggge
                                                                      384
gtaacccaac ctaaactgga ataa
<210> 4240
```

```
<212> DNA
 <213> Enterobacter cloacae
 <400> 4240
 tettecggga etttategee eeggegetgg geateactea eegetteate ggeteggage
                                                                      120
 cgttctgcga tatcacccgc cagtacaacc agacgctgca cgacctgctg gcctcgcata
                                                                      180
 ttgacgtggt ggagatgccg cgcatcaagg ccaccggcaa cgccatttcg gcctcggaag
                                                                      240
 tqcqccqttt actcaagaca cagcagtttt cccggatccg ggagattgtc ccggactcca
                                                                      300
 cottogogca cotogaagca cattatogtg cgagtgcgga agtogcataa ctatcaggaa
                                                                      360
 tttatcatga atattgtaag ggaggegetg geoggaaege aggagteeag egacetgatg
 gtgaaaattg cccccgctca cggtgagctg gagatcgtca tccacagcga agtgattaag
                                                                      420
                                                                      480
 caqtttqqcq aqcaqattcq ccaqqtqqtc aacgacacat tgcgcgccat gaacgtgcac
                                                                      540
 cagggattaa tcattattga agacaaaggg gcgctggact gtgtgatccg cgctcgcctg
 caaagegege ttetgegtge egecaatgaa caggecatea actgggggge getgaaatga
                                                                      600
 <210> 4241
 <211> 1668
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4241
 ttqaqqcqqc aqaaqaqqqc qaqcqtaacq gcctgggcgt ggtgtcgctc aacggcaaaa
                                                                       120
 tggtggatgc accgattatt aaccacgcgc aggtggtgct ggagcgcgcg gcggcctccg
gcgtgcgtcg gtaaggatga cataatgaat cagacagaac ttctccatat gaatttcccc
                                                                       180
                                                                      240
 catctqcqqq atctqaaacc ctttqatacc gcccacagcg cgacgccgtg gctggcggac
 agegaggega ageacageeg caagetetge geetetattg aagaggeggt taagegetge
                                                                      360
ggettgcagg aegggatgae cateteette caccaegeet ttegegaagg egacegggtg
atcaacaccg togtggcgct gotggcgcgg atgggcttca aaaatctgac cotggcttcc
                                                                      420
                                                                      480
agetegetga tgacetgeaa egaegegetg ategageata tegaaagegg egteateace
                                                                      540
cggatttaca cctccggcat gcgcggcagg ctggcggatg ccatctctca cgggctgatg
                                                                      600
 gaggageegg tacaaattca eteecaegge gggegegtga agetaeteea ggaeggegaa
 ctgaacatcg acgtggcgtt tctcggcgtg ccgtgcagcg atgagtttgg caacgccaac
                                                                      660
                                                                      720
ggcacgcacg gtaaatcatg ctgcggctcg ctgggctacg cgatggtgga cgcgcagttt
                                                                      780
 qcccqtaaqq tggtgctgct gaccgaagcg ctggtgccgt tccccaatat gcccgccagc
                                                                      840
 ctggtgcagg atcaggtgga ctacatcgtg caggtggaga gcgtgggcga cccggcgaaa
                                                                      900
 atcagogtog gegeagegeg egteaceage aaccegegeg agetgatgat egecegetat
 geggeggaeg tgattgaaca etceggetae tteaaacegg gettetegat geagaeegge
                                                                      960
                                                                      1020
 tecggegegg eggecacgge etgcaetege tttatggaag agaagatgga gegeagegge
 qtqaaqqcqc qctttqcqct cqqcqqcatc accggcagcc tggtggatct gcacgagaag
                                                                      1080
                                                                      1140
 gggeteateg aaaagetget egacacecag tgetttgaeg gecaggeage ggeetegetg
                                                                      1200
 qeqcqcaacc cqaaccacqt qqaqatctcc accaacqtct acqccaaccc cqqcagcaag
                                                                      1260
 qcqqcaaqct qcqaccaqct cqacqtqgtg atcctcaqcg ccctggaaat cgacqtcgac
                                                                      1320
 tttaacgtca atgtcatcac cggctccgat ggcgtgatgc gtggcgcatc cggcggacac
                                                                      1380
 tgcgacgtgg cggcggcage caacctgace attgtggtcg cgccgctgct gcgaagccgc
                                                                      1440
 atecequeeq teqtquaqeq eqttaceaet egeetcaege egggggagag cattgaegtg
 ctqqtcaccq accacggtat tgcggtcaac ccggcgcgcc cggagatccg cgaacgactc
 atggaageag ggatgaaggt tgtagatate aacgegetgt atgagegage gatttegttg
                                                                      1560
 acaggeqtac eqaaaccgat tqaqttcace qacaaaatcg tcggggtgat ccgctaccgc
                                                                      1620
                                                                       1668
 qacqqcaqcq tqatcgacac tgtgcgacag gtgaaggagg aagtatga
 <210> 4242
 <211> 807
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4242
 togatgactg gtttgctcgc gactaaaccg cgcccggttg acgtgcctgc gcttgccgaa
                                                                       120
 qcqqcqctqt qqcaqqaqct qqaqctqacq cccaagccgg ggctggtgga caggctcaat
 aacggetege ategggatat ggaceatgee ttgtttgtee geageattat ggegattacg
                                                                       180
 cogtggtttg cocggtttgc ggaactgggt gaagcacatg cggccaaacc tgccgatcgg
 cagttgcgga ttctccgccc aatgggaatg gcctgcgagc aggcaatgta cgccgccacg
                                                                       300
```

```
ggcggggtaa atacccacaa gggcggtatt tttgctcttg gtttgctctg cttcgccgcc
ggtegtgtga aaaatatoto tgeggatage etetgttgtg aggtaagtca catetgtege
                                                                     420
                                                                     480
gggetggtgg egegggaget ggeegggege agegggeagg caaeggeggg ggageggeag
ttteageatt aeggettaae eggggegega ggegaggegg agageggett tgegaeggtg
                                                                     540
                                                                      600
cqtaaggcgc tggggcagtg gaacggacag ttgcttcacg acctgctgtt gcgcctgatg
                                                                     660
gcggtcaatc aggacagtaa tctcgtgtca cgcggcggca ttcaggggct gcgctatgtt
                                                                     720
cagggetacg cgcgggaact gctggctaac tgctgggate gcgaggcgtt gcttaagatg
                                                                     780
qataaqqcac tgattqaacq aaacctgagt ccgggcggca gcgcggattt gctgtcggtg
                                                                     807
gggtgggtgc tgtctgctat aaaatag
<210> 4243
<211> 984
<212> DNA
<213> Enterobacter cloacae
<400> 4243
totatggatg tggaagaaat tgtggccctt agtgtaaagc ataacgtctc cgatctacac
ctgtgcagtg attcacctcc gcgctggcgc aggtcaggcc gtcttgaacc tgcgccgttt
ccgcccccgg atgtggaggc gttattaaaa gcgtggctca acgatgaaca gcagggcgcc
                                                                      180
tggtgggcaa atgggcaggt tgattttgcc gttaccctcg cagaccgtca gcgcctgcgc
                                                                      240
ggcagtgcgt ttaagcatat gcacggcgtt tcgatcgcgc tgcgcctgtt gccgctgacg
tgcccgcagc tctctgcgtt aggcgtgccg cgcgcgatcc cggagctttt gtccaatgac
                                                                      360
                                                                      420
aatggcctga ttctggtcac cggcgccacc ggcagtggga aatcgaccac cctggccgcg
atggtcgatt toctcaatca ccagacggac gggcatattc tgacccttga agatccggtg
                                                                      480
                                                                      540
qaqtttatqt accaqaqtqa acqttqcctq atccaqcage gggagatagg cctgcacagc
                                                                      600
ccqtcctttq ccgaggccct gcgcagcgcg ctgcgtgaag atccggatgt gattctgctt
                                                                      660
ggtgagetge gegacagega gaegataege etggegetga eggeggegga aaceggeeat
                                                                      720
ctggtgttgg ccacgctgca cacgcgcggt gcggcgcagg cgatcgagcg cctggtcgat
                                                                     780
acctttccqq cqcaggagaa agatccggtg cgtaatcaac tggcgggaag cctgcgtgcg
                                                                      840
gttctggege agaagetgeg teaggatgte cagggeggge gegtggeget gtatgageta
                                                                      900
ctggtgaata cgtcggcggc ggcaaacctg atccgcgaag gcaaaacctg gcaactgccg
                                                                      960
ggcattattc aaacggggca gcaggcgggg atgcagaact ttgagcagag tctggcggag
                                                                      984
cgacgggcgc agggggggt gtag
<210> 4244
<211> 243
<212> DNA
<213> Enterobacter cloacae
<400> 4244
                                                                      60
ttctaccaaq qcctacagga ttttqacact qqcagtctqa qtqttaatcq qtatqqatqq
                                                                      120
attaccatct qqacqtctat tttaqqtcac ttcttcaccc qatttccagt tttttttgac
                                                                     180
teacetetea ttgegttgaa aaegetgetg gaaattttte etgaegaege tggeaaeetg
                                                                      240
cqcatttttq ttttgctttt tagcgacctt ctcggtataa aacgeggege geggeteata
                                                                      243
taa
<210> 4245
<211> 219
<212> DNA
<213> Enterobacter cloacae
<400> 4245
acaagggcgc tcttgttaat acaggagttt tctcgtggtt tcgccgaacc ttgtcataca
                                                                      60
gagttoggat acgtgtttta caatgatatg aataagaaac oggtogcacg gtotggattt
                                                                      120
cagcatacte tgetgggaaa tggageegtt aatgggttgt tategeegta taaegetgeg
                                                                      180
atagtagtca actgttttac acttaataca aagagttga
<210> 4246
<211> 1227
<212> DNA
<213> Enterobacter cloacae
```

```
<400> 4246
ccaegacaeg egeogteage agaaaaagee ggaggeggta tgacategeg cattgtcatt
ateggeggeg gecagteagg eggetgggeg gegaaaacce tgegtgaega gggettegae
ggcgagattt gcgtggtagc ggaagaggaa tgggatttet atgagcgccc gccgctgtca
                                                                     180
                                                                     240
aaagegtete tgetggaace ggacgeggeg ettecaagge tgtttacega egaggtgcag
caqqcqctqa acctqacctq qtaccqaccq ctgcgcgcag aatctgtcga tcgcgttgaa
aaaaaagtee ttettageaa eggegageag ettagttaca acateetttt aategetace
                                                                     360
                                                                     420
ggcggtcggg cgcgcctgcc ttcgcaggcg tgggccagcc atccgcaggt ctataccctg
                                                                     480
cgccactggc aggacgcgca gcgcctgaaa agtcgcctgt cggaaagtca caaactcgcg
attateggeg geggetggat tggeettgag attgeegett eegegeggaa aageggegtg
                                                                     540
gcggtcacgc tgttcgagca gcagcctgcg ctgtgcatgc gctcggtgag cggcgaggtg
                                                                     660
tegeagegee tggaggeeat ceaeegegag cagggggtgg agateegtae eggetgegge
gegetggage tggaggaega eggeggeetg eeggtegtee actgegaegg caacegtgaa
                                                                     780
acctttgatg cagtggtggt ggggatcggc gtcgatctca atctggagct ggcgcgtgac
                                                                     840
geggggetga aaacegggeg egggategtg gtggatgece agggaegeae eteggateeg
                                                                     900
ttcatctttg ccgcaggaga tgtcgcccag caccatcact acggcttgtg catccagtcc
                                                                     960
tgggccttcg cccagaatca ggcggtggcg acggcgaaag cgatgctcaa tcccgatgcg
ccaqqttatq acqacqcgcc qtggctgtgg tcggatcaat accagcacaa cattcagatc
ctcggcattc cgcaggcagg ctgccgaacg atattgcgtg aagaggcgct gtacttctcg
                                                                      1080
                                                                      1140
ctggacgaca acgggcggct aacgcagctt gtggcgttca acgatgcgcg caccgtcaag
ctqqcqaaqc qctqqatqqc qqcaqqqcqq gatctqtcgg acgtaccqct tgccgacccg
                                                                      1227
acattttcac tgatgtcact gcgatag
<210> 4247
<211> 987
<212> DNA
<213> Enterobacter cloacae
<400> 4247
agcqttattc cqgcagtttt gaagtctggt gcggcgagca ggatgccatc acccagccgg
                                                                      60
                                                                      120
agetggttca gggtetggeg etgegetaeg geatgeegtt tategeeatt eegeaggeeg
                                                                      180
gqcacqccaq ctatctcqat aacqacqcqt ttttcaacca acaqctttta cgcattaacg
                                                                      240
aaqaqqtqcq cqatqaatqc acaaattgac gggcgcgtag cggtagtcac cggcggttct
                                                                      300
teeggeattg getttgaaac getgegeetg etgetggggg aaggggegaa agtegeette
                                                                      360
tgeggeegtg acgaggaeeg getegeeage geceatgega egetgeaaaa egaattteee
cacqqqqaqa ttttcgcttt ccgctgcgac gtgctgaatg ccgacgaagt tcaggccttc
                                                                     420
                                                                      480
gcggatgcgg tgcaggcgcg ttttggcgcg gcggatatgc tgatcaacaa cgccgggcag
qqetacqtqq cqcacttcca tqacaccccq cgcqaqqcqt ggctgcacqa agccgaactc
                                                                      540
                                                                      600
aaactgttcg gggtgattaa cccggtgcag gcgtttcagc cgctgctgga acggtccgac
                                                                      660
ategecteca teacetgegt gaacteeetg etggegette ageeggaaga geacatgate
                                                                     720
gecaegtegg cageeegege egegetgttg aacatgaege tgaegetete gaaagagetg
                                                                     780
gtgggcaaag ggattegegt caattecata etgeteggta tggtegagte eggeeagtgg
cagogoogot ttgaaagoog ggoggataaa agocagagot ggooggagtg gaoggoggag
                                                                      840
                                                                      900
ategegegea agegeggeat teegatggeg egeeteggea ageegeagga geeegegeag
                                                                      960
qeqetqetqt teeteqeete qeegetggee tegtttacca ceggegegge getggaegtt
                                                                      987
teeggegget tetgeegeea tetgtaa
<210> 4248
<211> 780
<212> DNA
<213> Enterobacter cloacae
<400> 4248
ggacacatca tgaaaaaggt aatgttgatt ggtttaggeg ccatggegea ggeggtgatt
                                                                      120
gageqeetge eegeeggtgt ggetategge tggategtgg egegegegte teaceateee
gccatteacg accagtttgg cgatgeggtt gaggcgctga cgtcgccgat ggcgtgcgca
                                                                      180
caaacqccqq atctqqtqct qqaatqcqcc aqccaggagg cqqtggccca gtacggggaa
                                                                      240
gagateetge gtegeggetg geatetggee atcattteca ceggegeget ggeggacage
                                                                      300
gegetggage agegtetget egeegeggge ggaaaactga eestgettte eggtgeggtg
                                                                      360
qccqqtatcq acgggctggc ggcggcgaaa gagggcgggc ttgagcgcgt cacctatcag
                                                                      420
```

```
togogcaaaa goooggocag otggogogo agotatgoog agoagottat ogatotgaat
                                                                     480
                                                                     540
qcqqtqtcaq aggcaaaggt tttcttcgag ggcagcgccc gcgagggggc gcgcctgttc
                                                                     600
coggegaacg ccaacgtggc ggcgaccgtg gcgctcggcg gcgtcgggat ggaggacacc
cgcgtgcaac tgatggttga cccggcaacg aaacgtaaca cccacacgct gcatgtcgaa
                                                                     660
                                                                     720
qqattattcq qcgaqttcca tctggaactg agcggactgc cgctggcttc taatcctaaa
                                                                     780
acctecacce tggcggcact gagcgcggtg cgcgcctgcc gcgagctggc cctgagctga
<210> 4249
<211> 1479
<212> DNA
<213> Enterobacter cloacae
<400> 4249
gqagtgacga tggacgatct gaagattttt atcggcggcc agtggcgacg cggcggcgc
aaccegatge agagccactt teeggeagae gggtegetea aegegaeget gaatgeegee
agtotggatg acctggagga ggcggtagcc gccggagagc gcgcctggcg cgatcccgca
                                                                     180
tggogtaaca gtctgccgca catgcgcgcg aagatcctgc ataaagttgc cgatcitatt
                                                                     240
                                                                      300
gaatcoogcg togatgogct ggcgcagatg cagagcogtg ataacggcaa gccgctggcg
                                                                     360
gaagegegeg ggetggtgat gagegeggeg ggaaeggege getaetttge egeegeetge
gagetgetgg aaggggaact teegaegeeg egeeageegg atetgetgae getgagetge
                                                                      420
                                                                     480
tacgagecee ttggegtggt ggeggeeate acgeegtgga actegeegat tgeeagegaa
atgcagaagg tegcaecqge gattgccgee gggaacgegg tgatectcaa geeegeegaa
                                                                     540
                                                                      600
gccacgccgc tgatggcgct ggagctggcg cggattttta aacaggccgg gctgcccgcc
gggetgetga gtgteetgee gggeaaagge teggtgattg gegatgeget ggegegteat
                                                                     660
cetegegtge ggaaaattte etttacegge ggeaceacea egggeegtea tetggegeac
                                                                     780
qtqqcqqcqq aaaaactgat cccggcctcg ctggaactgg gcggcaaatc gccgaccatc
                                                                     840
gtgctggagg atgccgatat cgaacaggcc gcgcgcggga tctgctacgg cattttcagc
                                                                      900
teggeggge aggegtgtat egeegggteg eggetgttta tecaegagag tatttaegee
                                                                     960
ccqctqatqq cgaqqctgct ggaattaaca cgcgggctgc gcgtcggaca tccgtttacc
                                                                     1020
qacqqcqtcc atqtaqqacc qctqatcaac qaaaaacatc qccaqaqcgt gatccagtac
                                                                     1080
qteqaactqq eqaaqeqtqa aqqqqqeeqe gtqctqtqeq qeqqeqaqat ccccqccqat
                                                                     1140
cccgctctgg taaacggcag cttctttctg ccaaccatta tcgaagggct gagcaacagc
gcccgcgcct qtcaqqaaqa qatcttcgqc ccgqtqctqg tggcgatgcc qtttggcgat
                                                                     1260
qaaqccacqc ttatccacqa ggcgaacgac tcggtgtacg gcctggcggc ggggatctgg
                                                                     1320
acgogogata coggtogogo cotgogtoto agogagoago tggaggoagg cacggtgtgg
                                                                     1380
atcaacacct acaaggtttt tgcgatttcg accccgttcg ggggctttaa agagagcggt
ctqqqccqcq aqaaqgqtat ccaqqqqctq aaaqcctqga tqcaacaaaa qaqcatttat
                                                                      1440
                                                                      1479
ctggcgacgg gtaacagcgt caaccactgg tgcgactga
<210> 4250
<211> 2184
<212> DNA
<213> Enterobacter cloacae
<400> 4250
qqaatateta caggggggg cgagcagatt gcgcaacatg cgagcatgat ccagagattt
                                                                      120
cttaagcagc aaaagaatgc tecatgtaca tgecetgegg cttgggttac attgttggca
                                                                      180
cttttttccq qcgtagccca aaacgcgctg tcgtcaaggg catggccttt aacagtccga
                                                                      240
totggagtta aaatgtooto acgtaaagag ottgotaatg otattogtgo gotgagcatg
gacgcagtac agaaagccaa ateeggccac ecgggegeee etatgggeat ggetgacate
                                                                      300
geogaagtee tgtggegtga titeetgaac cataaccege agaaccegge atgggeagae
                                                                      360
cgcgaccgtt tcgtgctgtc taacggccac ggctctatgc tgatctacag cctgctgcac
ctcaccggct acgatetgcc aatcgaagag ctgaaaaact tccgtcagct gcactccaaa
                                                                      480
actocaggte accoggaagt gggctacacc gctggcgttg aaaccactac cggtccgctg
                                                                      540
ggtcagggca togctaacgc cgtaggtatg gcgattgcag agaagaccct ggcggcgcag
                                                                      600
tttaaccgtc ctggccacga catcgttgac cacttcacct acgccttcct gggcgacggc
tgcatgatgg aaggcattte teacgaagtg tgeteectgg caggcaccet gaagetgggt
aaactggttg cgttctacga cgacaacggt atctccatcg acggtcatgt tgaaggetgg
                                                                      780
ttcactgacg acaccgcage acgtttcgaa gcctacggct ggcacgttgt gcgcggcgtt
                                                                      840
gatggccacg atgctgactc gattaaacgt gccgtagaag aagcgcgcgc cgtgaccgac
                                                                      900
                                                                      960
aaaccgtccc tgctgatgtg caaaaccatc atcggcttcg gttctccgaa caaagcgggc
```

```
actcacgact occaeggege accgctggge gacgeggaaa ttgcactgac cegtgaageg
 ctgggctgga aacaccctgc cttcgaaatc ccgtctgaaa tctacgctca gtgggatgcg
                                                                       1080
 aaagaagtgg gtcaggcgaa agaagcggcc tggaacgaga agttcgcggc ttacgcgaaa
                                                                       1140
                                                                       1200
 qccttcccac aggaagcggc tgagttcacc cgtcgtatga aaggtgacat gccgtctgac
                                                                       1260
 ttcqacqcca aagcgaacga gttcatcgcg aagttgcagg cgaacccagc caagatcgcc
 agcogtaaag catotoagaa tgogatogaa gogtttggoo ototgottoo agaattooto
                                                                       1380
 agegatees etgacetage accateaaac etgaceetgt ggteeggate taageeaate
                                                                       1440
 aacqaaqata ctqccqqtaa ctacatccat tacggtgtac gtgagttcgg tatgactgcg
                                                                       1500
 attgccaacg gtatcgctct gcacggtggt ttcctgccgt acacttctac cttcctgatg
                                                                       1560
 tttgtggaat atgcacgtaa cgccgtgcgt atggctgcgc tgatgaaaca gcgtcaggtg
 atggtetaca eccaegacte categgtetg ggegaagatg gtecaactea ecagecegta
                                                                       1620
                                                                       1680
 qaqcaqqtqq cttccctqcq cqtgaccccg aacatgagca catggcgtcc atgtgaccag
                                                                       1740
 qttqaatctq cggtggcgtg gaaatacggc gttgagcgtc aggacggtcc aaccgcgctg
                                                                       1800
 atectetece gteagaacet ggegeageag gagegtacte cagageaget ggegaacate
                                                                       1860
 geacgoggtg gttacgtget gaaagattge gegggecage etgagetgat etteategee
                                                                       1920
 accqqttcaq aagttgaact ggctgtagca gcatgggaaa aactgactgc cgaaggcgtg
 aaggogogtg tggtttocat googtotacc gatgogttog acaagcagga tgcogogtac
                                                                       1980
                                                                       2040
 ogogaateeg taetgeetaa ageggtetee getegegtgg cagtggaage gggtategea
 gactactggt tcaaatacgt gggtctgaac ggcgctatcg tcgggatgac cacgtttggt
 gagtotgogo cagotgaaca gotgtttgaa gagttoggot toacogttga aaacgttgto
                                                                       2160
                                                                       2184
 gctaaggcga aagaactgct gtaa
 <210> 4251
 <211> 708
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4251
tattatecat tteetetaat gaegiteeeg eagtatagte tgeeteeagg acaactetge
                                                                       120
 gagaattacg toatgttate ttattatttt caggggettg tgttaggtge ggccatgate
                                                                       180
 cttccccttq qtccacaaaa tgcgttcgtg atgaaccagg gcattcgccg ccagtatcat
                                                                       240
 ttgatgattg ccctgctgtg tgcggtgage gatctgctgc tgatttgcgc cgggattttt
 ggeggeageg ecctgttgat geagtegeeg tggetgetgg egetggttae etggggegge
                                                                       360
 qtaqcqtttc tqctgtggta cgggtttggt gccctgaaaa cggccatgag cagcaatctt
                                                                       420
 gagetggega gegeegaagt gatgaageag gggegetgga agattategt eaceatgete
                                                                       480
 qccqtaacqt qqcttaaccc qcacqtctac cttgatacct ttgtggtgct gggcagcctg
 qqcqqacaqc tggacqttga gccgaaacgc tggtttgcgc tcggtacggt cagcgcctcc
                                                                       540
                                                                       600
 ttcctctggt tcttcggtct tgcgatcctg gcggcgtggc tggcgccacg actgcgtacc
  gccaaagcac agcgcattat caataccctg gtggggctgg tgatgtggtt tattgccttc
                                                                       660
 cagetggega aagaggacat teatcaegta cagggattgt teaactaa
  <210> 4252
  <211> 696
  <212> DNA
  <213> Enterobacter cloacae
  <400> 4252
  tgegecetga gttttcacae cacaggeaaa acgateatga egeaggatga actgaaaaaa
 qcaqtaqqat gggccgctct ccagtacgta cagccgggta ccattgtcgg tgttggtacg
                                                                       120
                                                                       180
 gggtccacgg cggcacactt tatcgatgcg ctgggcacga tgaaggggca gatcgagggt
  geggttteca getecgatge ttecaeggaa aagetgaaaa geeteggeat caeegtttte
                                                                       240
  qacctcaacq aagtqgaccg tctgggcatt tacgttgatg gcgcggatga aatcaacggc
                                                                       300
                                                                       360
 cacatgcaga tgatcaaagg cggtggcgcg gcgctgaccc gcgaaaaaat catcgcttcc
  gtggcggata agttcatctg catcgcggac gcctccaagc aggtcgacat tctggggaat
                                                                       420
  ttcccgctgc cggtcgaagt gatcccgatg gcgcgcagcg cggttgcccg tcaacttgtg
                                                                       480
                                                                       540
  aagetgggeg gtegteegga ataeegteag ggegtagtga eegacaaegg caaegtgate
  ctogacgttc acggtctgga aattcttgac gcgattgcgc tggaaaacgc catcaacggc
  attocaggeg tagtgaccgt agggetatte gecaaccgtg gegeggatgt ggegetgate
                                                                       660
                                                                       696
  ggcaccgctg acggcgtgaa aaccatcgta aaatga
```

```
<211> 1233
<212> DNA
<213> Enterobacter cloacae
<400> 4253
atggcaaagg tatcactgga gaaagacaag attaaattcc tgctggttga aggcgtgcac
cagaaagege tegatageet tegegeagea ggetacacea acategaatt teacaaagge
                                                                     180
gogetggaca etgaagaget gaaagegtee atcegtgatg eccattteat tggeetgega
toccgtaccc aactgactga agacgttatt gctgcggcgg aaaagctggt ggcgattggc
                                                                     240
tgtttctgca tcggcaccaa ccaggttgat ctgaatgccg ccgcaaaacg cggtatcccg
                                                                     360
gtetttaaeg egeegttete taacaceegt teegtggegg agetggtaat tggegagetg
                                                                     420
ctgctgctgc ttcgcggcat tccggaggct aacgccaaag cgcaccgcgg cgtgtggaat
                                                                     480
aagetggetg egggeteeta egaageeegt gggaaaaage tegggattat eggttaegge
                                                                     540
catateggta egeagetegg tattetggeg gaateteteg geatgeaegt gtttttetae
                                                                     600
gatategaaa gcaagetgee getgggtaae gegaegeagg tgeageatet ttetgaeetg
ctgaacatga gcgacgtggt aagcctgcac gtgccggaaa atgcgtccac caaaaacatg
                                                                     660
atgggcgcaq aagagctggc gctgatgaag ccgggctctc tgctgatcaa cgccgcgcgc
qqtaccqtqq ttqacattcc tgcactgtgc gacgcgctga agcgtaaaca tctggcgggc
                                                                     780
                                                                     840
geggegattg acgtgttece gaeggaaceg geeactaaca gegateegtt caccteteeg
ctgtgcgagt tcgacaacgt gattctgacg ccgcacattg gcggttctac tcaggaagcg
                                                                     900
caggagaata toggootgga agtggogggt aaactgagca aatattooga taacggttoa
                                                                     960
acqctctctg cggtgaactt cccggaggtg tctctgccgc tgcacggtgg gcgtcgtctg
ctgcacatcc acgaaaaccg teetggegtg etgacegeca teaaccagat etttgccgag
                                                                     1080
cagggcgtta acattgctgc gcagtatctg caaactaact cgcagatggg ttatgtggtt
                                                                     1140
attgatattg aageggatga agacategee gagaaageat tgeagageat gaaggeeatt
ccggggacga ttcgcgcgcg tctgctgtac tga
<210> 4254
<211> 1122
<212> DNA
<213> Enterobacter cloacae
<400> 4254
tttccggggc gggagcatat atcttcctgc cggtggctga taacacaaac gtcgcggatg
cataaaaagg ataaccatat togoggtoag togogottot gooogoacaa goggotgaac
                                                                     120
aacgegttca tgctgcatgc ctccaccagc ccgttttacc cgctgtttgc ggcgctggac
                                                                     180
                                                                     240
gtgaacgcca agatccacga gggcgaaagc ggacgcaggc tgtgggcgga gtgtgtcgag
ttgggcattg aagegegeaa ggccatcate gctaactgcc atatgatcaa accgtttate
ecaceggtgg tggcggggcg gccatggcag gatcacecca cgcaggctat cgccagegag
                                                                     360
egtegettet ttagttttga acegggtgea aaatggeaeg gttttgaagg etatgeeege
                                                                     420
qaqcaqtatt tcqtcqatcc qtqcaaqctq ctqctqacca cqccgggcat tgatgctgaa
                                                                     480
acagggeact ataccgattt eggeatteeg gegaceatte tegeceacta eetgegegag
                                                                     540
aacggcattg tgccggagaa gtgcgatetc aactccatcc tgttcctgct gacgccagcc
gagagegegg agaagetgat geagetggtg gegatgetgg ggeagtttga acageatatt
                                                                     660
quaquegaca cacegetege ggatgtgett cegaceatet atcagaaata ceeggtgegt
                                                                     720
taccgcgact atacgatccg ccagctatgc caggagatgc acgateteta cgtcagettt
                                                                     780
aacgtgaagg atttacagaa ggcgatgttc cgtcaggaga gcctgcctgc cgtggtgatg
                                                                     840
aacccccagg atgccaacca ggagtacatt cgcgggaacg tcgaactggt gcgtattcgt
                                                                     900
                                                                     960
gacgccgaag gacgcattgc cgccgaaggt gcgctgccat acccgccggg cgtgctgtgc
gtggtgccgg gggaagtctg gggtggagca gtacagcgct acttectggc actggaagag
ggcattaata tgctgccggg tttctcccca gagttgcagg gcgtttacag cgagaaggat
                                                                     1080
geggaeggga teaagegget gtatgggtae gtattaaagt ag
<210> 4255
<211> 924
<212> DNA
<213> Enterobacter cloacae
<400> 4255
egtetecate tetetgetga ttetgggeaa etteetegtt taagttttea ggaaagaaca
                                                                     60
atgaaactcg caagcttttt ataccaggga aaacgcagct acggcatcgt tcaggccgac
                                                                     120
```

```
180
ggcgtgattg atttaggccg ccgcctcggc gaccgctatg gcgaccttaa agcgctgttg
                                                                     240
caggggaacg ggctggcgca ggccacccga ttcctgaacg acgcggtgga cgtgccgctg
                                                                     300
aacqccatca cottottacc ggtgattgtc cagceggaaa aaatcctctg cgtgggcatg
                                                                     360
aactatgccg acaagogcaa ggagtttgac cagcacaacc cggccccgac gctgtttgtc
egetteeegg acteacagae eggecacaae gageeggtge tgaageegge ceacteeage
                                                                     420
                                                                     480
gaattegact acgaaggega getggeggtg atcateggea aaggegggga gaacateage
                                                                     540
cgcgacgacg ccctgcgcca cgtggcgggc tacagctgtt acatggacgg ctccgcccgc
gactggcage acacetggtt cacegeeggg aaaaactgge ggeagaeegg ggegttegge
                                                                     600
ccgtggatgg cgacggcgga tgagatcccc gatccgcacc aacttgcaat ccgcacctgg
                                                                     660
                                                                     720
ctgaacqqcc qcatqqtqca ggaaqacaac accagcagca tgatccacaa ggtggcggag
ctgatcgagt acatcagcac cttcacccgc ttaagtcctg gcgatgtgat catcaccgga
                                                                     780
tecccaggtg gggtgggtaa aaagcgtaac ccgccgetgt ttatgaaaga ggggggatege
                                                                     840
attgaggtgg agatcgagca tatcggtcat ctcagcaacg tgatcgtgga agcgccagcc
                                                                     900
                                                                     924
gtegggeteg eggeagegea etga
<210> 4256
<211> 387
<212> DNA
<213> Enterobacter cloacae
<400> 4256
acagcgtgge catcgtcttg gtcacggcgt atgggactta atgttcgaga gggtgaaata
                                                                      60
                                                                      120
atggcaaaga atcgtagccg togtctgcgt aaaaagatgc acatcgaaga attccaggaa
                                                                      180
gtgggtttct ccgttgcctg gcgtttcccg gaaggcacca gcgttgagca gatcgatcag
                                                                      240
gacgttgatg cgttcatcaa cgaggtgatc gagccaaaca agctggcctt cgacggtagc
                                                                      300
ggctatctgg cgtgggaagg tctgatttgc acccaggaag tggggaaatg caccgaagag
                                                                      360
catcaggege tggtacgeaa atggettgaa gaccacaaac tggaagatgt cegegttage
                                                                      387
gaacttttcg acgtttggtg ggactaa
<210> 4257
<211> 771
<212> DNA
<213> Enterobacter cloacae
<400> 4257
agcaagaacg gggccagcat tagctggccc attttgtctg agggagtgtt taagatgcgc
                                                                      60
aaaacqttgc tggctgttgc tttactggca atcggatcca ccgcccatgc ggagtataaa
tgtagogtea coccgogtga tgacgtggtg ctgagtcogc aaaccgtgca ggttaagggc
                                                                      180
gagaatggca atotggtgat tacgccggat ggcaacgtga cotttaacgg caaaccgcaa
                                                                      240
aacctgacgg ccgcacageg cgagcaggeg atggactacc aggcegagtt gegtaccgcg
                                                                      300
ctgccctgga tcaacgatgg cgcgctgacc cgcgttgaaa agagccgcgt ggcgctggat
                                                                      360
aaaatcatca ccaaagaggt gggggagagc agcaatatgc gcacccgcct gacgaagctg
                                                                      420
                                                                      480
qataagcagc tgaaagagca gatgaaccgt attatcgaga cgcgctctga tggcctgacg
ttecattata aggegatega teaggtgegt geogaeggte ageagetggt gaaccaggeg
                                                                      540
atgggeggea ttetecagga eageateaac gagatgggeg ecaaageggt getgaagggt
                                                                      600
ggcggtaatc ctttgcaggg tgtactgggt agtctgggcg gactgcaaac ctcgattcag
                                                                      660
                                                                      720
aacgagtgga agaatcagga agccgatttc cagcagttcg gcaaagacgt gtgtaagcgc
gtggtgtcgc tggaagacag ccggaaggcg ctggtgggga cgctgaagta a
<210> 4258
<211> 948
<212> DNA
<213> Enterobacter cloacae
<400> 4258
                                                                      60
tgtatcgact ttataagagg tcaggacatg agcactttag gtcatcagta cgataactct
                                                                      120
etggtateta acgegtttgg ttttttacge etteegatga actteeagee gtacgacage
gatgeggact gggtgateac eggegtaceg ttegacatgg caaegteegg tegegegggt
                                                                      180
                                                                      240
ggtcqtcatg gcccggcggc gatccgtcag gtttccacta acctggcctg ggagcacaac
                                                                      300
egetteecqt qqaacttega catgegegag egtetgaacg tggtggactg eggegatetg
gtgtacgcct tcggcgacgc gcgtgagatg agcgaaaaat tgcaggcgca cgccgagaag
                                                                      360
```

			1070			
etgetgegeg acegacacet aaggaaggee aaagacaacg attetggete gaetgeetgg teagacegeg gtggtggaag	cccacgcgaa acgcgaacgg tgatcgatcc gcttcaccgt aggttaagca atccggcatt ccatcaagct tggctccggc	gcactteggt ctgtgagtte gaaccactee actegaegeg gategtegge egeaeegggt ggtgegegge ctatgaccag	tteggeggtg aaaatggege gaceaeggea gtgeagatteg gacatgeetg acegtaege ctgaaggatc tcegagatca gegaaaaaaa	tggtgcactt ccatgttcta gcatccgcac acgatcgcgg tctatctgac cggtgatcgg tgaacattgt ccgcgctggc	cgatgcgcac cacggcgccg cgagttcgac cgtggacgat cttcgacatc cggctgaca cgggatggac	420 480 540 600 660 720 780 840 900 948
<210> 4259 <211> 771 <212> DNA <213> Enter	obacter clo	pacae				
ggcgccgcg gtggtgatgt cggggctatg gtgttcagcg gcgacggcg atgagcgtca gaagggcgg atggcctacg ctgggtgaa acggaatatg gcgcagcagc	gcgggctggg gcgacatcct cgatcgaacc ccattggcga tcggcggcaa atgtcaaagg gcattgtgaa tcgccagcaa acgctatacc tccccgccga cggaagatgt	ettteacttt gaagggegag geaegttate geagggteag aaacatgete cactggetg egtggegtee gggggeegte cattaatgee aeggeateag caceggeage	ctgctgageg gccaaagcet ctggccgaaa gatctggceg atcgatggce gatacgate gacaccgcgc attgccatga atcgcacgg ctctacgaaa gtggtctgg ggcggttttg	gegeggagea gegeeaege atecacagte tggtgaacaa eggatetetg eegeegtgee tgtggggege eeggateaat ggttaaceeg aeggaegege tgetaagega	gggcgcggcg cctgagcgag cattgagcag cgcggcgatg ggatcgggtg gctgctgcgg gcgcgcgaa cgtcgaggcg gttaaccagc tctgtctcgg	60 120 180 240 300 360 420 480 540 600 660 720 771
<210> 4260 <211> 801 <212> DNA <213> Enter	cobacter clo	pacae				
ggtttacagc caccggctgg atggctttc cgtcttggct gagcaactgc attatataca acccgtctgc gctgatttcg cacgaccgtg ggcgaatcct ggcgggtgg cgcgagcgcc	tgctgttggc tggatatgcc tggagcgcaa ttgagtacat gcgacgtgag tcgcccgcgt cggtgcactg aacagctgtt aagccctgtt tcttccgcca cggcggtagt	etttggegag gaaggegace caegegeace egectegetg ceagtgeage caegegege caecatgag geagatggtg eggeatetet cagcattetg ggttegeett	gtgaagtatc cagcatcgcg gcctatcgcg aataccttt gacctgacga ggccatctg ggccgcatc ggccgcatc cgcttgccgc cagcaggaca tccatcgtct gtgcggtcgg	atctgacttt tggtgcagac cgctgggcat aggtcggca cgatccgcga tcaaccaggt tgttgaccga gcaacacgcc aagcccgcgg acccggtgta aggagatccc	tgccgagctg gctggagtac gaacgtgctg gccggtgatc cgggcgcgac cagcattggt tatttcccgc ggggcagctt gtatgtcatc tgaccgaagc gcagagc	60 120 180 240 300 360 420 480 540 600 660 720 780 801
<210> 4261 <211> 978 <212> DNA <213> Ente	robacter cl	oacae				
accggaattg	aaaagctgga	atttggtgtg	ggccagatga gaagacctga ggccagcgtt	cgcactgcgc	caaatttatg	60 120 180

```
egegtggage ttaaccegat egacageece gacetgeege eegegtttga agegggcaac
                                                                       240
 accetgegee geatgacetg ggeggttgee geacagteeg atetegaege getgegeeeg
 aagetggege ageageeegg etttegegaa gtgggegaeg egetggaatg eetegateeg
                                                                       360
 aacggcatga cgctgcgcgt gcaggtgacc cagcagaccg acgtggagct taacgtcgag
                                                                       420
 ccaataaacc agtggggcga cgcccgccgt atcgacacgc ccagcccggt ttacgatcgc
                                                                       480
                                                                       540
 geceagecga teaacgtggg geatgtggtg ttettegtgg aggagetgge ggeggtggaa
 aaattotacc gogaggtgot eggottocag gtotoggato gotatatoaa cogogoogtg
                                                                       600
 tteetgeget geggegtgeg tggeggeeat cacaacetgt teetgetgea aetgeegaac
                                                                       660
                                                                       720
 egeaagegeg geettaacea egtggeette acegtgegeg atatecaega ggtgategge
                                                                       780
 ggcggtatcg cgatgaataa acatgactgg agcaccttta tcggaccggg acgtcatccg
 gtgtcgtcgg cgtacttctg gtacgtcaac agcccgaccg gcggcgcgtt tgagtattac
                                                                       840
                                                                       900
 accaacgatg attacctgac ggaaaactgg cagccgcgcg agctggagca ttccctggtc
 teetteaeeg agtgggeggt ggaaggeggg attgaceaeg acaegegeeg teageagaaa
                                                                       960
                                                                       978
 aageeggagg eggtatga
 <210> 4262
 <211> 1278
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4262
 cccgcacccg tagggggaga aatgaccaca ctagagacta acaccgcgcc ggttgaggcg
                                                                       120
 ageggtgagg ggaccegeae geeegaaaaa geggtgeget gggeeateee getgtegetg
 ctggcctgcg tgctgctggc gttittcgac aaaatcagca tcgcggcgct cttttcagat
                                                                       180
                                                                       240
 accoatttee ageaggegat gggeattgat ttegacacca egegeetegg cattetgatg
 agogotttoc tgotgagota oggottotoa toggtgtttt taagoggttt aggogacaaa
                                                                       360
 ategegeege tgegeetget cacegggatg atggeagtgt ggtgegtget gatggtggeg
                                                                       420
 atgggettta eccataacta cacgetgatg ategteetge gtattetget gggegtggeg
 gaaggacege tgtteceget ggeettegee attgtaegee acaactteee geageatttg
                                                                       480
                                                                       540
caggeacgeg ceaceatget gtggetgetg ggeacecegg tgggegegge gattggttte
                                                                       600
 cogetetece tetggetget aaacacettt ggetggeaga geactttett tgtgatggee
                                                                       660
 atgettaceg tgeeggtget tatettggtg egeattggte tgegegggat eegeetggag
 gcaaaacccg gtacctcqca qqcatcacaq qacqaqcqqc qeqccgcacg gcgcgagctg
                                                                       780
 tttqtcaqcc cqcacttctq gatcatctgc atctttaaca tcgctttcct gacctacctg
                                                                       840
 tggggcatca acggctggtt gcctggctac ttaattaagg gcaaaggcat ccacctggag
                                                                       900
 catgoggget ggotgtogto gatgoogtto atogocatgo tggcagggga agtgattggo
 gcgtggctct ctgaccgggt cgataagcgc gcggcggcct gctttatctc gatggcgggg
                                                                       960
                                                                       1020
 qcggcggtag gcctggcggc ggtgatgcac ctcgacaccc cgcttgccat cattgcggcg
 atgagettea geacetttat gtggggeace ggegeaceca acattttege cetgetggeg
                                                                       1080
 aaggccaccc atccccgggt gagcgccacg gcgggcggta tcttcaacgg gctgggaaac
                                                                       1140
                                                                       1200
 tttgcgggcg cgctgtcgcc ggcggtgatg ggcgcgctga tcgcctttac ccacagcatg
                                                                       1260
 gattccgggc tgatttttct ggcggtgatg gcggcggtgg gctgcgtcct gttactgccg
                                                                       1278
 etgetgagac gttactga
 <210> 4263
 <211> 1644
  <212> DNA
  <213> Enterobacter cloacae
 <400> 4263
 gcaatgagcg aaatgataac cgtcggcgac gccatcgcca gaacgctgga gcagtatcag
 gttgaggcca tctacggcgt catctccart cacaacctgc cgatcgcgga tgcggttggg
                                                                       120
                                                                       180
 caqcqqqqca atatccqctt tgtgcccgcg cgcggtgaag ccggttccgt caccatggcc
 gatgeteacg ggegetttte eggeetegge gtggegetga eeageacegg egegggggee
                                                                       240
 gggaacgegg taggegeget ggtggaagee atgaatgeet geacgeeget getgeattta
                                                                       300
                                                                       360
 accqqqcaqq ttqaqaaaqc ctggctggac gccgacaccg ggtttatcca tgaaacccgt
 qaecagetga cetteetgaa ggecagetea aaacgggegt accgcateag caatgegaat
                                                                       480
 caggogatag cgattetgea taaageeate caggacgege agacceegee gtgeggaceg
 qtctcqqtqq aaatcccqat tgatattcag agcgccaaaa ttccgctgtc gctggtaacc
                                                                       540
  getecgatea aaceggtate ggcaceggee gtggataceg gaatggttga egegetgtgg
 gegeagetea aacaggegaa acageegetg etgtggetgg geggegggge getgggtage
                                                                       660
```

```
gctgaggcag tgaaaaaact ggcggatgcg ggcatcaccg tgatttccag cacccacgeg
                                                                     780
egeggegtgc tgeeggacaa ceacegegec ageettegeg egtteeataa ttegcegteg
                                                                     840
gttgaggege tgattgegea gtgtgatttt aegttggtgg ceggtteteg cetgegeage
aacgaaaccc gatcctggac gcttgagctg ccttccccgc gggtgcagct cgatatcgac
                                                                     900
ccggcggcag caagccgtaa ctatctgatg gatagcacgt tgatagccga ttgttccgcg
                                                                      960
                                                                      1020
etgettggeg egetggetga aaaagtgeag ggeegegagt ggggeaacge ceagtgggat
acgcaggtac agcaggetgt egggeaaget gagcagggge tgegegagea gtgeggegee
                                                                      1080
                                                                      1140
tatqcqaaqc ttaacgacgc cattgagaaa gccctgccga aagacggcct gctggtgcgc
gatateaccg tgtccggcag cctgtggggt agccgcctgt tcagggctaa cggtccgctg
atgaatatto actocotogo oggggcgatt ggcatgggco tgccgatggc tatcggcacc
                                                                      1260
                                                                     1320
gegattgeca acceacageg caaggtggtg gggetggtgg gegacggegg cetgageete
aatttaggog aactggogac gotggogoag gagaaagoca acgtgacgot gotgatcatg
                                                                      1380
                                                                      1440
aacgacgggg gctacggcgt aatgcgtggt attcaggata aatattttgg cgggcgtcag
                                                                     1500
tattataacg cgctgcatac gccggatttt accctgctgg cgcaggcgat tggtctacag
                                                                      1560
geotggageg ttgageagge egaggatttt gaegeggtga tgatggaage gttagegatg
ccqqqqccqt cqqtqgtaga ggtgcqgatg qggcagattg gcgcccttaa gtttgccggg
                                                                      1620
                                                                      1644
cegecacaga aaacgetgta etga
<210> 4264
<211> 1035
<212> DNA
<213> Enterobacter cloacae
<400> 4264
ctttgcagga gatctatgac cgtacgcgta gcgattaatg gcttcggtcg catcgggcgc
                                                                      120
aacgtggttc gtgctttata tgaatccggg cgtcgtgcgg aaatcaccgt ggtggcaatc
                                                                      180
aatgaactgg eggatgetge gggeatggea catttgttga aatatgacac cagecacggt
cgctttgcct gggatgttcg ccaggaaagg gaacagctgt tcgtcggtga cgatgccatc
                                                                      240
eqegtgetge atgagaacag tattgaaggg etgeeetgge gegaactggg tgtggatgtg
                                                                      300
gtgctggact gtaccggcgt gtacggtaac cgtgaacatg gcgaagcgca tctgaatgct
                                                                      360
ggcgcgaaaa aagtgctgtt ctcccatccc ggcagtaacg acctcgacgc caccgtcgtg
                                                                      420
tttggtgtta accagcacga getgeaeget gaacacegea ttgtctccaa egeeteetge
                                                                      480
accaccaact gcattattcc ggtcattaaa ctgttagacg atgcttatgg cattgaatcc
                                                                      540
                                                                      600
qqcaccqtqa ccacqattca ctccqccatg cacqatcagc aggtaatcga cgcctaccat
coggatttac gacgcactcg cgcggcgagc cagtcaatca ttccggtgga tacgaaactg
                                                                      660
getgeeggga teaccegtat ttteeegeag tttaacgace gttttgaage gattgeegtg
                                                                      720
                                                                      780
ogoqttocga cgataaacgt caccgcaatc gatcttagcg tgacggtgaa aaaaccggta
aaagcctgtg aagtcaacct gttgctgcaa aaagcggcac agggagcatt tcatggtata
                                                                      840
                                                                      900
gttgactata cggaattacc gttggtctca gtagatttta accacgaccc gcatagcgcc
atoqtggatg gcacgcagac gcgagtcagt ggtgcgcacc tcatcaagac gctggtctgg
                                                                      960
tgtgataacg aatggggett tgctaaccga atgetegaea ceaegttage eatggeegeg
aaaggtttca ggtag
<210> 4265
<211> 1179
<212> DNA
<213> Enterobacter cloacae
<400> 4265
                                                                      60
gaagtaagcc attcaggggc agggaaacct gcccaatttt cagcgcgctt atcagagctc
                                                                      120
gcaccatttc taacggccga agatacagga ctaagcaaca tgtctaaaat ttttgatttc
                                                                      180
qtaaaacctq qcgttatcac tggtgatgac gtacagaaag tgttccaggt agctaaagaa
                                                                      240
aacaacttcg ctctgccagc agttaactgc gtgggtaccg actccatcaa cgccgtactg
                                                                      300
quaactgctq ctauaqttau aqctccaqtt atcqttcaqt tctctaucgg cggcgctgcg
                                                                      360
ttcatcgcag gtaaaggcgt gaaaactgac attcctcagg gtgctgcaat cctgggcgct
atetetggeg cacateacgt teaceagatg getgageact aeggtgttee ggttateetg
                                                                      420
                                                                      480
cacactgacc actgcqcqaa aaaactqctq ccatqqatcq acgqtctqct ggacgcaggt
qaaaaaacact tegcagcaac eggtaageca etgttetett etcacatgat egacetgtee
                                                                      540
                                                                      600
gaagagtoto tggaagaaaa catogagato tgototaagt acctggogog tatgtocaaa
                                                                      660
atqqqcatqa ccctqqaaat cqaactqqqt tgcaccqgcq qtqaaqaaqa tggtqtggac
```

aacagccaca tygacycttc tycactytac actcagccag aagacyttga ttacycttac

```
780
accgagetga geaaaatcag eccaegette actategeag egteettegg taacgtacae
                                                                     840
ggcgtataca aaccaggtaa cgtggttctg accccgacca tcctgcgtga ttctcaggaa
                                                                     900
tacqtqtcca aaaaacacaa cctqccqcac aacaqcctga acttcqtctt ccacqqcggt
                                                                     960
tocggttott otgotoagga aatoaaagat tocgtaaget acggogtagt gaaaatgaat
                                                                     1020
ategataceg acaeceaatg ggcaacetgg gacggtatec tgcaatacta caaaaccaac
                                                                     1080
quagettace tqcaaqqtea qetqqqcaac eegaaaqqeq aagaccagee gaacaagaaa
tactacgate cacgogtatg getgegeget geocagaett etatgattac tegtetggag
                                                                     1140
                                                                     1179
caggcattca aagaactgaa cgcggttgac gttctgtaa
<210> 4266
<211> 1932
<212> DNA
<213> Enterobacter cloacae
<400> 4266
attocacact cogtttcatc tggtatgacc agatccaatt gctggattca ggagaccgac
                                                                     60
atgetetaca aaggegacae cetgtaegta gaetggetgg aagatggeat tgeegaactg
gtgttegatg ecceeggete agtgaataag ettgataceg egaeggtgge eagtettgge
                                                                     180
                                                                     240
caqqcqctqq atqtacttqa aaagcaatca gatttaaaag ggctgctgct gcgctccaac
aaagcggcct ttatcgttgg cgcggatatc accgaattcc tgtcgctgtt cctggtgccc
                                                                     360
qaaqaacaqc tqaqccaqtq qctqcacttc gcgaacaqcg tctttaatcg tctggaagat
                                                                     420
ctqcctqtcc cgaccctttc tgccgtcaac ggttacgcgc tgggcggcgg ctgcgaatgc
                                                                     480
gtgttagcca ctgattaccg tctggcgacc ccggacctgc gtatcggcct gccggaaacc
aagetgggea teatgeeggg etttggegge teegteegta tgeegegeat getgggegee
                                                                     540
qacaqcqcqc tqqaqatcat tqccqcqgqt aaagacqtcq gcgcagaaca ggcgcagaaa
                                                                     600
                                                                     660
attggcctgg tcgacggcgt tgtaaaacct gagaagcttg ttgaaggcgc actcgccatt
                                                                     720
ctgcgtcagg ccattaacgg cgacctcgac tggaaagcca aacgtcagcc gaagctggag
ccgttgaagc tcagcaaaat tgaagccacc atgagcttca ccatcgccaa aggcatggtg
                                                                     780
atgcagacgg cgggtaaaca ctacceggeg cegateaegg eggtgaaaac cattgaageg
                                                                     840
                                                                     900
gcagecegte tgggcegtga tgacgecetg aagetggaaa accagagett tgtccegetg
gegcacacca acgaageceg egegetggtt ggtatettee ttaacgatca gtttgtgaag
                                                                     960
ggcaaagcca aacaactcac caaaaacgtt gaaacgccaa aacacgcggc ggtactcggc
                                                                     1020
gegggeatta tggggggegg categeetae cagtetgeet ggaaaggegt geeggtggtg
                                                                     1080
atgaaggaca tcaacgagaa atccctgacg ctgggcatga ccgaagcgtc caagctgctg
                                                                     1140
aataaacage ttgagegegg caaaattgat ggtetgaage ttgeaggegt gateteeace
atccagccag tgctggaata cagcggtttc gaccgtgtgg acgtggtggt tgaagcggtc
                                                                     1260
                                                                     1320
gtcgagaacc cgaaagtgaa aaaagcggtg ctggccgaaa ccgaagacaa ggtgcgtccg
quaaccqtqc tqqcctctaa cacctccacc attcctatca gcgaactggc gagcgtgctg
                                                                     1380
                                                                     1440
aagogtoogg aaaacttotg ogggatgoac ttotttaacc oggtgoaccg catgoogctg
gtcgaagtga tccgtgggga gaaaacctcc gacgaaacca tcgccaaagt ggtggcgtgg
                                                                     1500
gogageaaga tgggcaaaac googatogto gttaacgact goocgggott cttogttaac
                                                                     1560
                                                                     1620
egeqtqttqt tecettactt egeeggette agecagetge tgegegaegg egeagaette
egcaaaateg ataaagtgat ggaaaaacag tteggetgge egatgggeee ggegtatetg
                                                                     1680
ctggacgttg teggcatega tactgcccat cacgetcagg eggtgatgge ggegggette
                                                                     1740
                                                                     1800
coqcaqoqoa tqcaqaaaqa ctategegac gocattgacg ccetgttega egecaacege
tttggtcaga aaaacggtct gggcttctgg cgctataaag aagacagcaa aggcaaaccg
                                                                     1860
                                                                     1920
aaaaaagaag aagatgegge ggtggatgge cetgetggee gaegteagte ageegaaacg
cgacttcact ga
                                                                     1932
<210> 4267
<211> 1044
<212> DNA
<213> Enterobacter cloacae
<400> 4267
atgtttettt tateteaget acacatacce etacaaaaag geetaataat tatgaagata
                                                                     60
aaqaacctqa ccctaacqct ctqcactact ctcctqcttq caagttttqc cgqccacqcc
                                                                     180
aaaqaggtca aaatcggcat ggcgattgat gacttacgcc tggaacgctg gcaaaaaagat
                                                                     240
egegatatet tigttaaaaa ageggaatet eteggegegg aggigtiegt teagteeget
                                                                     300
aacggcaacg aagagacgca aatgtogcaa atcgagaata tgatcaaccg tggcgtogat
                                                                     360
```

gtgctggtca ttatcccgta taacggccag gtattaagca acgtggtgaa agaagcgaaa

```
420
 caggaaggca taaaagtoot ggottatgac cgcatgatta ataatgccga cattgattat
                                                                      480
 tatatttegt tegacaatga aaaggtggge gaattacagg etaaaageet ggtegeaaaa
                                                                      540
 qtqcctcagg ggaattattt cctgatgggc ggctcgcccg tggataacaa cgccaaactg
                                                                      600
 ttccgccagg gacaaatgaa agtgctgaag ccgtatatcg acgagggcaa aattaaagtc
                                                                      660
 qtcqqcqacc aqtqqctqa cqqctqqtta ccqqaaaacg cgctgaaaat tatggaaaac
                                                                      720
 qcqttqactq caaataacaa caaaatcgat gcggtggtgg cctctaacga tgccactgcg
                                                                      780
 ggtggcgcca ttcaggcgct gagcgcgcag ggtctggccg ggaaagtcgc tatttccgga
                                                                      840
 caggacgccg accttgcggg tgtaaaacgc atcatcgcgg gtacccagac catgacggtg
 tataagccca ttaccgagct tgccaatacg gccgccgaaa ttgccgttga gctgggcaat
                                                                      900
 ggccagcaac ctaaagcaga cgcgacgtta aataacggcc tgaaagacgt acctgctcgc
                                                                      960
 ctgcttaccc ctatcgaagt caacaaagag aatattgacg ccaccgtggt gaaagacggt
                                                                      1020
                                                                      1044
 ttccataaga agagtgaact gtaa
 <210> 4268
 <211> 1614
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4268
tecagegeag eccetgeecg geagggeeca ategacetge cetgtacate tgtegggeea
                                                                      60
 tgcggagcag ttatgtotta tttacttgaa atgaaaagca tcaccaaagc cttcggggcg
                                                                      120
gtgaaagcag tcgataacgt aagcetgegg etgaateeeg gegaagtgat gtegetgtge
                                                                      180
                                                                      240
ggogaaaatg gctcgggaaa atccacgctg atgaaagtgt tgtgcgggat ctatccgcac
                                                                      300
qqcaqctacq agggcgaaat cgtctttgcc ggcgaggtgc tccaagccac gcacattcgc
                                                                      360
gataccgaac gtaaaggcat cgctattatt caccaggagc tggcgctggt gaagcacett
                                                                      420
accqtqctqq aaaatatttt teteggegee gaacteteac gecaeggegt actggattac
gacaccatga cgctgcgctg cgaaaaactg ctggcccagg tgagcctggc tatctcaccg
                                                                      480
gatacgcgcg tgggcgactt aggtttgggc cagcagcagc tggtggagat cgccaaggcg
                                                                      540
                                                                      600
ctgaacaage aggtacgeet getgateete gacgageeaa eegeeteget cacegaacag
                                                                      660
gaaaccgccg ttctgctcaa tatcatccgc gacctgcaaa accacggtat cgcctgcatc
                                                                      720
tatatttege acaageteaa tgaggtgaaa getattteeg acaecatetg egteateege
                                                                      780
qacqqcaqc acattqgcac gcgtgaagca gaaggcatga gcgaagatga catcatcacc
atgatggtgg gtcgcgaact caccgcactg tatcccaacg aaccacacac cataggcgaa
                                                                      840
                                                                      900
quactectge gegtggaaaa cetgaeggeg tggeateeeg ttaacegeea cateaagege
gtggataacc teteettete getgeaccge ggcgaaatte teggtattge gggtttagtg
                                                                      960
ggtgccggaa gaaccgaggc cgtgcagtgt ctgtttggcg tctggccggg gcgctgggaa
qqcaaaattt atatcqacqq tcaqccqqta aaaatcqaca actgccagca ggccattgcc
                                                                      1080
aaaqqcattq ctatqqtqcc cqaagaccqc aaaaaaqacq gcatcqtqcc qqtcatqqcq
                                                                      1140
 gtgggaaaaa atatcacgct ggcggcgctc agccagtttt ccggcgcgct gagcagcctg
                                                                      1200
 gatgatgccg cagaacagca gtgtattctt cagtcacttg ccaggctcaa ggtgaaaacc
                                                                      1260
 teetegeegg aactggegat aggtegeetg ageggeggea accageagaa agegattetg
                                                                      1320
 gegegetgee tgttgettaa teegegeatt ttaattetgg acgaacccac gegegggate
                                                                      1380
                                                                      1440
 gatatoggog ogaagtatga aatotacaag otgatoaaco agottgtgoa goaagggatt
                                                                      1500
 qccqtcattq ttatctcqtc cgaattgcct gaagtgctgg ggcttagcga ccgcgtgctg
                                                                      1560
 gteatgeatg aagggaaact caaageeaac etgaacaace agaacetgae gcaagageag
 gtgatggaag ctgccttaag gagcgaacgc catgtcgaaa agcaacccgt ctga
                                                                      1614
 <210> 4269
 <211> 1584
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4269
 ccctctccca cqqqqaqaqq qaqaaaaccq aaccqtaqqc cgggtaagcq aagcacccgg
                                                                      120
 caattaageg agaagaagat gagtgaaaaa gageeettet ggttgggtat egattgtgge
 ggtacttate tgaaageegg tttatacaae ageeagggaa aagaagtetg tattgaaege
                                                                      180
 cgctcagtgg ccacgctcag cccacgcgcc ggctacgccg agegggatat gcaccagetc
                                                                      240
 tggcagcact gccacataac ggtcgccctg ctgctcaaaa attcaggcgc tgacggcggt
                                                                      300
                                                                      360
 cagatcaaag gegttggeat tteageceag ggeaagggge tgtttetget egataaacag
 gategecect tgggtaaege catactetec teegategee gtgegetgga gategtgeaa
                                                                      420
```

cgctggcagc aggacggtat accegaaaag ctctatccac atactegcca gacgctgtgg

```
540
 acqqqqcatc cqqcctcgct cctgcgctgg gttaaagaga acgagccgca gcggtatcag
 caaattqqca gcgtgatgat ggcgcacgat tacctgcgct ggtgtctgac cggggtcaaa
                                                                       600
                                                                       660
 ggetgegaag agageaacat eteggaatee aatetetaca acatgaatae egggeagtae
                                                                       720
 gatocqcaqc tcacqcqctq qctcqqcatc agcgacattq acggtgccct gccgtccatt
                                                                       780
 ateggtteag cagaaatttg eggggaaate acegeteagg cageegeact aaceggtete
                                                                       840
 acggcgggta ctcccgtcgr tggtggactg tttgatgtgg tttccaccgc gatctgcgcc
                                                                       900
 gggctgcatg acgaacatac gctgaatgcc gtaatgggga cctgggccgt gaccagtggg
                                                                       960
 attqcccacq qcatccqcqa caacqagccg ttcccctacg tctatggccg ctacgtccat
                                                                       1020
 cogcagcagt toatogttca tgaagccagc cocacgtogt coggcaacct ggaatggotg
                                                                       1080
 acggcccaat ggggcgatat gtcattcgat gagattaacc acgccgtggc cagcctgcca
 aaagetgaaa gegatgtgtt etteetgeet tteetetaeg geageaaege egggetggag
                                                                       1140
 atgaccageg gettetatgg ettgeaggeg etgeatacce gegegeacet eetecaggeg
                                                                       1260
 qtttatgaag gggtggtatt cagccacatg acccacctca accgtatgct cgaacgcttt
 coccacqtqc aggccctqcq cqtqacqqqc qqcccaaccc attcqqacqt qtqqatqcaq
                                                                       1320
                                                                       1380
 atgctcgccg acgtcagcgg cctggcgatt gaactcccgc aggtggaaga gaccggctgt
 teeggtgegg egetggeege getegteggt acaggeettt ateeegattt ttaegeeget
                                                                       1440
 cagogogoco toaggoatga catooggatg attgaacotg acatgogtgo coatgoogoc
                                                                       1500
                                                                       1560
 taccagegea aatateaceg ttaccageta etgattteag eattacaggg etateaegee
                                                                       1584
 cgtgttaagg agtacgacct atga
 <210> 4270
 <211> 723
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4270
                                                                       60
 agcccgaatg caggaaggag gcatgacatg ttagaacaac tcaaagccga ggtgctggcg
                                                                       120
 quaaatoteq cootqeeeqe ceaccagetg gtgacgttca cotggggcaa cgtcagegeg
                                                                       180
gttgaccgtg ccagcggcat gatggtgatc aaaccatccg gcgtggagta cgacgtgatg
                                                                       240
accqcaqaaq atatqqtqqt qqtaaatatc qccacqqqta aaqtqqtcga ggggagtaaa
                                                                       300
 aagccctcct ccgacacccc gacccatete gcgctgtate gtcgttacce ggaaattgge
 ggeattgtgc atacccattc cogccacgcc accatctggt cgcaggcggg gcaggattta
                                                                       360
                                                                       420
 cocqcqtqqq qaacqacqca cqcqqactat ttttacqqttq cqatcccctq cacqcqgctq
                                                                       480
 atgaccacgg ctgaaatcgc gggtgaatat gaataccaga cgggggtagt cattatcaaa
                                                                       540
 accttcgagg agegegacat aagecegatg caggtcccgg eggtgctggt tcattctcac
                                                                       600
 qqeecqtttq cctqqqqcaa agaegetgee gatgeggtae acaatgeegt ggtgetggaa
 qaqtqcqcct atatqqqgct tttctcqcqc cagcttqcac ctcagcttcc ggttatqcag
                                                                       660
                                                                       720
 caggaattgc tggagaagca ttacctgcgc aagcatggcg caaatgccta ttacggccag
 tga
 <210> 4271
 <211> 1953
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4271
                                                                       60
 acctcgggcc acaagcctaa gcgtaaacat aagaaggggt gttttatgtc atccgatttc
 aagatcaaag tgcaaagctt tggtcgtttc ctcagcaaca tggtgatgcc aaatatcggc
 gcgtttatcg cgtggggtat tatcaccgca ttatttattc cgacagggtg gttgcctaac
                                                                       180
 gaaacgctgg cgaaacttgt tggcccaatg attacgtacc tgttgccgct gctcatcggt
                                                                       240
 tataccggtg gtcgtctggt gggcggtgac cgtggtggcg tcgtgggtgc catcacaacc
 atgggggtga togtoggtgo ggatatgoog atgttootog gtgcgatgat tgccggtcct
                                                                       360
                                                                       420
 ctgggegget gggegattaa gaaatttgac gtotgggttg atggeaagat caaateegge
 ttegaaatge tggtgaacaa ettetetgeg ggeatcateg ggatgateet egegattetg
                                                                       480
                                                                       540
 gegtteeteg geattggeee tgeggttgaa gtgeteteea agetgetgge ggegggegtt
                                                                       600
 aacttcatgg tggcgcatga catgctgccg ctggcgtcaa tcttcgttga accggcgaaa
 atcotgttcc tgaacaacgc catcaaccat ggtatcttct caccgctggg gattcagcag
                                                                       660
                                                                       720
 tcacacqatc tcgqcaaqtc catettcttc ctgattgaag cgaacccggg tccgggtatg
 ggegttetge tggcatacat gttetttggt egeggeageg egaaacagte tgetggegge
                                                                       780
 geggegatea tteaetteet gggeggtatt caegaaattt aetteeegta tgtactgatg
                                                                       840
```

aacceaegte tgateetgge egttateete ggeggtatga eeggegtgtt eaccetgage

```
gtactgggcg geggtetggt eteteegget teteeagget etateetgge ggtgetggeg
atgacccega aaggegeeta ettegegaae ategeggega tetgtgegge catggeggte
teettegtgg ceteegetat cetgetgaaa accageaagg tgaaagaaga egaegatate
                                                                     1080
                                                                     1140
quaqcqqcaa cccqtcqtat gcatgacatg aaagccgaat ccaaaggcgc aacgccgctg
qeqqeaqqeq atgtetetaa egacetgage caegttegta aaatcategt tgeetgegat
                                                                     1260
gccggtatgg gctccagcgc aatgggtgcg ggcgtgctgc gtaagaaagt gcaggatgcg
                                                                     1320
ggtctgacca acatetecgt caccaacage gegattaaca geetgeegee ggaegttgae
                                                                     1380
ctqqtqatca cgcaccgcga tctgaccgaa cgcgccatgc gtcaggtacc gcaggcgcag
                                                                     1440
cacatttccc tgaccaactt cctcgacagc ggcctgtaca cgagcctgac cgaacgtctg
                                                                     1500
gtgggggg aggcatga agataacgaa gtgaaagtac gtaccagcct gcaagacagc
ttogacgaga gcaacgogca totgttcaaa ctgggcgcag aaaacatott cottggccgc
                                                                     1560
                                                                     1620
acqqcqacca ataaaqaaqa qgccattcgc ttcgccggtg agcagctggt gaaaggtggc
tacgttcagc cggaatacgt tgaggcgatg ctggagcgtg aaaagctgac cccaacctac
                                                                     1680
                                                                     1740
ctgggtgaat ccatcgcggt tccacacggt acggtggaag ccaaagaccg cgtgctgaaa
                                                                     1800
acceggcgtgg tgttctgtca gtatcctgat ggcgtgcgct tcggtgaaga agaggacgac
                                                                     1860
atogocogto tggtgattgg tatogocgot ogcaacaacg agcatatoca ggtgattaco
agectgacca acgcgctgga tgacgaaacg gttattgagc gtctggccaa caccaccagc
                                                                     1920
                                                                     1953
gttgaagaag ttctggccct gcttaacaaa taa
<210> 4272
<211> 1776
<212> DNA
<213> Enterobacter cloacae
<400> 4272
                                                                     60
ccatttattg ccattaaccc tacatcacaa tattggaagg accactttta cactaagtgt
                                                                     120
gacgetgaga tgagcagaga etcaceegae gaacaceegt gtggteetca ggagacetge
                                                                     180
atgagectet ggcaacaaaa etacgateeg geegggaata tetggetgte gageetgate
                                                                     240
quatoquiac cgatocigti citcittiti gogotgataa agotcaagot gaagggctac
                                                                     300
cttgccgcaa cgtacaccgt tgccatcgcc ctgctggtgg cgctgttctt ctataaaatg
                                                                     360
coggtogatc gogogotggc ctccgtggtg tatggtttct tctacggcct gtggccgatt
qegtggatca ttatcgccgc cgtctttgtc tacaaaatct cggtgaaaac cgggcagttc
                                                                     420
                                                                     480
qacattattc qctcqtcqat tctctctatt acaccggacc agcgtttaca gatgctgatt
                                                                     540
qtcqqtttct ccttcggggc gttccttgaa ggggcggcag gatttggcgc gccggtggcg
                                                                     600
atcaccgccg ctctgctggt cgggctgggc tttaatccgc tgtatgccgc tggcctgtgc
                                                                     660
ctgattgtga acaccgcccc ggtggcgttt ggcgcgatgg gcattccgat tctggtggcg
ggtcaggtga ccgggctgga cagcttcgag atcggccaga tggtgggccg ccagctgccg
                                                                     780
ttcctgacca ttatcgtgct gttctggatc atggcgatta tggacggctg gcgcggcgtg
aaggaaacct ggcctgcggt gatggtagcg ggcggttcgt tcgccattgc ccagtatctc
                                                                     840
                                                                     900
agetecaact teeteggeea ggaactgeeg gacateatet ettecetggt gtegetagte
                                                                     960
tgcctgacgc tgttcctgaa acgctggcag ccggtacgta tcttccgctt tgctgacatg
                                                                     1020
ggegcatege acgtggatea gacgetggeg egcacegget atacegeegg acagattgtg
                                                                     1080
eqtqeqtqqt caccqtteet gtteetgace gecaccgtga egetgtggag catteegeeg
                                                                     1140
tttaaagccc tgttcgcccc gggcggcgcg ctgtacgaca tggtgattaa tatctccgtg
cogttected acaaaatggt cocceptate coccepting tycacgacge cacgoogtat
                                                                     1260
gcqqcaqtqt ttaaqttcga ctggttctca gccaccggca cggccatcct gtttgccgct
                                                                     1320
atcettteeg ttgtgtgget gegeatgaag eetgeegeeg eggtacagae etttgeggeg
acqattaaaq aqctqatqct qccqatttac tccatcqgca tggtgctggc gttcgcgttt
                                                                     1380
                                                                     1440
atttequatt acteeggeet gtegtegaeg etggegttag egetggegea taceggeeae
qeqtttacet tettetegee gtteetegge tggetggggg tgtteetgae eggtteagat
                                                                     1560
acgtcatcta acgccctgtt tgctgcccta caggccacgg ccgcgcagca gattggcgtc
teggaegtge tgetggtege tgegaacace aceggeggeg tgacegggaa gatgatetca
                                                                     1620
                                                                     1680
coqcaqtoca togccattge etgtgetgeg gtggggetgg taggcaaaga gteggatetg
ttccgcttta ccgttaaaca cagcctgata tttacctgca tggtgggcgt gatcaccaca
                                                                     1740
```

1776

ttgcaggcct atgtcttaac ctggatgatt ccatga

<sup>&</sup>lt;210> 4273 <211> 525

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 4273
tggcggcggg cttcccgcag cgcatgcaga aagactatcg cgacgccatt gacgccctgt
togacgocaa cogotttggt cagaaaaaeg gtotgggett otggcgotat aaagaagaca
                                                                     180
qcaaaqqcaa accqaaaaaa qaagaaqatg cggcggtgga tggccctgct ggccgacgtc
                                                                     240
aqtcagccga aacgcgactt cactgacgac gagatcatcg cccggatgat gatcccgatg
                                                                     300
atcaacgaag tggtgcgctg cctcgaagaa ggcattatcg ccagcccggc agaagcggat
                                                                     360
atggcgctgg tgtacqgcct cqgcttccct ccgttccacg gcggcgcgtt ccgctggctg
                                                                     420
gatacgeteq geagegeteg etatetegat atggeteage agtaceagea ceteggeeeg
ctttatgagg tgccggaagg tctgcgtaac aaagcgcgtc ataacgaacc ctactaccca
                                                                     480
granttgage cagecogtee ggttggegeg etgaaaaegg ettaa
<210> 4274
<211> 1173
<212> DNA
<213> Enterobacter cloacae
<400> 4274
ggagtcacaa tggaaaaggt tgtcattgtt gatgcgattc gcaccccgat gggccgttca
aaaggeggtg egtteegtaa egtgegtgeg gaagaeetet eegegeacet gatgegtage
ctgctggcgc gtaacccggc gctggaccct gctgcgctgg acgatatcta ctggggctgc
                                                                      180
                                                                      240
gtccagcaga cgctggagca gggcttcaac attgcccgta acgcgtccct gctggcggag
atecogcact eggtteegge egteacegte aacegtettt geggttegte gatgeaggeg
                                                                      300
                                                                      360
ctgcacqacq cgacqcggat gatcatgacc ggcgatgcgc aggcctgtct ggtgggcggc
gtggagcaca tgggccacgt gccgatgagc cacggggtcg atttccatcc aggtatgagc
                                                                      420
                                                                      480
cgcaacgtgg cgaaagccgc cggtatgatg ggcctgaccg ccgagatgct ctcccgtctg
                                                                      540
cacqqcatca gccqtqaqat qcaggatgcc tttgccgctc gctcgcatgc ccgcgcctgg
                                                                      600
geogecacge agtetggtge etztaagaat gagateatee egaceggegg teacgacgea
gacggcgtac tgaagcagtt cagctatgac gaagtcatcc gcccggaaac caccgttgaa
                                                                      660
                                                                      720
qeqettteta ceetqeqtee ggrgtttgat ceggtcaceg gtacggtaac ggegggcace
                                                                      780
tegtetgeec tgteegaegg tgeegeegeg atgetggtga tgagegaaag eegegeeege
                                                                      840
quattagged tracecace erecegering egitegating egiteging etgegateea
                                                                      900
tocatcatgg gotacggtcc ggttccggcg tcaaaactgg cgctgaaaaa agcggggctg
                                                                      960
aggggaagtg atatcgacct ctttgagatg aacgaagcgt tcgccgcgca gatcctgccg
tgcattaagg atctggggct gatggatcag atcgacgaga agattaacct caacggcggc
gegategeec teggacacce getgggetgt teeggggege gtateagtac caegetgatt
                                                                      1080
aacctgatgg aacgcaaaga tgcccagttt ggtctggcaa cgatgtgtat cgggttgggt
                                                                      1140
caqqqqatcq cqacaqtqtt tgagagggtg taa
                                                                      1173
<210> 4275
<211> 1140
<212> DNA
<213> Enterobacter cloacae
<400> 4275
caacacgttt atagattaaa gtoogtoatt otgogaatot ogocagotoo otacaagtta
gcctggctaa actcagaatt ttccaaggga aaagttttac gcaatcgcag tcacactttc
                                                                      120
                                                                      180
tttatcaqqa atacagagga actgatgcag tcaaaaatta actggattga taacctgcgg
ggaatageet gtetgatggt ggtgatgate cacacaacga cetggtatgt cacgaacgeg
                                                                      240
cacagtatca geoctgttaa etgggatgte gecaatgtte tgaactegge etecegegtg
agogtocogo tgttotttat gatttooggt tttototttt ttggcgagog tagogoacag
                                                                      360
cogagacatt teatcogtat tgtctcctgt ctgctgtttt acagegegat ttcgctgctc
                                                                      420
tatatogtoc tgttcacttc aattaacgct gaacgttccc tgctcaactt gttgcaaaaa
                                                                      480
coggtqttct atcatctatq qtttttcttc gcgataatcg ttatttatct tgtttcaccg
                                                                      540
                                                                      600
ttaattcagg taaaaaacgt caacggtaaa atgctgctgg cgctgatggt ggtcatcggg
atogtggcca accognatac cgtctcacag assattgatg gctttgastg gctgcccgtt
                                                                      660
aacctctata tcaccgggga tacgttttat tacgtgctgt acggcatgct ggggcgccc
attggcatga tggagacgca aaagcgagga ataaactggc tatgcgcggc cgcgtttctc
                                                                      780
gtoggtgtgt ttattatete tegegggacg etgeatgage tgeaatggeg eggeaacttt
                                                                      840
gccgatacet ggtatetgta etgeggeeeg atggtettta tetgegeaat etetetgetg
                                                                      900
acgctggtta aaaacaccct gaatgcccgc ccgcttccgg tgctggggtt tatctctcgc
                                                                      960
cactegetqq qeatttacqq ttttcacgeg ctqqtqatec acgeectgeg caceegagge
```

```
gttgagetta aaagetggee ggtgetggat attgtetgga tatttacegt tacgetggtt
  gtcagcctgc tgctgtcaat gttgctgcaa agaatcgata cgcgccggtt tgtgagctaa
                                                                      1140
  <210> 4276
  <211> 1194
  <212> DNA
  <213> Enterobacter cloacae
  <400> 4276
 ggagcgaacg ccatgtcgaa aagcaacccg totgatatca aagtcgctgt tocgacgccc
 ggtgcgttcg caggacttaa atcgctgaat ctgcaagttt ttgtaatgat tgccgccatt
                                                                       120
 atogtgatca tgttgttett tacctggatg accgatgget cetatttgag cgcacgtaac
 gtttctaacc tgctgcgtca gaccgccatc accgggatcc tggcggtggg gatggtcttt
                                                                       240
 gtgattatet cageggaaat tgaeetgtea gtagggtega tgatgggtet geteggegge
                                                                       300
                                                                       360
 gtggcggcaa tttttgacgt ctggctcggc tggccgctgc cgctgacgat tgcggtcacg
                                                                       420
 ctqqtactqq gtctqctqct gggggcgtgg aatggctggt gggtggccta ccgtaaggtc
                                                                       480
 ccqtcqttta tcqtcacctt agcggggatg ctggccttcc gcggcattct gattgggatc
                                                                       540
 accaacggca ctaccgtotc cccgaccagc gectcgatgt cccagattgg ccaaagctac
                                                                       600
 ctctctgatg gcgtcggttt tacgatcggc gtggttgggc tgatggcgtt tgtcgcgtgg
 caatggcgag gacgcatgcg tegecaggcg etggggetgg ectegeetge tteaaceteg
                                                                       660
 gttgteggee gteaggeget tactgeggtg attgtactgg gegecatetg getgttaaac
 gattategeg gegteecaae gecegttetg etgetggege tgttgetgtt aggtgggatg
                                                                       780
                                                                       840
 tttatggcca cgcgtaccgc attcggtcgc cgtatttatg ccatcggtgg caatctcgaa
 gccgcgcgtt tgtccggcat taacgtagaa cgcaccaaac tcgccgtett tgccatcaac
                                                                       900
                                                                       960
ggcctgatgg tggccatcgc ggggctgatc ctcagctcac gtttgggggc gggctccccc
                                                                       1020
totgooggta atattgooga gotggacgoo atogoogoot gogtgattgg ogggaccago
                                                                       1080
ctcgccgggg gcattggcag cgtggcgggg gcggtgatgg gcgcatttat tatggcttcg
                                                                      1140
 ctqqataacq qqatqaqtat qatqqacqtq ccqacqtttt ggcagtatat cgtcaagggt
                                                                       1194
 qecattettt tgetggeagt etggatggae tetgeeacea ageggegege etga
 <210> 4277
 <211> 1182
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4277
 gccatgtttg aaaagcgtca ccgcattacg ttgttattca atgccaacaa agcctatgac
                                                                       120
 cogcaggtgg ttgaaggggt tggcgaatat ttgcaggcgt cgcaatccga atgggatatt
 ttcatcqaaq aaqatttccq tacccqtctq qaqaacatca aaqactggct gggcgacggg
                                                                       180
 gtcatcgctg actttgacga ccccgtgatt gaacagttgc tgagtggcgt tgacgtgcct
                                                                       240
 atogtgggcg ttggcggctc ttatcataca ccggaacatt atoctcccgt tcactacatc
                                                                       300
                                                                       360
  gccacqqata accatgctct qqtcqaqact gccttcctcc atttaaagga gaaaggcgtc
                                                                       420
  catcqttttq cqttttacqq attqcccqcc acgagcqgaa agcgctgggc gatggagcgt
                                                                       480
  gagtatgeet tetgeeaget ggttgeeeag gagaagtate geggegtegt ttateagggg
  ctqqaaaccq cqccaqaaaa ctqqcaqcac qcacaaaatc qtctqgctga ctggctgcaa
                                                                       540
  acgctgccgc cccagacagg gattatcgcc gtgacggacg cccgcgcccg ccacgtatta
                                                                       600
  caggtgtgcg aacatttgca tattccggtg cctgaaaagc tgtgcgtgat tggtattgat
                                                                       660
  aacgaagage ttacgegeta tetgtegege gtggegetet cateegtgge teagggtace
  cgtcagatgg gctatcagge cgcaaagctg ctgcacagac tgttagacaa cgaatccctg
                                                                       780
  cogetecage gtetgetggt tectecegtt egegtggteg aacgtegete aactgactae
                                                                       840
  egeteattaa aegateegge egtgatteag gegatgeact acattegeaa teatgeetge
                                                                       900
  aaagggatta aggtcgatca ggtgctcgat tcggtcggca tatcacgttc gaatctggag
                                                                       960
                                                                       1020
  aaqcqqttta aagaggaagt qggtgagacg atccacgccg tgatccatgc ggaaaagctg
  gagaaagege geagtetget gateteeace tegetgtega teaacgagat tteacagatg
                                                                      1080
                                                                      1140
  tgtggctatc cgtcgcttca gtatttctat tcggtgttca ggaaagagta tgacaccacg
  ccgaaggagt accgtgaacg gtacagtgaa gtcctgctct ag
```

<sup>&</sup>lt;210> 4278 <211> 1398 <212> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 4278
ggggcattca ccagaacaat tcaccacaca aatacaaacc cgccacataa aacaacaaaat
cogaccacat cogcogattt gcaccaacac ggtgctggcg ttatggttac tgcctttcat
                                                                      120
                                                                      180
attaagcccg acagatcacc tgctatgacg ttttcacttt tcggcgacaa atttacccgc
catteaggea ttaccegeet gatggaggae etcaacgaeg ggetgegeae eecaggeget
                                                                      240
atcatgcttg gcggcggaaa cccggctcaa attccggaga tgaacaccta cttccagacg
ctgctggcag agatgctgga aaacggtaaa gcaaccgatg cgctatgtaa ttacgacggc
ceteagggta aaacagaact actgacgett etggeggeaa tgetgeggga agegetgggt
                                                                     480
tqqqatatcq aaccacagaa tattgcactg acaaacggca gtcagagcgc gtttttctac
ttattcaatc tgttcgccgg acgccgcgcc gacggcacca cgaaaaaagt gctgttcccg
                                                                     540
ctggcaccgg agtatattgg ctatgccgat gccggcctcg aagaagacct gtttgtttcc
geaegteega atategagtt getgeeagag ggeeagttea aatateaegt egattttgaa
catotgoata toggtgaaga gacgggcatg atotgogtat ctogtoccac caaccogacg
                                                                     780
gggaacgtga tcaccgacga cgagctgatg aagctggatg cgctggcgaa tcagcacggc
                                                                      840
atcocgctgg tgatcgataa cgcctatggc gtaccgttcc cgggggatcat cttcagcgaa
                                                                     900
gogogteege tatggaacce gaatateate etetgeatga geeteteeaa getgggeetg
cogggeagec gttgoggeat tateattget aacgagaaaa teateacege cattaceaac
                                                                      960
                                                                     1020
atgaacggca ttatcagcct ttcgcctggc ggcatcggcc cggcgatgat gtgcgagatg
atcaggogta acgacetget gegeetgteg aatgaggtga ttaagcegtt ttacteteag
                                                                     1080
                                                                     1140
cgcgttcagg aaactatagc catccttcgc cgctacttac cggaagaacg ctgcctgatc
                                                                     1200
cataaaccgg aaggggcaat tttcctgtgg ctgtggttta aggatctgcc cattacgaca
                                                                     1260
qaqctqcttt atcaqcqtct qaaaaaacgt ggcgtactga tggtgccagg ggattacttc
ttoccggggc tggataagcc gtggccgcac acgcaccagt gcatgcgtat gaactacgtc
                                                                     1380
ccggacccgg aaaaaatcga agcgggtgtg aaaattctcg ccgaagagat tgagaacgcc
                                                                      1398
tggcgcgagg ccggttaa
<210> 4279
<211> 1017
<212> DNA
<213> Enterobacter cloacae
<400> 4279
aaaaacagga gaacagggat gaaagtgacc ttcgaagagt tgaaagcggc gttcaatcgg
                                                                      60
gttctgctcg atcgcggtgt aaaagcggat accgctgacg cetgcgccga gatgttcgcc
                                                                     120
cgcaccacgg agtccggcgt ttattcacac ggcgtcaacc gcttcccgcg atttattcag
                                                                     180
caqcttgacq caqqcqacat catccttgac qcccaqccqa aacgcgtaac gacattaggc
                                                                      240
                                                                      300
gocatogaac agtgggatge geagegttee ateggeaace tgacggegaa gaagatgatg
gaccgtgeta etgagetgge gtecgateae gggateggee tggtggeget gegtaacgeg
                                                                     360
aaccactgga tgcgcggcgg cagctacggc tggcaggcgg cggagaaagg ctatatcggc
                                                                     420
atctgctgga ccaactctat tgccgtgatg cccgcgtggg gatcaaaaga atgctgcatc
                                                                     480
ggcacaaacc cgctgatcgt cgctatcccg tcgaatccaa tcaccatggt cgatatgtcg
                                                                      540
                                                                      600
atgtegatgt teteetaegg catgetggag gtgaategee tggeeggaeg egaattaeeg
gtegaeggeg getttgaega tgaaggeaat etgaeeagag ageegggegt gattgagaaa
aaccgtcgca ttctgcccat gggctactgg aaaggttctg gcttatcgat tgtgctcgac
                                                                     720
atgatogoca coetgetete tgaeggegeg teegttgegg aagtgaccca ggacaacage
                                                                     780
gacgaatacg gcgtatcgca gatetttatc gccgtcgaag tggatcgcct gatcgacggt
                                                                      840
ccaaccegeg atgccaaact acagegeate atggacttea teaccacege agaacgeget
                                                                      900
gatgaaaatg tegeegteeg tetgeetgga catgaattta etegeetget ggaagaaaac
                                                                      960
eqeeqqqaeq qeateaceat eqaeqaeage gtgtgggega aaateeagte tetgtaa
<210> 4280
<211> 1359
<212> DNA
<213> Enterobacter cloacae
<400> 4280
agaatacatt ttccggttac cttcactgag atattaacta tgaatatttc ttctaatgct
                                                                      60
ctacacgegg acatteegeg teaacgetgg ctaaggatea tteecectat tettategee
                                                                      120
tgcattattt cctatatgga ccgcgtaaat atagcttttg cgatgcccgg cggtatggat
                                                                      180
```

gaagagetgg geattteege eaegatggeg ggeetggegg gggggatett tittategge

```
tatttgttcc tgcaagttcc cggcggcaaa attgccgtgc acggcagcgg taagaagttt
                                                                      360
ateqqetqqt eqetqqttqc etgggeggtg ateteggtte tgaceggget tgtgaccaac
                                                                     420
caqtatcaqc tgctggtgct gcgcttctta ctcggtgtgg cggaaggcgg gatgctgtcc
                                                                      480
gttgtgetca egatgateag taactggtte eeggatgeeg agegeggeeg egecaaegeg
                                                                      540
attotoatea totteotoec categoogog ateateaceg eccegetote gogetogatt
                                                                      600
attaccoctc togactggcg otggctgttc attattgaag gtotgatgtc cgttgttgtg
                                                                      660
ctqqtgctqt gggcgttcac cgtctacgac cggccgcagg aagcgcgctg gatctctgag
gccgagaaaa actacctggt acaaacgctg gcggcagagc agcaggccat tgcgggtaaa
                                                                      720
gaggtgaaaa acgcctcgct cagcgcggtg ctgtctgaca aaaccatgtg gcagctgatc
                                                                      780
                                                                      840
geocteaact tettetacca gactggcata taeggttaca ceetetgget geceaccatt
etgaaagaac tgaegcacac cagcategge caggtgggaa tgetegetat tetgeettac
                                                                      900
ateggegeca ttgeeggtat gtteetgtte tetteaetet etgaeegeae eggeaagege
                                                                      960
aagetgtttq tetecetgee attgattgge tttgegetet geatgtteet etcegtggeg
ctgaaagagc acacctggct ggcctatgcc gcgctggtgg gctgtggctt cttcctgcaa
                                                                      1080
teegeagegg gegtgttetg gaetateeeg gegegtetgt teagegetga gatggegggt
ggcgctcgcg gcgtgatcaa tgccctgggc aacctcggcg ggttctgcgg tccttatgcg
                                                                      1260
gtaggogtac tgatcaccet gtacageaaa gacgcaggog tttactgcct ggcggtttcg
                                                                      1320
ctgqcqctqq catcqctgct ggccctgctg ttaccggcga aatgcgatgc cggagcagag
                                                                      1359
cctaatccca cggtgactcc acataaacgt gcggcctga
<210> 4281
<211> 921
<212> DNA
<213> Enterobacter cloacae
<400> 4281
                                                                      60
teegeegeag gtggcacagg cattecatte gcaaateege gacatetggg gagagtaace
atgcgtcage atccgttagg catttacgaa aaagcgctgc caaaagatct ctcctggccg
                                                                      120
gagogootgg ttotggcaaa aagotgoggo ttogattttg tggagatgto ggtggatgag
                                                                      180
accgacgage gtttategeg cettgaatgg agtaccaege agegegeete tettgtggaa
                                                                      240
                                                                      300
qcgatgctgg agaccggcgt ggccatcccg tcgatgtgct tatctgccca tcgtcgcttc
                                                                      360
ccqtttqqca qccqcqatqa aatcqtgcgc gaacgcgccc gcgagatcat gaccaaagcc
atcoggotgg coogtgattt gggtattogc accatocago ttgcgggtta tgacgtgtac
                                                                      420
                                                                      480
tacgaggagc acgacgaggg cacgcaacag cgctttgccg aagggctggc gtgggccgta
gageaggetg eegeegegea ggtaatgetg geggtagaga teatggacae tgegtttatg
                                                                      540
aactocatca gcaagtggaa aaagtgggac gacatgctcg cctcgccgtg gttcagcgtt
                                                                      600
taccoggacg toggcaacet gagegegtgg ggcaacgacg teacegeega getgaegetg
                                                                      660
ggcattgacc gcatcgccgc tatccacctg aaagataccc ggcccgttac cgagcaaagc
                                                                      720
cccggacagt teegegacgt gccgtttggc gagggetgeg tegatttegt tggcgtgttt
                                                                      780
aacacgctga atcaacttaa ttatcgcggc gcatttctga ttgaaatgtg gaccgagaaa
                                                                      840
gccaaagagc cggtgctgga gatcatccag gcgcgccgct ggattgaagc ccgaatgcag
                                                                      900
                                                                      921
qaaqqaqqca tgacatgtta g
<210> 4282
<211> 1428
<212> DNA
<213> Enterobacter cloacae
<400> 4282
aaaaatcgtt tatcgaggag ttaccccatg acttccacac cgattacaga cgcagaagtt
qcaaaacaqq caqccqatqa acggctgtca gtccgcgaga aaattggcta cggcctgggc
qacgcgggcg gcacggtaat tacctgcctg atcatgaact toctgacctt titctatacc
                                                                      180
gatgtatttg gcctgacgcc cgcgctggtg ggcacgctgt ttattgccct tcgggtattt
gacgegattt ecgateeggt gatgggegtg attgeegace geacgeagag eegetggggg
                                                                      300
                                                                      360
eqttttegte egtggeaget gtgggtegeg etteetateg ggategtegg egtgetgace
ttcaccgtcc cggacgccag catgggcgtg aaaatcgcct gggcgttcgg cacctatctg
ttgetttcag tgggctatac egecatcaac gtgccgtatt gcgcgctgat caacaccatg
                                                                      480
                                                                      540
accacceged acaacgaggt tatatectge cagteetgge gettegtact gtgeggegtg
                                                                      600
gegggettte tggteteegt tggcetgeeg tggctggtgt cagagetggg acagggcaat
accqcccqqq qttatcagtt gggcgttggc gtgctgtgcg ccatcgccgt ggtgatgttc
                                                                      660
```

etgtgetget tettetgggt gegegagege gteeegettg egetgatggg taaatteace

tgggcatcca gcgggtaacc gccctttcc	tgatcaacgt agggcagcac gegcggtgat ccaacctggt accagacgct egetgcactt getceteggg gegcegggat agacgccege acctgetgct	etteaacatt ggegtacace egteageeeg acttgetgee etggetgate etcactgate gatgaactte catcageetg etcattgeag	egeggeggeg tegetgttt ctgtegggge cttgeggtgg gtgatttaa geetttgeeg geetteaate gtgttattg ggeateaceg ateegetggt	gatacatgta tcaccatggt ggattgatac gaatgtggtt gtaacggcgt atgattacgg tgtttttcat ccgtggccta ccatggagac gcaggcttaa	tttcatcacc gacctttgct cgtcaaactc cctgeogggt gatcctgggc cgaatggaaa caagctcgcg tcagccaggc gctgctcct	780 840 900 960 1020 1080 1140 1200 1320 1380 1428
<210> 4283 <211> 630 <212> DNA <213> Enter	obacter clo	pacae				
gtgagcctgc gcctttgaaa attgecgccg aaagacgact tgcgatttat tatgaagacg tacaccttta ctcctcccg cgttatcaac	gcccgaataa atcgtgtgct tcgagctgtt acgcggtaaa cggtacggct ccgagctgtt ccgatgatga cacctcagtt aggttgtccg	gegeatacaa cagattgtea tgagegtetg aacegaggeg gtaegetgta gaagetgatt gatactggg tgataacagg etcacacatg tcagaagtaa	gatatgcagg aatgctggca gtaaacattc gaaccgttac tacggtctcg cgcgaagagc cccttcggcg gacccagagc	caataatgga aaaccgtacg tggtgcttca tggacggaga gcgtgctgaa tcaatcatga aactgcactg tgtacgcgat	acaaacccag aagtttectg ggtgtttege eggaccgetg eegteaggag eggeaatgag egtateegeg gcaaaagetg	60 120 180 240 300 360 420 480 540 600 630
<210> 4284 <211> 951 <212> DNA <213> Enter	cobacter cle	pacae				
<220> <221>unsure <222>(878)	9					
cagegeattt accetgegee aatatgtetg gegetegeae geageagteg egeggtttta tttacegtg ggccetaaeg gatgtegggt tegaaegaec tegaeeggg ttgaaagacc tegaeeegg tetaaeeaat	tgococcqtt gcaacgtgga acctgagect ctgteggttt atgccaaagg ccccgaccat tgcgtaacgc acatgccgac tgaacggccttgcg tgaaggacta tggagtgat gaagatgat gaagatgcc	catgattatt cctgttccac ggatctgtcg tgagacgaag asttccgttt catgcgcccg ccttgagcgc ccccggcgg tcgttactgg tccgcacgat cattggctg ccgcgaattc gcagcagct tgaaagggt tgaaaggggt tgaaaggggt	tatatcgacg gaagtggccc ctgtttaacg tatgcccgtc accctttcca acgctaccgcg cgctaccgcg caggcggtga ctggcgaata ctggcgaata ctggcgacaca gcgttttgg ggggtgtttgg	gegggggtatatggggggggggggggggggggggggggg	tgccgaatat cgtgctgaaa catgccggta gcaggccgcc ctgcccgatt cctgccgatt cctgcgcgat aacgctggtc ggcgtgg cctggtaaa gtcgatctc caaagggatc caaagggatc gatgtgtgtc caatgtgtgtc caatgtgtgtc cgcgcccttg	60 120 180 240 300 360 420 540 660 720 780 840 900 951

<210> 4285 <211> 2154 <212> DNA

## <213> Enterobacter cloacae

```
<400> 4285
ctqcctaatt ttgcgcggga tcactcatcc cttcgcgtcc tccttgcaga aagccgtaga
ggaggagttt ttcccctgag ccgaatggca cactggtcaa aaatgccgcg acaggaaaat
                                                                     120
                                                                     180
qqaatqaaac qcactqcatt agctgttctg atgttacccg cattcgcgca tgccgactgg
                                                                     240
tcategeogg gatttaacgc gtttageget gaaggtaccg gegtetttae cagecaggca
                                                                     300
acgettgega agggtacceg cocgetgacg ttgagtettg acaacgegtg ctggcagceg
acaggtgcca ttaagctcaa cgagatgctg tcgctcaaac cgtgcgaagg caccccaccg
                                                                     360
                                                                     420
caqtqqcqqt tattccgtga cggcgtttat cagatgcgta ttgatacgcg ctcgggaacg
ccqacqctqa tgttgacggt gcaaagtgcg gcgccacagc ctgtcgcaaa cgtcacccgc
                                                                     480
cagtgecega agtgggacgg caaaccgete acgategatg tegttaacac ettteeggaa
                                                                     540
                                                                     600
qqcacqqtqq tccqtqattt ttacagtaaa cagaccgcga ccgttcaaaa tggcaaagtg
actettcage cageegeeaa cageaatgge etgetgetge ttgagegege egagaeggae
                                                                     660
aaaccegege egtteagetg geaaaacgee accgtetatt tegtgetgae egategette
                                                                     780
qtgaatggcg accccaccaa cgacaacagc tatggccgtc ataaagacgg tatgcaggag
                                                                     840
attqqtactt tccatqqcqq cqatctgaaa qggcttacca gcaaactgga ttaccttcag
                                                                     900
caqctqqqcq tgaatgcgct ctggataagc tcgccgctgg agcagatcca cggctgggtt
                                                                     960
ggeggeggea ccaaagggga tttcccccac tacgcctate acggctatta cactcaggac
tqqacqaaac tcqacqccaa catqqqcaac qaagatgatt tacgccagct tgtcgacgac
                                                                     1080
qcqcacaqqc qcqgtatccq cgtcctgttt gacattgtca tgaaccacgc gggttatgcg
acqcttgcag atatgcagga gtatcagttt ggcgcgctct atttgcaggg cgatgagctg
                                                                     1140
                                                                     1200
aaaaaaaccc toggogagog otggactgac tggaagocag gagoggggca aagotggcac
                                                                     1260
agottoaacg attacatoaa ottoagtgao aaagoogoat gggaaaaatg gtggggtaaa
                                                                     1320
aaatqqatcc gtaccgatat cggtgattac gacaacccgg gctttgacga tctgaccatg
                                                                     1380
tegetggeet teetgeetga tetgaaaaeg gaatetaaga teeegteagg tttgeegaae
                                                                     1440
ttttatcaac acaaqeeega cascaacgeg aaagtgatga egaattteac eeegegagat
tacctgactc actggcttag ccagtgggta cgtgactacg gcatcgacgg tttccgggtc
gataccgcta agcacgttga gcctgaagcc tggctgcaac tgaaaaacca ggccagccag
                                                                     1620
gcgctggccg cgtggaaagc cgccaacccg gacaaaaaac tcgacgatgc gccattctgg
                                                                     1680
atgacoggtg aatcotgggg coacggcgtg atgcagageg attattacog coacggctto
gatgogatga tcaattttga ctatcaggag caggoggcaa aagcggtgga ctgcctggcc
                                                                     1740
qatatqqatt tgacctggca gcaaatggca gaaaagctgc aaagttttaa tgtgctgagc
                                                                     1800
                                                                    1860
tateteteet cecatgatae gegtetgtte egtgaaggag gecagegege egetgagtta
ctgctgctgg caccgggaag cgtgcagatc tattacggcg atgaatcaga gcgtccattc
                                                                     1920
ggccctacgg gctccgatcc gctacagggg acccgttcgg atatgaactg gcaggacgtc
                                                                     1980
acgggtaaac aggcgttaac tgtcgcccac tggcagcttc tggggcagtt ccgcgcccgt
                                                                     2040
cateeggegg tgggtgaagg caagcaaaca acgetgtega tgaaagaagg staeggettt
                                                                     2100
                                                                     2154
qtqcqcqaqc acaaggqcga taaggtgatg gtggtgtggg cgggtaatca atag
<210> 4286
<211> 315
<212> DNA
<213> Enterobacter cloacae
<400> 4286
gctggcgggg totatgcagc gcagcgcgtg ggtgggacag gcttcgacgc aggcgggacc
geectegega tgegegeaca aateacattt cagegeetga acgegatett ceaegaeceg
aacctgcatt gccccgaacg ggcacgccac catacagctt ttgcagccga tacagcgcga
                                                                     180
ttgcttaacg agccaggete cegeagegeg gtgaatggee eeegteggge agacattege
                                                                     240
gcagggcgca tetteacact ggtggcagec cactgoogtg gtgaaggttt cccccttaac
                                                                     300
cacgoggato cgtga
<210> 4287
<211> 663
<212> DNA
<213> Enterobacter cloacae
<400> 4287
```

togacggtoc aaccogcgat gocaaactac agogcatoat ggacttoatc accaccgcag 60 aacggctga tgaaaatgto gocgtocgto tgoctggaca tgaatttact ogcotgctgg 120

```
180
aaqaaaaccq ccqqqacqqc atcaccatcq acqacagcgt qtgggcgaaa atccagtctc
                                                                     240
tgtaaggagt gggtcatgat attcggacat attgcacagc caaatccatg tcgcctgcca
ctggcgatag aaaaggcgct taattttctg cgtaccacgg atttcaccac cctggcaccg
                                                                     300
                                                                     360
ggcgtgatcg aaattgaagg ccgcaacatt tttgcccagg ttctcgacct caccacaaag
                                                                     420
gagcagcacq agaaccgccc tgaagtccat cgccgctatc tggatatcca gtttctggcc
                                                                     480
tggggtgaag aaaaaatcgg tattgctatt gataccggga ataacaaaat cagcgaatca
ttgctggagc aacgggatat tatttttat cacgacagtg aacacgagtc gtttatcgaa
                                                                     540
atgatacctq qcaqttacqc catatttttc ccqcaqqatq ttcaccqtcc tqcctgtatt
                                                                     600
aaaaacaagg gatccgcaat tcgtaaaatt gtggtgaaag tggccatcag cgaattagat
                                                                     660
                                                                      663
<210> 4288
<211> 666
<212> DNA
<213> Enterobacter cloacae
<400> 4288
ggagtacgac ctatgagccg accattattg cagctggcgc tcgaccacac ctcgcttcag
                                                                     60
                                                                     120
geogegoage gegatgtege gaegetttee gateaegteg acategtega ageoggeace
attetatgee tgacegaagg getaaaegee gttegegeee tgegtgegea gtgteeggat
                                                                     180
                                                                     240
aaaattatcg tggcggactg gaaagtcgcc gatgccggag aaacgctggc tgagcaggcg
                                                                     300
tttggcgcag gcgcaaactg gatgaccatc atctgtgccg ccccgctggc caccgttgaa
                                                                     360
ogtggccacg aggtcgcact gcgcggcggc ggcgagatcc agatggagct gtttggcaac
                                                                     420
tggacgetgg acgacgegeg cgcgtggcat cgcatcgggg tgaagcagge gatttaccac
                                                                     480
eqeqqeeqe acqeacaqqe caqeqqeeaq caqtqqqqtq aqqeqqatet caqeaaaatq
aaggogotgt cogatatogg tttgcagott totataactg goggtatcac coccgetgac
                                                                     540
                                                                     600
ctgtcgctgt ttaagcagat caacgtcaaa gccttcattg ccgggcgcgc gctggcaggc
geogataate egeogeaggt ggeacaggea ttecattege aaateegega catetgggga
                                                                     660
gagtaa
<210> 4289
<211> 2007
<212> DNA
<213> Enterobacter cloacae
<400> 4289
tqtcqcqcat tqccaccqat ttqcqccaqc qtcatqtaca qtcctqaqqa gaacqatatg
                                                                      60
accataatgg aagccgacct gcatcagctg aaaatcaacg accegtttct tggtcagtac
caacggctgg tccgcgatgt ggtgatcccc taccagtggg atgcgcttaa cgatcgcgtg
                                                                     180
gcagaggccg aacccagcca cgccatcgcc aacttccqca tcgcggccgg tctggaacag
                                                                     240
ggggagttet aegggatggt ettteaggae agegaegtgg egaaatgget egaageegtg
                                                                     360
qcqtqqtcqc tqtqccaqaa qccqqatqct qaactqqaaa aaaccqccqa cqaqqtqatc
gagetggteg cageggegea gtgtgaagat ggetatetea atacetattt caeggtgaaa
                                                                     420
gcaccggccg agogctggac caatctggcc gaatgccacg aactgtactg cgccgggcat
                                                                     480
                                                                     540
atgattgaag cgggtgtggc gtatttccag ggaaccggaa agcgccgcct gctggacgtg
gtgtgcaggc tggcggatca tatcgacagc gtgtttggcc cgggcgaaaa ccagctgcac
                                                                     600
                                                                     660
ggctatccgg gccacccgga aatcgagctg gcgctgatgc ggctgtacga cgtcacgcag
gagecaeget ateteaatet ggtgaaatae tttattgagg aaegeggege geageeteae
                                                                     720
ttctacgata tcgaatacga gaagcacggc agaacgtcat actggaacac ctatggcccg
                                                                     780
gegtggatgg teaaggacaa ageetacage caggegeate tgeecettge egcacaacaa
                                                                     840
acggccateg gccacgccgt gcgttttgtc tatctgatgg cgggcatggc acatctggcg
                                                                     900
cgcctgagca acgacgaggg gaaacgtcag gattgcctgc ggctgtggaa caacatggca
                                                                     960
cagcgccage tgtacatcac cggcgggatt ggctcccaaa gcagcggcga ggcgttcage
agegattacg atetgeccaa egatacggte taegeegaaa getgegeete categgeetg
                                                                     1080
atgatgtttg cocgocggat gotggagatg gaggoggacg gocactacgc cgacgtgatg
                                                                     1140
                                                                     1200
gagcgcgcgc tgtacaacac ggtgctgggc ggcatggcgc tggacggtaa gcatttcttt
tatgtgaatc cgctggaagt gcacccgaaa accctgtcct ttaaccatat ctatgaccac
                                                                     1260
gtcaaaccgg tgcgccagcg ctggttcggc tgtgcctgtt gcccgccgaa tattgcgcgc
                                                                     1320
gtgctgacct cgctggggca ctacatttat accgttcgcc cggacgcgct gttgatcaac
                                                                     1380
ctgtacgtgg ggaacgacgt cgccattccg gttggggata acatecteca gctgcggatt
                                                                     1440
```

agogggaact atcogtggca tgagcaggtg aaaatcgaga ttacctcacc agttccggtg

```
1560
actcacacge tggecetgag getgeeggae tggtgtgegg aaceggetgt ttegetcaat
                                                                      1620
gqtcagqcca ttacagqcga gqtctcccqt gqatacttat acctcaaccg cagctggcag
                                                                      1680
qaaqqcqaca cqctgacgct gacgttaccg atgccggtcc gccgcgtgta cggcaacccg
caggtgcgcc agcaggcggg gaaagtcgca ttgcagcgtg ggccgctaat ttactgcctg
gaagaageeg ataaeggege aaatetgeat aacetttett tgegeeagga cagegegttt
                                                                      1800
cqqqtatttq aaqqcaaaqq cattttcqcq cacaaqatqc tqatacaggc agaaqqqatc
gggtgtcagg cgaaggacac tgatgccctg tggcagtacg accactcacc ggtagaacgt
                                                                      1920
                                                                      1980
cageceegga egetgacett tatteegtgg tteagetggg caaacegggg agaaggggaa
                                                                      2007
atgoggatat gggtggatga aagotga
<210> 4290
<211> 492
<212> DNA
<213> Enterobacter cloacae
<400> 4290
                                                                      60
atqqattcct qcaccaqcgc qcgqctcqqa caggtgcaga cttcgccctg gttaaacgcg
aacagegeaa accetteeag egetttgteg aagaaggegt cetettegte cateaegteg
                                                                      180
gcaaagaaga tgttcggcga tttgccgccc agctcgagcg tgaccggaat gatgttctgg
qtcqcqtact qcatqatctq ctqqcccact tccqttqagc cggtgaacgc cactttggcg
                                                                      240
atacqttttq aggtagecag atattegeeg ateteteece eggeecegtt gaccacgtta
                                                                      360
atgacceceg geggeaacag gtegecaate acetecatea geageagtae egaaagegge
gttaagegag egggttteag cacaaegeag ttaeeegeeg eeagegeggg egecatttte
                                                                      420
                                                                      480
cagctageca teageagegg gaagtteeae ggaataattt geeceaceae geegagegge
togtggaagt ga
<210> 4291
<211> 1032
<212> DNA
<213> Enterobacter cloacae
<400> 4291
gtgtacaaca agggtagttc cggctggtgg ttttctcgcc agtcggtaac gggtttacga
googtateac ggattaccgt actttacgtt togtttctgc cgccagagcc atacttaata
                                                                      120
gotcaggggc tcatgaggaa cgatgcaatg cagctattta tcggctttga cgtgggcgga
                                                                      180
                                                                      240
acceacatea aacaeggegt gattaaegaa aaeggegaag aaetgacate egatgaatat
                                                                      300
gatacgcctg acgatgaaag caccttcaaa cagaagtgga aagcggtggt ggataagtac
egecaggage atgagategt eggeategge gtgagtttte egggecacat caatcaccat
                                                                      360
                                                                     420
accggcgaag cggccaaggc cggggcgctg gattaccttg acggtgaaaa cctgtgcgag
cttttegeac agetgacega tetteeegta acaacegaaa atgacgecaa etgegeggeg
                                                                      480
ctgggcgaac gctggcaggg cgccggtaag gactatgagc attttgtctg catcaccata
                                                                      540
ggcaccggca tcggcggcgg tatcgtcatg gagggcgatc tctaccgtgg atcgcactac
                                                                      600
egggegggtg agtttggegt getgeeegtt ggeaacaaeg gegageegat geaegaagtg
                                                                      660
gegteageea geggeetgat gaaageetge egeegegege tggeegtgte ggaagatgag
                                                                     720
                                                                     780
atgcctgatg gtgaggagct gtttagacgc atggacagcg acgtgcatct gcgtgaggcc
atagaagagt gggcgcattt cctctcgcgc ggcatctaca gcgtgatctc catgtttgat
                                                                      840
                                                                      900
ccgcaggcgg tgctgattgg cggcggcatt agcgagcagg agaaaatcta tctcctgctg
gataaatacc tacagcgatt cgaggagtgg gaggcgctcc gggtgcccat ccttccctgc
                                                                      960
gagetgggta accaggeggg aaggetggge geggtetgge tggetaagea gaageaggeg
cgcagegett aa
<210> 4292
<211> 1257
<212> DNA
<213> Enterobacter cloacae
<400> 4292
caaataacgg tactcetece teteceeece ggggagaggg ctagggtgag gggaaaacgt
                                                                      60
tecteacece ageceteteg ggtaaaaaaca ttgatgaagg ttaacactat gaaagcatta
                                                                      120
cattttggcg caggtaatat tggtcgtggc tttatcggta aactgctggc agacgcgggc
                                                                      180
attaccctga cattegecga tgtgaatcag gtggttctgg atgccctgaa tgcccgtcat
                                                                      240
```

```
agctatcagg ttcacgtggt gggtgaaaac gaacaggttg aaacggtttc tggcgtcaac
                                                                       300
 geggtaagea geattggega egatgttate gatettattg ceagegttga tetggteace
                                                                       360
                                                                       420
 acageegtgg gteeggtggt gettgagegt ategeeeegg eggtegegaa aggeetggeg
                                                                       480
 aaqcqtaaaq cacaqqqcqt tqaaacqccg ctgaacatca tcgcctgtga aaacatggtg
                                                                       540
 cgcggcacca cgcagctgaa aggccacgtt cttacggccg tcgccgacga agataaagcc
                                                                       600
 tgggttgaag cgcacgtagg ttttgttgat tccgccgtgg atcgcatcgt tccgccgtca
                                                                       660
 gcatcegcea ccaacgacce getggaagtg accgtggaaa cettcagcga gtggategtt
                                                                       720
 gataaaacac agtttaaggg cgcgctgccg accattccgg gaatggaatt aaccgataac
 ctgatggcat ttgtcgaacg taaactcttc acgctgaaca ccgggcatgc tataaccgcg
                                                                       780
 tacctcggaa aattggccgg tcatcagacc attcgtgacg cgatcctcga tgagaacatc
                                                                       840
 cgtgcggtgg tcaaaggggc aatggaagag agcggcgcgg tgctgatcaa acgctacggt
                                                                       900
 tttgatgctg ataaacacgc agcatacatc cagaaaatcc tcggtcgttt tgaaaacccg
                                                                       960
 tatetgaaag atgaegttga gegegtgggt egteageege tgegtaaaet gagegeggge
 gatogootga ttaaacogot gotgggeacg otggaatacg gootgoogca ogotaacotg
                                                                       1080
                                                                       1140
 gtgaagggaa tegetgeege aatgeactae egeagegage aggaeeegea ggegattgag
 ctggctcagc tgattgatga caaaggcgcg caggctgcgc tggcgcagat ctccggtctg
 gatgccaaca gtgacgtagt tgcggaggcg gtcagcgcat acaacgcaac caaatga
 <210> 4293
 <211> 441
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4293
                                                                       60
 aaaaaqcqtt tcaqaaqtaa qcccqcacac attqqtqtat ccttccctqt aaattccccq
 ttttcagagt tatttgtcat gaaagaagtc gaaaagaacg aaattaaacg cctgagcgac
                                                                       180
cgtctggata tgatccgcca tcagatggcc ggcctctccc ttgttgattc cgccgagaaa
tatgccgage tggaaaaaqa gtccgtgaag ctggaggcgg aaattgaacg cctgcgcgaa
                                                                       240
                                                                       300
 gtgaaaggcc agaagctgag taaagaagcg cagaagctga tgaacatgcc gcatcgccgc
                                                                       360
gcgatcacca aaaaagagca ggccgacatg ggcaagctga agaaaagcgt ccgtggcctg
                                                                       420
 qtqqtqqtqc acccqatqac tgagcttqqt cgcgaaatgg gcctgaaaga gatgacgggt
                                                                       441
 ttttgtaaga ccgcgttctg a
 <210> 4294
 <211> 849
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4294
 acacagoctq atatttacct gcatggtggg cgtgatcacc acattgcagg cctatgtctt
                                                                       60
 aacctggatg attccatgat agtgatgccc agacgcctgt ccgaagagat tgccactcgc
 qtacqqqcqc tqataqaaqa acaacaqctq qaaqcqqqca tqaqattqcc cqccqaqcqt
                                                                       180
 cagettgeeg eteagettgg egtgtegege aacteactge gegaggeget ggegaegetg
                                                                       240
 qtcagcgaag gggtgctgct gagccgtcgc ggtggcggca ccttcgtgcg ctggcagcat
                                                                       360
 gacgactggt ccgaacaaaa catcgtgcag ccgctgaaga cgctgatgga aaacgacccg
 qactacaqct togacatoct oqaaqcqcqt cacqccatcq aaaccaqcac cgcgtggcac
                                                                       420
                                                                       480
 geggegatge gggeaacega egeegacaaa gagaagetea aageetgttt tgaageeacg
 caaagcageg acceggacat egecteecag geggaegtge ggttecatet ggegattgee
                                                                       540
 gaggcotogo acaacgtggt gotgotgoaa accatgogog ggttottoga cotgotgoaa
 teeteegtga ageagageeg eeagegeatg tatetggtge egeeggtgtt tgeeeagetg
                                                                       660
 accgaacage acgaggeggt getcaacgee attetggeeg gagatgeega ggeegegege
 aaggcgatga tggcgcatct cggcttcgtg cataccacca ttaaacgatt cgatgaagat
                                                                       780
                                                                       840
 caggecegae aggegegtat taccegtetg cetggegaga gtgatattte cagggagaac
                                                                       849
 aaagcatga
 <210> 4295
 <211> 825
 <212> DNA
 <213> Enterobacter cloacae
```

<400> 4295

```
atatgeatge ttgaattate catageactt cegateaggg ttcaaaatgg egggttattt
atctcccqqq qcqtqqqccq tcatcccqca cqaaaattat cttcatqqqa aataattttt
                                                                     180
qtcqaaaaaq qqacattaac qatccaggag gaaaatacgc tgtttgaggt aaacgctggc
                                                                     240
gagagtttat tactttggcc gaagcggcgg catgtcggcg tggaagattt tccgggcgat
                                                                     300
ctcaaatttt actggctgca ttttgaggtg gatgaacgct tgccggtgtt gccaggcgcg
                                                                     360
acqccqctqt cgattqagca acactgtagc gtgcgggatc cgcaatatgt tattgcgtta
ttccgtcagt ttttaagcga gcaggaaaaa ttacagcgta gccaggcgct ggagataatc
                                                                     420
ttgctgttaa ttttgcagca gatatcgctc tcgccgggat atgaagataa agcggatgat
                                                                     480
gegggegeag caatggegtg gaaggeeaag cagettatee geaegeaett teatttgeee
                                                                     540
                                                                      600
ctqtccactt cqcaqctqqc aaaagaqctq cactqcaacq cagattacct qggqcqggta
tttcqtcqqa cqtttcattt aaccctgacg gaggcaattc accgccagcg cgtcagggcc
                                                                      660
gctgaaaaac tgctgctgaa cgatgcggcc tcattaactg aagtggccgc ccggtgcggt
                                                                     720
                                                                     780
tttaatgacg tgggttattt ccggcaaata ttctcaaaac ataccgggtt aacgcccgcc
gtotggaaac ggoggtactg taaagagcat attaattoog gatga
                                                                     825
<210> 4296
<211> 267
<212> DNA
<213> Enterobacter cloacae
<400> 4296
aacggcttaa tcacctcatt cgacaggcgc agcaggtcgt tacgcctgat catctcgcac
ateategeeg ggeegatgee geeaggegaa aggetgataa tgeegtteat gttggtaatg
                                                                     180
qcqqtqatqa ttttctcqtt agcaatgata atgccgcaac ggctgcccgg caggcccagc
ttggagaggc tcatgcagag gatgatattc gggttccata gcggacgcgc ttcgctgaag
                                                                      267
atgateceeg ggaacggtac gecatag
<210> 4297
<211> 891
<212> DNA
<213> Enterobacter cloacae
<400> 4297
                                                                      60
gattccgctc tcaaattttt gaagaaaata aggtgttgga atgtttatat ccgaccagga
quectaatga tategaetee cattegaega tatggggeeg egatacteat gttacteace
                                                                      180
atggcatttt caggtgaggt gcttgcaaag acgcacacgg atacaacgag taagaaagcc
cacgtaataa agacgacaag cagtaaggtt agcagtaaac aagagtattc tcgcaatagt
                                                                      240
qcaaaqaqta gttcacttcc tgatttgcga aaataccctt ccgggacacc aaggaaaaaa
gcgtttctcc ggacggtaat gccttacatt aaaagccaaa atgccgcgat tactgcggat
                                                                     360
cqtaactqqc tqatctccaa acaqtacqac aqccqctqqt cqccqtctqa qcgcactcqc
                                                                     420
ctgaaagata togccaaacg ctataaagtg aagtggagcg ggaacacgcg togcgtgcct
                                                                     480
                                                                      540
tggaactcac tgttagaacg tgtggacatc attccaggca gtatggtcgc gacaatggcc
                                                                      600
gccgccgaaa gcggttgggg cacctcgaag ctggcgcgca acaacaacaa tctgtttggc
atgaaatgcg taaaaggtcg ttgtactaac gcgcccggca aggtgaaggg ctattcacag
tttgaategg tgaaagatte egtgaatgee taegtggtga acctgaacae teacceggee
                                                                     720
tattcctcgt tccgtaagtc acgcgctcag ctgcgtaagg cggatcagga agtgacggcc
                                                                     780
acggcgatga tocataagot gaaaggttat tocactcagg gacagcgtta taacaattac
                                                                     840
ctgttctcca tgtaccagga taaccagogt ctgattgccg cacatatgta a
<210> 4298
<211> 645
<212> DNA
<213> Enterobacter cloacae
<400> 4298
gaacatgacg cgagatttga agctggcctg atggaaagct ggctgatacc ggccgagccg
                                                                      60
                                                                      120
qtcacctttg ttgaggaaat caaaaaaagc cgctttatca cgctgttggc gcataccgac
ggegtggagg eggegaagge gttegtegag teegteegeg egeageacce ggatgeeege
                                                                      180
catcactgtg tggcgtgggt cgcagggccg ccagacgact cacagcagct cggattttct
                                                                      240
gacgacggtg aaccggcggg tacggccgga aaaccgatgc tctcccagtt gatgggcagc
                                                                      300
                                                                      360
qqcqtqqqtq aaatcaccgc cgtcgtggtc cgctactacg ggggcatttt gttaggcacc
```

1630							
accogcaaaa atcgaagcac gtgcaattac	egecaettae tgettaaaea gegtggeget	ggaatatact gtttaacggt tcctcaggcg	gtccagcagg ttgttatgcg gtcatcgcac gaactggctg ccgattgaag	attacgecca agagtgatta ctttttcage	gctategggt teaggeaatg	420 480 540 600 645	
<210> 4299 <211> 663 <212> DNA <213> Enter	robacter cl	pacae					
cattetggeg ggacaaacge tetgatgtgg gtcattggeg aagcatacgg cgtaaagcag tegecatgge egetggtaeg acgegtaaag	tgagtaagga gtgagattgc tgaacctgaa cttcaattcg cggaactcgc agaagcgtac agccgatat accgctttat aagtggttta	gacattggtg ttcatatctg tcgcacagag ttacggccat tcagctgcct gccgcagact ctgttctgtc gatccgcctg taccgactg	totttacget aaaacgttaa gettetgaac cagattgeet tecatecgg ggegegttt aacagetata tttgetggeg atcatgaaaa geteaggteg ttcacacgag	ttettttete teaaagaget ggeaggatta egetggateg acteggteaa egegtaagt egetgegtta tgaeggeeg ecagttttge	aacgcgtgac gggcatttat cgaccgcgtg ctttgtgaaa cctggttgcc tttgctgagt cccgcgttac ggaaacggat ccgtgaaatt	60 120 180 240 300 360 420 480 540 600 660 663	
<210> 4300 <211> 606 <212> DNA <213> Enter	cobacter clo	oacae					
geggggetge tetetggata attaccetta gegtgggeaa aacgtggaaa gatacggtga egegtgaage acaaccgcac	tgttatette eeggtgeggg ttteetgtga aaagetaett actgeeegga atgaeeacaet tttataacag eggatgatga	tcaatcggta ttcgcaaagt tattactccg tgacgatcac gacggttgaa gcttcaggtt cgatcgcagc aggcaatgct	atcaaaaatg ctggcaagca acgggcgggg gcctctaaaa aacgaaacga	gtgattetgg tgateaattt acaaaacggt cgccgcgcga tactgtttga aaggtatggc aaccgggtac tttatgccgc	egttaatget taeegggaag agaeettggg gtteaaaate eggaaecaaa gaegggtgte ggtatetgaa aettgaeaaa	60 120 180 240 300 360 420 480 540 600	
<pre>aactga &lt;210&gt; 4301 &lt;211&gt; 705 &lt;212&gt; DNA &lt;213&gt; Enter</pre>	cobacter clo	oacae				606	
actgcattaa atcgtatacc gttccctatc ccatttattg attcaatata aaagcgattg aaatttaaaa aaaataacgt gtctctttt ccaggggaaa	tggttagttc cacaacacag ttattcagtc tcacgccacc ccggcgctcc cgccaaagcc tttctaccg tttcgcggac atcggctgac cccgtgaatg	tgcgtcagtt caaggaggtg gtgggttgaa tctgttcaga gctgccaca aaaggagc cccggacaat gggaaaagg gcttggcggg gcctgtgtcc	atgatgaaac tccgctggcg gcattttctg ggggatgggc cttgatccgg gatcgtgaat agcaacgaat ctaaaaggg cttaaagccg cataaaattg gcctccgggg acccagcctc	ttgtaatgg tttctaatat agggtaaaa agcagaccaa ctgtattctg tacaagttaa acgctgcaac ctaacccgac agcagccgg gcgtaagctg	gggaacacgg ggaaagtgcg taacgctgcg tacgctgcgt gctcgatatt cgttaaatcg tgcctggcag gccatactac catgatcggt	60 120 180 240 300 360 420 480 540 600 660 705	

```
<210> 4302
<211> 612
<212> DNA
<213> Enterobacter cloacae
<400> 4302
                                                                      60
gcaatgaaac tcatcggcag ttatacaagt cetttegtge gtaagattte gatteteetg
ctggagaaag ggattgaatt tgaattcgta aatgaacaac cctacaacgc agagaacggc
                                                                     180
qttqcqcaqt acaacccqct qqqqaaaqtc ccgqcqctgg taacggacga gggcgactac
                                                                      240
tggtttgatt ccccgatcat tgcggagtac atcgagctgc ttggcgttgc gccagccatg
ctgccggcgg atccaaaagc agcgctggcg atgaagcaaa ttgaagccct ggcggatggc
attatggatg cggcattaac gtccgtacgc gagcaggcaa ggcccgccgc ccagcagtca
                                                                      360
                                                                     420
qaaaatqaqc tqctqcqcca gcqcqaaaaa atcagccgca gcctggatat gtgcgaacag
                                                                     480
ctgatccgcg acgggaaaat tcagagcgat agcctgaatc tggcgacgat cgccatcgcc
tgcgccatcg gctacctcaa tttccgccgc gtctcgccgg gctggtgcgt ggatcgtccg
                                                                     540
                                                                     600
ctgctggtca aactggcgga gacgctette cagegegaaa gtttcgcccg gactgaacca
ccaaaggett ga
                                                                      612
<210> 4303
<211> 1866
<212> DNA
<213> Enterobacter cloacae
<400> 4303
                                                                      60
agtgcggttt ctggagatga tgttgaaatg attattgcca ccgccggtca cgttgaccac
                                                                     120
qqcaaaacca cqttattqca qqccattacg qgcgtgaatg ccgatcgcct gccggaagag
aaaaagcgcg gcatgaccat tgacctgggt tacgcctact ggccgcagcc cgacggtcgc
                                                                     180
qtqctqqqct ttatcqacqt qcccqqccac qaqaagtttc tttccaatat qctcqcqggc
                                                                      240
gtgggggga tegateaege tergetggtg gtegegtgeg atgaeggggt gatggegcaa
acgcgcgagc atctggcgat cctccagctg acgggaaacc cgcagttgac cgtcgccctc
                                                                     360
accaaagegg accgtgtgga tgaggegegt ategaegagg tgegteaaga ggtgetggeg
                                                                     420
qcqctgagtg aatacggttt taaggatgtc gcactgtttg tcaccgtagc gacagaaggc
                                                                     480
egeggtateg atgetetteg caaccatttg cagcagatec egtetegtga acaggecage
                                                                     540
catcaccact tecqtetage gategaeagg geqtttaccg tgaaagggge tggggtggtg
                                                                      600
gtgaccggta ccgcgctgag cggggaagtg aacgtgggcg ataccctgtg gctcacgggc
                                                                     660
                                                                     720
gtgaacaaac cgatgegegt gegegggett catgegeaaa accageeggt ggaacaggee
                                                                     780
cacqccqqqc agcgtatcgc gctgaatgtt gccggtgatg ccgaaaagga ccagcttaac
egeggegact ggetgetgge egacgegeeg eeggageett etgaaegggt eategtttet
                                                                     840
ctecagacce atacgeeget gacccagtgg cagccgetge atatccacca cgeggecage
                                                                     900
cacatcaccg gacgcgtgtc gctgctggaa aacgatctcg ccgaactggt gttcgactcc
                                                                     960
                                                                     1020
cogetetgge tggeggataa egacegeetg gttetgegeg atatttegge gegggaaaeg
ctggegggeg egegegtggt catgetggat eegeceegte geggeaageg taageeegag
tatttacagt ggctggccgc gctggcccag acccgcgatg ataagtctgc gttagatatc
                                                                     1140
cacettgage gtggegeggt ggatetggeg gegttegeet gggegegeea geteagegge
gaaggattgc gtcttctgac gcaggagcca ggttttattc aggccggaaa cagcctgctg
                                                                     1260
                                                                     1320
aacgcgccgg tggcggcgcg ctggcagcgc aaagtgctga gcacgctggc gacctaccat
gaacagcate aggatgagec eggteegggt egtgaacgte tgeggegeat ggegttgeec
                                                                     1380
                                                                     1440
atggaagacg acgcgctggt gctgttgctg attgaaaaca tgcgtgaaag cggcgtgatt
gcaagtcatc acggctggct acacctgccg gaacacaagg ccggttttac cgctgagcag
                                                                     1500
gacgcggtct ggcaaaaagt ggcggcgctg tttggcgatg aaccgtggtg ggtgcgcgat
                                                                     1560
ctggcgcgtg aaaccaatac cgatgagcag ctgatgcgtc aggtactgcg ccatgcggca
                                                                     1620
cagcagggga tgattgtggc gatcgtgaaa gatcgttatt accgcaacga tcggatcgtg
                                                                     1680
                                                                     1740
qcqtttqcqa acctqatccq qqaqctqqat caqqcqcqcq gatcaacctg cgccgcagac
                                                                     1800
ttccgcgatc ggctgaatgt gggacgcaaa ctggcgattc agatcctgga gtatttcaac
cgcatcgggt ttacgcgtcg tcgtggcaat gaccatgtgc tacgcgacgc gcagttattt
                                                                     1860
                                                                     1866
ccqtaa
```

<sup>&</sup>lt;210> 4304 <211> 879

## <213> Enterobacter cloacae

```
<400> 4304
 qatcqtqaac taaaacacac tttgcgctac catcagggcg caataaacag gagctatttg
                                                                     120
 atgagcataa aagagagcga aatgacgcaa gaaaaagaga ggccagcagg tagccagagc
 ttgtttegeg geetgatget gattgaaate eteagtaaet ateegaaegg gtgteegett
                                                                     180
 gcgcatttat cagaactggc ggggctgaat aaaagtaccg tgcaccggtt attgcagggg
                                                                     240
 ttqcaqtcat gcgggtacgt gacgccagcg ccggcggcag ggagctatcg tttgaccacc
                                                                     300
                                                                     360
 aaatttateg cegtegggea aaaggegett teatetetea atattattea egtggeggeg
                                                                     420
 coqcacctcq aggegetqua cattgccacc qqcqaaacqq teaacttete cagccgtgaa
 gatgatcacg cgatcctgat ttataagett gagccgacaa ccggtatgct gcgcacgcgc
                                                                     480
 gcatatateg gccagcatat gccgctctat tgttctgcaa tgggcaaaat ctatatggcg
                                                                     540
                                                                     600
 tttggtcatc aggattacgt ggcgagctac tgggaaagcc accaggaaca gatccaacct
                                                                     660
 ttgaccogca acaccatcac cgaactgage gegatgtatg atgagetgge ggaaattege
 gatcacagta tggcgatgga taaagaagag aacgagctgg gtgtgtcatg tatcgccgtg
                                                                     780
 coggetting atattcacgg goggetaccc tatgccatct coattteget grogacgtog
 cgcatgaagc aggtgggtga gaaaaacttg ctaaaaccgc tgcgtgacac ggcggaagct
                                                                     840
                                                                     879
 atctcgaaag aactggggtt taacgtgcgc gaggcgtaa
 <210> 4305
 <211> 459
 <212> DNA
 <213> Enterobacter cloacae
<400> 4305
                                                                     60
ctgatgaacc aatttateet ggeggateet gaaaaatgta tegggtgteg taeetgtgag
                                                                     120
gtagogtgca tgatgtogca tcaaagcago gccacgccag tagogtttac gtcacggato
                                                                     180
egegtggtta agggggaaac etteaceaeg geagtggget gecaceagtg tgaagatgeg
                                                                     240
cectgegega atgtetgeec gaegggggee atteacegeg etgegggage etggetegtt
                                                                     300
aagcaatogo gotgtatogg otgcaaaago tgtatggtgg ogtgooogtt oggggcaatg
                                                                     360
caggttcggg tcgtggaaga tcgcgttcag gcgctgaaat gtgatttgtg cgcgcatcgc
                                                                     420
459
gecagettae gegeggaacg getgegtaat atggeetga
 <210> 4306
 <211> 1518
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4306
                                                                     60
 ataacagcat tcatgcccgg taagcgctgc gccaccgggc atttctgtca aaggagtcac
                                                                     120
 cacatgtata tegggatega tettggeaeg tegggggtga aagecateet gttaagegag
                                                                     180
 caqqqcqatq tqttaqccac qcaqactqaa aagttqcagg tttcacgccc gcatccgctt
 tggteggaac aagateegga geagtggtgg eaggegaegg aeeggeggat gaeageetta
                                                                     240
 ggogagcagc acagectgeg egaegttaaa gegetgggea tegeeggaca aatgeatgge
 geaacgttgc tggatagcca gcatcgcgtt ctgcgcccgg ctattctctg gaacgatggc
                                                                     360
 cgctgtgcgg aagagtgcgc gatcettgag gaacgtgtgc ctgcgtcccg cgagattacg
                                                                     420
 ggcaacctga tgatgcccgg ttttaccgcg ccaaaactcc tgtgggtgca gegccatgag
                                                                     480
 cctgatattt ttcgccaggt ggcgaaggtt ctgttgccga aagactacct gcgttttcgc
                                                                     540
 atgacggggg attitgccag cgacatgtct gacgccgcgg gcacgatgtg gctcgacgtg
                                                                     600
 gegaaaeggg actggagega ggegatgetg gatgeetgee agetgaegeg egateatatg
                                                                     660
 cotgogotgt ttgaaggcag cgaaatcacg ggcgctttgc agccttctgt tgctgaacgt
                                                                     720
                                                                     780
 tqqaatatgc cagccgtacc tgtcatcgcc ggcggcggcg ataatgcggc gggggcggtc
 ggcgtgggga tggtcgaggc aggacaggcc atgctctcgc tcggcacttc cggcgtctat
                                                                     840
                                                                     900
 tttgccgtca gtgacgggta tcgtagcaat cctggaageg ccgtacacag cttctgccac
                                                                     960
 qcqttqccqq qtaaatggca tttaatgtcq gtgatgctga gcgcggcttc ctgcctcgac
 tgggcggcaa aactaaccgg aatggcggac gtcccggcgc ttatcgcagc ggcacagcag
 geggatgata atgeeggtge ggtetggttt ttaccgtacc tttccggcga geggacgcct
                                                                     1080
 cataacaacc cggaagcgaa aggggtgttc ttcggtctta cccatcagca cggcccggca
                                                                     1140
 gagetggege gegeggtget tgaaggegtt ggetatgete tggeggaegg aatggatgte
                                                                     1200
```

qtqcatqact qtqqactqac qccatccagc attacgttaa ttggcggcgg tgcgcgaagc

```
agetactqqc qqcaaatqet ttccqatatc agcqqqttqc agctggacta tcqtacggga
                                                                     1380
qqcqatqtcq qcccqqcqct cqqtgcggca cggctggcgc aaattgcgct gaacccggat
                                                                     1440
asaccactgc accagctttt gccccagctg tcgcttgaac agcagcatcg tcctgatgcg
                                                                     1500
aaaaatcatg ctcgctatgc tgaaagacga gacgtgttcc gcaaaattta tcggcagctt
                                                                     1518
ttgccgctaa tgtcataa
<210> 4307
<211> 939
<212> DNA
<213> Enterobacter cloacae
<400> 4307
aaccacacqt atccaqcacq aaatactatq caaaagtttg ataccaagac cttccagggc
ctgatcctga ccttacagga ttactgggct agtcagggct gcaccattgt tcaacctttg
gacatggaag ttggcgcagg cacetcacac ccgatgacca gcctgcgcgc gttagggcca
                                                                      180
gagocaatgg cgaccgccta tgtgcagcca tcccgtcgtc cgaccgatgg ccgttatggc
                                                                      240
                                                                     300
qaaaacccqa accqtttqca qcactactat cagttccagg tggtgattaa gccatcaccc
qacaacattc aggaactgta cctcgggtca ctgaaagagc tgggtatgga tccaaccatt
                                                                     360
                                                                     420
cacgacattc gtttcgtgga agataactgg gaaaacccaa cgctgggtgc ctggggtctg
ggttgggaag tgtggctgaa cggcatggaa gtgacccagt tcacatactt ccagcaggtt
                                                                     480
                                                                     540
qqtqqtctqq aatgtaaacc gattaccggc gaaatcacct atggtctgga acgtctggcc
                                                                     600
atotacatto agggegtaga cagegtttac gacctggtet ggagegaegg ceegetgggt
                                                                     660
aaaaccacct acqqcqacqt gttccatcag aacgaagtgg agcaatccac ctataacttc
qaatacqcqq acgtggactt cctgttcacc tgcttcgagc agtacgagaa agaagcccag
                                                                     780
cagetgetgg egetggagae teegetgeeg etgeetgeet aegagegtat tetgaagget
                                                                     840
qcccacagot toaacotqot qqatqcccqc aaaqcgatot ccqtgactga acgtcagcgc
                                                                     900
tacattotgo qtattogtac cotgaccaaa googttgcag aagottacta cgogtocogt
gaageeettg getteeegat gtgcaacega aacaaataa
                                                                      939
<210> 4308
<211> 2079
<212> DNA
<213> Enterobacter cloacae
<400> 4308
                                                                      60
gaggeggeca tgtctgagaa aacttteetg gtggaaateg geactgaaga getgecacca
agagecetge qeagectqqe tqaatetttt qetqeqaacq teactqetqa getqqataac
getggeetgg egeaeggtaa aattgagtgg tttgetgege egegtegtet ggegetgaaa
                                                                     180
gtggcaaacc tggcggcgtc ccagccggat cgcgaagttg aaaaacgtgg cccggccatt
                                                                     240
gctcaggcgt tcgacgcgga aggcaagccg agcaaagcgg cagaaggctg ggcgcgcggc
                                                                     300
tgeggeatea cegttgatea ggeegagegt etgaceaceg acaaaggtga atggetgetg
                                                                     360
                                                                     420
tatogtgccc atgtgaaagg cgaaagcgcc gaagcgctgc tgcctgacat gatcgcgacc
togotggcaa aattgccaat coctaagotg atgcgctggg gcgcgtccga cgttcacttt
                                                                     480
gtgcgtccgg ttcacaccgt gaccstgctg ctgggcgata ccgttatccc ggcgaccatt
                                                                     540
etgggegtgg egteegateg egtgateege ggeeateget ttatgggega geeggagtte
                                                                      600
accatogaca atgoogacca gtatocacag atcotgotgg aacgoggtaa agtgattgoo
                                                                      660
                                                                     720
gactacgaac agegtaaage caaaattaaa geggaegeag aagaagegge gegcaagatt
ggeggaaacg ctgacctgag cgacagectg ctggaagagg tgaccteget ggtcgaatgg
                                                                     780
coggttgtac tgaccgcgaa attcgaagag aaattcctgg ccgttccggc agaagcgctg
                                                                     840
qtttacacca tgaagggtga ccagaagtac ttcccggttt acgccaacga cggcaagctg
                                                                      900
etgecaaaet teatettegt ggegaacate gaategaaag ateegageea gattatetee
                                                                      960
ggtaacgaga aagtggtgeg teegegtetg geggatgeeg agttettett caacacagae
                                                                     1080
cgtaaaaaac gtctggaaga taacctgccg cgtctgcaaa ctgtactgtt ccagcagcag
ctgggtacgc tgcgcgacaa aaccgaccgt atcgcggagc tgtccggctg gattgcccgt
                                                                     1140
gaaattggcg ccgacgttaa ccacgctacc cgtgcgggcc tgctctccaa gtgcgacctg
                                                                     1200
atgaccaaca tggtgttcga atttaccgac acccagggeg tgatgggtat gcactacgeg
                                                                     1260
cgtcacgatg gcgaagcgga agacgtggcg gtagccctga acgagcagta tcagccgcgc
                                                                     1320
tttgccggtg acgatctgcc gtccaatccg gttgcctgcg ccgtggcgat tgccgataag
                                                                     1380
                                                                     1440
atggacacco tggcgggtat etteggtate ggccagcate caaaaggcga caaagacccg
tttgcgctgc gtcgtgctgc gctgggcgtg ctgcgaatca tcgttgagaa gaacctgaac
                                                                     1500
                                                                      1560
ctcqatctqc aaacqctaac cqaaqaagcg gtgcgtctgt acggcgataa gctgaccaac
```

```
1620
  gegaaggttq tggatgatgt tategaettt atgeteggte gttteegege gtggtateag
                                                                       1680
  gacgaaggtt actoogttga taccattcag goggtgctgg cgcgtcgtcc gacccgtccg
                                                                       1740
  gcagattteg atgegegtat gaaageggta teceaettee gtacgetgga ageggegtet
                                                                       1800
  gegetggeeg eggetaacaa gegegtatee aacateeteg egaaateega egagaegetg
                                                                       1860
  aacgategeg taaacgetge aaccetgaaa gageeggaag agatttetet ggegatgeag
                                                                       1920
  gttgtggtgc tacgcgacaa gctggagccg tatttcgcgg aaggtcgcta ccaggaagcg
  ctggtggagc tggcggagct gcgtgacgtc atcgacgcct tcttcgagaa ggtgatggtg
                                                                       1980
  aacgtggaag ataaagagct gcggattaac cgtctctcga tgcttgagaa actgcgtgag
                                                                       2040
  ctqttcctqc qcqtqqcqga tatttcqctg ctgcaataa
  <210> 4309
  <211> 1362
  <212> DNA
  <213> Enterobacter cloacae
  <400> 4309
  cttgaggtca aaaaaacgaa aggaagaatg atggactcac tggcttcgct ttataaaaat
  catatogtta coctacagga acgtaccogo gatgtactgg cocgottcaa gotggatgco
                                                                       180
 ctgctgatcc actccggcga gctgatgaat acttttcttg atgaccatgc ttatcccttc
 aaggttaacc cgcagtttaa agcctgggtg cctgtcacgc aggttccaaa ttgctggctg
                                                                       240
 ctggtggatg gegtgaacaa geegaaactg tggttetace tgeeggtega ttactggeae
                                                                       360
 aacqtqqaqc cqctqccqac ctcattctqq accqaaqaaa ttgacqtqat tgcqctqcca
                                                                       420
 aaagcagacg gcataggcag ccagctgcca gcggcgcgcg gcaacatcgg ctacattggt
 coggttoctg agogogogot gggtotggat attooggoag ataaactcaa cocgaaaggo
                                                                       480
                                                                       540
 qtqctqqatt atctqcacta ctatcqcqcc tacaaqaccq actacqaact ttactqcatq
                                                                       600
cqtqaaqcqc aaaaaacgqc ggtgaatggc caccgtgcgg cgcacgaagc gttccagtcc
                                                                       660
ggtatgageg agttegatat caateagget tacetgaegg egaeeggeea eegegatace
                                                                       720
 qacqtqccqt acaqcaacat cqtqqcqctq aatqaacatq cctcqqttct gcactacacc
                                                                       780
 aaactqqatc atcaqqttcc ggctqagatg cgtagcttcc tgctggacgc gggggctgag
                                                                       840
tacaatggtt atgeggeaga cetgaeeegt acetgggegg egaatgegga tacegatttt
                                                                       900
 qeqeaattqa ttaaaqaeqt qaacqaeqaa caqetqqeqe tgattqqeac catgaaqqee
 ggaaccaget acgtggatta teacatecag ttecateage geategetaa actgetgegt
                                                                       960
 aagcatcaga ttatcaaaga catgagcgaa gaggcgatgg ttgagaacga tttgaccggg
                                                                       1080
 ccatttatgc cgcatggtat cggccacccg ctgggtttgc aggttcatga cgtcgcgggc
 tttatgcagg atgataccgg cacgcacctg gcggcaccgt ctaaatatcc ttatctgcgc
                                                                       1140
 tqcacceqcq ttctqqcqcc qcqtatqqta ttqaccatcq agccqqqcat ctactttatt
  qaatccctgc tggcgccgtg gcgcgaaggg caattcagca agcacttcaa ctgggagaaa
                                                                       1260
  attgaagogo tgaagootta tggcggcatt cgtatcgagg ataacgtggt tattcacgag
  aacagcattg agaacatgac gcgagatttg aagctggcct ga
                                                                       1362
  <210> 4310
  <211> 2544
  <212> DNA
  <213> Enterobacter cloacae
  <400> 4310
  gctggtcggc tattaatgat tttggtgcca tcaccgccac ccacacccag cctctttaag
  atcatgcctt ttcgcctgtt tcgttacgcg ccgctttcag tgttgctgct tagcttcagc
  eqtqeqqqqa tggccgagga ttactttgat cccgccgcgc tggagctttc ctctactgaa
  cagaaaacgg cggatctgca ctatttctct gaaaagggcg ggcagatgcc aggcacctgg
                                                                       240
  ctogtgacgc tggagattaa cggacgcgag gagcggcatc aggagatcac cttcgtcaat
  gagaaaggca gcctgcaacc cgtttttagc gtatcgctgc tggaagcgct tagcgtaaat
                                                                       360
                                                                       420
  gtaggggcca ttcctgcatt ctcccggttg caggagggag aaacgttcac gcacctcgag
  gattttattc cggcagegeg aacctectat gatttcaacc aacagegeet ttttctcaac
                                                                       480
                                                                       540
  ctgccgcagg cggcgatgaa acaccgcagc cgtggctatg tgccgcagtc gcagtgggac
  gatggtatec eggeggeatt tactgattac agtetgtegg geggteagge eegteateag
                                                                       600
  ageggggtea egacateeag etatetgage etgegtaaeg geateaatet gggggegtgg
                                                                       660
  cggttgcgca acacttcggc ctggagccac agcgacgcgg gcggcaacca ttttcagtcg
                                                                       720
  caaagtaget ggetgageeg ggatattege egtettaaca geeagetaeg gateggegat
                                                                       780
  gcctggaccg caggcgacgt ctrcgatagc gtggcgtttc gcggggttca gctctcgtcc
                                                                       840
  agcgagagea tgttaccega cagecagege ggettegeae caaccateeg eggegttgea
                                                                       900
```

<400> 4312

```
960
cacagetteq etaaagtete egtttegeaa aatggetatg tgatetatga aacetgggtg
qeeqeeqqqe catttateat taacqatetg tteceeggeg egeaaagegg egatetacag
                                                                      1080
qttacqqtca cggaaagtga cggctcaacg cgcgtcttta cccaacccta ttctgcggtg
                                                                      1140
cogtttatgc gacgccaggg cagcctgaaa tacagtctca acgccggacg atttcactcc
                                                                      1200
ggctccggcg atgcgcgttc gcctgagttt gttgaaggcg cttttttcta cggtctgctc
                                                                      1260
tocaqqatqa cqqtqtatqq cqqctttcqt acgqcqagca actaccaggc cggtgcaatt
ggeataggea gagggtttgg cgeatttgge tegetgggea ttgaegatae getggeaaaa
                                                                      1380
agccatttac ccgacggcaa aaacgcgata gggcaggcgt ggcgcattca gtatcagaaa
gatttcageg ctaccggcac cgccttcaac ctggcgagtt atcgctatgc ctcgcgcaat
                                                                      1440
                                                                      1500
tactatgaat ttagtgaact gaatcagtet gacagccaac agetgcaact caataatege
egtageeget egeaggteac etttteacag aegetgggte agiteggeag ceteagegte
                                                                      1560
                                                                      1620
teggeatgga tgeaggatta etggeataeg teegggeagg ataaaaceat ecacattgge
tggtacacca gctggcgggg catttcctgg ggcgcgggat atgactacac cgactcagcg
                                                                      1680
egtgageage atccegateg cacegtgteg tttaacgtca atgttceget tggccaetgg
                                                                      1740
                                                                      1800
ttaccggaca gctcggtcag ttacttcatc aaccacaaca atcgtggaat gaccacgcag
cagatgtete teaacggeag egegetggeg aategeaace ttaattacag egtteageag
                                                                      1860
                                                                      1920
aqtaaqqcca qcqaqqqaca aqccqacaqt accaqcctgg cgctgcaata caacggtggc
tacqqcaacq tcagcctcgg ttatgaccac agccgaagcg gtagcaacgc gagcctcgga
                                                                      1980
                                                                      2040
ctcgccggag gcgttatcgc cacgcagtat ggcgtcacgc ttagcgagcc gctgggcgat
acceptedece tectdedect decedeted degaacette acceptage ttacaacegg
                                                                      2100
                                                                      2160
atccataccg acageogogg ctatgcggtc atgccaacge teteggcgta tegcaaaaat
                                                                      2220
accetcagee ttgatacgge gacgetgggt gagaacgteg acgttgagea gageggtetg
                                                                      2280
acgeteatte ceaecagegg egeggtggtg etggecaatt acaaaaceca cattggttat
                                                                      2340
eqeqttetqt tttecetqeq ctaccaeggt gaaccgttge egtttggege geaggetgaa
                                                                      2400
gtggtggagc agaaccgcca ttctgcaaac cgaagcatgg tcgctgacgg cggtcaggcc
                                                                      2460
tacctgageg gagtacccga gegeggeacc etgegegtea cetggtatga aaacggggag
caqcaqcaat gocagacaco tttcagattg gggaaagctc atatggcccc cggcatcgct
acgetgtete ttgagtgeea etag
                                                                      2544
<210> 4311
<211> 1104
<212> DNA
<213> Enterobacter cloacae
<400> 4311
aggaatatca tgcgtcgttt tattcactgg tttttctatc tcagtctgct ttcgctttt
                                                                      60
ggcatgetga gttttcatge ccatgeccag acttcaacet geograceae gegegateag
tgggtcgttc aggtgcctta tgccartggg tatgcgcccg gcacgtctga ctggacgccg
                                                                      180
                                                                      240
atatetgege egatacagte taceggggeg gatttetaca getgtgatgg egggaatgae
ccctggcgta gtatcggatt tgtcgagctg gataaccccg tcggcaccgt ggtgggggaa
                                                                      300
qacqqtqcqt cqcqqcacqt ctacaaaacc caaattgacg gcatcggcta cgcgctcggg
                                                                      360
                                                                      420
ttccgcgagc agcagtactg tggtgcggat gccgtacggt atattgacgg caccagcccg
gtagaeggea aegagteeeg gegtatetge gatgeeteae agaateetge etttgeeage
                                                                      480
gccccaacgt ataaattgca gttctgggtg gtgttttaca aaatcccgac gaccagcccc
                                                                      540
                                                                      600
atgectgacg ataacgccaa ctcccaggag caaaatgtcg gatcgctgat attgcaggcg
ggagaaaatc aagccagege caccaacgtg gcgacaccag tacagattca totogccage
                                                                      660
                                                                      720
ttcaccgtca ggcgtaccag ctgttcagtg ggctctcgca gcattcttgt tcccatgggg
agegtgagec agegtgaatt teaeggeate ggetteegeg eegggggegg aegetteage
                                                                      780
                                                                      840
atteeggtga ettgegaaaa taacacggeg gttaagatgg gtttetttgg egataccacg
cegggeaacg ategggeget ggegttgacg aageaggagg atagegeeag eggtgteggg
                                                                      900
ategaactgc tttacggtga caataccggt tcggttcagg ggcaggtggt accgtggaac
                                                                      960
accoegeagg tgtcageget tgggcaagta ggggataacc agacgcaaac cttctggttt
                                                                     1080
gatgcgcatt acattcagac ggaagcgaac gtgacggcgg gaaaagcgga tgcgatggcc
                                                                      1104
acqtttaacc tgatttacaa ctga
<210> 4312
<211> 1644
<212> DNA
<213> Enterobacter cloacae
```

```
atotggogac gatogocato gootgogoca toggotacot caatttoogo egegtotogo
egggetggtg egtggategt eegetgetgg teaaactgge ggagaegete ttecagegeg
                                                                     180
aaagtttogo coggactgaa ccaccaaagg cttgatgogg gttataacac ttootggogg
                                                                     240
gaggeggtac aateceeeca catqttaact coeteteecg tegggagggg ggaagatatt
tactogocag gogoattoat gactactoat cattocotot acagocagat cocegotaco
                                                                     300
                                                                     360
gateqtetqe ttegtgaece gegeateact geggtgetgg ageagtttgg ccatactgea
                                                                     420
acggtcgaca tgctacgcca gcttcaggac gatgcgcgtc gccatattca ggctgagaac
gegetaeceg getggtgega ggeatgggeg caggaagttg aaaggaggtt gagcaagcac
                                                                     480
gogcaaagog cgttgcgccc ggttattaac ctgacaggca cggttttgca caccaatctg
                                                                     540
                                                                     600
gqccqqqcac agcaggcaga agaggcaata gatgccgtca cccgggccat gcgctcgccg
gtgacgctgg agtacgatet ggacggcgcc gggcgcggac ategegateg cgcgctggcg
                                                                     660
gatettetet gecagateae eggegeggaa gatgeetgea ttgtgaataa caaegeggeg
                                                                      780
qcqqtqctat taatqctqqc ggccaccgcg agcggaaaag aggttgtcgt ctctcgcggc
gagetggtgg agateggegg ggegtttegt atteeggaeg teatgeggea ggegggetge
                                                                     840
                                                                     900
acgotgoatg aagtgggcac aaccaaccgt acccatgcaa aagattatcg cgcggcggtg
                                                                      960
aatgaaaaca cogcootgot gatgaaagtg cataccagca attaccacat tgagggtttc
accaaaacqq tqqaaqaqqc tgaactggcc gccatcgggc gcgagctaaa cgtgccggtg
                                                                      1080
attgccgatc ttggcagtgg gtcgctggtg gatatgcgcc agtatggtct gccaaaagag
                                                                      1140
ccaatggtgc aggaaatggt tgccgcgggc gtaagcctgg tcagtttctc tggcgataaa
ctqctqqqcq qqccqcaqqc qqqtattatc gtcggcaggc gcgagctgat tgcgcagcta
                                                                      1260
caqcagcatc cgctgaagcg cgccctgcgt gccgataaaa tgacgctggc cgcgctggaa
gecacgetge ggetetatet ecacceggag aaactggetg acegeetgee caegttgegt
                                                                     1380
ttgctgagcc gtgatgcggc ctctgttcgc gcgcaggcgg aagcgctact gccgcaggtt
getecteatt accetgagtt tgaagttegt ategageett geetgtegea aattggcage
                                                                      1440
ggetegetge eggtggaeag gttacegage gaagegetga egtteacece gegegaegga
                                                                     1560
egeggaagee agettgagge getgteggeg egetggegeg cattacegae geeggtgatt
                                                                      1620
qqccqqatcq qtqacqqqcq catqtggctg gatttacgct gtctggaaga tgaagtgcgg
                                                                      1644
tttctggaga tgatgttgaa atga
<210> 4313
<211> 1641
```

```
<212> DNA
<213> Enterobacter cloacae
<400> 4313
                                                                     60
agtacggtaa teegtgatae ggetegtaaa eeegttaeeg aetggegaga aaaceaceag
coggaactac cottottota cacctactoc aaggagacgo toatgacaaa caatecteec
                                                                     120
teategegta tecageeagg egagtatggt ttteceetta agetgaagee eegetatgae
                                                                     180
aactttateg geggegaetg ggtggegeee gtegaeggtg aatactatte caacetgaeg
                                                                     240
cccgttaccg gccagccgct gtgtgaaatt gccagttcgg gcaagcggga tatagattta
                                                                     300
gegetggatg cggcgcataa ggcgaaagat aagtggggac aaacgtccgt tcaggacaga
                                                                     360
geggecattt tgtteaaaat egeegategg atagageaga atetggaget getggegace
                                                                     420
                                                                     480
gcagaaacgt gggacaacgg caagccgatc cgggaaacca tggcggcgga cgtgccgctg
gegattgacc atttccgcta ttttgcgtcc tgcattcgtg cccaggaggg gggaataagt
                                                                     540
qaaqttqaca aaqataccgt ggcgtatcac ttccacgagc cgctcggcgt ggtggggcaa
                                                                     600
attattccgt ggaacttccc gctgctgatg gctagctgga aaatggcgcc cgcgctggcg
                                                                     660
                                                                     720
gegggtaact gegttgtget gaaacceget egettaaege egettteggt actgetgetg
atggaggtga ttggcgacct gttgccgccg ggggtcatta acgtggtcaa cggggccggg
                                                                     780
ggagagateg gegaatatet ggetacetea aaaegtateg ccaaagtgge gttcacegge
                                                                     840
tcaacggaag tgggccagca gatcatgcag tacgcgaccc agaacatcat tccggtcacg
                                                                     900
ctcgagctgg gcggcaaatc gccgaacatc ttctttgccg acgtgatgga cgaagaggac
                                                                     960
geettetteg acaaageget ggaagggttt gegetgtteg egtttaacea gggegaagte
tgcacctgtc cgagccgcgc gctggtgcag gaatccattt atgagcgctt tatggagcgg
                                                                     1080
gegateegge gegtggagte gattegeage ggtaateege tggataaegt tacceagatg
                                                                     1140
                                                                     1200
ggggegeagg tategeatgg ceagetggaa accatectea actatattga tateggtaaa
aaagaggggg ccgatgtgtt gaccggcggt cgtcgtaagg tgctggggcgg cgatttgcag
                                                                     1320
gagggctact accttgagec gaccatectg tteggtaaga acaatatgeg egttttecag
                                                                     1380
qaqqaaattt ttqqaccggt gctggccgtc accacgttta aaaccatgga cgaagcgctg
                                                                     1440
gagetegeca acgacacgea gtatggeetg ggggegggeg tetggageeg taacggtaat
                                                                     1500
ctgqcctata aaatggqccg gggcattcag gccggacgcg tatggacaaa ctgctatcac
goctatoogg ctcatgogge gtttggcgge tacaagcagt cgggcatogg gcgtgaaacc
                                                                     1560
```

		tgctggagca ggttgttta		acgaaatgtc	tgttggtcag	ctactccgat	1620 1641
<	(210> 4314 (211> 267 (212> DNA (213> Enter	cobacter clo	pacae				
9 9 9 4 4	etcattogac gatgcogoca etcgttagca gcagaggatg (210> 4315 (211> 369 (212> DNA	aggegeagea ggegaaagge	ggtogttacg tgataatgcc cgcaacggct tccatag	aacgcgctga cctgatcatc gttcatgttg gcccggcagg	tcgcacatca gtaatggcgg	tegeegggee tgatgatttt	60 120 180 240 267
0 0 0 0 0 0	cagegggatg caegtteece atgeagatgt cagaegtgeg gggtgeeage attgaataa (210> 4316 (211> 1410	ccgtgctgat gtcgggttgg tcaaaatcga gaaacaaaca	tegecagege tgggaegaga egtgatattt ggtettette	gaacggtacg atccagcttc tacgcagatc gaactggcc gaggccggca ggtgccgtcg	atcagctcgt atgcccgtct tctggcagca tcggcatagc	cgtcggtgat cttcaccgat actcgatatt caatatactc	60 120 180 240 300 360 369
<	:212> DNA :213> Enter :400> 4316	cobacter clo	oacae				
cootica cooga gt gggt caccaag	orgeatacce yetttegaag yetgetgetgetgetgetgaag aagatyaace teagagagag aagatyaace teagagagagagagag aagatyaagad teagagagatag aagagaaaaac gottaccag teaacagaga tegaaaaac tegaaaace yetaacegeg tegaaagagataty tegaaaagag tegaaaace	tgattatgga goagaaaac gtaagcgca cagaagcgca coattgagct tgccgtacta atctgaacaa tcaagctgct caaccaagctgct cagcagcagca goagaagca goagaagcaact tggaagagaa gagaagaagaa goagaagaagaagaagaagaagaagaagaagaagaagcaattggaagaagaagcaattggaagaagcgtga	getcaatatg gaccaatect ggaagatcac tatgttegge ggcgaagegt etgtttecae etteggegag etgggtaeg ggatceggaa tcagetagga ecacaagcat ecacaagcat etteggaaaa gttcatcac ecacaagcat tctggaaaa gttcatcac ecgtggegat egacgcaaa geggatagg egagatag	attoactatt taagatttat taagatttat ttagcattta ttagcattta tagcattta tagagctata aaagccaca gatgdgaca atgdtcgaca gctaactgct gctctaagc ggtyagasac tdgctcaag aaaatcggtt caqtadgat ggaattgcc cacatgctg atgtacaag atgattcacaag gaattgcc ccacagctgg atgtacagaa attgcct ccacagctgg atgtacagaa atgattcacaaa gaagttacacaaa gaagtacacaa	tegaceaact gteactacaa cegectgeta ttgacegtec tegegttega tactgectga tactgectga tactacaacec ggeeggeaac atgtactetg agegtgagca tecgeggeaac atgattece tegattgec tegattge tegattge teactacaace tegattge tegattge tegattge tegatgec tegatgec agagcacega agegctegaa agegctegaa agegctacag ttgegagat	ogatogogtt cocggatgag ctggcacac atggcacac gttettceat aggggctcg aaaacagcag tcgctatggc ccaggtcgt gattgtcgc gctgctgatt caccgtgtat ggctacacac gctggcatc ggcgatcc ggcgattc cacatcac gctggcatc cgaccac gctggcatc cgaccac gctggcatc cgacagttc ggcggtta ggcggtta ccagtggcatc cgacagttc ggcggtta ccagtggacac cggctggaac cggctggaac	60 120 180 240 300 420 480 540 660 720 780 840 900 960 1020 1140 1260 1320 1380 1410

```
<211> 1473
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4317
 atacctaagg aagcggcaga gatgcatttt cgtgccatta cccgaatcgt tggattgctg
 gtcatacttt tctccgggac aatgatcatt cccggactgg tggcgctcat ctaccgggac
                                                                      120
 ggcgcgggc gtgcatttac gcaaaccttt tttgtcgcgc tgacgattgg ctccctgctg
                                                                      180
 tggtggccaa accgccgtga gaaaggtgaa ctgaaatccc gggaggggtt tctgattgtg
                                                                      240
 gteetgttet ggaeggtaet gggaagegtg ggtgegetge egtttatett eteegaacaa
 cogaatotca cogtcacgga tgcgtttttt gaatcgttct coggattaac gaccaccggg
                                                                      360
                                                                      420
 gccaccacgc ttgtggggct ggattcgctc ccgcatgcga ttctctttta ccggcagatg
 cttcagtggt tcggcggtat ggggatcatt gtcctggcgg tggctatcct gccgattctg
                                                                      480
                                                                      540
 ggcgtcgggg ggatgcagct ttaccgggcg gagatgcccg gcccgctgaa agataacaaa
                                                                      600
 atgegeeege gtattgegga gaeggegaaa accetgtgge ttatetatgt cetgetgaeg
 gtggcctgcg cgctggcgct gtggtttgcc gggatgcctg cgtttgatgc catcgggcac
                                                                      660
 agetttgcga ctattgctat cggcgggttc tccacccacg atgccagcgt cggctacttc
 gacageeega caateaatae cateattgee atetttttge tgateteagg etgtaactae
                                                                      780
                                                                      840
 ggtctacact tctcgttgct tagcggacgg agcctgaagg tgtactggcg cgacccggaa
 tteeggatgt ttattggegt eeagetgaet etggtgatea tetgtaeeet ggtaetgtgg
                                                                      900
                                                                      960
 ttccacgatg tctataactc ggcggtcacg accctgaacc aggccttctt ccaggtggta
 togatogcaa caacogcogo tttcaccaco gacagtatto cocottogco octottccto
 coggtgctgc tgttgtgctc tgcgtttatc ggcggctgtg ccgggtcaac gggcggcggt
                                                                     1080
ctgaaggtga tccgtattct gctgctgttc aagcagggga accgtgagct gaaacgtctg
                                                                     1140
gtccacccga atgcggttta cagtattaag ctggggaacc gcgcgctgcc ggaacgcatc
ctcgaagegg tgtggggatt etteteeget tatgeaetgg tetttattgt cagtatgetg
                                                                     1260
gegattateg ceaegggegt ggatgattte tetgeetteg cetetgtggt ggeaaegtta
                                                                     1320
aacaacctgg ggccggggct gggcgtcgtg gcggataact tcgccagtat gaacccggtg
                                                                     1380
gcgaagtgga tettaatege caatatgetg tttgggegte ttgaggtett taegetgetg
                                                                     1440
gtgctgttta ccccaacatt ctggcgtgag taa
                                                                      1473
<210> 4318
<211> 297
<212> DNA
<213> Enterobacter cloacae
<400> 4318
 ggtggtgaaa tgggtgagtt actgaattcg gggctgctga gcattgcatc cctggtaatg
 tetttggtgg tgttggtegt tgggetggta etgtggttet tegttaaceg egecagetee
                                                                      120
 cgcacaaacg agcagattga actgctggaa gcattgctcg atcagcagaa acggcagaat
                                                                      180
 gcgttgctgc gtcgtctgtg cgaagccaac gagccggagg agaaagcggt acctaaggac
                                                                      240
 gctqttqctc aacaacagga cgaggaagac ttcattcgcc tggtagccga acgatag
                                                                      297
 <210> 4319
 <211> 516
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4319
 acacattogo agcaacagag ogttaaacot atgaaataog atacotooga gotttgtgac
                                                                      60
 atctaccagg aagatgtcaa cgtcgttgaa cccctgttct ccaactttgg tggacggtcg
 teetttggeg gacaaateat caeggtgaaa tgtttegagg acaaegggtt getgtaegat
                                                                      180
 ctgctcgaag agaacggtcg tggccqcgtt ctgctggtgg atggtggcgg ttcaqtqcqc
                                                                      240
 ogtgcactga togatgogga octogocogo ottgoggtgo aaaacgagtg ggaagggatt
                                                                      300
 gtggtctacg gctccgtgcg ccaggtggac gatctggaag atctggatat cggtattcag
                                                                      360
 gccattgccg ccattccggt tggcgcagcg ggtgaaggca tcggcqaaag cgacgtgcgc
                                                                     420
 gttaacttcg gcggcgtgac cttcttctcg ggtgaccacc tttatgctga caataccggc
                                                                     480
 attateettt etgaggatge getggatatt gagtag
                                                                      516
 <210> 4320
```

<210> 432

```
<212> DNA
 <213> Enterobacter cloacae
 acaatgaata aaateetgtt agttgatgat gaccgagage teacatetet tttaaaggag
                                                                      120
 ttgctcgaca tggaaggttt caacgtcctg gttgcccatg atggcgagca ggcgctgagt
                                                                      180
 ctccttgacg acagcatcga tttacttttg ctcgacgtca tgatgccgaa gaaaaacggt
 attgatacqt tgaaagaget tegecagaca caccagacce cegtcattat getgacegea
 egeggeageg agettgaceg egtactegge ettgagetgg gtgeggatga etatttacet
                                                                      360
 aagcegttea acgaeegtga actggtggee egtattegeg egateetgeg eegetetcae
 tggagegage ageageagaa tacegacaac ageteaceta egetggaagt ggaeteeetg
                                                                      420
 agcctgaacc cgggccgaca ggaagcgagc ttcgacggtg aaacgctgga gctaaccggc
                                                                      480
                                                                      540
 accqagttca coctqctgta totgctggcg cagcatotcg gccaggtggt gtcgcgtgaa
 cacttaagec aggaagtget gggcaaacgc ctcaccccgt ttgaccgcgc catcgacatg
                                                                      600
                                                                      660
 catatotoga acctgogoog taagotgoog gagogtaaag acggtoatoo otggttoaaa
 accetgegtg gtegtggtta tetgatggtt teegetteat ga
                                                                      702
 <210> 4321
 <211> 1020
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4321
                                                                      60
 gagattttcg ccaaacgegg gggcgacgaa gaggtcagcc tgttcaggaa attcggtttt
                                                                      120
 ccagtgctga tagtgctcgc gcggatagtg gcacagcgcg cgatcgggcc cgccgtggat
                                                                      180
tttettttea geetgetggt eaccegeaag ceegagateg gteaacgtea geteacegte
                                                                      240
gacetgeact ttggegatgg cactegggeg getgeetteg tactesetta cettgeetgt
                                                                      300
 aaacacattc accgggtaat gcatctccac tccttcagat acaaaaaaag cgagtcatca
                                                                      360
qacteqette teacaggegt caatgeaace tratttttta geggegaaac gegetgetge
                                                                      420
ttegteecag tteaceaegt ceeagaagge tttgatgtag teagggegae ggttetggaa
                                                                      480
 cttcaqqtaq taaqcqtqtt cccacacqtc caqacccaqa attgggaage cggatgcgcc
                                                                      540
 agagataget teacceataa geggggaate etggttageg gtagaaaega eegceagttt
qtcacctttc agaaccagec acgcccagcc agagccgaaa cgggttgcag cggctttttc
                                                                      600
                                                                      660
quattocgot ttquaqttqt caacqqaacc qaaqtcacqc tcqataqccq ctttcaggtc
gccctqaaqg gtggtgccgg ttttcaggcc tttccagaac aggctgtggt tagcgtgacc
                                                                      720
 geocgegttg ttgegeagea eggttttett gtetgetgge agetggteca gtttggtgat
                                                                      780
 caqctettea acaqqcaqat taqcqaacte tqqcaqqett tecaqeqeaq cattegeqtt
                                                                      840
                                                                      900
 qttcacqtag gtctggtggt gtttagtgtg atggatttcc atcgtctgct tgtcgaaatg
 cggttccagt gcgtcgtagg catacggcag ggatggcagt gtataactca taatcctctc
                                                                      960
 cattattqtc qqqcqcaca qctqttaatq ccqcqtaagc agttqgttca ttatagttaa
 <210> 4322
 <211> 1149
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4322
 ttgccattca aaacaaaagt gcggcaacct tctgaaggtt cccaaaccgc ctcattttta
                                                                      60
 caetcatcaa gtcggcggga agcctccggc tataaaaaacg atgaggatgt aaaaatgaat
 catgogatta cgatgggtat cttctggcat ttgataggcg cggccagtgc agcctgtttc
                                                                      180
 tatgccccgt ttaaaaaggt gaaaggetgg teatgggaaa eeatgtggte egttggeggt
                                                                      240
 acceptgtcct ggctgatttt gccgtggaca atcagegeca tgctgctgcc cgatttetgg
                                                                      360
 ggetacttet ectectteaa egeeteeace etgetgeegg tatteetgtt eggegegatg
 tggggeateg gtaatateaa etaeggeete accatgeget accteggeat gtegatgggg
                                                                      420
 attggcatcg cgattggcat aacgttgatt gttggcaccc tgatgacgcc aatcctcaac
                                                                      480
 ggcaacttcg atgtgctgat caacacccag ggagggcgaa tgaccctgct gggcgtgctg
                                                                      540
 gtggeggtga teggegtggg categteace egegegggee agetgaaaga aegeaagatg
                                                                      600
                                                                      660
 ggcatcaaag ccgaagagtt caacctgaag aaagggetge tgetggeggt gatgtgegge
 atottotogg ogggoatgto gttogcoatg aatgoogcoa aaccgatgoa ogacgoogot
                                                                      720
 geggegetgg gegtegatee getgtaegtt geeetgeeaa getaegtggt gateatggge
                                                                      780
 qqcqqcqcc tqqtaaacct cqqcttctqc tttattcqtc tqqcaaaagt gaacaacctq
                                                                      840
```

```
900
teggtaaaag cegacttete getggcaaaa eegetgateg teaceaaegt eetgetetee
                                                                     960
gcccttggcg gcctgatgtg gtatctgcaa ttcttcttct acgcctgggg tcacgccagt
atteeggege agtatgacta catgagetgg atgetgeaca tgagetteta egtgetgtge
                                                                     1080
qqcqqqctqq ttqqqctqqt qctqaaagag tggaacaacg ccgggcgtcg tccggttggc
                                                                     1140
gtgetgagee tgggetgegt ggtgattate attgeggeea atategtegg eeteggeatg
                                                                     1149
gcgaactga
<210> 4323
<211> 591
<212> DNA
<213> Enterobacter cloacae
<400> 4323
cccatgcagg tcagcagaag gcagttcttt aagatctgcg ctggcggtat ggcaggcacc
acggcggcgg cactgggctt tgcgcccggt gtagcgctgg cggaaacacg gcagtataaa
ctgctgcgca cccgcgaaac ccgtaacacc tgtacgtact gctccgtcgg ctgtgggctg
                                                                     180
                                                                     240
ttaatgtata gcctcggcga cggtgcgaaa aacgccaaag catctatttt ccacatcgaa
ggcgatccgg atcacccggt aaaccgtggt gcactctgtc cgaaaggggc cggtctggta
                                                                     360
gattttatcc actocgaaag cogoctgaag tttoctgagt atcgogotoc oggototgac
aaatggcagc aaatcagctg ggaagaagcg ttcgatcgca tcgctaagct gatgaaagaa
                                                                     420
                                                                     480
gaccgcgatg ccaactttat cgcgaagaat gccgaaggca ccaccgttaa ccgttggctc
                                                                     540
tecaceqqca tgetgtgtgc tteagegtee agtaacqaaa ceggetattt aacceagaaa
                                                                     591
tttacgegeg cacteggtat getegeggte gacaaccagg egegtgtetg a
<210> 4324
<211> 2463
<212> DNA
<213> Enterobacter cloacae
<400> 4324
cacggaccaa cggtagcaag tettgeteca acatttggte geggtgegat gaccaaccae
                                                                      60
tggqtcgaca tcaaqaacgc caaccttatt gtggtgatgg gcggtaacgc cgctgaagcg
caccetgteg ggtteegetg ggegatggaa gecaaaatee acaaeggege gaagetgatt
                                                                     180
qtqatcqatc cccqctttac qcqtacaqcq tcaqtqqcqq atttctacac ccctattcqt
                                                                     240
traggtactg aratracttt cotgtraggr gtartgotgt acctgatgar caargaaaaa
                                                                     300
tataaccgcg agtacaccga agcctatacc aacgccagcc tgatcgtgcg tgaggattac
                                                                     360
cacttogaag atggcotgtt cagoggttac gaogeogaaa aacgcaagta ogacaaaacc
                                                                     420
agetggaact acgagetgga cgaaaacgge tttgegaage gegacaccae cetgcaacae
                                                                     480
cogogotgog tgtggaacct gctgaaagag cacgtttccc gctacacgcc ggaggttgtc
                                                                     540
gaaaacatet gtgggacgcc gaaaqcggat ttcctgaagg tgtgcgagtt gattgcggaa
                                                                     600
accagegega aagataaaac egegtegtte etgtatgege teggetggae geageactee
                                                                     660
ateggegege agaacateeg caecatggeg atggttcage tgctcctegg caacatgggg
                                                                     720
atggcaggcg gcggcgtgaa cgccctgcgc ggtcactcca acattcaggg tctgaccgac
                                                                     780
cteggeetge tgteteagag cetgaegggt tacatgaace tgeegagega gaaacagact
                                                                     840
                                                                     900
gacctgcaaa cctacctgac ggccagcacg ccaaaaccgc tgctcgaagg ccaggtgaac
tactggggca actatecgaa gttettegte tegetgatga aageetteta eggegacaag
                                                                     960
                                                                     1020
gcgacggcgg aaaacagctg gggctttgac tggctgccga agtgggacaa aggttacgac
gtacttcagt acttcgaaat gatgcaccag ggccaggtca acggctatat ctgccagggc
                                                                     1080
tttaaccogg tggcatcgtt cccgaacaag aacaaggttg tcgagtetct gtcgaagetg
                                                                     1140
aagttootgg tgacgattga cocgotcaat accgaaacgt cgacgttotg gcagaaccac
                                                                     1200
ggtgagtcga acgacgtcga tccgtcgaag attcagaccg aagtgttccg tctgccgtcc
                                                                     1260
acctgetteg eggaagagaa egggtetate gteaacteeg geegetggtt geagtggeae
tggaaaggeg cagaegeeee gggeategee etgaaegaeg gegagateet ggeeggeate
                                                                     1380
                                                                     1440
ttcttacgcc tgcgtaagat gtacgcctct gagggcggcg caacgcctga gccggtactg
aacatgacct ggaactactc gacgccggaa aacccagcgc cggaagaagt ggccatggag
                                                                     1500
agcaacggta aagcgctggc ggacgttatc gacccggcga ccggtgcggt gctggcgaag
                                                                     1560
                                                                     1620
aaaggcgatc agctcagcac cttcgcgcac ctgcgcgatg acggtacgac gtcaagcggc
                                                                     1680
tgctggatct ttgccgggag ctggacgccg aaaggcaacc agatggccaa ccgcgataac
                                                                     1740
geogaccegt egggeetegg taatacgetg ggetgggeat gggegtggee gettaaccge
cgcatcotot ataaccgtgc ctccgctgat ccgcagggca acccgtggga tccgaagcgt
                                                                     1800
cagottotga agtgggacgg cgcgaaatgg ggcggcgtgg atattocgga ctacagcact
                                                                     1860
```

```
1920
 geogeaccag geagegatgt egggeegttt ateatgeage etgaagggat gggeegtetg
 tttqctatcg ataagatggc ggaagggcca ttcccggaac actacgagcc gtttgagacg
                                                                      1980
                                                                      2040
 cogctgggta ctaaccogct gcacccgaac gtggtctcta acccggcagc ccgtatcttc
                                                                      2100
 aaqqqcqatt ttqaaqcqct qqqtaaaaaq qacaaqttcc cgtatqtcgg caccacttac
                                                                      2160
 egtetgaeeg ageaetteea etaetggaee aageaegege tgetgaatge eategegeag
                                                                      2220
 coggaacagt ttgtggagat cggcgagaag ctggcgaaca aactcggcat tgcccatggc
                                                                      2280
 gataccgtga aggtctcctc taaccgcggc tacatcaaag ccaaggcggt ggtgaccaag
                                                                      2340
 egtattegea egetgaaegt teaeggteag eaggtggata ceateggeat eeegatteae
 tggggttatg agggcgtggc gaagaaaggg ttcattgcga acaccctgac gccgttcgtc
                                                                      2400
 ggtgatgega acacgcagac gccggagttt aaggcettee tegtgaacgt ggaaaaggtg
                                                                      2463
 <210> 4325
 <211> 915
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4325
                                                                      60
 eggagacgae ttatggetta teaateteaa gaeattatee gtegtteege gaetaaeggt
 ttcacgcccg cgcctcaggc gcgggaccac cagcaggaag tggcgaagct tatcgacgtg
                                                                      180
accacctgta toggotgtaa agootgtoag gtggcotgot otgagtggaa cgacatcogt
                                                                      240
 qacqaaqtqq qtcacaacqt cqqqqtqtac qacaacccqq caqacctqac cqccaagtcc
                                                                      300
tqqacqqtaa tqcqtttctc qgaaqtggaq cagaacgaca agctggaatg gcttattcgc
                                                                      360
aaaqacqqct gtatgcactq tgcggatccg ggctgcctga aggcgtgtcc gtcagaaggg
                                                                      420
gctatcattc agtatgccaa cggcatcgtc gacttccagt ccgagcagtg cattggctgc
                                                                      480
qqctactqca tcqcqgqctq tccqttcqac qtqccqcqca tgaacccgga agacaaccgc
                                                                      540
gtotacaaat gtacgotgtg ogttgacogo gtgaatgtog gocaggagoo agogtgogtg
aagacctgtc caaccggcgc tatccacttt ggctctaaag aggatatgaa aacgctggcg
                                                                      600
                                                                      660
gcaqaqcqcq tqqqcqaqct gaaaactcgt ggttacqata acgcgggcct ctacgatccg
geogggttg geggtaegea egicaigtae giacigeace aegeogacaa geogaacetg
                                                                      720
                                                                      780
tatcacggcc tgccggagaa cccggaaatc agcgccaccg tgaagttctg gaaaggtatc
tqqaaaccqc tqqccqcggt cggttttgcg gccaccttcg cagcgagcat cttccactac
                                                                      840
gtcggcgttg gtccgaaccg cgcggaagag gaagacgaca acctgcatga agagaaagac
                                                                      900
                                                                      915
gaggtgcgca aatga
 <210> 4326
 <211> 879
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4326
                                                                      60
 ggaatgacga tgtacaccct gaaagatatc acccgacctt ccggcggttt tgcgatgctg
 gccgtggatc agcgcgaagc gatgcgcctg atgtttgcgg cggcaggcgc gccggtaccg
 gtaaccgacc agcacctgac ggattttaaa gtcaacgcgg caaaaattct gtcgccgtac
                                                                      180
 gcctctgcga tccttgtcga ccagcagttc tgctatcgcc agattgtcgg gcagcaggcc
                                                                      240
 gtggcaaaaa gctgcgcgat gattgttgca gccgacgagt ttattccggg gaacggtatt
 ceggtegaca gegtggegat egacaagaac gtegacgege aggeggteaa aegegatgge
                                                                      360
 ggcaaagcac tgaagctgct ggtgctgtgg cgcagcgatg aagatccgca gcagcgcctg
                                                                      420
 gagatggtga aagogttcaa tacgotgtgo cacgataacg gtotgotgag cattatcgag
                                                                      480
 coggtggtgc gtccaccgcg tcgcggtgcc gcgtttaacc gcgaacaggc gattatcgac
                                                                      540
 geggeeaaag agetgggega cageggtgee gacetetaca aagtggagat gecaetgttt
                                                                      600
 ggcaagggca cgcagcaaga gctgctggcg gcctcgcaaa agcttaacga gaacatcgcc
                                                                      660
                                                                      720
 atgeegtggg tgateetete gteeggegtt gaegataagt tatteeegeg egeggtgage
 gtggcgatgc aggcggggc atcgggcttt ttagccggtc gcgccgtctg gtcctctgtg
                                                                      780
                                                                      840
 attggcctgc cggacaccga gctgatgctg cgtgatattt ccgtaccaaa acttcagcgt
 ctgggtgaga tcgtcgacga aatgatggct cgccgttaa
                                                                      879
 <210> 4327
 <211> 2037
 <212> DNA
 <213> Enterobacter cloacae
```

<400> 4327

```
gacggagttt ttatgcgtac cctacacaat attgacctga aaaataacga aagtggcttc
accetgeget ggcaggaccg tetgatttta teccacaccg eggatgeece ttgeetgtgg
                                                                      180
attqqcqcaq qtqaqqcqqa tatcqaqatg tttcqcqqca acttcaqcat caaagacaag
                                                                      240
ctcaacgaaa agattgccct gacgaacgcg accgttacgc agcaaagcgc gggctgggca
                                                                      300
atccgcttta cccgcggcga tgcggtaagc gccacgctgc tggtgggcgt ggatgcggaa
ggccgtctag agctgaaact gaaaaatgat gctcccggcc ataaccgcat ctggctgcgg
                                                                      360
                                                                      420
ctqqcqqcqc agccaqaaga tcatatttac ggctgcggcg agcagttctc gtacttcgat
                                                                      480
ctgcgcggca agccgttccc gctgtggacc agcgagcagg gcgtgggccg caacaagcag
acctatgtea cetggeagge egactgeaaa gagaaegeag geggtgaeta etaetggaee
                                                                      540
ttetteeege ageceacett egtgageace cagaagtaet aetgeeaegt ggataacage
                                                                      600
                                                                      660
tgctacatga actttgactt cagcgcccct gacttccacg agctggcgtt ctgggaagat
aacgccacgc tgcgcttcga atgtgcggaa acgtacgtcg atctgctgga aaaactgacc
                                                                      780
ggeotgetgg gaegecagec ggagetgeeg gaetgggtgt acgaeggegt gaegetggge
atccagggcg gcaccgaggt gtgccagcag aagctcgaca ccatgcgtaa cggcggcgta
                                                                      840
aaggtgaacg gcatctgggc gcaggactgg tccggcatcc gcatgacctc cttcggcaaa
                                                                      900
cgcgtaatgt ggaactggaa gtggaacagc gcgctctatc cgcagcttga tacgcggatt
                                                                      960
gegeagtgga aagaagaagg egtgeagtte eteteetata teaaccegta egtegeeage
gataaagato totgogaaga ggoogogaaa cgoggotato tgaccaaaaa cgoogacggo
                                                                      1080
                                                                      1140
aaggactacc acgtcgagtt cggcgagttc tacgcgggcg ttatcgacct gaccaacccg
gcagcctacg actggtacaa agaggtcatt aaaaagaacc tgatcgaact gggctgcggc
                                                                      1260
qqctqqatqq ccqatttcqq qqaqtacctq ccqaccqata ccttcctqca caacqqcqtq
agegeggaga teatgeataa egeetggeet geeetgtggg egaaatgtaa etaegaageg
                                                                      1380
ctggaggaga ccggcaaget cggggagate ctgttettea tgcgcgcagg ctacaccggt
                                                                      1440
agccaqaagc actoggtgat gatgtgggcg ggggatcaga acgtcgactg gagcctggac
                                                                      1500
gacggtctgg cttccgtcgt accggcggcg ctgtcgctgg cgatgaccgg gcacggcctg
caccacageg acattggegg ctatacgacg ctcttegaga tgaagegcag caaagagetg
                                                                      1560
                                                                      1620
ctgctgcgct ggtgcgactt cagcgccttt acgccgatga tgcgtaccca cgagggcaac
                                                                      1680
coccetagea ataactagea attequega qacqeqqaaa ceategeeca etteqeqege
                                                                      1740
atgaccaccq tottcaccac cotgaagecq tataccaaag otgotgttgc goagaacgcg
aaaageggee tgeeggtgat gegteegett tteetgeaet acgaggaega egegegeee
                                                                      1800
                                                                      1860
tacacqctqa aataccaqta tctqtttqqc cqcqatctqc tggtggcgcc ggttcatgaa
aaqqqacqcc qcqactqqtc gctctatctg ccgcaggaca cctgggtcaa tgcgtggacc
                                                                      1980
ggagaaacct gccagggcgg tgacatcacc gttgatgccc cgctcggcaa accgccggtc
ttotatogec agcaaagoga atgggeogat etgtttagea eettaegtea tatetga
<210> 4328
<211> 1425
<212> DNA
<213> Enterobacter cloacae
<400> 4328
ggetegeeeg egggaaaace tgegggeaga eggagaacaa taatgagtea acataettet
                                                                      60
gateeggeaa eeetgegeet geegtttaaa gaaaaaeteg eetaegggat gggegatete
ggetetaaca teetgettga tateggeacg etgtatetge tgaagtteta cacegaegtg
                                                                      180
                                                                      240
etggggetge egggcaceta eggegggatt atetteetga ttgcgaagtt ttttacegee
tteacegata tgggcacegg gatcatgete gattecegge geaagategg eeegaaaggg
aaatteegee egttegtget gtatgeagee tteeeggtaa egttgetgge gattgeeaac
                                                                      360
ttegteggea cacegtttga aatcaceggt aaaaeggtga tggegaeggt getgtteatg
                                                                      420
etgtaeggee tgttetteag eatgatgaac tgetettaeg gegegatggt geeegeeate
                                                                      480
accaaaaacc eggacgageg egectegetg geggeetgge gteagggegg egecaegete
                                                                      600
gqcctgctgc tctgtacggt gggctttgtc ccggtgatga acctgattga gggtaacgac
cagettgget acatetttge egecaccete ttetegetgt tegggetgtt etttatgtgg
                                                                      660
                                                                      720
tggtgctata agggcgttac cgagcgttac gtcgagacgc agcctgctaa cccggcgcag
                                                                      780
aaaccgggge tgttgcagte gtttegegee ategeeggga accgteeget gtttateetg
tgcatcgcta acctgtgcac gctgggcgcc tttaacgtca aactcgccat tcaggtctac
                                                                      900
tacacqcaqt acqtqctqaa cgacccqatc ctgctgtcgt atatgggctt cttcagcatg
ggetgtattt ttateggegt etttatgatg eeeggegegg tgeggegett eggeaagaaa
                                                                      960
aaggtetaca teageggget gatgatttgg gtggegggeg atetgettaa etaettette
ggeggegget eggtgagett tgtggegtte teetgeetgg egttettegg tteegegtte
                                                                      1080
```

```
gtgaacagcc tgaactgggc gctggtgtcc gataccgtgg aatacggcga gtggcgcacc
                                                                     1140
ggcqtqcqct ccgagggaac ggtctacacc ggctttacct tcttcaggaa ggtctcgcag
                                                                     1200
gogotggogg gottottocc ggggatcatg ctcacccaga tcggctatgt gccgaacgtg
                                                                     1260
                                                                     1320
qtqcaqtccq ccqqqacqqt tgaaqqqctg cggcagctga tatttatcta cccgagcctg
                                                                     1380
ctqqcqqtca tcaccatcgt ggcgatgggc tgcttctaca acctcaacga gaagatgtat
                                                                     1425
qtqcgcataq tggaagagat cgaactgcgc aaacgtacgg cataa
<210> 4329
<211> 783
<212> DNA
<213> Enterobacter cloacae
<400> 4329
agogtoagoa gtoactttat aacaataaat coggocacta tgtoottoot gtttatoagg
agggaggeet ttetgtacet gatacatgga caaattatga aaagaateat caeegtaetg
atogtgtegt etgtgteetg eceggtattt geeggggeet aegtegaaac gegegaagee
                                                                      180
tacaacaccg cetcagaget geacgaagtg atcetgegtg egggetataa ettegatatg
                                                                     240
                                                                      300
ggcgcggggc tgatgttcac caacgcttat aacgtgggga aatgggacga actgaaacac
                                                                      360
agetataacg aaategaggg gtggtateeg etetteaaac egacegacaa aetgacette
cagocoggog gottaattaa tgacagoago goaggatoag gtggogoggt ttatttagat
                                                                      420
accaattaca aatttacgga ctggtttaat ctgacgttcc gctatcgcta taaccataac
                                                                      480
aattacgata cgccggacta taacgggcag atggataaga acgacacgca tgaattcgcc
                                                                      540
aactactgga atttcaaagt gacggatgeg tttttctaca cctttgagec gcactttttc
                                                                      600
caqeqqqtqa atgattacca cagcaaaaat ggcaaagatc atcactggga aattactaac
                                                                      660
                                                                      720
aagttcagct ataaaatcga cagaaactgg ctgccgtatc ttgagctaca gtggctggac
                                                                      780
eqatqqaatq attacaaccq ggagcagtac cggatccgtt tagggttacg gtattcgttc
                                                                      783
taa
<210> 4330
<211> 1455
<212> DNA
<213> Enterobacter cloacae
<400> 4330
agacctcqtt accacgacga caatgaccaa tctggagagt taagtatgtc cgctgaacac
                                                                      60
gttttgacga tgctgaacga acatgaagtg aagtttgttg atctgcgctt caccgatact
aaaqqtaaaq aacaqcacqt cacqatccct gctcatcagg tgaacgccga attctttgaa
                                                                      180
                                                                      240
qaaqqcaaaa tgtttgacgg ctcctccatt ggcggctgga aaggcattaa cgaatccgac
atggttctga tgccagatgc aaccactgcg ctcattgacc cgttctacga agaacctacg
                                                                      300
ctgateatec getgegatat tetggaacet ggeacgetge aaggetatga cegtgaceca
                                                                      360
                                                                      420
egetecateg caaaaegege tgaagagtae etgegeteta eeggeatege agacaeegtt
                                                                      480
ctgttcgggc cagagccaga gttcttcctg ttcgacgaca tccgttttgg tgcttccatt
                                                                      540
totagetece acquegetat egatgacate gaaggegeat ggaactette caccaagtac
gaaggtggta acaaaggtca cogtcoagge gtgaaaggeg gttactteee ggtteeteeg
                                                                      600
gtcgattott cacaggacat cogttotacc atgtgtotga tcatggaaga gatgggootg
                                                                      660
gttgttgaag cgcaccacca cgaagtggca acggctggcc agaacgagat cgctacccgc
                                                                      720
                                                                      780
ttcaacacca tgaccaaaaa agoggatgag attcagatot acaaatacgt tgtacacaac
gttgcgcacc gtttcggtaa aaccgcgacc ttcatgccaa aaccaatgtt tggcgacaac
                                                                      840
ggttccggca tgcactgcca catgtccctg tccaagaacg gcaccaacct gttctctggt
                                                                      900
gacaagtatg egggtetgte tgageaggeg etgeactaea teggeggtgt tateaaacae
                                                                      960
gctaaagcga tcaacgccct ggcgaacccg accacgaact cctacaagcg tctggttcca
ggctacgaag cacccgtgat getggegtac tetgeccgta accgttetge ttetateegt
                                                                      1080
                                                                      1140
atcccqqtqq ttqcqtctcc gaaagcgcgt cgtatcgaag tgcgcttccc ggacccggcg
getaacceat acetgtgett egeageactg etgatggeeg gtetggaegg tateaagaac
                                                                      1260
aagatccacc cgggcgaagc catggacaaa aacctgtacg acctgccgcc agaagaagcg
aaaqaqatcc cacaqgttgc cggctctctg gaagaagccc tgcaagcgct ggacgcagac
egegagttee tgacegetgg eggegtgtte acegatgaag etategaege ttacategeg
                                                                     1380
                                                                      1440
ctqcqtactq aaqaaacqa ccgcgttcgc atgacgccgc acccggttga gttcgaactg
                                                                      1455
tactacagcg tttaa
```

```
<211> 927
<212> DNA
<213> Enterobacter cloacae
<400> 4331
ataactatga ctgatatcag ccgtacacag gcgtggctcg aaagtctgcg ccctaaaacg
etteetetgg cttttgeege cattattgte ggtaceaege ttgeetggtg geagggteat
                                                                     180
ttcqatccqc tggtagcagg cetggcgctt gtcaccgccg ggctgctgca aatcctctct
                                                                     240
aatotogoca atgattaogg ogatgoggta aagggoagog acaagcotga cogtatoggg
                                                                     300
ccgctgcgcg ggatgcaaaa aggggtgatt acccaggcac agatgaaacg ggcgctgatt
atcaccgtgg tattgatttg cctgtccggg ctggcgctgg tgacggtcgc gtcgaaaacc
                                                                     360
                                                                     420
accagtgatt toattggett cetggtgetg ggettgettg ceattattge agccattace
                                                                     480
tataccqtcq qqacqcqtcc ttacqqgtat attqgtctqq qcqacatctc cqtqctqgtq
ttettegget ggetgagegt gatgggaage tggtacttge aggegeatac ggtgatacet
                                                                     600
gccctgttcc tgccggcgac cgcctgcggt ctgctggcga cggcggtgct gaatatcaat
aacctgcgcg acategacag cgaccgcgag aacggtaaaa acacgctggc cgtgcgtctg
                                                                     660
gqtcctgtga atgcacgccg ctatcacgcc ttcctgctca tcggcgcgct ggtctgcctg
geactgttea atetgatete tetgeaegge etgtgggget ggetgtttgt getegeegea
                                                                     780
cogetgetga ttaagcagge cogetatgte atgegtgaae teagceegge egetatgeea
                                                                     840
cogatgotgg aacgtacggt aaaaggogog ttactgacta acctgctgtt cgtcatcggg
                                                                     900
                                                                     927
attgtcttaa gccagacgct gagttag
<210> 4332
<211> 873
<212> DNA
<213> Enterobacter cloacae
<400> 4332
acattactct tttgcaggat tccgattatg agtcagacat caaccttaaa aggccagtgc
                                                                     60
attgccgagt tcctgggtac cgggttgttg atattettcg gagtaggctg tgtcgctgca
                                                                     180
ctgaaagtgg cgggtgccag ttttggtcag tgggaaatca gtattatctg gggtctgggc
qtqqcqatqq ccatctacct qaccgcaggg gtttccggcg cacatcttaa cccggcggtg
                                                                      240
accategegt tgtggetatt egegtgettt gaeggaegea aagttgttee ttteateatt
                                                                     300
                                                                     360
togcaatttg coggegeett ttgcgeageg gegttagttt acgggettta ttacaatett
ttcatcqact tcgaacagac gcatcatatg gtgcgtggca gtgtcgaaag tctggatctg
                                                                     420
gcaggcattt tetcaacgta tecgaateeg catateaatt ttgtgcagge gttegcagtt
                                                                     480
qaaatqqtqa ttaccqctat tctgatgggc gtcattatgg cgctgggcga cgacggaaac
                                                                     540
                                                                     600
qqcattccgc gcggcccgct ggcaccactt ctgattggcc ttctgattgc ggtgattggc
gcatccatgg gtccgctgac cggttttgcg atgaatccgg cgcgtgacct gggtccaaaa
                                                                     660
accttegect tetttgeggg atggggggat gtegeettea egggeggeaa agacatteet
                                                                     720
                                                                     780
tacttcctgg ttccgctgtt cgggccaatt gtagggggg cgctgggggc attcggctat
egcaaattaa ttggtegeea ettacegtge gacacetgtg tggaagagga aaaagagaca
                                                                     840
                                                                     873
acttccacca cacaacaaaa agettcgctg taa
<210> 4333
<211> 1530
<212> DNA
<213> Enterobacter cloacae
<400> 4333
totgactacg ggacacatac catgaccgaa aaaaaatata togttgogct cgaccagggc
                                                                      60
actaccaget ceegegetgt egtaatggat catgaegega acattgteag egtgteteaa
                                                                      120
egegaatttg ageaaattta teegegteea ggetgggttg aacaegaeee gatggagate
                                                                      180
tgggcgtcac aaagctccac gctggtggaa gtgctggcga aagccgacat cagttctgac
                                                                      240
                                                                      300
cagattgccg ctatcggtat caccaaccag cgtgaaacga ctgtggtctg ggagcgcgaa
accegtaage ceatetaeaa egecategte tggeagtgee geegtaegte agagatetge
                                                                      360
gaacagetga agegegaegg gatggaagag taegtgegea gegeeaeegg eetggtggtt
                                                                      420
                                                                      480
gacccctatt totooggcac caaagtgaag tggatcotog accaegtgga aggttcaege
gagegegeac gtegtggega getgetette ggtaeegteg atacetgget tatetggaag
                                                                      540
atgactcagg gacgcgttca cgtcaccgac tacaccaacg cctcgcgcac catgctgttc
                                                                      600
aacatcaaca ctetggagtg ggatgacaag atgetggaeg egetggaeat teegegageg
```

```
atqctqccaq acqtgcgtaa atcttcagaa gtgtacggcc agaccaacat tggcggtaaa
                                                                     780
qqcqqcacqc qtattcctat cgccggtatc gccggtgacc agcaggcagc cctgttcggc
cagetgtgeg taaaagaagg gatggegaag aacacetaeg geaeeggetg etttatgetg
                                                                     840
atgaacacgg gcgagaaagc ggtgaaatca gaaaacggtc tgctgaccac catcgcctgc
                                                                     900
qqcccqcqcq qcqaaqtgaa ctatgctctg gaaggcgcgg tattcatggc gggtgcctcc
                                                                     960
attcagtggc tgcgcgacga gatgaagctg attagcgacg cgtttgactc cgaatacttc
gegaceaaag tgaaagacac caacggcgtg tacgtggtgc cagcgttcac cggtctgggc
                                                                     1080
qcaccqtact qqqatccqta cqcccqcqqc gcgattttcg gcctgacgcg cggcgtgaac
tcaaaccaca tcattcgcgc gacgctggaa tccatcgcct accagacgcg cgacgtgctg
                                                                     1260
gaagegatge aggetgacte tggeattegt etgeaegeee tgegegtgga eggeggtgea
gtagccaaca actttctgat gcagttccag tocgacattc tgggcactcg cgttgaacgt
                                                                     1380
cctqaqqtqc qaqaaqtqac qqcqctqggc gcgqcgtatc tggcaggtct ggcggttggc
                                                                     1440
ttctggcaaa acctcgacga gcttcaggaa aaagcggtta tcgaacgcga attccgtcct
ggcatcgaaa ccaccgagcg caactaccgc tacagcggct ggaagaaagc ggtgaaacgt
gccctggcgt gggaagagca cgacgagtaa
<210> 4334
<211> 1026
<212> DNA
<213> Enterobacter cloacae
<400> 4334
ttqtacqaqt acctcatgaa acgtgaactt getatcgagt tttcccgcgt caccgaagct
geogeocteg caggetacaa gtggetggge egtggegaca aaaatacege agacggegea
googtocacg coatgogcat tgtgcttaat caggttaaca tcgacggcac tatcgtcatc
                                                                     180
                                                                     240
qqtqaaqqcq agatcqacqa agcgccgatg ctctacatcg gtgaaaaggt cgggaccggc
aaaggcgatg cggtggatat cgcggtcgac ccgatcgaag gcacgcgcat gacggcgatg
                                                                     300
                                                                     360
ggecaggeca acgegetgge ggtactggeg gtgggegata agggetgett ceteaacgeg
cccgatatqt acatqqaaaa gctgatcgtc ggtcctggcg ctaaaggcgc tatcgacctt
                                                                     420
agtotgoogo tggaogocaa cotgogoaat atogotgogg ogotgggtaa agogotoago
                                                                     480
gaactcaccg tgaccattot ggcaaaaccg cgccacgacg ccaccatcgc gtacctgcaa
                                                                     540
acgettggcg tgcgcgtatt tgctattccg gatggcgacg ttgccgcctc tattctgacc
                                                                     600
tqcatqcctq acaqcqaaqt cqacqtgctt tacggcatcg gcggcgccc ggagggtgtg
                                                                     660
                                                                     720
qtctctqcqq caqtqatccq cgcgctggac ggcgatatgc aggcgcgtct gctgccacgc
catgaggtca aaggogacag cgacgagaac cttcgcattg gtgcagacga actggcgcgc
                                                                     780
                                                                     840
tgcgcggcga tgggcatcga ggccaataaa gtgctcgcgc taaacgagat ggcccgcagc
                                                                     900
qataacqtqq tottotocgc aaccggcatc accaaaggcg atotgctgga cggcatcacc
cgcaagggca acatggccac cactgaaacc ctgctgatcc gcggtaaatc ccgcactatt
                                                                     960
                                                                     1020
cgccgcatta agtccattca ttatctcgat cgtaaagatc cggacgtaca gacgcacatt
ctgtaa
<210> 4335
<211> 774
<212> DNA
<213> Enterobacter cloacae
<400> 4335
aagagagaaa cagcacagga gaagatcatg goggactggg taacaggtaa agtcacaaag
                                                                     60
gtacagttet ggaccgatge getatttage etcaegetge acgeteeegt teatcegttt
                                                                     120
                                                                     180
actgccgggc agtttgccaa actcgggctg gatatcgacg gtgaacgcgt acagcgcgcc
tactottacg ttaatgcgcc tgataacccg gaccttgagt tctatctggt caccgtcccg
                                                                     240
gacggtaage teagecegeg cetegeegeg etgaageeag gegatgaagt geagattgte
                                                                     300
                                                                     360
tecgacgegg eggggttett egtgetggat gaaateeeeg aetgtgacae getetggatg
                                                                     420
etggegaceg geaeggeeat eggeeegtat ettteeatte tgeaataegg caaagatetg
                                                                     480
qaqcqcttta aaaatatcgt gctggttcac gccgcgcgct acgccgcaga cctgagctat
ttgccgcaga tgcaggcgct ggaacagcga tatggcggaa agttaaaaat tcagacggtg
                                                                     540
qtcaqccqcq aaaccqcaqc tqqctcqtta accqgtcqcq ttccggcgtt gattgaaagc
                                                                     600
                                                                     660
qqeqeqetqq aaqaqqeqqt qggtttaccq atgaataccq aaaccagcca tgtgatgetg
tgcggtaacc cgcagatggt acgcgatacg cagcagttgc tgaaggatac ccggcagatg
                                                                     720
```

acgaagcacc ttcgccgtcg gccgggccac atgaccgccg aacactactg gtga

```
<210> 4336
<211> 1272
<212> DNA
<213> Enterobacter cloacae
<400> 4336
ggagetttge geatgaceae teaacttgaa caageetggg atetggetaa acagegttte
                                                                     60
gccgccgtcg gcgtggatgt cgaagaggeg ctgcgccagc tcgatcgtct gcccgtctcc
atgcactget ggcagggtga tgatgtegee ggtttegaga accegggegg tteeetgaeg
                                                                     180
gggggtattc aggccacggg taactatect ggcaaagege gcaaegecae egaaetgegt
                                                                     240
goggatotgg agotggogot gagootgato cocgggocaa agogootgaa cotgeacgoo
                                                                     300
atttateteg aateegatga geoggtegeg egtaaegaaa teaaaeegga acaetttaeg
                                                                     360
                                                                     420
aactgggtgg cgtgggcgaa agccaaccgg ctgggtctgg attttaaccc gtcctgcttc
tequaceege tgagegegga egggtttace ettgegeatg ccaacgatga aateegeeag
                                                                     480
                                                                     540
ttctggateg accatgtcaa agecageege egegtetegg ettattttgg egageagett
ggcacgccat cggtaatgaa tatctggatc ccggacggca tgaaggacat caccgtagac
                                                                     660
egactggeec egegteageg eetgetggee gegetggatg aagceateag egagaagetg
gacceggege accacatega egeegtegag agcaagetgt teggeattgg egeagagage
                                                                     780
tacaccgtgg getcaaacga gttctacatg ggttatgcca ccagccgcca gaccgcgctg
tgeetggatg eeggeeactt ceacceaacg gaagteatet eegacaagat etcegeegee
                                                                     840
atgetetacg tgeogegeet getgetgeac gteageegee eggtgegetg ggacagegae
                                                                      900
cacgtggtgc tgctggatga cgaaacecag gccattgcca gcgaaatcat ccgccacaac
                                                                     960
                                                                     1020
ctctttgacc gogtacatat cggcctcgac ttcttcgacg cctccatcaa ccgcatcgcg
gegtgggtta teggeaceeg taacatgaag aaageeetge tgegegeget getggageet
                                                                      1080
                                                                      1140
gtcgccgccc tgaaacagct ggaagaaaac ggcgactaca ccgcgcgcct ggcgctgctg
gaagagcaga aatecetgee gtggeaggeg gtgtgggaga tgtactgeea gegteaegat
                                                                      1260
quacetgogg grageragtg getggataac gtgcgggcgt atgagaaaga ggttettgcc
                                                                      1272
gctcgtcagt aa
<210> 4337
<211> 927
<212> DNA
<213> Enterobacter cloacae
<400> 4337
                                                                      60
aaaacatcgc coggoggogc gttgcttgcc gggcctacag ataagaccag gccgggtaag
cgtaacgcca cccggcattt tcaaaggaac tacagtatgc agaccatcac cacctcctgg
                                                                      180
ttegtecagg geatgateaa ageeacetee gacgeetgge tgaagggetg ggatgagege
                                                                      240
aacggcggca acctgacgct acgcctggac gacgcggata tcgagccatt tgcctccgat
ttocaccaga agoogogota tatogocotg agooagooga tgoogotgot ogocaacacg
                                                                      300
cogtttateg teaceggtte egggaagttt tteegeaacg taeagetgga eeeggaagee
                                                                      360
aaccteggeg tggtgaaggt ggacagegae ggegegggtt accaeattet etggggaetg
                                                                      420
                                                                     480
acggacgacg cggtacccac atccgaactg ccggcgcact tectetecca ctgcgagcgc
attaaggega ccaatggeaa ggacegegta ateatgeact gecaegeeae caacetgate
gccctgacct acgtgctgga aaataattct gatttcttca cccgcaaact gtgggaaggc
                                                                      600
agcaccgagt gtctggtggt gttcccggac ggcgtcggca ttctgccgtg gatggtgccg
                                                                      660
                                                                      720
ggtaccgacg aaatcggcca ggcgaccgcg acggacatgc agaagcactc actggtgctg
tggccgttcc acggcgtctt cggcagcggc ccgacactgg atgaaacctt cggcctgatc
                                                                      780
gacaccgccg agaaatccgc ggaggtgctg gtgaaggtct attccatggg cggcatgaag
                                                                      840
                                                                      900
cagaccatca cocqqqaaga gotgattgoo otgggcaaac gotttggogt caccecgatg
                                                                      927
cagtoggogt tagatotgta ccaataa
<210> 4338
<211> 1272
<212> DNA
<213> Enterobacter cloacae
<400> 4338
                                                                      60
attgcaggtg gtggcagcct gcgtgattgg cgggatcagc accatgggcg gcaccggccg
eqtgetegge tgtctgtteg gggegetgtt ccttggegte atcaacaacg ccctgeeggt
gateggegte teccegttet ggeagatgge gattteegge teggteattg teategetgt
                                                                      180
```

```
240
 qctqctgaac gagcqcggca acaagcgcaa aggcaggctg atcctgcgcg acgcggcgct
 qqcacqtcag aaactgqcgg tgaaaccatg agtaaaatga tgacatctga agagttcaaa
                                                                     300
                                                                     360
 occaettotg ogcogggeat ettecagegt etgetgtget gggagggett eetgetggeg
 420
                                                                     480
 aaceteteeg aegegaegtt caactteaeg gaaaaagega teattgtgtt geegatggeg
                                                                     540
 atgetgatta tegeceggga aattgacetg teggtggeet ceaceatege geteageteg
                                                                     600
 acggtgatgg gcttttgcgc ggcggcgggc gtcgatacgc cactgctggt gtgcgtggga
                                                                     660
 ttaggogtog ggotactgtg ogggttgttc aacggcattc tggtgacgcg ctttaacctg
                                                                     720
 togtocatog toatcaccat eggoaccatg agostatacs gegggatoas stacatostg
                                                                     780
 ctcqqqqacc aqqcqctqaa caqctacccq qaqaqctttq cctqgttcgg ccagggctac
 gtctggggcg cgttgtcgtt tgagttcgcg ctgtttatcg tcctggccgc tctgtttgcc
                                                                     840
                                                                     900
 tttgtgctgc accgtaccaa ctttggccgc cgcacctacg ccatcggcaa caacccgacc
 ggcgcgtggt actccggcat caacgtgaag cgccacaacc tgatcctctt cgcgctggtg
                                                                     960
 gggctgatgt coggcctggc gtcggtgctg ctcacctcgc gtctgggcag cacccgtccg
                                                                     1080
 accatcgcga tgggctggga gctggcggtg gtgacgatgg cggtgctcgg cggcgtcaat
                                                                     1140
 attotoggtg ggtccggcag catggtgggc gtgattatcg ccgccttcct gatggggctg
                                                                     1200
 gtgaccttcg gcctgagcct gctcaacgtg cccggcattg tgatgtcggt gattatcggc
                                                                     1260
 gcgatgctga tcgtggtgat ttcgctgccg attattaccc gccggattat gcagcgaaga
 cggatctcat ag
 <210> 4339
 <211> 342
 <212> DNA
 <213> Enterobacter cloacae
<400> 4339
ggtccgcgag ctgtacctgg aggetttatg atccgcaaag cgtttgtgat gcaggtaaac
                                                                     60
 coqqacqeqe acgaggagta cgcgcgtcgc cacaacccga tetggcctga gctggaggcg
 gtactgaaag cccacggege gcaccactac gccatttacc tcgacaaage ccgcaacctg
                                                                     180
                                                                     240
ctgtttgcga cggtggagat tgaatcggag gagcgctgga atgcggtggc aaacaccgat
 gtotgocago gotggtggaa acatatggot gaogttatgo ogtotaacco tgacaacago
                                                                     300
                                                                     342
 coggtgagtg cggcgctgaa cgaggtgttt tacctggact ga
<210> 4340
 <211> 930
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4340
 atgagtattc gcataatccc gcaagatgag ctggggtcga gcgagaaacg tacggcggag
 tatatteege egttgttatt eeceagaete aagaacetet acaacegeeg egeagagegt
                                                                     120
                                                                     180
 ctgcgcgagc tggcagagaa caaccegctg ggcgattttc tgcgttttgc cgcgctggtc
 gcccatgcgc aggaagtggt gctgtacgac catccgctgc aaatggacct gaccgcacgc
                                                                     240
 atcaaagaag ccaacgaaca gggcaagcog ccgctggaca ttcacgtcct gccgcgcgac
                                                                     300
                                                                     360
 aagcactggc ataagctgct gcattcgctg attgccgagc tgaagcccga gatgagcggc
 acggcgctgg cggtcattga gaacctggaa aaagcctcag agcaagagct ggaagagatg
                                                                     420
                                                                     480
 gegagegege tgtttgette egactteteg etggtgagea gegataaage geegtteate
 tgggctgcgc tgtcgctcta ctgggcgcaa atggcgagcc tgatcccagg caaagcccgc
                                                                     540
 qcegaataeg gegaagegeg eeagttetgt eeggtgtgtg gtteaatgee ggteteeage
                                                                     600
 atggtacaga ttggtacgac acaggggctg cgctacctgc actgcaacct gtgtgaaacc
                                                                     660
                                                                     720
 qaqtqqcacq tgqtqcgcgt gaagtgcagc aactgcgagc agacccgcga tctgaactac
 tggtcgctgg aaaacgaaga cgcagcggtg aaagccgaaa gctgcggcga ctgcgggact
                                                                     780
 tacctgaaga ttctgtatca ggaaaaagac ccgaaagtcg aagcggtggc cgacgatctc
                                                                     840
 gootogotga ttotggacgo caaaatggag caggagggot ttgcccgcag ctctatcaac
                                                                     900
                                                                     930
 ccqttcctqt tcccqggtga aggggagtaa
 <210> 4341
```

<sup>&</sup>lt;211> 954 <212> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 4341
agctgtacat tcatacagtt aaaaggtgtt ttcatggcac tggaaaaggg tattgaacgg
ctggttcaag gatttatcgc tgcaggtcgc ccctcatcgc gtcgccagac aattgaggta
cgacqagcag gctatattgc cagcacggag cttgccggga agaccgaaac gcgcgttcag
                                                                      180
ctggagacgc ttgttcttga gggtcttacc attcgggtat tttcacctct caatgcgcct
                                                                      240
gaaatattgc ctgctgccat ctactaccac ggcggatgtt ttatcagcgg cggctttgat
accoatgaca accageteeg teagttagee tactaeggea attgeegggt gattgegatt
                                                                      360
                                                                      420
cagtacagae tggegeegga gcatacette eeegeegeae atgacgatge tgaaagaggt
gogaatotgg totggoagta tgoagaogaa ttaggogtgg ataagaacog actoaccoto
                                                                      480
tgtggagaca gcgcaggagg gcatttggcg ctggtaacgt cattgcggct taaggcaaaa
                                                                      540
                                                                      600
gggctctggg atcccgcgca gctcattctt atctatccca tgctcgacgc tacggccagt
                                                                      660
cttgaaaget ataccetcaa tggcatggat tacgtgatta etegegatae cettttgage
ggotatgaaa tgtatotggo tggagoogao ogtoagoato otgaagtoag tocaotgtgg
                                                                      720
                                                                      780
egeaacgaet ttageggtet geegaaggte catattgtta eegetgagta tgateegtta
eqtqacqaag gegaggeget ttateagege eteaeggege aaggegtgaa gtgtaceget
                                                                      840
                                                                      900
caacaatggc ggggtgtaat tcacggcttc ttccagttgg gtggaattag ccagtcagcg
cgagacatta tgcgagatat tgcctggcgc attaaccatg ccgggcgaga gtga
                                                                      954
<210> 4342
<211> 903
<212> DNA
<213> Enterobacter cloacae
<400> 4342
caggagagag gcatgtcage aategcattt ateggettag gacagatggg egegeecatg
gegaagaate tgttgaaaca gggecaccag ettaaegtet ttgaegtaaa eeegcaggeg
                                                                      180
atteaggege tggttgaaag eggegetegg geggeggeaa egeeegegea ggeageaaeg
gacgocgaat togtgateac catgotgoca aacggogaco tggtacgoag cgtootgtto
                                                                      240
ggegageaeg gegtgtgega agggttatee egegaegege tggteattga tatgteeaee
                                                                      360
atteaccege tgcaaaccga egegetgata egegacatgg etgagcaagg etteageetg
atggacgtgc ctgtcgggcg cacctctgac catgccatcg ccggcacgct gctcctgctg
                                                                      480
gcaggeggea eggeocagea ggttgagege gecaeceegg tettaatgge gatgggeaat
gagetgatta acgceggegg gecaggeatg ggeateegeg tgaagettat caataactae
                                                                      540
atgagcattg ccctgaacgc cctttccgcc gaggccgccg tgctgtgcga agcgcttggc
                                                                      660
eteteetttg acgtggeget caaggteatg ageggtacge etgegggtaa aggeeactte
acqueatect ggccgaacaa ggtgctgaaa ggggatettt etecegeett eatgategae
                                                                      780
cttgegeata aagacctggg gategeeete gaegtggeea accageteea egtteegatg
                                                                      840
cegetqqqeq eggecteecg egaagtttac aaccaggeac gegeegeegg gegegggege
                                                                      900
gaggactgga cggccattct tgaacaggtt cgcgcatctg ccgggctgaa aaaatcacac
                                                                      903
tga
<210> 4343
<211> 1434
<212> DNA
<213> Enterobacter cloacae
<400> 4343
ggatcgacca tgacacataa tactgatccg ttaaccctga aattgagcct gcgagagaag
                                                                      60
tgcgcctatg ggatgggcga ttttggctcg aatctgatgc tgtgtattgg cacgctgtac
                                                                      120
                                                                      180
ctgctgaagt tttacaccga tgaactgggc atgccggcgt tctatggcgg cattatttc
                                                                       240
ctcgtcgcga agtttttcac cgcgtttacc gacatgctga ccggggtgct gctggactcc
eggegtaaca teggegegeg ggggaaatte eggeeattea ttetetaege etcegtteet
                                                                       300
gtggcgctgg tggccacggc gcagtttatg gccaacgact ttagcctgac ggtgaaaacg
                                                                      360
                                                                      420
gccctcgcca ccgtgctctt catgatgttt ggcctctgct acagcctgat gaactgtgcc
tacggtgcaa tggttccggc catcaccaaa aacccgaacg agegegegea gcttgcggeg
                                                                      480
tggcgtcagg gcggcgcaac ggtagggctg ttgctctgca ccgtcggctt tatgccgatc
                                                                      540
                                                                      600
caggogetgt tegtcageca gecetcacte ggetatetgg tggcegeget ggtgtttgte
accgggggge tgttctgcat gtggtggtgc tacagcgggg tgaaagagcg ctacgtcgag
                                                                      660
cttacgcccg atcaccataa gcccggcatt ctgaaatcgt tctgcgcgat tttccgtaac
cegcegetge tggtgetgtg categocaac etatgtacce tegcegegtt taacatcaag
                                                                      780
```

ctggcgattc aggtctatta cacccagtac gtgctgaacg atgtgcatct cctgtcgtgg

```
atgggctttt tcagcatggg ctgcattctg attggcgtgt ttctggtgcc tggcgcggtg
aagegetttg geaagaaace ggtetatetg ggegggetga egetgtggge ggtgggegae
                                                                     960
gtgctgaact tcgtctgggg gaccagttcc ctgctgttcg tgctcttttc ctgcatggcc
                                                                     1020
ttottoggca oggogtttgt taatagootg aactgggogo tggtgoogga tacogttgat
                                                                     1080
                                                                     1140
tacggcgagt ggaaaaccgg cattcgcgcc gaagggtcgg tgtataccgg ctataccttc
                                                                     1200
tegegcaaaa teteegeege getegeeggt tteetgeeeg geateatget gacceagatt
ggetacgtac cecatgeegt geagagegeg ggeaegetge ttgggttgeg teagettatt
                                                                     1260
tteetetgge egtgeggeet ggegattgtt geegeegtga eeatgggget attttataaa
                                                                     1320
                                                                     1380
ctcaacgaag cgcgcttcgc ctttattatc gaggagattg gaaaacggaa gaaacagaca
                                                                     1434
gcasatacec etgagatase caccaseast asagegtesg esgtesettt ataa
<210> 4344
<211> 1431
<212> DNA
<213> Enterobacter cloacae
<400> 4344
aaaataaagg tgacgtttat gcaacgaggg atagtctggg tagtcgatga cgatagctcc
                                                                      120
atccgttggg tgcttgaacg cgcgctcaca ggagcgggat taagctgcac gacgtttgag
ageggeageg aggtgetega egcaeteace accaaaaege eggaegttet geteteggat
                                                                      180
                                                                      240
attegeatge egggeatgga eggaetggeg etettaaage agateaaaca gegeeacece
atgetteegg teateataat gaeegeeeae teegaeetgg atgeegeegt tagegeetae
                                                                      300
                                                                      360
cagcaggggg cgtttgatta tetgecaaaa cegtttgata tegacgaage egttgeeetg
gtogaacgog coatcagoca ctatcaggag caacagcago coogcoacgo googgattto
                                                                      420
gggectacga eggacateat eggtgaageg eeggeeatge aggacgtgtt tegeateate
                                                                      480
                                                                      540
gggcgtctgt cgcgctcgtc tatcagcgtc ttgattaacg gtgaatcagg gaccggtaaa
                                                                      600
qaqctqqttq cacacqccct gcatcqccac agcccqcqgg cgaaagcccc ctttatcqcc
                                                                      660
ctgaacatgg cagcgatccc taaggattta attgaatctg agctgttcgg ccacgaaaaa
                                                                      720
ggggegttta ceggagecaa taccattegt cagggaeget ttgaacagge tgaeggegge
                                                                      780
acgettttee tggatgaaat eggegatatg cegetggatg tteagaceeg actgetgege
                                                                      840
gtgctggcag atggccagtt ttaccgcgtg ggcgggtatg cgccggtgaa ggtggacgtg
                                                                      900
cqtattattq ccgcgacgca ccagaacctg gagetgegeg tgcaggaggg gaaattccgt
                                                                      960
gaggatttat tocatogtot gaacgtgato ogtgtocaco tgcogcogct gegegagogt
                                                                      1020
ogggaagata tocogogtot ggogogocat ttootgoaag tggoggocog cgagotgggo
                                                                      1080
gtggaageca ageagettea teaggaaaeg gatgeegeee teaccegtet ggegtggeet
                                                                      1140
ggcaacgtgc gtcagctgga aaacacctgt cgctggctga ccgtgatggc cgccggacag
gaagtgttga tteaggatet ceeegeegag etgtttgaag ceaeegtgee egaaageace
                                                                      1260
qccqqacatq cgctgccgga cagctgggcg acgctgctgg cgcagtgggc agatcgcgcg
ctgcgttccg gtcatcaaaa tctgctctcc gaagcgcagc ctgagatgga gcgcacgctg
                                                                     1320
                                                                      1380
ttaactaccq cqcttcqtca tacccaqggc cacaaacagg aagcggctcg cctgttggga
tggggtcgaa acaccctgac gcgcaagctg aaagagctgg gaatggagtg a
                                                                      1431
<210> 4345
<211> 303
<212> DNA
<213> Enterobacter cloacae
<400> 4345
tgegeggate tttecagete tegtggtgga agacacaaag egetgatgge gacegaagge
                                                                      120
gtgaacattg aatttaccga tgacggtatc aagcgcatcg cccaggccgc gtggcaggtc
                                                                      180
aacgaaacca cogagaacat oggtgogogt ogtotgoaca cogtgotgga acgcotgatg
gaagacatet ettatgatge gagegaeett aaeggteaaa geattaceat tgaegeagae
                                                                      240
                                                                      300
tatqtqqqca aacacctgqa tgcgttagtg gcagatgaag atctgagccg ttttattcta
taa
<210> 4346
<2115 615
<212> DNA
<213> Enterobacter cloacae
```

```
eggecagggg caatgttgat gaaaagtteg geacactete tttatttgtg tttagegatg
                                                                     60
ctgagcgcca gtttttccct gtacgccacg gaaacggctt ccccggtcac cgccccctat
                                                                     120
ettetggegg gegeteeste titegateaa tetateagee agiteegega ageetteaac
                                                                     180
                                                                     240
aaaqaaaacc cctcacttcc qttqqqaqaq ttccgagcga ttgacagcgc ccgcgatacg
                                                                     300
ccqaccetqa cccqcqcqgc cagcaaaatt aacgagaatc tgtatgcctc taccqccctt
                                                                     360
gagegeggaa egttaaaaat caaaageatg cagateacet ggetgeegat teagggeeca
                                                                     420
gagcagaaag cggcgaaagc gaaagcgctg gagtacatga gcgctattct gcgcgccttt
acceccacct teacgaaage acaaagecag caaaagetge aaaaactact taccgegggg
                                                                     480
                                                                     540
aaaaacaaac gctattacgc cgatacggaa ggtgccgttc gctatgtcgt cgcagataac
                                                                     600
ggcgaaaagg ggctgacctt cgcggttgaa ccgattaagc tggccctatc agacgcactc
                                                                      615
gagggggcga attaa
<210> 4347
<211> 783
<212> DNA
<213> Enterobacter cloacae
<400> 4347
                                                                      60
gcgtggagaa ttgaaatgcg acatccttta gtgatgggta actggaaact gaacggcagc
egecacatgg taaacgaact ggttgetaac ctgcgtaaag agctggctgg cgtgaccggc
tgcqcqqttq ctatcgctcc gccggatatg tacctggatc tggctaaacg tgccgctgac
ggcagecaca teattetggg egegeagaac gttgaegtta acetgtetgg egegtttace
                                                                      240
ggtgaaacet cegetgaaat getgaaagae ateggegega aatacateat categgeeac
totgagogto goacetacca caaagaatot gacgagttoa togogaagaa attogotgtg
                                                                      360
                                                                      420
etgaaagage agggtetgat eeeggttetg tgeateggtg aaacegaage agaaaacgaa
                                                                      480
gogggtaaaa ccgaagaagt gtgcgcacgt cagatcgacg ctgtgctgaa aacccagggc
                                                                      540
qeqqeaqeqt teqaaqqeqe ggttateget tacgageeag tetgggegat eggtacagge
                                                                      600
aaatetgeaa eecetgegea ggeacaggeg gtgeacaagt teattegtga eeacattgea
aaagcagacg cgaaagtggc ggagcaggtc atcatccagt acggcggttc cgttaacgca
                                                                      660
                                                                      720
tcaaacqcaq ctgagctgtt cacccagcca gacatcgatg gcgcgctggt tggcggcgca
                                                                      780
tecetgaaag cagacgettt egeggtgate gttaaagegg cagaagegge taageaggeg
                                                                      783
<210> 4348
<211> 1434
<212> DNA
<213> Enterobacter cloacae
<400> 4348
agacggtcat coctggttca aaaccctgcg tggtcgtggt tatctgatgg tttccgcttc
                                                                      60
atgataggca gcttaaccgc ccgcatcttc gccatcttct ggctgacgct ggcactggtt
ttaatgeteg ttttgatgtt gecaaaaete gaeteaegee agatgaegga getaetegae
                                                                      180
agcgagcaac gtcagggcgt gatgatcgag cagcacgtgg aagcggagct ggcaaacgat
                                                                      240
ccgccgaacg atttaatgtg gtggcgcagg ttgtttcgcg ctatcgacaa gtgggcgccc
                                                                      300
cooggacaac gtottttact ggtoaccagt gaaggoogog tgattggggo ogatogoaat
                                                                      360
quaatqcaga ttatccqcaa ctttattqqc caggeggata acgccgatca cccacagaaa
                                                                      480
aagaaatatg gtegggtaga gatggttggt cetttetegg ttegggaegg ggaagacaat
tatcagetet acctgatteg coetgegage agricecagt cegaciteat caacetgetg
                                                                      540
tttgaccgtc cgcttttgct gttgattgtc acgatgctgg tcagttcccc gctgctgtta
tagetageat agagectage qaaaceggeg egtaagetga aaaatgegge ggaegaagtg
                                                                      660
gegcagggea acctgaggea geatceggag etggaatceg ggcegcagga gtteetggee
                                                                      720
gccgggacca gttttaacca gatggtgagc gcgctcgatc gcatgatgac ggcccagcag
                                                                      780
                                                                      840
egectgctgt eggatatete geaegaactg egtaceeege teaegegett acagetgggt
accgccctge tgegtegeeg cageggagaa ageaaagage tggagegeat egaaacegaa
                                                                      900
gegeategte tggacageat gateaaegat etgetggtea tgtegegeaa teageagaaa
                                                                      960
aacgcgctgg tgagcgaaac ggtgaaagcc aatcatctgt ggcatgaggt gctggacaac
                                                                      1020
                                                                     1080
qeqqeqtttq aaqeqgagea gatgggeaaa teetteaceg ttaaetteee geeggggeea
                                                                      1140
tggccgctgt acggtaaccc caacgegetg gaaagcgcgc tggaaaatat cgtgcgtaac
gecetgeget actegeacae gaagattgag gtggegttet eggtggataa agaegggate
                                                                     1200
acceptcateg togacgacga cggtcctggc gtcagcccag aagaccgcga gcagatatto
```

cgtccgttct accgcaccga cgaggcgcgc gaccgggaat cgggcggtac gggactgggg

			1/10			
ctggcgattg ccgctgggcg	tggaaaccgc ggctcaggtt	catgcaacag aacgctgtgg	caccgtggct ctgccgctgt	gggtgaaagc ataagcgttc	cgatgacage gtaa	1380 1434
<210> 4349 <211> 1707 <212> DNA <213> Enter	cobacter clo	oacae				
<400> 4349						
attittgaca ggaaatgegg cctcacqtic tggctattic acttitegca acttggact ttgcaaaaa acggacttc tgggtgtgg taccgcgaca aacatctatg gactactta ggctgtgtg gctcagccgt tgcccqacg gcattgccag taccagaag tcattgac ccgaag gcattgag taccagaa gcattgag taccag taccagaa ccgaacqa taccagaa ccgaacqa taccagaa ccgaacqa taccagaa	teagogteac atotttgett ttecetttet attgttgtgg gegactgea aggacggttt acaacgteg attacgtacg gegaceg ecgaceg agaceg ecgaceg ecgaceg ecgateg egattgaceg ecgaceg ecgateg ecgattgaceg ecgattgaceg ecgattgaceg ecgattgaceg ecgattgaceg ecgattgaceg ecgattgaceg ecgattgaceg ecaacgteg ec	caaaagctgt actgcctgca tcttgccagc tacactcctc tgtcgattta caccettacg tgttaactgg cgaagaaggt gctggaccgt tgggctaatg catcagttta gaccgtcgcacc cgcgccaac caccgcaac caccgttgtc cggcaaagat aacqccctac agggcgcta aaggccgta aaggccgta tacttcaggc atccggcaac cccgttgtc cggcaaagat acgccctac agggcgtac cgcdcacc cccgttgtc cggcaaagat cacctcctgg catcaggc cacctcaggc cacctcaggc cacctgcatt ccttcaggc caccaccc ccgatttccgt ccatgaacaag cccacgtc ccatgaacaag cccacgtc ccatgaaat ccatgaaat cgcatgaatt	aacccgcca gegagatttg gctaatgact ggcgcatca cttcgcgaa gatatcgacg attcgcatcg cacggcgac ctgcgctta gaaaagttg tgggatgaa catcaggga acggctacc actgcgtta gaaaagttgg tgggatgaac catcaggca cacgcacc accagcgatg ccggttgctga accagcacc attaacccga tttgacagtc attaacccga catcagcgacg tttgacagtc accagcgacg tttgacagtc accagcggg ggcaatatcg	ttactggaaa gagatgtagt taagaaagga tggacagtt coctggaag cacagtatcgg cgtcagcct tcgccagct acacgtgta cgcatgcgcct acacgctgta cgcatgcgc attgcgcg actgcgcct ccatgcgcg cctcagcag actgtgatcgg ccatgcgc actgtgatcg ccagaca actgtgatcg cgcagaca ccacagaca actgcagaca acacacat tgcccgagc acacacaca accacacacacacacacacac	ctdtgaactc ggcqagaagg ccqacaatg aatgctogc cgccattgt agagatccgc cgcttcc tggcaaggg tcagctgcc gctgatccg gctgatccg gctgatccg gctgatccg cactggctt cgcqacgacg cactggtt cgcqacdgc cactggtcg cactggtcg cactggtcg cactggtcg cactggtcg cactggtcg cactggtcg cattaccgg cgcaacac ttatcaac ttatcaac ttatcacac tattgccgaa ctttatcaac tattgccga cattaccgtg cattaccgtac cagctgaac	60 120 240 300 480 660 720 900 1020 1020 1260 1320 1320 1560 1620 1680 1707
<210> 4350 <211> 1083						
<212> DNA	robacter cl	oacae				
tocotacaac ctcaccgttg gtggcgaagt gccaaagagt gcgaacgatcg gtgtgtgtcgt aataacgcc aactggatg gtggcctacg acctaccgg caggcggtga tctqaatgg	taactcaagt ccgctctggc ccttagggaa taggcgatgt aggtgctgaa cggactccgg tgattgcga agggattccgg tgattggcga aggacgaagt cggagatgaa gagacgatct agctgaaagt aggaccaggg	cgcgccccgc cagtggagta gttqtccggt tggattcttc aaaagtgatt cgtgccggta ggtgcgaaa aaccaacgtc acggtgctga cacggtgctg cttgacaaa catcgtctcg caagattgct gaagattgct gaaattcggc	aaagcaatga tccgctttag gaggcagca tataccggcc gccaaggag ctgaaaaaag gccaggcgtc aagctcgccg agcgcacgc ccgaagtacc agctaccgcg ccgtcgtccg aagtgtacg gcgagcaaga	aaataaaagc cagaagtgaa acgtcggcgc cgaccaccac tgagtgcgat cgatgcactc cagatgcactc cacctccac cgtcggtcaa aagcggtcgg tggcattgt tcaccggttt gctttgccat	aagcttgatc aatcgccctg gcaggaggg cacggcgga cacggcgga caacccgttcc gaaagcgctg caaccagaac tctggtgacc cctgctgaaa ggctgccgcg aggcctgccg ctgaaaccg	60 120 180 240 300 360 420 480 540 600 720 780 840 900 960
	55-090	2				

			T / T /			
aaaggtgagg gegatggeeg tga	ccagcatggg agccgttcgt	caaactgggc ctacgatgcc	aaagtgaagc agcaatattg	tggatgegga ataagttete	cggcaacggc gaaaatcttt	1020 1080 1083
<210> 4351 <211> 1521 <212> DNA <213> Enter	obacter clo	pacae				
cccggcqtac cttatcggcg cagcccgacg cagcccgacg gactggccga gaccgcgcg gacgcgcgtg cagcatgacg gacgcgcgtt cagcatgaa gtttcacctg gattgacgg gttcacctg gattgatg gcgaaacg ccccggaagaacg ccccggaagaaac ctcgcaaac cagaaccccc ccggaagaaac ctgccaac gaaaccctc cctgacgaa gttcatcag gattcatcag gattcatcag gattcatcag gattcatcag gattcatcag gattcatcag gattcatcag gattgcgaat	gtgctcttga aaaaagggga aaggggaaat aaaatatctt aaatgaccg caacgctgaa cgtttgaggc tcctcgagtt tctcccacaa gcgtgtcga tggtggagat tggtcggagg tgaaagggga agcgctttc ggcagaaaaca ttagcacgc ttagtacgcgt tagtacgcgt tagtacgcgt tagtacgcgt tagtacgcgt tagtacgcgt tagtacgcgat tagtacgcat tagtacgcat tagtacgcat tagtacgcat tagtacgcaa tagtacgcaa	tgttgtbag accctaagc gcagtggtg ttaccagatt gttcgacgag cgcattacc gcaagcagg cgcattacc actctcggc cagcgtcacc cagcgtcacc cagcgtcacc cagcgtcacc cagcgtcacc cagcgtcacc cagcgctacc cagcgctacc caccctgag tgagccacat cacccaaca cagcacatac cagcacaca	cttgogctgt acgataccog cacaggaaa taccttcaca gctattctcg atcgccagc atctcgacg gcaataaatg caaaccttc tgcaacccg atcacagcaacctcc tgcaacacctc tgcaaccagc atcttagag caaccttc tgcaaccag atcgcatcg atgagatca atcgcctgc gcgctgctg gtgaagcct tgtgaagcct tgtgaagcct tgggatca	ggccogcaa aagtgatgac ttcaccttcc ccgtcctgtt aaggettct ccgccctga gtcacatggt aacccacggc taaagcagga tggccgatca ggtagattg ccgagattg ccggggaaat cgattgccg cagacatgga cagacatgga cagacatgga cgaaatggta cgattgcca tcagctggaa gcaaatggc tcagctgga gcaaatggc tcagctgga cgattgccc tcagctgga cgattgccc tcagctgga cgattgccc tcagctgga tattcgctc cgttgattat tcatcacaga	agtgacggcg cggcatatac aacgccggag tgatgaactc gaaaaagctc ggcgattgcc ggcgattgcc ggcgattgcc ggggaaaagcc ctacaccatt ggagcgaatg ctgcgaaaaa gcatatctcg cgggcgtacc tatctcaac tgtctgcgtg gaacatcagc tgcagaaaa gcaggcgtacc tatctcaac gaacgagcagcagacgacgacgacgacgacgacgacgacg	60 120 120 180 240 300 420 480 660 780 960 1020 960 1140 1260 1380 1440 1521
<211> 1005 <212> DNA	robacter cle	pacae				
atogtogcca thtaacgaca ataacgaca gatgacatcg attaacttcc gggctgctgc ggctgggtga ctgggctaca tactacaccg ctgcgctaca tactacacggt gcgagcacggt gcacacggtr gcggcaccg aacgcctgc	ttggcagccg ccgccattct actttcgat attacccgga ttggcgcgat tcggcaccat actccaacca cggtgctgag gcccaccgg ggatcaaccg ttggctgat tcgattga ccgcagtgct cggtgatcgc ctgtgtgctgct	ggtggtggca cggctgtctg cgtctccccg	ttatogage gegeteggge etggeeetga tgggegetge ettgtgga geggaatga gaetteeteg ategeegtae tacacegeag eagtteatea tegegettg geetgggege ttetggeaga ggeaacaage	cgggcaacct agatggt ccgggatgat tgatcetcgc agctgggcat tcttttgct gctgctggt gcggtaacgc gcttctgcct ccgttgcgta ttgtcetcgt gcggattccttgct tcgtgcgta tggcgattcct gcaaaggag	ggtggagatg getgeteact tgtegeectg cagegegett teeggegatt cteeggege tgegteagtg gggetactte caeggeageg	60 120 180 240 300 420 480 540 600 660 720 780 840 900 960 1005

```
<210> 4353
<211> 1164
<212> DNA
<213> Enterobacter cloacae
<400> 4353
ttaaggagaa ttatcatgag ctttatgttg gcactcccca aaatcagcct gcacggcgcg
                                                                     120
ggcgcgatcg gcgatatggt caatctggtg gcaaacaaac agtggggaaa agcgctgatt
                                                                     180
gtcaccgacg gtcagetggt gaagetggge etgelegaca geetgtttae egegetegae
                                                                     240
gcccatcaga tgtcgtatca cctgttcgat gaggtattcc cgaatccgac ggaagcgctg
gtgcaaaaag gctatgcggc atatcaggat gcggagtgtg attacctgat tgcctttggc
                                                                     300
ggcggcagcc cgattgatac cgccaaggca atcaaaatcc tcaccgccaa ccccggtccq
                                                                     420
tcaaccgatt actotggcqt cggcaaggtg aaaaacgcgg gcgtgccgct ggtggcgatc
aacaccaccg caggcacggc agcggagatg accagcaacg cggtgatcat tgacgccgca
                                                                     480
cgacaggtga aagaggtgat tatcgacccg aacatcatcc cggatatcgc cgtggacgat
                                                                     540
gecagegtga tgcttgatat teeggeetee gtgacegeeg caaseggeat ggatgeettg
                                                                      600
actcacgcca ttgaagctta cgtgtccgtc ggcgcgcacc cgctgaccga tgccaacgcg
                                                                      660
ctggaggega ttcgcctgat caacctetgg ctgccgaaag cggtcgacga cggtcacaac
                                                                      780
ctggaagcgc gegageagat ggettttggt cagtatetgg egggeatgge gtttaacage
geoggtetgg ggetggtgea tgecetggeg caecageegg gegegaegea caacetgeeg
                                                                     840
caeggegtgt geaacgeeat tetgetgeeg ateategaaa aetttaaceg eeegaacgeg
gttgeeegat ttgeeeget ggegeaggeg atgggegttg acaegegegg catgagegat
                                                                     960
gaageggeea geatgteage catteaggeg attegegace tgagegeeeg ggteggeatt
                                                                      1080
coqtcoqqat ttaqccaqct cggcqtgacc aaagccgata ttgaaggctg gctggataaa
                                                                      1140
getetegeeg acceptgege geegtgtaac eegegeaceg eeageegega tgaggteege
                                                                      1164
gagetgtace tggaggettt atga
<210> 4354
<211> 666
<212> DNA
<213> Enterobacter cloacae
<400> 4354
aatggtatga agaatcacct ctcttgcctg aaaggcgaca cgataaaagc gatcgtcctg
                                                                      60
qtctqcctcq cqqtqqqcqt ggtcggcatg tcttatggct cactggcgat ggcctacggt
                                                                      120
ttcccgctgt gggtgccgtt tgtcctctcc ctcacggtgc tggcaggcgc atccgagttt
                                                                      180
atgtttattg gcatcgtggc aagcggcggc aatccgctgg cagcggccgc ggccggttta
                                                                      240
ctqqtaaacq cacqccatgt gccgttcggc gtaacggtgc gtgacctggt gggcaagcgc
                                                                      300
ggcctgaget ttctgggctg tcatattatg aacgatgaaa gcgtggtgtt cggcctttcg
                                                                      360
caaaaaaaccg ccgagcagcg taaagcggcc tactggctgt gcggcctggg cgtggcaatt
                                                                      420
atotggccgc tgggggcggt actgggggcg atggtcggca agctgctgcc agacccggaa
                                                                      480
accateggge tggacgeggt gttcccggeg atcctgctgg cgttagtggt gccggcattt
                                                                      540
aaaaaccgta ccacgctgat ccgcgcctgt agcggcgcag tgttgtcgct ggccgccgta
                                                                      600
cogtttgcgc cggtgggtct gccggtactg ctctctttgc tcggccttgc cgcgaggaaa
                                                                      660
                                                                      666
aaataa
<210> 4355
<211> 657
<212> DNA
<213> Enterobacter cloacae
<400> 4355
aqaqaaaqac qaqqtqcqca aatgagaaaa cgtgacacca tcgtgcgcta caccgcgccg
quacqtatea accaetgggt caccgccttc tgcttcatgc tggcggcgat augcgggctg
gggttettet tecegteett caactggetg atgeagatea tggggacace acagetggeg
                                                                      180
egtatactgc acceptttgt gggcgtcatc atgttegegt egttcatcat catgtttte
cqttactqqc accataacct aatcaatcgg gatgatatct tttgggcgaa gaatattcgt
                                                                      360
aagatogtog toaacgagga agtaggtgat actgggcgtt ataacttogg ccagaaatgo
gtattetggg eggegattat etteetggte etgttgetgg tgageggegt gateatetgg
                                                                     420
egteegtact ttgegeetge ttteteaate eeggtgatee gatttgeget aatgetgeat
                                                                      480
 teatttgeeg eagtggegtt aattgtggtt ateatggtge atatttaege egecetttgg
                                                                      540
```

```
gtgaaaggca ccattaccgc gatggtggaa ggctgggtca ccaaaacgtg ggcgaagaaa
catcaccege getggtaccg tgaagtcege cagaaacagg aaaagtcate tgaatga
                                                                     657
<210> 4356
<211> 1287
<212> DNA
<213> Enterobacter cloacae
<400> 4356
gategtegae gaaatgatgg etegeegtta agaaaggate egaacatgaa atggtttaae
accotgagee ataacogotg gotogaacaa gagacogaco goattotoga tttoggtaaa
aacgeegeeg taeegaeegg etttggetgg etgggeaata aegggeaggt gegtagegat
atgggcacac atctgtggat caccgcccgc atgctgcatg tgtacgcggt ggcggcgaac
atggggcgcc ccggcgcgta cgccctggtt gagcacggca ttaatgccct gaacggtccg
                                                                     300
                                                                     360
ctgcqcqaca agcagcacgg cggctggtac gcctgcgtaa acgatgaagg cgtgattgat
gegtecaage agggetatea geatttette gttetgetgg gegeggegag egeegteace
                                                                     420
accggccatc cgcaggcacg caagttgctg gacgacgcca tcgaggtgat tgagcgctac
                                                                     480
ttetggageg aacaggagea gatgtgeetg gagteetggg acgaageett cagcaaaacg
                                                                     540
                                                                     600
gaagactatc geggeggtaa egecaacatg cacgeegtgg aagettteet categtttat
gacgtgaccc acgaccgcaa atggctcgac cgcgccctgc gcatcgcctc ggtgattatt
                                                                     660
cacgacgtgg cgcgcaaagg ggagtaccgc gttaacgagc attttgacac caactggaac
                                                                     720
cegatoegog actataacat cgataaccec geceaccget teegogeeta tggcggcacg
                                                                     780
octgggcact ggattgagtg gggccgcctg atgctgcacc tgcgcgccgc cctggaagcg
                                                                     840
                                                                     900
egetttgaaa eecegeegga gtggetgetg gaagatgega aaggaetgtt eeaegeeaee
                                                                     960
atcogcgacg cotgggcacc cgacggggeg gacggctttg totactccgt gggctgggac
ggcaagccaa tcgtgcgcga acgcgtgcgc tggccaatcg tcgaggcgat gggcacggcc
                                                                     1080
tatgecetet atacegtgae eggegaggeg eagtaegaag eetggtatea gaaatggtgg
                                                                     1140
gattactgca tcaagtatct gatggattac gaaaacggat cctggtggca ggagctggac
accaacaacg aagtgaccac caaagtotgg gacggcaage aggatattta ccatctgctg
                                                                     1200
                                                                     1260
caetgeetgg tgatecooog cetgeegetg geaeeggget tagegeetge egtegeegee
                                                                     1287
qqattactgg atagccaggc caaataa
<210> 4357
<211> 1050
<212> DNA
<213> Enterobacter cloacae
<400> 4357
atggcaactg gcacgctgcc cgatgctggg cagatcetca attetttgat taacagtatt
                                                                     60
ttgctggtcg acgacgagct ggcggtgcat tacgccaacc cggcggcgca acagctgctc
geceaaageg ccagaaaact gtttggcacg cegetgeegg aactgetgag ctattteteg
                                                                     180
ctgaatattg gtctgatgca ggagagtttg caggcgggtc agggcttcac cgataacgaa
                                                                     240
gtgacgctgg tgattgacgg acgctcgcat attttgtccc tcaccgcaca gcgcctgcca
                                                                     300
gatggcatga ttctgctgga aatggcgccg atggataacc aacgtcgtct cagccaggag
                                                                     360
cagetteage atgegeagea gattgeggeg egegacetgg tgegeggget ggeecatgag
                                                                     420
atcaaaaacc egetgggegg ettacgeggt geggeacage ttttgaccaa agegetgeet
                                                                     480
gaccotgoco tggoggagta taccaacgto attattgago aggoggacog totgogtaat
                                                                     540
ctggtcgatc gcctgctcgg gccacagcag ccggggatgc atgtttcaga aagcattcac
                                                                     600
aaggtogogg agogggtggt gaaactogto totatggago tgooggataa ogtoacgotg
                                                                     660
gtgcgtgatt acgacccaag cctgccggag ctggcgcacg atccggacca gattgaacag
                                                                     720
                                                                     780
gtgctgttga acattgtgcg taacgcgttg caggcgctgg gcccggaggg tggcgaaatt
attotgogta coogcacogo gttocagotg acgotgoacg gogtgogtta togtotggog
                                                                     840
                                                                      900
geacgtattg atgtggaaga taacgggccg gggatcccgc cgcatctcca ggacactctg
ttetaccega tggtcagegg tegegaagge ggeaeeggge tggggttate catageeega
                                                                      960
                                                                     1020
aatttgattg accaacactc cggcaaaatt gaatttacca gttggccggg acataccgag
ttttcggttt tcctgccgat taaaaaataa
```

<sup>&</sup>lt;210> 4358 <211> 1485 <212> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 4358
actacggegg ttgtcgcggc gacagaagtg gctgcgcacc cgaatgatgg cccgcaacgg
gaccagaacg ggccgccgta tacgaacgcg acaccaacgg aaggagtgag catgtctgta
ccatctateg actgggattt ggccctgatc cagaaatata actattccgg gccgcgttat
                                                                     180
                                                                     240
accteatace ceaeegeget ggagttttet gaegettteg gegaggegga tttteageat
                                                                     300
gctgtggege gctatcccga gcgcccgctg tcgctctacg tccatattcc attctgccat
                                                                     360
aagetetget aettetgegg etgeaataaa ategttaeee geeageagea caaageegat
                                                                     420
caataceteg atgegetega acaggaaatt etgeacegeg eacegetgtt taaagggegt
cacgttagec agetteactg gggeggtggt acgccaacct ateteaataa agegcagate
                                                                     480
agcogcotga tggcgctgct gcgcgacaat ttcagtttta acgacgacgc cgaaatttcg
                                                                     540
atcgaggtcg atccacgtga aatcgagctg gatgtgctgg atcatttacg cgctgaaggc
ttcaaccgcc tgagtatggg cgtacaggac ttcaataaag aagtacagcg cctggtaaac
                                                                     660
cgcqagcagg acgaagogtt tatetttgcc ttactcaacc atgcgcgtga aatcggcttt
                                                                     780
aceteaaega atatagaeet gatttaegge etgeegaage agaegeegga gagettegee
tacacgetta aacgegtgge tgagettaac ceggacegte tgagegtett taattacgeg
                                                                     840
cacctgccga cgctgttcgc cgctcagcgc aaaatcaaag atgcggatct gccttccgcc
                                                                     900
                                                                     960
cagcagaage tggacatttt geaggagace ategeetege tgaccgaaac eggetateaa
tttatcggga tggatcactt tgcccgccct gacgacgaac tggcaattgc ccagcgcgaa
qqtqttctcc accgtaactt ccagggttac accacccagg gcgataccga tctgctcgga
                                                                     1080
                                                                     1140
atgggcgtet cegecattag catgattggc gactgetacg etcagaacca gaaagagetg
aagetgtact accagcaggt tgatgaaacg ggtaacgcat tgtggcgcgg cattgcgtta
                                                                     1260
acqcqtqacq actgcatccq tcqtqatqtq attaaggcqc ttatctqcaa cttccqtctc
gaatteegeg aggtggagte geaatgggat etgeaattea gegattaett tgeegaagae
ctgaaactcc ttgcgccgct ggcgaaggac gggctggtgg atgtgtcgga aagcgcggtg
                                                                     1380
gtcgtcacgc cgaaaggacg tetgttgatt cgtaatatct gcatgtgctt cgatgcctat
                                                                     1440
                                                                     1485
ctacgtcaga aggegegttt acagcagttc tegegggtga tttaa
<210> 4359
<211> 969
<212> DNA
<213> Enterobacter cloacae
<400> 4359
cgttttagag gtaaaaagcg cgtgagatca ggttgttggt ggagaaaaaa gcccatccga
                                                                     60
agatgggcta aagtttccac ggcaactact cccgacgcgt atgcgccggg taaaacaaat
                                                                     120
caattaaacg ctgtagtaca gttcgaactc aaccgggtgc ggcgtcatgc gaacgcggtc
                                                                     180
                                                                     240
gttttcttca gtacgcagcg cgatgtaagc gtcgatagct tcatcggtga acacgccgcc
ageggteagg aactegeggt etgegteeag egettgeagg gettetteea gagageegge
                                                                     300
                                                                     360
aacctgtggg atctctttcg cttcttctgg cggcaggtcg tacaggtttt tgtccatggc
ttcgcccggg tggatcttgt tcttgatacc gtccagaccg gccatcagca gtgctgcgaa
                                                                     420
                                                                     480
gcacaggtat gggttageeg eegggteegg gaagegeact tegataegae gegetttegg
                                                                     540
agacgcaacc accgggatac ggatagaagc agaacggtta cgggcagagt acgccagcat
cacgggtget tegtagectg gaaccagacg ettgtaggag ttegtggteg ggttegeeag
                                                                      600
                                                                      660
ggcgttgatc gctttagcgt gtttgataac accgccgatg tagtgcagcg cctgctcaga
                                                                      720
cagaccegca tacttgtcac cagagaacag gttggtgceg ttcttggaca gggacatgtg
gcagtgcatg coggaaccgt tgtcgccaaa cattggtttt ggcatgaagg tcgcggtttt
                                                                      780
accgaaacgg tgcgcaacgt tgtgtacaac gtatttgtag atctgaatct catccgcttt
                                                                      840
tttggtcatg gtgttgaagc gggtagcgat ctcgttctgg ccagccgttg ccacttcgtg
                                                                      900
                                                                      960
gtggtgcgct tcaacaacca ggcccatctc ttccatgatc agacacatgg tagaacggat
                                                                      969
gtcctgtga
<210> 4360
<211> 570
<212> DNA
<213> Enterobacter cloacae
<400> 4360
agaatcgacc ggaggaaccg ggaagtaacc gcctttcacg cctggacggt gacctttgtt
accaccttcg tacttggtgg aagagttcca tgcgccttcg atgtcatcga tagcgacgtg
```

ggagccagaa atggaagcac caaaacggat gtcgtcgaac aggaagaact ctggctctgg

```
cccgaacaga acggtgtctg cgatgccggt agagcgcagg tactcttcag cgcgttttgc
gatggagcgt gggtcacggt catagcettg cagegtgeca ggttccagaa tategcageg
                                                                     300
                                                                     360
gatgatcage gtaggttett egtagaaegg gteaatgage geagtggttg catetggeat
cagaaccatg toggattogt taatgoottt ccagoogoca atggaggago ogtcaaacat
                                                                     420
                                                                     480
tttgccttct tcaaagaatt cggcgttcac ctgatgagca gggatcgtga cgtgctgttc
tttaccttta gtatcggtga agcgcagatc aacaaacttc acttcatgtt cgttcagcat
                                                                     540
cgtcaaaacg tgttcagcgg acatacttaa
<210> 4361
<211> 654
<212> DNA
<213> Enterobacter cloacae
<400> 4361
                                                                      60
ctaaagttto totttooogo tacagttact totocacggo gaaaggagat aaacatgott
tatatctttg acttaggaaa tgtaatcgtc gatatcgatt ttaaccgggt gttgggcgca
tggagcgatt ttagccgtgt tccgctggcg acgttaaagc agaatttcgc gatgggtgag
                                                                     240
actttccatc tgcacgageg cggtgagatc agcgatgaag cgttcgcaga gcgtttctgt
                                                                     300
caggaaatgg gtctttcgtr aagctacgag cagttttccc acggctggca ggccatattt
qtcqcqatcc qcccggaagt gatcgacatc atgcacaagc tgcgcgagca ggagcatcgt
                                                                     360
                                                                     420
gttgtegtge tgtctaatac taaccgcctg cataccacct tctggccgga tgaatacccg
gaaattcacg cggcggcaga taaagtgtat ctctcccagg agatggggat gcgtaaacct
                                                                     480
                                                                     540
gaggegegea tetateagge agtattgeag gaagaaggat teaeggeage ggatgeggte
ttttttgacg acaacgccga taatatagaa ggggctaatc agttaggtat cacctccatt
                                                                     600
                                                                      654
ctggtgaccg gaaaagagac gataccgaac tactttgcga agcagttatg ctaa
<210> 4362
<211> 1092
<212> DNA
<213> Enterobacter cloacae
<400> 4362
gogetgtege caacaggaca tgaatacaca aaccggacga ttegetgegg atatgcaggt
                                                                      120
ttegetggtg aacgatggee cegteacatt etggeteeag gtatgageea aetggeggta
                                                                      180
tggccgcggg taacaagaga gagtacagct atgtatcacc ttcgagtacc gcaaacggaa
gaagaattag acgcttatta ccatttccgc tgggaaatgc tgcgcaaacc actgcatcaa
cogaaagget etgaacgega egeetgggae gegatggege accaecagat ggtggttgat
                                                                      300
                                                                      360
gaagagggca acctcgttgc cgtgggacgt ctgtacatca atgccgacaa cgaagcttca
atcogottta tggccgttca tccctccgtg caggacaaag gccttggaac gctgatggca
                                                                      420
                                                                      480
atgacgetgg aatcegttge cegtcaggaa ggggtcaage gegtcacetg tagegeeege
gaagatgccg ttgagttott tgccaagctt ggtttcgtga atcaggggga aatcaccgcc
                                                                      540
cogcaaacta egeogattog toactittig atgateaaac coategeoac getggaegat
                                                                      600
attotocatc gogocgactg gtgcgggcag ctccagcagg cgtggtatca gcacataccg
                                                                      660
ctcagtgaaa aaatgggcgt gcgtattcag cagtataccg gacaaaaatt tatcaccacc
atgeoggaaa eeggeaacea gaaceegeae eataceetgt ttgeoggeag eetgtttea
                                                                      780
ctogocacgo teacoggatg gggactgate tggctgatgc tgcgcgaacg tcatctcggc
                                                                      840
ggcaccatta ttctggccga tgcccatatc cgctacagcg cgccgatcag cggcaagccg
                                                                      900
                                                                      960
agegeggtag etgacetggg egeaetggge ggegateteg aeegtetgge gegtggaegt
                                                                      1020
aaaqcacgcg tacagatgca ggttgagctg ttcggcgatg aaacgccagg cgcggtgttt
gaaqqcacct atatcqttct gcctgcgaag ccgtatggcg cgtatgaaga gggtgggaac
gaggaggagt ag
<210> 4363
<211> 1401
 <212> DNA
 <213> Enterobacter cloacae
<400> 4363
 atggetgatg caggegggta ttgcgctgcc gattctggat ccggaaacca ccattctgat
                                                                      60
 tqqtqtqqaa cgcgtgtaag ggtgacgggc cgggcaaccg gccctccgtt gaggataaaa
 ataatgaaca caacaacctg tacccacaaa gacaacccta acttctgggt cttcgggctg
```

```
240
ttottottto totacttott catcatggcc acctgtttto cgttcctgcc gatctggctg
toggacatea toggootgaa caaaacccat acggggattg ttttctcctg catctcgctg
                                                                     300
                                                                     360
toggocattg cottocagoo ggtgotgggg gtcatttogg acaagotggg gotgaaaaaa
catttgettt ggateattte ggtgetgetg tteetgtteg egeegttett eetgtaegte
                                                                     420
                                                                     480
ttegeceege tgctgaaaac caatatetgg etgggggege tgageggtgg gttgtatate
                                                                     540
ggctttgtct tctcagcggg ttcgggggcg attgaggcct acattgaacg cgtgagccgc
                                                                     600
aacagetttt ttgagtacgg caaggegege atgttegget gteteggetg ggggetgtge
                                                                     660
gcctcaacgg gcggcatcct gttcggcatc gatccgtcgt atgttttctg gatgggatcg
                                                                     720
geggeggege tgttgetaat getgetgetg gtggtegega aaccgaagee caaccagaeg
                                                                     780
gegeaggica tgaaegeeet gggegegaac cageggeaga teaetgetaa aacegigtie
aacctgttee gecagegeag aatgtggatg tteateetgt aegtgattgg egtggeetge
                                                                     840
gtatatgacg tottogacca gcagtttgot acettottoa aaacettott cgccacgccg
                                                                     900
caggagggga cocgogoctt tggtttcgcc accacagegg gggaaatctg taacgegate
                                                                     960
atcatgttct getegeogtg gatcattaac cgcateggtg cgaaaaacac getgetgatt
                                                                     1020
gccggggtga tcatggcgac gcgcattatc ggatcgtcgt ttgccaccac cgccgtggag
                                                                     1080
gtgattgccc tgaagatgct gcacgcgctg gaagtcccgt tcctgctggt gggggcattc
                                                                     1140
aagtacatca coggggtgtt tgatacgcgc ctgtcggcca ccatctacct gattggcttc
                                                                     1200
                                                                     1260
cagtttgcca aacagtcggc ggcgatettc etctccgcct ttgccggaaa tatgtatgac
egggtegget tecaggagae gtatetgata etgggetgtt tegtgetgge gateaeggtg
gtgteggegt ttacgctgag tggcaggegg gagattgetg ctacegetgg ggcagcageg
                                                                     1380
                                                                      1401
ttaacacatc agtccaggta a
<210> 4364
<211> 879
<212> DNA
<213> Enterobacter cloacae
<400> 4364
tgtccggtta ttcgccgtag aggttgtggt gtggctgctc agctcattct tcgcaaagat
                                                                     60
gatttttttg ceteegegag teaggeegte geggtggeeg accgetacce geaaaacgte
                                                                     120
ttcgccgagc acacccacga gttttgcgag ctggtgctgg tgtggcgggg caatggcctg
                                                                     180
                                                                     240
caegtoctea acgacegtee etacegeate aegegeggag acetgtteta cateegeget
                                                                     300
gaagacaaac actoctacgo ctcggttaac gatctggtgt tgcagaacgt catctattgc
                                                                     360
cccgacagac ttaaactgaa tgtcgactgg gcgggcaata tccccggttt tcataatgcc
                                                                     420
agaggogaac cgcactggog cttaagcagc aacggcatgg ctcaggtgog ccagacgatt
toccagetgg agcaggagag ccagaagage gateeggegg etaaccagat gteggagetg
                                                                     480
ettttegece agetggtgat gaccetgaag egecategtt aegetaegga taateeetet
gecaecatgc aggaageget getggataag etcatcacce ggettgeggg cagtetgaac
                                                                      600
aagagtttcg tgctggacaa attctgcgag caggagcagt gcagcgagcg cgcgctgcgc
                                                                     660
cagcagttee geacccagae ggggatgaeg gtaaaccaet atetgegeea getgegeate
tgccacgccc agtacctgtt acagcatacg gagctgatgg tgagtgaagt ggcgatgcgc
                                                                     780
                                                                     840
tgeggetttg aggacagtaa ctactteteg gtggtgttta accgtgaggt ggggatgaeg
                                                                      879
coggttcagt ggcgtcatcg cagtcgaaag gcagcgtaa
<210> 4365
<211> 654
<212> DNA
<213> Enterobacter cloacae
<400> 4365
cagetgtgcc gcccgacaat aatggagagg attatgagtt atacactgcc atccctgccg
tatgoctacg acgcactgga accgcatttc gacaagcaga cgatggaaat ccatcacact
aaacaccacc agacctacgt gaacaacgeg aatgetgege tggaaageet geeagagtte
                                                                      180
gctaatetge ctgttgaaga gctgatcace aaactggace agctgccage agacaagaaa
                                                                      240
                                                                      300
accepted gcaacaacge gggcggtcac gctaaccaca gcctgttctg gaaaggcctg
aaaaccggca ccacccttca gggcgacctg aaagcggcta tcgagcgtga cttcggttcc
                                                                      360
gttgacaact tcaaagcgga attcgaaaaa gccgctgcaa cccgtttcgg ctctggctgg
                                                                      420
                                                                      480
gcgtggctgg ttctgaaagg tgacaaactg gcggtcgttt ctaccgctaa ccaggattcc
                                                                      540
cogettatgg gtgaagetat etetggegea teeggettee caattetggg tetggaegtg
tgggaacacg cttactacct gaagttccag aaccgtcgcc ctgactacat caaagccttc
```

tgggacgtgg tgaactggga cgaagcagca gcgcgtttcg ccgctaaaaa ataa

```
<210> 4366
<211> 705
<212> DNA
<213> Enterobacter cloacae
<400> 4366
ctcgcttttt ttgtatctga aggagtggag atgcattacc cggtgaatgt gtttacaggc
aaggtaaggg agtacgaagg cagccgcccg agtgccatcg ccaaagtgca ggtcgacggt
                                                                      180
gagetgaegt tgaeegatet egggetigeg ggtgaeeage aggetgaaaa gaaaateeae
ggegggcccg atcgegeget gtgccactat cegegegage actateagea etggaaaaee
                                                                      240
                                                                      300
quattteetg aacaggetga cetettegte geeceegegt ttggegaaaa teteteaaeg
gaggggctga cggagaagaa cgtctttatc ggcgatattt accgctgggg cgatgctttg
                                                                      360
atteaggtea eccageegeg eteaeegtge tttaagetta attaceattt eggeatteag
                                                                      420
gatatgtegg eccagttgca aaacgegggt aaaacegget ggetgtateg egttgtgeag
                                                                      480
gcgggacagg tttcggcgga tgcgccgctt gagctggctt cgcgtttgag tgaggtgtcg
                                                                      540
gtgtacgagg cetgegeaat tgcctggcat atgccgtttg atgacgatca gtatcaccgt
                                                                      600
                                                                      660
ctgctgtcag cggcgggatt atccaccagc tggaccagaa cgatgcagaa gcggcggata
aqcqqcaaga tcgagagcag ttcgcggaga ttatggggga aatag
<210> 4367
<211> 603
<212> DNA
<213> Enterobacter cloacae
<400> 4367
ctttacgttg ttttacaccc cctgacgcat gtttgcagcc tgaatcgtag actgtctctc
                                                                      60
gttgaatcgc gacacgaaag attttgggag caagtgatgc gcaaagttac cgctgccgtc
atggeeteaa egetggeett eagtgegtti ageeaggetg etgtagetat eateagegat
                                                                      180
                                                                      240
aacggttoot cagcagaggg cgcaacgcag cacagcagcc aaagccatat gtttgacggc
                                                                      300
ataagtttaa ccgaacatca gcgtcaacag atgcgagatc tgatgcagag ggcaagacac
gaccagocco otgitaatgi tagogaaatg gagacaatgo atogoottgi caccgoagaa
                                                                      360
aattttgacg aaagcgctgt acgcgctcag gccgaaaacc tggcgcagga acaggttgcc
                                                                      420
cgccaggtaa agatggcgaa ggttcgcaac cagatgttcc acctgctaac gcccgagcag
                                                                      480
                                                                      540
caageggttt tgaataccaa acatcagcaa egtatgaacc agttgegtga ggttgcaegg
atgcagcgaa gctcagatat gacgcttttc agtagcaata gcagtacceg tagtaaccag
                                                                      600
                                                                      603
taa
<210> 4368
<211> 909
<212> DNA
<213> Enterobacter cloacae
<400> 4368
egecatggca tgacaggagt gtttatgaat caatectatg gacggetggt aageegggee
                                                                      60
gcaatagceg cgacggtgat ggcgtcgtgt ttactgatca ttaaaatttt cgcgtggtgg
tacaceggat eggteagtat tetggeggeg etggtggact caetggtgga tattgeegee
                                                                      180
togotgacea acctgctggt ggtgcgctac togotgcaac cggcggatga agagcatacg
                                                                      240
tttggccacg gcaaagegga ategetggee gegetggeac aaageatgtt tattteggge
totgogottt tootgttttt gaccggcatt cagcatottg tttcgccgtc accgatgaac
                                                                      360
                                                                      420
gatcogggeg ttggcgtggt cgtaacggta gttgcactta taagcacact tgttcttgta
actttccagc gctgggttgt acgcaaaaca caaagccagg ctgtacgggc cgatatgctt
                                                                      480
cattatcagt ctgatgttat gatgaatggg gctattctta ttgcgcttgg tctggcctgg
                                                                      540
tatggctggc atcgggccga tgcgttgttt gcgttaggga tagggatcta tattttatac
agegeettge ggatggggta tgaegeggta eagtegette ttgaeegtge getteeggat
                                                                      660
qcaqaacqtg atgaaattta tgccatcgtg accaactggc ccggcgtcag tggtgctcac
                                                                      720
gatottogta egeggeagte agggeegace egetttatte agatteattt ggaaatggaa
                                                                      780
                                                                      840
gacaacetge cactggttca ggcgcatatg gtcgctgaac aggtggagca ggcgattttg
cagogtttcc ctgggtcaga cgtcattatt caccaggacc catgctctgt cgtacccagg
                                                                      900
gcgttttga
```

<210> 4369 <211> 282						
<211> 282 <212> DNA						
<213> Enter	213> Enterobacter cloacae					
gagctggatt ggtgaaacct gagctgatgc	cgaagcagca tgctggagaa tgaccgccga agaagctggg atatgatgcg	cgatgagcgc agagcagtca tctgtcttac	ctggacgcgc tgggtggatg gatgacgaag	tgctggaacg ccaaactgga acgacgaaga	tottgaagag togcatogac	60 120 180 240 282
<210> 4370 <211> 948 <212> DNA	robacter clo					
ategittgtg gaaggtggga geggaagtgg gaegataceg accegestag gagastegat aaacagcat aaccegeagg ggattgegge ctcacaaatg ggcgattgt gaegtgttce	aaattaaaat teggeattae aatatgtege cageeggaa geagaegget ttaaggaage tagegaaeta tetegeagt ttaecetgge acategega gtttaaegea gacatgetga geeggegegeegeeggegegegegegegegegegege	egtgetggat aaaagactat aaaagactat actgggegeg getegeggag eegategteg ttecageece ggatattgte eegteageag getgategee gegggatgae tgttacgeag eggetttgag ggeggteage eggeageactg	cgcatctggt acggaagtgg gaagtggatt ctggaatccc caatcggcgg gatctccctg ttagccgatg ggcgtaccga ctaagcgac accgaagacg ggcgagacg gtgaacgtgg ctggggcaga aaatgcaca	atotogatga geggeggece ttattggceg tgggggtgaa tgctggtggaa tgcgtggcaga egttgettga acgcggcett ggtgaaaaa getgettettg tggataaceae aattaccege agccggegg	tttaccgaaa ggcggcaacg ggtgggggac tacccgctac cggcagcggg ctggctgcaa tgacggggca tgcggatgtc ctccgcgccg agcacaaacg gctggaaaac cggggggggg	60 120 180 240 300 360 420 480 540 660 720 780 840 900 948
<210> 4371 <211> 462 <212> DNA <213> Ente	robacter cl	pacae				
gtcaccgtgg gtcgaaaaag cgcattttca gtgctggtgg ttttcgaagg tgtcgccaac	gaagcagacc cggatgaggt atgacgacga gcgatgcgga tttcccagtt gcgcggcacc aggacatgaa atggccccgt	gacgggtgaa acaaaaagct aggcaagatg tacgttggct ggagcgcgca tacacaaacc	attggcccag aaccgcttat aacctgaacg gcggataccg gaagctctat ggacgattcg	gacttttggt gtgagegegt tteageagge aacgeggeat acgagtactt etgeggatat	gctcctgggt gctgggctac gggcggcagc gcggccgagt tgttgagcgc	60 120 180 240 300 360 420 462
<210> 4372 <211> 1062 <212> DNA <213> Ente	robacter cl	oacae				
aaaatcatgt cgcgccctca gcccagcgcc	cccgatacgc cgcttaaagc acggatatga gtggctaccg ggctggtatt	cattgccaaa cgacgtttct accaaatacc	gaactggggc gctgagacgc tttgcccgtc	tgtctgttac gegecegegt gectgaagat	caccgtcagc ggaagcggag gggcaaaatc	60 120 180 240 300

```
360
qacatgqtcg gcgaaattag ccacgaactg gcgcgacatg agattgacct gctgctcatc
gctgacgacg atctggcgga caaacacagc tatatgcgca tggtgcagag ccgacgcgtg
                                                                    420
                                                                    480
gatgegetga tagtggegea taegetggat cacgateege gtettgagea getteaggee
gccgggtttc cgtttctggc gctaggccgc agccagetcc cgcagccgta cgcgtggttc
                                                                    540
gatttcgaca actatgccgg tacgtatcag gccacccgct ggctgatcga gaaaggccat
cagogoatty cyctgotygy cyanagoaac aaccagycat toatcaccca gogocyccay
                                                                    660
                                                                    720
ggetaeetgg acgcgctgeg ggaageegga etttecageg aatggetgeg egecatgeet
                                                                    780
cettegegee gegtgggtta tgccaccaeg caagaactte tetecetgee geageegeee
acqqccatca ttaccqactq caacacccac ggcgacggcg cagcgatggc cctggcgcag
                                                                    840
                                                                    900
atgggacget taaceggtga aaatgeegte tegetggtgg tetatgacgg ettacegeag
gacagcattg tegatatega egtegeggeg gtgatecagt etaceegtea gggegteggg
                                                                    960
aaacagattg ccgatatggt gogccagctg attaacggcg acgacattga caccettcag
                                                                    1062
gtgctctggc agccagaatt ctccccaggc cagacggcct aa
<210> 4373
<211> 2229
<212> DNA
<213> Enterobacter cloacae
<400> 4373
                                                                    60
tcacacgaaa aattccaaac ccgatcacag atccgaaacg ttttggtttg tatccgaaac
gttteggate aaaactcagg acateeegat gacaggagat gteegatgea agatgeeatt
                                                                    120
                                                                    180
tttcgacttg aaagcaatac ggttgacgtg gtgctaaaaa cccacccgtt cgccgaaatt
ctctactggg ggeegeaect tcagcactte tcgeegeagg atgteetgag tattgegege
                                                                    240
coggttgcta acggcagget ggacgtcgac tocccogtca cgctgatggc agagctgggg
                                                                    300
                                                                    360
catgggetgt ttggctcgcc gggcatcgag gggcatcgcc aggggctgga cggatcgccg
                                                                    420
gtatttaaaa ccacgcaggt gcagcaggcg ttaaacgccc tgacaatcac tgctgaagac
gageatgeag gettgegeet gaceagtgaa ataacgetgg atgecagegg egtactggtg
                                                                    480
                                                                    540
qtqcqccatq ggttaaccaa cctgaaaacg ctggcgtggc aggtggatcg ctttgccgtg
acgetgeegg tggccgaacg cgcgcaggag gtgatggcct tccacggacg ctggatcagg
                                                                    600
                                                                    660
gagtttcagc cgcaccgcgt tacgcttgag cacgacagct tcgtgattga aaaccgccgg
ggtaaaacct cccacgaaca tttcccggca ctgatttcag gtacgccgtc attcagtgaa
atgeaeggee acgtetgggg tgtgeatetg ggetggageg geaaceaecg cetgegegea
                                                                    780
                                                                    840
gaggegaaaa cegatggeeg cegttatatg caggeegaag egetetacet geegggtgaa
900
caegggetga atggeatgag ecageagtte caeegetace tgegegataa egttateege
                                                                    960
ttcccggaag ataaaccgcg cccggtgcat ctcaacacct gggaggggat ttacttcgac
                                                                    1020
caegateegg actacateat gegeatggee gaegaggeeg eagegetggg egtggagege
                                                                    1080
tttatcattg acgacggctg gttcaaaggc cgcaacgacg accacgccgc gctgggcgac
                                                                    1140
tggtatctgg acgagaaaaa atacccgaac ggccttaagc cggtgatcga tcacgttaaa
cageteggea tggagtttgg tatetgggtt gageeggaga tgattaacce ggatteegat
                                                                    1260
                                                                    1320
ctqtaccqcq cqcaccctga ctgggtgctg gcgctgccgg gctacgccca ggcgaccggg
                                                                    1380
egacaceage tggtgeteaa tettaatatt eeteaggeet ttgattatet ggtegagege
atgagttggc tgctgggcga acacgcggtc gactacgtga aatgggacat gaaccgcgag
                                                                     1440
ctggtgcagc cagggcacaa gggcaaagcc gccgccgacg cccagacgcg ccagttttat
egectgetgg acgtgetggg egagegtite eegcacattg agtttgaate etgeteetee
                                                                    1560
                                                                     1620
ggcggcgggc gaatcgatta tgaagtgctg acccgctgcc accgcttctg ggcgtccgac
aataacqacq cqctqqaqeq caacactatc cagcgcggca tgagctactt cttcccgccg
                                                                    1740
qaqqtqatqq qqqcqcatat cqqtcatcat aaatqtcacq ctaccttccq ccaqcacaqc
atteagttee gegggetgae ggegetgttt ggteacatgg ggetggaget ggateegete
                                                                    1800
acceptcgacg cgcaggagcg tgaaggetat cgacattacg ccgcgctgta taagcggtgg
                                                                    1860
cgcggggtca ttcatcacgg cacccagtgg cgcgtggata tgccggacgc caccaccctg
                                                                    1920
gcgcagggta tagtgagcga agacaagacg caggggctgt tittggtcag ccagctcgcg
                                                                    1980
atgeoggatt acaccetgat gatgeogetg egeatgeogg ggttagaege cagegegeag
taccqcatca cgctgctcga tcacccgaac attcagatta cgggcgaggg cgggcacacc
atgegeaage tgeeggegtg gatggaegeg cegeaaacgg taageggtga atggetgatg
                                                                    2160
```

caqqqqqta ttqcqctgcc gattc:ggat ccggaaacca ccattctgat tggtgtggaa

2229

cgcgtgtaa <210> 4374 <211> 1095

```
<212> DNA
<213> Enterobacter cloacae
<400> 4374
attaccacca tatggcctga cctgaatcaa ttcagctgga agggattgat atactatttg
cagtattcga cggttgaaca gtttcttccg gcagcagatt tcaattttgc attcctaagt
                                                                     180
tcagaggtag tcatgattaa gaaaatcggt gtgttgacaa gcggcggtga tgcgccgggc
                                                                     240
atgaacgcgg caatcogtgg ggttgtccgt gcagcgctga cggaaggtct ggaagttttt
ggtatctatg acggttacct gggtctgtat gaagaccgca tggttcagct cgaccgctac
                                                                     300
                                                                     360
agegtgtctg acatgatcaa cogtggoggt actttcctcg gttctgcacg cttcccggaa
ttccgtgacg aacacatccg tgaagtggct atcgaaaaaa tgaaaaaacg gggtctggat
                                                                     420
gegetggtgg ttateggegg egaeggetee tacatgggtg caaaacgtet gaetgaaatg
                                                                     480
ggetteeegt geateggeet geetggeace ategacaacg acattaaagg cacegactae
                                                                     540
accateggtt actteacege getgggtace gttgtggaag egattgaceg eetgegtgae
                                                                     600
                                                                     660
acctetteet eteaceageg tattteeatt gttgaagtga tgggeegtta etgeggtgae
ctgactctgg cagcggcaat tgccggtggc tgtgagttcg tggtggtgcc ggaagtggaa
tttagccgtg aagatotggt cgctgaaatc aaagccggta tcgcgaaagg taagaaacac
                                                                     780
                                                                     840
gccatcgttg ctatcaccga gcacatctgt gacgttgacg agctggcgaa gtacatcgaa
accgaaacca aacgcgaaac cogcgcgacc gttctgggtc acattcagcg tggtggttcc
                                                                     900
ccaggecegt acgacegtat cctggcgtcc cgcatgggcg cgtacgcgat cgagetactg
                                                                     960
                                                                     1020
cttcagggac acggcggccg ctgcgtcggt atccagaacg agaaactggt tcaccatgac
atcategatg coattgaaaa catgaagegt cegtteaaag gtgactgget ggactgegeg
                                                                     1080
aaaaaactgt actga
<210> 4375
<211> 1050
<212> DNA
<213> Enterobacter cloacae
<400> 4375
toatoggtta gotttotggo acgotgoatt catcaaaaca otacacaaga gagotgggog
                                                                      60
atgaataaat ggggcgtggg gttaacatta ttgctggcat caaccagcgt tctggcaaag
qacattcagt tactgaatgt gregtacgat ccgacgcgtg aactgtacga ccagtacaac
                                                                      180
                                                                      240
aaagettteg eggegeactg gaaacaggaa aceggegata acgtggtggt tegecagtet
caeggeggtt ceggtaagca ggegacateg gtgatcaacg gtategaage egaegtggtg
                                                                      300
accetggege tggettatga egtggatgeg ategeggage gtggeegtat egacaaaaae
                                                                      360
tggatcaagc gootgoogga caactotgog coatacacct ogaccatogt ottootggtg
                                                                      420
                                                                      480
cgcaaaggca acccgaaaca gattaaagac tggaacgacc tgattaagcc gggcgtgtct
gtcatcaccc cgaacccgaa aagctccggc ggcgcacgct ggaactacct ggcggcctgg
                                                                      540
ggotacgogo tgcaccacaa caacggogat caggocaaag cacaggactt cgtcaaagca
                                                                      600
ctgtttaaaa acgtcgaagt gotggactoc ggegegegeg gegeaaccaa caccttegte
                                                                      660
gagegeggea teggegaegt getgategee tgggaaaaeg aagecetget ggegaecaae
                                                                      720
qaqctqqgta aagacaagtt cgagatcgtc accccgagcg aatocatcct cgctgagccg
                                                                      780
acceptotoce togtogataa gettetteat aagaagegea ccaaageget geeggaagee
                                                                      840
                                                                      900
tacctgaagt acctctactc accggaaggg caggaaattg cggcgaaaaa cttctaccgc
                                                                      960
ccacgcgatg aggccgtege gaagaaatac gaaaacgcct tcccgaaact gaagctgttt
                                                                      1020
actatogatg atgtttttgg oggotggacc aaagogcaga aagagcactt ototaacggo
                                                                      1050
ggeacetteg accagateag caagegetaa
<210> 4376
<211> 819
 <212> DNA
 <213> Enterobacter cloacae
<400> 4376
gaeatccgcc gggtttttta tttggtcatc attttgcgtt actettttgc ctctattgaa
                                                                      60
aacagggaac gcgttgtgaa aaaaattatc ttactgattc tgatcgttat cgcccttgcc
gcaggcggcg tgtactggat gaaagcgggt aatccgaatg cgttgcgtca tatcgttctc
                                                                      180
                                                                      240
gaccagtgtg tgcccaacca gctgcataac cgtaacccgg caccgtgcgc gcaggtgaag
 ccagatgegg getacgtggt gttcaaagac cgeaacggac cgttgcaata cctgetgatg
                                                                      300
cccacgtacc gtatcaaegg cactgaaage ccgctgctga cagageegea gacaccgaat
                                                                      360
```

```
ttettetgge tggeatggea gtetegteat tttatgagea tgaaacgagg ggeegaegtg
                                                                      420
cotgacagog cogtttogot aaccatcaac toccogacog ggogoacgca aaaccatttt
                                                                      480
catatecaea teteetgtet gegeecagae gtgegegaga agetgaaege gtegeagggg
                                                                      540
caaatcagca cccagtggtt accgcttccg ggcgggctgg aagggcatga ataccttgcc
                                                                      600
cgtcgggtga cggagaacga actggtgcag cgcagcccgt ttatgatgct ggcggaagag
                                                                      660
ctgccagaag cgcgcgacca tatgggacgc ttcgcgctgg cgatggcgca gcagtcagac
                                                                      780
agetegitta tattactage qacagagegt aatttactta cetttaaceg egegteaget
                                                                      819
gaggaattqc aggatcatca atgcgatatc ctgaagtga
<210> 4377
<211> 1833
 <212> DNA
<213> Enterobacter cloacae
<400> 4377
                                                                      60
qqcaaaqttq tgatcgaaaa attgcgtaat atcgccatca tcgcgcacgt cgaccatggt
aaaactaccc tggttgataa gctgctacag cagtccggta cgtttgatgc tcgtgccgaa
actcaagage gtgtgatgga ctccaacgat ttggagaaag agcgtgggat taccatcete
                                                                      180
                                                                      240
gccaaaaata cogctatcaa atggaatgac tacogtatca acatcgttga taccccaggg
cacgoogact toggtggtga agttgagege gtgatgtcca tggtggatte cgtgctgctg
                                                                      300
gtggttgacg catttgatgg coctatgccg caaacgcgct tcgtgaccaa aaaagcattt
                                                                      360
goccaeggee tgaaacetat egttgtgate aacaaggttg acegteetgg egegegteet
                                                                      420
                                                                      480
gactgggttg ttgaccaggt cttcgacctg ttcgttaacc tcgacgcgac cgatgaacag
ctggacttcc ctatcgttta tgcgtctgcg ctgaacggta tcgccggtct ggatcacgaa
                                                                      540
gacatggcgg aagacatgac teegetgtac cagacgattg ttgacegegt teetgegeea
                                                                      600
aacgttgacc tggaaggcac cctgcaaatg cagatetete agetegacta caacaactat
                                                                      660
gttggcgtaa tcggcattgg tcgtatcaag cgcggtaaag tgaagcctaa ccagcaggtc
                                                                      720
actatcatcg atagogaagg gaaaacccgt aacggtaaag toggtaaagt gotgactcac
                                                                      780
                                                                      840
ctgggtcttg agcgtatcga gagcgacatc gctgaagcgg gcgacatcat cgctatcacc
ggtctgggtg aactgaacat ctccgacacc atctgcgatc cgcagaacgt cgaagcgctg
                                                                      900
                                                                      960
ccaqcoctqt ccqttqatqa accaaccqta tccatqttot tcaacqtcaa cacctotccq
ttctqtqqta aaqaaggtaa gttcgttacc tctcgtcaga tccttgaccg cctgaacaaa
                                                                      1080
gagetggtgc acaacgttgc gctgcgcgtt gaagaaaccg aagacgctga tgcattccgc
gtttcgggtc gtggtgagct gcacctgtct gttctgattg agaacatgcg tcgtgaaggt
                                                                      1140
                                                                      1200
ttcgagatgg cggtttcccg tccgaaagtt atcttccgcg aaatcgatgg ccgtaaacaa
                                                                      1260
 qaqccqttcg aaaacgtaac gctggacgtt gaagagcagc accaaggttc tgtgatgcag
 gcactgggtg agcgtaaagg cgacctgaaa aacatgaatc cagatggcaa aggccgcgta
                                                                      1320
                                                                      1380
 egtetegact acgtgatece aageegtgge etgategget teegttetga gtteatgace
 atgactteeg gtaceggtet getgtactee acetteagee actaegaega egttegteeg
                                                                      1440
 ggcgaagtgg gccagcgtaa caacggcgtg ctgatctcca acggtcaggg taaagcggtt
 gegittgego tgtteggitt geaggatege ggtaagetgi teetgggica eggigetgaa
                                                                      1560
 gtttacgaag gccagatcat cggtattcac agccgttcta acgacctgac ggtaaactgt
                                                                      1620
 ctgaccggta agaaactgac caacatgcgt gcgtccggta ctgacgaagc aacggttctg
                                                                      1680
                                                                      1740
 gttccaccga tcaagatgac cctggagcag gcgctggaat tcatcgatga tgacgaactg
                                                                      1800
 gtcgaagtga cgcctcagtc aattcgtatc cgtaaacgtc acctgactga gaacgatcgt
                                                                      1833
 aaacgtgcaa tgcgcggtgc gaaagaagac taa
 <210> 4378
 <2115 912
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4378
 aatgcacaaa gcccggcggg cgcgcgggta tacccgactg tgatcaaacc cgctcttttt
 tgtcactttt tgtataaaat gcggggcgtg atggttttca gaggacagcc catgagcctt
 accgaactga coggoaaccc gogtcacgat cagetgetga cgctgattgc cgategegge
                                                                      180
 tatatgaaca ttgatgaact ggcgcagctg ctggatgtct ccacgcaaac cgtgcgccgg
                                                                       240
                                                                       300
 gatatocqta agotoagoga goaggggotg atcaccogto atcacggogg ogogggoagg
 gcatccagcg tggtcaacac ggcgttcgaa cagcgtgaag tctcgcttac cgaagagaaa
                                                                      360
 egggegattg ecgaagegat tgeggactat attecegaeg gttegaceat ttttateace
                                                                      420
```

ategggacga cogtggagca egttgecegg gegetgetta accataatea tetgegeate

```
atcactaaca gcctgcgggt ggcgcacatt ctttataaga atccgcgctt tgaggtgatg
gtgcccggcg gtacgctgcg cccgcataac ggcggcatta tcggtcctgc ggcaacggcg
                                                                      600
ttcgtgtcag gatttcgcgc agattacctg gtcaccagcg tcggggcgat agagcacgac
                                                                      660
ggcgcgatga tggaatttga cgttaacgaa gccagcgtgg tgaaaaccat gatcgctcac
                                                                      720
                                                                      780
tecegteaca ttttactggc ggccgateat acgaaatacc acgcctccgc ggcggttgaa
attggcaacg tggcgcaggc gacggcgctg ttcaccgatg agctgcccgg cccggcgctg
                                                                      840
caaaatcacc tcaaatccag caaggttgag gttgtcgaag tcaattccgg agaagagcag
                                                                      900
                                                                      912
caggetgget ga
 <210> 4379
 <211> 951
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4379
 tcagttaggt atcacctcca ttctggtgac cggaaaagag acgataccga actactttgc
                                                                      60
gaagcagtta tgctaaaaac cgttcatcaa aaagccaatc accacacgcg cccgctgagg
gogtggttga aactcototg goatcgcatt gatgaggaca acatgaccac gotggogggo
                                                                      180
                                                                      240
aatotogott acgtgtogtt getotogotg gtgcogotgg tggcggtgat ttttgcgctt
ttttcggcat ttccaatgtt tgccgatgtg agcatgcagc ttcgccattt tgttttcgca
                                                                      360
aactttatte etgeeacegg egatgtgate cagaactaca ttgageagtt tgtegeaaac
tecageaaga tgaeggeggt gggggggtgt gggettattg ttacegeget getgetgatg
                                                                      420
                                                                      480
tactccatcg acagtgcgct caacaccatc tggcggagca aaaaagtccg cccgaaggtt
tactcctttg ccgtctactg gatgattita accettggec cattgctggc gggggcaagc
                                                                      540
ctggcgatca gctcctacct tctttcgctg cgctgggcga ccgacttaaa cagcgtgatc
                                                                      600
gataacgtgc tgcgtatett cccgctgatt ttatcgtggc tttcgttctg gctgctctac
                                                                      660
agegtggtac caaccacgeg cgtacccaac cgggatgccg tggtgggtgc tctggtcgcg
gegttgetet ttgagetggg caagaaagga ttegegettt atateaceat gtteeeetet
                                                                      780
                                                                      840
tatcagctga tttacggtgt gctggcggtg atccccattt tgtttgtctg ggtctactgg
acgtggtgta tcgtcttgct tggcgccgaa ataactgtca ctctcggggt ctaccgcgaa
                                                                      900
                                                                      951
 ctcaaaaaaq cagcagaagc tgaaaaacaa caagaagcag accaaccatg a
<210> 4380
<211> 912
<212> DNA
 <213> Enterobacter cloacae
 <400> 4380
 tocatactat gogtaaggcc tgccgtttgt gttgcaatag caggctcact tccgtggttg
 ttcaggaata ccgttgtgtc taaacaaaac cgtgttgccc acgcgtcgcc actgcctgcg
 ggtattgtgg aactgtcggt acacagaccg cctcacattt cacatgccac gccggatttt
                                                                      180
 ctggcggaag aggtccccgt tgccctgatt tacaacggta tttcgcatgt ggtgatgatg
                                                                      240
 gcctcgccga aagatctgga gctgttcgcc ataggttttt ccctctcgga aggcatcatt
                                                                       300
 gogcatocgc aggagatora oggcatggat giggitcatg cotgtaatgg tottgaagtg
                                                                       360
 caaatcgaac tetecageeg eegetttatg gggetgaaag agegeegeeg ggegetggee
                                                                       420
                                                                       480
 ggacgtaccg gctgcggcgt gtgcggcgtt gaacagctta acgatatcgg caaacccatt
                                                                       540
 atcocgetge cgttcaccca gacgttcaat etggegeace ttgateggge gettgageae
 ctgaacgacg tgcaacccat cggtcagetc agoggetgta cccacgegge ggcatggata
                                                                       600
                                                                       660
 ttgccgtcag gcaacattgc cggcggtcat gaagatgtgg gccgccacgt cgcgctggat
 aagctgttag gtcgccgcgc tcgggaaagc aacgtctggc agcagggcgc ggcgttagtc
                                                                       780
 tocagoogog coagotatga gatggtgcaa aagtoogoca tgtgoggogt ggaaattotg
 tttqcqqtqt cagcggcaac cacgctggcg gtggaagtgg cggagcgctg caacctgacg
                                                                       840
 ctggtggggt tctgcaagcc gggtagagca actatttaca cccatccgca gcgattgata
                                                                       900
                                                                       912
 gttgatcagt aa
 <210> 4381
 <211> 279
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4381
```

```
ggtctaatat ttatctcatc aaggcacggc gccttatcta aacaacttaa cgaaagggtt
                                                                      60
tatotoatga aaagoatoaa aacttrtgto goagtaatog etetggetae etettttggt
                                                                      180
totttegetg egeagacagt gacegeatee geetetacee tggatggtge agaagetaaa
atogotgoac aggotcagga agogggogog toatootaca aaattaccca ggoattcacc
                                                                      240
                                                                      279
qqtaaccgcg tacacatgac cgctgaactg aacaaataa
<210> 4382
<211> 642
<212> DNA
<213> Enterobacter cloacae
<400> 4382
ccatatcgaa cgtatttcca ttataatgaa cgcatcagaa acgttttaca agacgaacga
                                                                      60
                                                                      120
ttogttogtt atagagagaa agaggoogtt attatgacgo agccaatcag ogtgatogco
aaaagcctgg tacgagaacg cctgcgaacc gggctctcac tggcggaaat tgcccgccgt
                                                                      180
geogggateg ccaaatecae gettteacaa etggagtetg geaaeggeaa teetageetg
                                                                      240
gaaacgctgt ggtcgctttg cgtggcgctg gatattccgt ttgcccggtt actggagccg
                                                                      360
cagcaacccg tcacgcaggt gatccgccgc ggcgagggca caaaagtcgt cgccgggcag
gegaactacg aggegatttt getegeggeg tgteegeegg gegegegteg tgatatetat
                                                                      420
etgetgetga eteageeggg ggeagacegt attteccage eccateegee tggtteggtt
                                                                      480
                                                                      540
gagcatatta togtgaccca ggggcgggcg atggtcggtc tgatcgacgc ggcggaagaa
ctcggcccgg gagattacat ttgctaccct gctgaccage cgcatatctt taaggcgctg
                                                                      600
                                                                      642
gagecegata egeaegeget getggtggeg gaacaaaact aa
<210> 4383
<211> 864
<212> DNA
<213> Enterobacter cloacae
<400> 4383
qaacttttct cattggtggg ggccgttatg accgtactgc acagcgtcga ttttttcct
                                                                      60
acgggggctt cgccggtcgc gattgagcca cggctgcctc aggctgcgtt cccggagcat
                                                                      120
                                                                      180
catcatgatt ttcatgaaat tgtgattgtt gagcacggaa cgggcatcca cgtgtttaac
                                                                      240
ggtcagccgt ataccateag eggeggtacg gtgtgcttcg tgcgcgatca cgacaggcac
                                                                      300
ctgtatgaac ataccgacaa cctgtgcctg accaatgtgc tctatcgttc tccggatgcg
                                                                      360
ttccaqtttc tttccgggct gaatcagctg ttgccgcagg agaaggacgg ccattatccg
togcactggc gggtgaatca gtocacgttg cagcaggtgc gtoagctggt gagccagatg
                                                                      420
                                                                      480
gagcagageg aggatggaca ggagacgcac gccattgcta cccgcgaget gctgtttatg
cagetgetgg tgetgetgeg gegeageage etggtggaaag ggetggaaaa taacgaegeg
                                                                      540
cqcctgaatc agctgatggc atggctggaa gatcatttcg ccgaagatgt ctgctgggaa
                                                                      600
acgctggcgg atgacttttc gctctcgctg cgcacgctgc atcgtcagct caagcagcat
                                                                      660
accggcctga cgccgcagcg ttaccttaac cgtctgcgcc tgatcaaagc gcgtcacctt
                                                                      720
ttacgtcata ccgacgaaag cgtcaccgat atcgcctatc gctgcggttt cggcgacagt
                                                                      780
                                                                      840
aaccactttt egaegetgtt tegeegggag tttagetggt egeegegega tattegteag
                                                                      864
gggaaagacg cgttgcttca gtaa
<210> 4384
<211> 1326
<212> DNA
<213> Enterobacter cloacae
<400> 4384
aaaattctac aggagacagg tatgtcgctc tggttaacgc atcctctgct gcttccctcg
ctgatcgtcg gcgtcaccat cgtgctgtgg gcgacgtcgc tgttgcccga atttatcacc
                                                                      120
gcgctgctgt ttttcacggc ggcgatggcc gccagaatcg ccccgccgga agtaatcttc
                                                                      180
ggeggetteg ectegtetge ettetggetg gtgtteageg getttgtget gggtgtggeg
                                                                      240
attoggaaaa coggootggo ggacagggoo goocgggogo tgtoggcaaa gottaccgac
teetgggtge tgatggtgge aagegttgtg etactgaget atgeeetgge attegtgatg
                                                                      360
cogtogaaca tgggacgtat tgctctgctg atgccgattg tcgccgcgat ggcgaagcgg
                                                                      420
geoggeatte etgatggete gegggeetgg tttggeetgg egetggeggt egggtttgge
                                                                      480
acettecage teteggeeae tattttgeee gecaaegtge ccaaectggt gatgagegge
                                                                      540
```

```
geggeggaag geteataegg tatecaeete aactatqtee egtatetqet getgeaeaeq
coggtgctgg gtattctcaa aggcctgatt ctgattggcc tgatctgctq gctqttcccc
                                                                      660
ggcaacccga aaccggcgaa ggatctcgcg ccatcggaac cgatggggcg tgacgaaaaa
eggetegeet ggetgetgge ggtggtgttg aegatgtggg tgaeggagag etggeaegge
                                                                      780
gtgggcccag cgtggacagg gctggcggcc tcggtcgtcg ttatgctgcc gcgtataggt
                                                                      840
tttatcaccg gggaggagtt ctcggcgggg gtgaatatgc gcacctgtat ttacgtcgcg
                                                                      900
ggtatactcg ggctggccat tacggtgacg cagaccggta tcggtgcggc cgtaggcgag
                                                                      960
acgttgctcc atatcatgcc gctggatgca gaccgtccgt ttaccagctt cctggcgctg
acggggatca ccacggcgct caacttcatt atgaccgcca atggcgttcc ggcgctgtac
                                                                      1080
accaegotigg ogcagagott otoggacgog accaggotico egotigetigte ggtgateatq
                                                                      1140
attcaggtgc tggggtattc cacgccgctg ctgccgtatc aggcgtcgcc aattgtggtg
                                                                      1200
gcgatgggct tagggaaagt gcctgcgaag gcggggatgc tgctctgtct ggcgctggcg
                                                                      1260
attgcgacgt atctggtgct gctgccgctg gattatttgt ggtttagcgt attaggacgt
                                                                      1326
ttqtaq
<210> 4385
<211> 501
<212> DNA
<213> Enterobacter cloacae
<400> 4385
ttaaaacgat atctggtcgg cttgtcaaaa ggtcacaact ccagggtaaa atgcgggcta
aacaataata aggaacctta catgaccata cagcagtggc tgttttcatt caaagggcgt
attgggegee gtgaettetg gatetggatt geaacgrggg ttgtegeeat getgettetg
                                                                      180
ttttttgttg cctacaacgc atggctgagc acgcaaaccg cggcatttgc gctggtctgt
                                                                      240
ttactgtggc caaccgccgc cgtggtggtg aaacgtctgc acgatcgtgg ccgctccggc
gcatgggett teetgattat cetggegtgg atgetggtgg eggggaactg gteattgetg
                                                                      360
ccctcaatcc tcccatgggt ggtgggcaga ctgctgccga cggttatctt tgtaatgatg
                                                                      420
gttgtcgaac tgggcgcgtt tatcggcacc cagagcgaga acaaatatgg aaaagatacc
                                                                      480
cttgaggtga agtaccgctg a
                                                                      501
<210> 4386
<211> 273
<212> DNA
<213> Enterobacter cloacae
<400> 4386
agcgtcgcct tgcaattcag gagaggtagg atcatgtctt tagaagtgtt tgagaaactg
                                                                      60
gaatcgaaag tacagcaggc gattgacacc atcacgctgc tgcaaatgga aattgaagaa
ctgaaagaga agaacaactc cctgtctcag gaagttcaga acgctcagca cagccgcgaa
                                                                      180
gaaatggage gegaaaacaa ceagetgege gaacagcata aeggetggea agaacgettg
                                                                      240
caggogotgo tgggacgtat ggaaaaagto tga
                                                                      273
<210> 4387
<211> 3219
<212> DNA
<213> Enterobacter cloacae
<400> 4387
tgcaaaaacc gttgccatga ccgccagcgc cgccctcaac tgatccctta cctgagaatc
                                                                      60
caatocatgg actiticccg titticatc gacaggccga tittigccgc cgtactgtcg
attotgattt ttatcacagg attaatcgcc atcocgctgc tgccggtgag cgaataccct
                                                                      180
gacgtcgtgc cgccaagcgt gcaggtgcgc gccgagtatc cgggcgccaa cccgaaagtg
                                                                      240
attgctgaga ccgtggcaac accgctggaa gaggcgatca acggcgttga aaacatgatg
tacatgaaat ccgtcgcggg ctccgacggc gtgctggtga ctaccgtcac cttccgcccq
                                                                      360
ggcaccgatc cggatcaggc gcaggttcag gtgcaaaacc gcgtcgcgca ggccgaggcg
                                                                      420
cgtctgccgg aagacgtgcg gcgtttgggc atcacgactc agaaacagtc gccaacgctg
                                                                      480
acgctggtgg tgcatctgtt ttcgcctggt ggtaagtacg attcactgta tatgcgtaac
                                                                      540
tacgccacge tgaaggtgaa ggacgagetg gegegtetge ceggegtggg teagatecag
                                                                      600
attittggct cgggtgaata cgcgatgcgc gtctggctgg atccgaacaa ggtggctgcc
                                                                      660
```

cgcggtctga ccgcttcgga cgtagtgacg gcgatgcagg agcagaacgt gcaggtctcc

```
780
geoggtcage ttggcgccga geogctgccg aaagagageg acttectgat etecattaac
                                                                     840
qcccagggcc gcctgcatac cgaagaagag tttggcaata ttgtcctgaa aacaacgcag
                                                                     900
gatggtacgg togtcogcct gcgcgacgtg gcgcggattg aaatgggctc cgggagctat
                                                                     960
gecetgegtt eccagetgaa caataaagac geggteggga ttggtatett ecagtegeeg
ggggggaacq ccatcgatct gtctaacgcg gtgcgcgcga aaatggacga actgtccacg
                                                                     1080
cgcttcccgg cagacatgaa gtgggcggca ccttacgatc cgacggtctt cgtgcgtgat
tcaatcogtg cggtggtgca aacgctgctg gaagccgtgg tgctggtggt gctggtggtc
                                                                     1140
attotyttee tyeaaacety gegegegteg atcatteege tyategeggt geoggtyteg
gtggtgggta ctttcagcat tctctacctg ctgggcttct cgctgaatac cctcagcctg
                                                                     1260
ttcggcttgg tgctcgccat cggtatcgtg gtggacgacg ccatcgtggt ggtggaaaac
gtogagogaa atatogaaga ggggottgog cogottgogg cogogoacca ggogatgogt
                                                                     1380
gaagtgtccg ggccgattat cgcgattgcg ctggtgttgt gcgcggtgtt tgtgccgatg
                                                                     1440
                                                                     1500
gegtttctgt cgggcgttac cggccagttc tacaagcagt ttgcggtgac gatcgcgata
                                                                     1560
tegacggtga tttcagcgat taactcgctg acgetetete eggcgetgge ggcaetgetg
ttaaagcccc acggcgcgcc gaaagatttc ccgacccggc ttatcgaccg tctgttcggc
                                                                     1620
tggattttcc qtccqtttaa ccgctttttc ctccgcagtt caaacggcta tcaggggctg
                                                                     1680
                                                                     1740
gtgggcaaaa cgctgggacg gcgcggtgcg gtattcgtgg tttacctgct gctgctctgt
geogeaggeg teatgtttaa ageggtgeee ggegggttta tteecaegea ggacaagetg
                                                                     1800
                                                                     1860
tacetgattg geggegtgaa aatgeeggaa ggeteetege tggeeegcae egatgeggtg
atccgcaaaa tgagcgaaat cgggatgaat accgaaggcg tggattatgc ggtcgcgttt
                                                                     1920
                                                                     1980
ceggggetga acgegetgea gtteaceaat acgeegaata eeggaaeggt ettttttgge
                                                                     2040
ctgaagccgt tcgaccagcg taaacattcc gcggcggaaa ttaacgcgga gatcaacgcg
                                                                     2100
aaaatcgcgc aaatccagca gggctttggc ttctcgattc tgccgccgcc gattttaggg
                                                                     2160
ctgggtcagg ggtcgggcta ttcgctgtac atacaggatc gcgctggtct gggctatggc
gogotgoaaa acgoggtgaa caccatgtoo ggggcgatta tgcagacgoo ggggatgoat
ttccccatct caacctacca ggctaacgtg ccgcagttgg acgtccaggt tgaccgcgat
                                                                     2280
                                                                     2340
aaggegaaag egeagggegt gtegetgace gatetetteg ggaegetgea aacetatetg
ggctcgtcgt acgtcaatga tttcaaccag ttcgggcgca cctggcgcgt gatggcgcag
                                                                     2400
qeeqaeqqqe aqtteeqeqa caqeqtqqaa qatattqeqa atetqeqtae eeqcaacage
                                                                     2460
cagggegaaa tootoccoat toocactato otoaacatca egaccaceta cootecogac
coggtgatec getacaacgg ctaccoggcg goggatetga ttggtgatge cgaccogoge
                                                                     2580
qtqctctctt ccqcqcaqqc qatqacqcaq ctqqacqcta tqtctaaqca qatcctqccq
                                                                     2640
aacgggatga atattgaatg gacggacctg agcttccagc aggccaccca gggcaacacg
                                                                     2700
qeqetqateq tetteceqqt eqeaqtqetq etqqeqttee tqqtqetqqe qqeqetqtat
                                                                     2760
gaaagetgga egetgeeget ggeggtgate etcategtge egatgaegat geteteegeg
                                                                     2820
ctgttcggcg tctggctgac cgggggcgat aacaacgtct ttgtgcaggt agggctggtt
                                                                     2880
gtgctgatgg ggctggcctg taaaaacgcg attcttatcg ttgagtttgc ccgcgaactg
                                                                     2940
gaaattcagg gcaaaggcat catggaggct gcgctggagg cgtgccgcct gcgtttacgc
                                                                     3000
cegattgtaa tgacttctat egeetttatt geegggaeta tteeactgat cettggteac
                                                                     3060
ggggcagggg cagaagtgcg cggcgtcacc gggatcaccg tettttecgg gatgetggge
gtgacgctgt ttggtctgtt cctgacgccg gtcttttacg tgacgctgcg taagttcgtg
                                                                     3180
                                                                     3219
acgcgcggca aagcggaaag agaggtgttg cctgcgtag
<210> 4388
<211> 855
<212> DNA
<213> Enterobacter cloacae
<400> 4388
                                                                     60
atccaaaggg cttctttaat gagaaacatc acactgcgtc atagtttccc ccgttcacgc
                                                                     120
atoggtogca gcatgaaaag catottgoog ggggoogtoo tggogttact ggotaccacg
gccctggcgg cagatcagcg ccagggcaac gtgttaaccc tgggaggcgg cgtggatgtt
                                                                     180
                                                                     240
gegecaeget atteeggtte ggacaagage egggtetetg eggeteaggt ggttgattae
                                                                     300
qcqatqqcaa atqqtttttt tqtcaqcacc acqcqqqqqa tcqqctacqq caacaqcttt
                                                                     360
ggtaacctgg actacaacgc agegetgage tategegetg gaegtaagga tegegaegta
                                                                     420
agcagcgatt cgatcgcctc cggcagcgac gacctgcggg gaatgggtga cattaaaggc
teagetateg ttgtgecagg getggggtae agggtgaetg aetggetgae egtgeagttg
                                                                     480
                                                                     540
caggcagagg ttccggtttc tgagagagac aatggtgagg ctgtgcattt cggcattgcc
agoccettot atacatotoc gaaaaatgeg ttaacgetgg egetgacegg tagetgggga
                                                                     600
tocagtaagt acgtgcaaac ctattacggg gtgaatgccg cccagtcggc cgcatcgggt
                                                                     660
```

```
cataagetca cetecegetg gageetgett geegeagetg gegttaegea getgaeggga
                                                                       780
 gaggetggeg atageceaat tgttcagega aaaacgtete etgtgggaag tttgaaggtg
                                                                       840
 acgtacaget tetga
 <210> 4389
 <211> 903
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4389
 gagaaacttt gcatgacgac gctcaatctg ggacacctcg ccacttttcg tctggtcgtt
                                                                       60
 caacgeggea gettttetge ggeageagat gtaatgggta ttteccagee egeegteage
 ctgcaaatac gccagctgga gcagtttctt cagacgeggc tgatcgaacg tacggggggt
                                                                       180
 ggaatcaaag ccactgctgc cggtgaggcg ctacgggtgc acggtgaacg tcttgaactg
                                                                      240
 goggttgagg agacaattog tooggttago goattoaato aggaagtgag oggoaccato
                                                                      300
 acgettggca egggegegae ggeetgtatt catetgette eagegetgtt geageagett
                                                                      360
 egtgaggagt atcccctgtt acggategga gtgacgaegg gaaatacgce agatategte
                                                                      420
 agggcgattg aggagaatcg gctggatatg gggctggtca cgctaccggc gagcggtcgt
                                                                      480
 acgttggcga ttatgcacgc gatggaggaa gagtttgtct ggattggcgc gcaggttcag
                                                                      540
coggaagaag gggagcagtt tacgccagac totttatacg ctcagccgct cattgcgttt
                                                                      600
gagtegggca geggtaegeg aacgttgatt gaeggetggt ttgaageeeg eggaetagee
                                                                      660
gtotcaccgg ttatgcaget tggcagtatt gaggccatca aacgcatggt acgtgcaggg
ctgggctaca gtattgtgcc gcgaatggcg gtggagcatg ccgacgaccg ggagggatta
                                                                      780
egegtteaat egttaaegee egttetgege eggeaaetgg egatagtgat gegteaggat
                                                                      840
aagatootoa goaaagggat gaoggtaatt attoggotgt tacagegtga acatggacgt
                                                                      900
                                                                      903
<210> 4390
<211> 1308
<212> DNA
<213> Enterobacter cloacae
<22.0>
<221>unsure
<222>(672)
<400> 4390
cactcagagg aaaacactat gacgegeegt getategggg tgagtgaaag accgeegett
ttacagacaa teeegettag tttgcageae etgttegeea tgtttggege aacegtgetg
                                                                      120
gtgccaatcc tgtttcacat taacccggct accgtgttgc tgtttaacgg catcggtacg
                                                                      180
etgetttacc tetteatetg taaaggeaaa atceeggeet atetegggte gagettegeg
                                                                      240
tttatctccc cggtactgct gttgctgccg ctgggttatg aggtcgcgct gggcggcttc
                                                                      300
atcatgtgcg gcgtgctgtt ctgcctggtc tccttcatcg tgaagaaagc cggtaccggc
                                                                      360
tggetggaeg tgatgtteee geetgeggea atgggggeea tegttgeegt categgeetg
                                                                      420
gagetggegg gtgtegegge gaacatgget gggetgetge etgeggaegg teagteaceg
                                                                      480
gattotaaaa coattattat ttogotggtg acgotgggcg tgacggtatt cggttocgto
                                                                      540
etetteegeg getttatgge gattateeca ateetgateg gegtgetgge gggttaegeg
                                                                      600
eteteetieg igatgggegt igtggatace acceegattg eegaggegea etggitegeg
                                                                      660
ctgccaacct tntacacccc gcgctttgaa tggttcgcca ttttcaccat tctgcctgcc
gegetggtgg tgattgetga geacgtegge cacetggtgg tgaeggegaa categtgaag
                                                                     780
egegacetga teegegacee gggeetgeat egeteeatgt ttgecaaegg ttteteeace
                                                                     840
atcatetetg gtttettegg etceaegeea aacacgaett aeggtgagaa tateggegta
                                                                     900
atggcgatca cocgcgtcta cagcacctgg gttatcggcg gcgcggcgat catcgccatt
                                                                     960
ctgeteteet gegttggtaa actggeggea gegateeaga ttateeeggt geeggtgatg
ggeggegttt etetgetget gtaeggggtg ateggtgeet eeggtatteg egtgetgatt
                                                                     1080
gaatccaaag tggattacag caaggcgcag aacctgatcc tgacctccgt tatcctcatt
                                                                     1140
ateggegtga geggegegaa ggtgeacate ggegeggeag agetgaaggg tatggegetg
gegaccateg teggegtegg cetgageetg attttcaage tgateteggt gateegeegg
                                                                     1260
gaagaggtgg tgctggacgc ggacgacagc gaaaaagcgc cacattga
```

```
<211> 744
<212> DNA
<213> Enterobacter cloacae
<400> 4391
actocattoc gattttatgt aagatototg gttgaggtat ttotgaacgg accggcacag
                                                                      60
ctctctctgc cactttatct ccctgacgat gaaactttcg cgagtttctg gccqggtgat
                                                                      120
aacccctctt tactggctgc actgcaaaac gtgctgcgcc aggaacacag cggatacatc
                                                                      180
tatatctggt cacgcgaagg cgcgggacgc agccacctgc tgcatgccgc ctgtgcggag
                                                                      240
ctttcggcgc gcggtgacgc ggtaggctat gtgccgctgg ataaacgcac ctggtttgtg
                                                                      300
cctgaggtgc tggagggcat ggaacatete tecctggtet gcategataa tategaatge
                                                                      360
gtggcggggg acgaaccgtg ggaaatggcg atctttaacc tctacaaccg cattctggag
                                                                     420
tegggeaaaa eeeggetget gateacegge gategteege egegeeaget caatetgggg
                                                                      480
                                                                      540
ctgccggatc tggcgtctcg tctggattgg gggcaaatct acaagctgca accgctgtcg
                                                                      600
gatgaagaca aactccaggc acttcagttg cgcgccagac tgcgcggatt tgaactgccg
gaagacgtag ggcgcttcct gctcaagcgt ctggatcggg agatgcgcac gctctttgat
                                                                      660
acgctcgatc agctcgatcg cgcctccatc accgcccagc gcaagctgac cattccgttt
                                                                     720
gtgaaagata ttottaagot tiga
                                                                      744
<210> 4392
<211> 744
<212> DNA
<213> Enterobacter cloacae
<400> 4392
atacaaatca tcacaccagg agtaatgaag atgcagaagc aagctgagtt gtatcgtggc
aaagcgaaaa ccgtatacag cacggaaaac ccggatctgt tggtgctcga attccgcaat
gatacgtcag caggagacgg cgcacgcatt gagcagttcg atcgtaaggg catggtgaat
                                                                      180
aacaagttca accacttcat tatgaccaaa ctggccgaag ccggtatccc gactcagatg
qaaqcqttgt tgtccgatac qgaatgtctg gtaaaaaaac tggatatggt qccqgttgag
                                                                      300
tgcgtgatcc gtaaccgtgc cgcaggetcc ctggtgaagc gtctgggcat tgaagaaggt
                                                                      360
ategaactga atecaecget gttcqatetg ttcctqaaaa acgacgecat gcatgacccq
                                                                     420
atggtcaacg aatcctactg tgaaaccttc ggctgggtaa gcaaagagaa cetggcgcgc
                                                                     480
atgcaggaac tgacctacaa agccaacgac gtgctgaaaa agctgtttga tgacgcgggc
                                                                     540
ctgatcctgg tcgacttcaa gctggagttc ggtctgtaca aaggcgaagt ggtgctgggc
                                                                      600
gacgaattet eteeggacgg cageegeetg tgggacaaag agacgetgga taaaatggae
                                                                     660
aaagaccgtt toogcoagag totgggtggc gtggtcgaag cgtacgaagc ggttgctcac
cgtttaggcg ttaagctcga ctaa
                                                                     744
<210> 4393
<211> 882
<212> DNA
<213> Enterobacter cloacae
<400> 4393
ttcgaggtgt ttatgcgctg gcaagggcgt cgtgaaagtg acaacgtaga agacagacgc
                                                                     60
agcagtggtg geggtggtcc gtctatgggc gggccaggtt tccggttacc cagcggcaag
                                                                     180
ggcggtatta ttctgctggt cgtcgtgctg gtggcgggct actacggtgt cgacctgacc
ggtttgatga ccggtgaaac cgggcaacag cagcagtatt ctcagcgctc catcagcccg
                                                                      240
                                                                      300
aatgaagatg aageggegaa atttacttcc gttattctcg cgacgaccga agatacctgg
ggtcagcagt tcgaaaaaat ggggcggact tatcagcctc caaaactggt gatgtaccgg
                                                                     360
ggcgcaaccc gcaccggctg tggcaccggg cagtccgtta tggggccgtt ctactgcccg
                                                                     420
                                                                     480
geggacagea cegtetatat egatetetee ttetatgaeg acatgaaaag caagetggge
geogacggcg attittgccca gggctacgtg atcgcgcatg aagtcggcca ccatgtgcag
                                                                     540
aageteeteg geattgagee taaagtgegt cagatgeage agaatgegte teaggeggag
                                                                     600
atgaatcqtc tttccqtacq catgqaqctt cagqccqact qcttcqctqq cqtctqqqqa
                                                                     660
cacagcatgc agcagcaggg cgtgctggaa acaggcgatc tggaagaggc cctgaatgcc
gcacaggega ttggtgaega tegettgeag cagcagagec aggggegegt tgtgeeggae
                                                                     780
                                                                     840
agotttacco atggcaccto agagcagogo tacagotggt ttaagogtgg ottogacago
ggcaacccgt cgcagtgtaa taccttcggc aaagctatgt ga
                                                                     882
```

```
<210> 4394
<211> 804
<212> DNA
<213> Enterobacter cloacae
<400> 4394
aagcogacat tttgcaatgg caattttttc aatgacttct tcagtaaagt ggcatggtca
ttaccccgca gaggcgtaaa atcctgctta tcaattaagg agatcgccat gaaacatgac
                                                                     120
cattttgttg tgcaaagccc ggatacgcct gctaaacagc tcctgcttct gtttcatggc
                                                                     180
gtgggcgaca atgccgtcaa tatgggacag attggcagct ggtttgcacc cgttttccca
                                                                     240
cacgogotga togtoagoat oggoggogtg gagoogtgog gtooggaogg toggoagtgg
                                                                     300
ttttccgtcg agggcgtgac ggaggagaat cgtcaggcgc gtattgatgc cgttatgcca
                                                                     360
gcctttatcg ataccgtgcg ttactggcag cagcagagcg gcgtaggcgc cgacgcaacg
                                                                     420
gogotgattg gottototoa gggotoaato atgtogotgg aaagogtaaa agogoagoco
                                                                     480
ggactggtgt cccgcgtgat tgcctttaac gggcgttttg cgacgttacc gcaaagcgcg
                                                                     540
accacgcaga ccacgateca toteatteat gggggggaag accgggtaat tgagettteg
                                                                     600
catgcagtag ctgcccagga gacgctgatg cgcgagggtg gagatgtgac gctggatatt
                                                                     660
gtagacgatc tqqqqcatqc cattqacqat cqcaqcatqc aqttcqcqct cqatcatctq
cgttataccg taccgaagca ctactttgat gaagcgetca geggegegaa geegaatgae
                                                                     780
gatgatateg tegagtttat gtga
                                                                     804
<210> 4395
<211> 2058
<212> DNA
<213> Enterobacter cloacae
<400> 4395
acattgogto gocatgotgo tgtgggtaaa tacgataaca atagaaagaa taaggttatt
                                                                     60
gaaccaaaaa caggtgttgt tatgaatcgt tttattatgg ccaacgctca acagtgtatc
ggttgtegeg cetgegaagt tgeetgtgtg atggegeaca aeggggagea geaegegetg
                                                                     180
agegagegec attiteatec eegcattacg gteettacet eaggettgeg aaaaageeee
                                                                     240
gtgacctgcc accactgtga aaatgcgccc tgcgcgcaaa gctgcccgaa cggagccatc
                                                                     300
acgcaacaca gcgacagcgt acaggtcaat caacaaaaat gcattggctg taaagcctgc
                                                                     360
                                                                     420
gtggtggcct gtccgtttgg cacgatggac atgctgatcg ccccgctgga aaacgacagc
gtaaaggoot oggogoacaa atgogacete tgootggaaa ggoogoaagg cooggootgo
                                                                     480
gttgaaaact gcccggcaga ggtgcttacg ctcgccaccc cagccgtgct ggataagctg
                                                                     540
gttaaacagc geegacageg cagegcaagg etggaegege tgeegtggea cagegaggeg
                                                                     600
gttcagtcag teectcegca aaccaaacgg caacagatge aaaacacece ggegegegt
                                                                     660
gageoggata ageteaquee egacquege geaqqteatt ttaacqaqat etacttqeeq
tttcgcccgg aacaggcgca gcgcgaagca tcccggtgcc tgaaatgtgg cgaccacagc
                                                                     780
atttgcgagt ggacctgccc gctgcataac catattccac agtggattga gcggatcagg
                                                                     840
gegggggata teateggtge ggetgagett teteaceaga etaaetgttt aceggaaatt
                                                                     900
                                                                     960
acceggeegeg tetgtecaca ggategatta tgtgaaggeg cetgcaccet gegggatgeg
tcaggggcgg taaccatcgg qaatatcgaa cggtatatct cggatcgggc gctggcgatg
ggctggacgc cggacgtcag ccacgttaaa ccggtcggta agcgcgtcgc catcatcqgt
                                                                     1080
geogratecas cassactase etgescesae stattaste seasonest castatases
gtctacgate gccatecgga aateggegga ttgctgacet ttggtattee ggcetteaag
ctggataagt ccctgttagc gcggcgcaga gagatattca gcgcgatggg catccgcttc
gagotgaact gegaggtggg aaaagacgta togatggcoc aactgcaaaa ogactacgat
gccctgttca tcggcgtagg gacctatcgt tccatgaaag cgggtatccc tcacgaaqac
                                                                    1380
gegeegggeg tgtaegaege getgeegttt tragtggega acaegaggaa egtgatggge
                                                                    1440
cttgaccctg ccgcagacga gccgtttatc gacacgcagg ggttaaacgt ggtggtgctg
ggcgggggcg atacggcgat ggactgcgtg cgcaccgcgc tgcgacatgg cgcggcgaaa
                                                                    1560
qtcacctgcq cctatcggcq qqacqaqqcc aacatqccqq qctcaaaqaa aqaqqttaaa
                                                                    1620
aacgegaaag aagaggege ggeettigaa titaatgtee ageeggtiga geteacgetg
                                                                    1680
gataccgacg ggaaggtcaa cggtatccgg atgctgcgca cccgtctggg cgagccggat
                                                                    1740
gcgcaggggc ggcgtcgtcc tgtcccggtg gcgggcagtg agtttgtcat gccagcggat
                                                                    1800
gcggtgatca tggcgtttgg gtttaatccg cacgccatge cgtggcttca ggcgcaggge
                                                                    1860
                                                                    1920
gtcgacaccg acgactgggg gcgcatcaag gcctccgtgg agagccgtta tcgctaccag
acctogaato ogcagatttt tgotggoggt gatgoggtac goggtgogga totggtggto
                                                                    1980
```

accgcgatgg cggaagggcg ccatgccgcg caggggatca tggactggct tggcgtgccg

```
ccccccaaca tccattaa
<210> 4396
<211> 2304
<212> DNA
<213> Enterobacter cloacae
<400> 4396
ccgaaacgtg aaaggaataa caagatggat gatcagttaa aacaaagcgc tctcgatttt
                                                                     60
cacgagtttc ctgttccggg taaaatccag gtatccccga ccaaaccqct gqcqacccag
                                                                     120
cgcgatctgg cgctggccta ctcgccaggc gtggctgctc cgtgcctgga aatcgaaaaa
                                                                     180
gatocgotgg cagogtacaa atacacogco cgtggcaaco tggtggcogt tatototaac
                                                                     240
ggtacggcgg tgctggggtt agggaacatc ggtgcgctgg ccggtaaqcc ggtgatggaa
                                                                     300
gggaagggcg ttctgtttaa gaaatttgcc ggtatcgacg tcttcgatat cgaagtggac
                                                                     360
gaactggatc cggataaatt catcaacgtg gtggcggcgc tggagccgac cttcggcggc
atcaacctgg aagacatcaa agcgccggaa tgtttctata tcgaqcagaa gctgcgcgag
                                                                     480
                                                                     540
egtatgaaca tteecgtgtt ccatgacgac cagcacggca eggegattat cagtacegee
gccattctga acggcctgcg cgtggtagag aaaaatctct ccgacgtgcg catggtggtc
                                                                     600
teeggegeag gegeegegge categoetgt atgaacetge tggtggeget gggeatgeag
                                                                     660
aagcacaata ttgtggtctg cgactccaag ggcgtgatct acaaagaccg cgagccaaac
atggcggaaa ccaaggcggc ctatgcggtg gaagacgacg gcaagcgcac gctagaagac
                                                                     780
gtcattgaag gtgccgacat tttcctcggc tgttcaggcc cgaaagtact gacccaggag
                                                                     840
atggtgcaga agatggcgcg cgcgccaatg atcetggccc tggcgaaccc ggagccggaa
                                                                     900
                                                                     960
attetgeege egetggegaa ggeggtgegt gaagaegega teatetgtae eggaegtteg
gactaccoga accaggigaa caacgigoto igoticcogi toatoticog eggigogotig
                                                                     1020
gacgtcggcg ctacggcaat caacgaagag atgaagetcg ccqccgttca tgctatcqca
                                                                     1080
gagetggege aegeegagea gagegaagtg gtggeeteeg eetaeggega teaggatetg
                                                                     1140
agottoggoc ecgactacat tatecetaaa ecattigace egegtetgat egtgaagate
                                                                     1200
gegecagegg tggctaaage ggegatggae teeggegtgg egaegeggee gattgaagat
                                                                     1260
ttogatgoot acgtogataa actoaccgag ttogtotaca aaaccaacct gtttatgaag
cogatettet eccaggogog egetgacgog aagegegtgg tgetggegga aggggaagag
                                                                     1380
gogogogtgc tgcatgccac gcaggagctg atcaccttag ggctggcgaa accgatcctg
                                                                     1440
attggtcgtc cgagcgtgat cgagatgcgt attcagaagc tgggcctgca aattaagccg
                                                                     1500
ggcgtcgact ttgagatcgt caataacgaa tccgatccgc gcttcaaaga gtactggaac
                                                                     1560
gaatactatt egateatgaa gegtegeggg ateacceagg ageaggegea gegggeggtg
                                                                     1620
atcagcaata ccacggtgat cggcgcgatc atggttcatc gcggtgaggc ggatgcgctg
atetgeggca ccateggcga gtaccatgag cattteageg tggtgeagga gatettegge
                                                                     1740
tatogogagg gogtocatac tgcoggogca atgaacgego tgctgctgcc aagcggtaac
acctttateg cegataceta egteaacgae gateetteee eggaggaact ggeggaaate
                                                                     1860
acceptgateg cegeogeaaac cetteecece ttteectatee accepaaagt geogeteete
                                                                     1920
togoactota acttogggto atocaaatoo goggoggogt goaaaatgog coagacgotg
                                                                     1980
gacctggtgc gcgagcqtqc gccggaqctq atqatcqacq gcqaqatqca cggcqacqcc
                                                                     2040
gcgctggtgg agagcatecg taacgaacgc atgccggaca gcccgctgaa aggctcggcg
aacgtgctga ttatgccaaa cgtggaagcg gcgcgtatca gctataacct gctgcgcgtg
                                                                     2160
togagttotg aaggggtgac ogtagggoca gtgotgatgg gggtgtcaaa accggtgcat
                                                                     2220
gtgttaacgc cgattgcctc cgtgcgtcgt atcgtcaaca tggtggcgct ggcggtggtt
                                                                     2280
gaggcacaga cgcagccgct gtaa
                                                                     2304
<210> 4397
<211> 525
<212> DNA
<213> Enterobacter cloacae
<400> 4397
cattatgcca aattttggcg agtttttccc cggttattgg ctaaatgccc tgttcacgcc
ataatcactg tttttaaacc cgaaaaggcg gttaatacca tggagatacg cgtttttcgc
caggaagatt tcgaagaggt gatcaccctt tgggagcgct gcgatctgct gcgtccatgg
                                                                     180
aacgatccgg agatggacat cgaacggaag gtgaatcacg atgtcagtct gtttctggtc
                                                                     240
                                                                     300
gctgaggtca acggcgaagt agtcgggacg gtgatgggcg ggtacgacgg ccaccgcggc
teggeetact atetgggegt geacceggaa tacegegege geggeatege caaegegetg
                                                                     360
cttaaccgtc tggaaaagaa gctgatcgcc cgtggctgcc cgaaaatcca gattatggtc
                                                                     420
```

```
cgggaagata acgacgtggt gctgggcatg tatgaacgtc tgggctacga gcatgcggat
                                                                       480
  gtactgacgc tgggtaagcg cctgatcgaa gatgaagagt actga
 <210> 4398
 <211> 948
  <212> DNA
 <213> Enteropacter cloacae
 <400> 4398
 cogcoatcaa tgccacgcag togtggcatc tttttttcag gaggagcgat gtctcaggtt
                                                                       60
 cagagtggca ttttgccaga acattgccgc gcggcgattt ggattgaagc caacgtcaaa
 ggggatgtgg atgccctgcg tgcggccagc aaagttttcg ttgataaact ggccaccttc
                                                                       180
 caggocaaat tooccgaago coatotgggo goggtggttg cotttggcaa taccgtotgg
                                                                       240
 cgtcagctga gcggcggcga aggcgcaaaa gagctgaaag attttattcc ttatggcaaa
 ggtettgege cegecaccca gtatgacgte etgatecata tectetecet gegecatgae
                                                                       360
 gtgaacttet ccategetea ggeagegatt gaggeetttg gtgaeageat egaegtgeag
                                                                       420
 gaagagatce acggtttccg ctgggtggaa gagcgcgatt tgagcggctt cgtcgacggc
                                                                       480
 accgaaaacc cggccgggga agagacgcgt cgcgaggtgg ctgtaatcaa ggatggcgtg
                                                                      540
 gacgegggeg geagetatgt gttcgtccag egetgggage ataacctcag geagettaac
                                                                      600
 egeatgageg tgeatgacea ggagatgatg attggeegta ceaaagatge caatgaagag
                                                                      660
 attgacggcg atgcgcgtcc ggtcacgtcc cacctgtccc gcgttgacct taaagaagac
 ggtaagggge tgaagattgt tegccagage etgeegtaeg geacegegag eggtaegeae
                                                                      780
 ggeetgtaet tetgegetta etgegegege etetacaaca ttgaacagea getgetgage
                                                                      840
 atgtttggcg ataccgacgg caagcgtgac gccatgctgc gcttcacccg tccggtgact
                                                                      900
 ggcggctact actttgcgcc gtccgttgag cgcctgctgg cgctgtaa
                                                                      948
<210> 4399
<211> 837
 <212> DNA
<213> Enterobacter cloacae
<400> 4399
gtaatgtttg caggatcaac aagacgtgtg ctgccgggtt ttaccttaag cctcgggacc
                                                                      60
agectgctgt tegtetgtet gattttattg ttacegetea gegetetggt gatgeagete
getgagatga getggteeca gtaetgggaa gtggteacca acceteaggt ggtggeggee
                                                                      180
tataaggtaa cgctgctgtc tgcgttcgtg gcctcgattt ttaacggcgt gtttggcctg
                                                                      240
ctgatggcgt ggatcttaac ccgctatcgc ttcccgggcc gcacgctect cgacgcgttg
atggatetge cetttgeeet geegaeggea grggeeggtt tgaegetgge gtegetgttt
                                                                      360
toogtgaacg gottttacgg tgagtggotg gogaagtttg atatcaaagt gacctatacc
                                                                      420
tggctcggta tcgcggtggc gatggccttt accagcatcc cgtttgtggt gcgtaccgtg
                                                                      480
cagcoggtgc tggaagagtt aggacocgaa tacgaagagg cogcggaaac cotgggcgcc
                                                                      540
acgcgctggc agagtttccg taaggttgtt ctgccggaac tttctccggc cttgctggcg
                                                                      600
ggggtggcgc tetcetttac cegcageete ggtgaatttg gegeggteat ttttategee
                                                                      660
gggaacateg egtggaaaac egaagtgace tegetgatga tittitgteeg tittgeaggag
tttgattate eggeegegag egegattgee teggtgatee ttgeegegte getgetgeta
                                                                      780
ctgttttcga ttaacactct gcaaagtcgc tttggtcgac gtgtggtagg tcactga
                                                                      837
<210> 4400
<211> 1131
<212> DNA
<213> Enterobacter cloacae
<400> 4400
agaatcagga aaaacgtcag catcaggagg gaaatcatga gcattgagat tgccaatatt
                                                                     60
aagaagtett ttggtegeae eeaggtgetg aatgatatet egetggatat eeetteegga
                                                                     120
caaatggtgg cgctgctggg gccgtctggc tccggtaaaa ccacgctgct gcgtattatc
                                                                     180
geogggettg agcaccagac cageggacat atecgettee aeggtacgga egtgageege
                                                                     240
ctgcatgccc gcgaccgtaa agtgggcttt gtattccagc attacgcgct gttccgccac
                                                                     300
atgacggtat tegacaacat tgcgtttggc ctgaccgtgc tgccgcgtcg tgaacgtcca
gatgccgccg ccatcaaagc gaaagtgacc aaactgctgg agatggtgca gcttgcacat
                                                                     420
ctggcggacc gettecegge teagetttee ggegggeaga ageagegegt ggegetggeg
```

```
cgtgcgttag ccgttgaacc gcaaatcctg ctactggacg aaccgtttgg cgcgctggat
                                                                        540
   gegeaggtge gaaaagaget gegtegttgg etgegteage tgeatgagga aeteeagtte
   accagogttt togtgaccca ogatcaggaa gaggogatgg aagtggccga cogogtggtg
                                                                        660
   gtaatgagtc agggcaacat tgagcaggtt gacgagccag agcagctctg gcgtgaaccg
                                                                        720
   gegaeceget ttgtgetgga gtttatggga gaagtaaace geetteaggg caccattege
                                                                        780
   ggeggtcagt tecacgttgg egegcacege tggeegetgg ggtatacete egegeateag
                                                                        840
   gggccggtgg atctattcct gcgtccgtgg gaagtggacg tcagccgccg taccagcctg
                                                                        900
   gattcacege tteeggtgea ggtgctggaa getageeeta aaggteaeta cacceaatta
                                                                        960
   gtggtacage coctgggetg gtacaccgag cogctgaccg tggttatgcg tgacgacgag
                                                                        1020
   cogcogcace ggggggaacg cetgtttgtg gggctgcaac acgcgcgcat ttatcacgge
                                                                       1080
   aacgagegea tegagaegeg egaggatatt getetggegg agteageetg a
                                                                        1131
   <210> 4401
   <211> 873
   <212> DNA
   <213> Enterobacter cloacae
  <400> 4401
  agagagttat tcgcaggggg cggggattta agcgtcatgg agatgatttt attccgggat
  aacacceggg cgcagcaaac cgatattgtc gccgtacagt cgcaggtggt gtacggcagc
                                                                        120
  gtgggaaaca gcatcgcggt gccgaatatt cgcacccacc ggctgaacgt taccgccgtg
                                                                        180
  ecgacggtge tgttcagcaa tacgccacac tacgacacct tttacggegg ggtgatcceg
                                                                        240
  gacgagtggt tcagcggcta cctgaaggcg ctggaagagc gtgagatttt acgcgagtta
                                                                        300
  aaageggtga caacegggta tatgggeagt geeagecaga tegtgetget ggegeagtgg
                                                                        360
  ctgaaggega tcaaagtgca acateeegat etgetggtge tggttgaeee ggtaateggg
                                                                       420
  gatategaca gegggatgta egrgaageeg gatatteetg aageetaceg tgaacatetg
                                                                       480
ctcccgctgg cccagggeat tacgcccaac gtgtatgaac tggaagtget gageggcaaa
                                                                       540
  cogtgoogta cgccggagag cgccattgoc gccgcgcagg ggctgctgtc caactcgctg
                                                                       600
  aaatgggtgg ctatcactag tgcgccagtg gctgacgatc cgcagaatat ccacgtcgtg
                                                                       660
  ctggtgageg aaggaggtgt tacegttage gegcaceege gegtagagae ggatetgaaa
  gggacggggg atotgttotg ttcggagctg gtgagcggta tcgtcggggg taaaaccgtg
                                                                       780
  gccgacgcca ttcgcatggc gggcgacagg gtgactgacg tgatgatcta tacgcagtcg
                                                                       840
  aaaggatatg acgagettat cetgeetgea taa
                                                                       873
 <210> 4402
  <211> 282
  <212> DNA
  <213> Enterobacter cloacae
  <400> 4402
  acgaacagtt cgataccgct atcggattcg atagagaacg catggttggt ttcaaaaatt
  ttaccgatgg tgccgtcaac tggagcaacc attttgttgc cagttggttt gatagcaatg
                                                                       120
  ccatcaccaa cgattttctc agcaaacact acatccggca cgtcttcgat gttgacqatc
                                                                       180
  togooggaga goggagcaac aatotoaata gttooggagt otttottgto atoagaaacc
                                                                       240
  agagatttca gtttatcgaa caaacccatg atottctcct aa
                                                                       282
  <210> 4403
  <211> 1275
  <212> DNA
  <213> Enterobacter cloacae
 <400> 4403
 acgacacaaa tggccttaag ccagctaccg gacaaaggaa gtggcgcggc gtctcccgct
                                                                       60
 gegtettgee eggeggetae aataacegga ataaaaataa tgageetgea aaaaacetgg
                                                                       120
 ggtaactttc atctgagcgc gatgggggtg gttttactct ccgtgcttct cgtcgggtge
                                                                       180
 gatgacageg tegegeaaaa tgeegegeeg caagegeeeg ttgteagege tgetgaegtg
                                                                       240
 gtggtgaaat ccattagcca gtgggacagc tttaacggtc gcattgaagc ggtggaaagc
                                                                       300
 gttcagctgc gtccgcgcgt gtccggctac attgagaaag tgaattacac cgacggccag
                                                                       360
 gaagtgaaga agggegaggt getgtteace ategatgace gaacetateg egeegegetg
                                                                       420
 gaacaggege aggegaacet ggcaagagee aaaacgcagg ceagcetege gcaaagtgaa
                                                                       480
 gecaacegta cegataaget gateaatace catetggtet caegggaaga gtgggageag
```

```
egtegetegg etgeegttea ggegeaggee gacattegeg eegegeagge ggeggttgae
                                                                      600
 gcageccage teaacetgga etteaceaaa gtgactgege etategatgg tegegecage
                                                                      660
 egggegetga teaceagegg taacetggtg acggegggeg acagegeeag egtgeteace
                                                                      720
 accetggtet egeagaagae ggtttatgte tacttegaeg tggaegagte aacetacett
                                                                      780
 castatcaga aastggcccg cagegggcag ggggcgtcca gcaatcasas ggcgetgeeg
                                                                      840
 gtggagattg gcctgacggg cgaagagggc tatccccatc agggcaaagt ggatttcctg
                                                                      900
 gataaccage ttacgccggg tacggggace atccgcatge gcgcgctgct ggataactca
                                                                      960
 cagegteagt teacgeeggg actgtttgee egegtaegee tgeegggeag tgeggaattt
                                                                      1020
 aaagccacgc ttgttgacga taaggcggtg ctgaccgatc aggatcgtaa atacgtctat
                                                                      1080
 atcgtggata aagacggaaa agcgcagcgc cgcgacatca cgcccgggcg totggccgac
                                                                      1140
 ggtttacgta tegtacagea ggggetgaat eeeggggata aagteategt egatggttta
                                                                     1200
 caaaaagtgt ttatgccggg tatgccggtt aatgcaaaaa ccgttgccat gaccgccagc
                                                                     1260
 gccgccctca actga
 <210> 4404
 <211> 2379
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4404
 gtcaaccgca tcccgtcgtt gatatttaaa atccctcctc cactgtgctt gccaggaatt
                                                                      60
 ttccgggcaa cgtgtacgtc aggttggatg cctgtcttcc tttaccctct ggagcgcaag
                                                                      120
ggttgtaaac gagcatctat gaatattcac cacatcctga agcaaaataa agaccgctgg
                                                                      180
tgggcacttc ctcttatttt acccgtcgtg ttactcccgg tactaagtgt ggctaatacc
                                                                      240
ttaacgcagc tgggcgacgg tatcgttgcg ctctattatc tcccgctctc ttttctgctq
gegetgatgt tgttetttgg cetggaagee eteceegggg tggtggtate getatttta
                                                                     360
egttattace ceteegttgg gttatttgaa accgtggetg geattetgea ttttategtt
                                                                     420
cotetggtgc teagetgggg eggttatege gtatttgege eeeggegtaa tatgaceget
                                                                     480
tacggtgaca tacgcctgat ggggcagcgt attttctggc aggtattttg tccggcaacg
                                                                     540
ctttttctgg tgctgtttca gtttgcggtt tatctcggca tttatgagag ccgccagagc
                                                                     600
ctogogggac taaatcccct caatattogg acacttatta actatcaggg gctactggtg
                                                                     660
agegggetga egggegtgee getaagetae etgetgatee geetgataeg geateegege
tatatcaagg gactgatgte ccageteege gegeaaatag acaaaaaggt gacggeegtt
                                                                     780
gagtttgtgg tgtggttttt agecetggge gggttgctgg teatgetget getgeceatg
                                                                     840
aatgcaaaca gttccatttt cagtaccaac tacaccttgt ecctgetgat geccgtgatg
                                                                     900
ctctgggggg cgatgcgctt tggctacaag ctgatgtcac tcatctggac gccggtcctg
                                                                     960
ctggtgtcga ttcactttt ttatcactac attccggtgc aagaggggta tggcattcag
                                                                     1020
ctggcgatca cctcatccag ctatctggtc ttttccttcg ttgtgacgta catgtcgatg
                                                                     1080
ctggcgacac gccagcgcgc catcaatatt cgctcccgca gtcaggcttt tctcgatccg
                                                                     1140
gtggtgcata tgcccaacct gegggcgctg tcgcgcgagc tggccagtca tccgtggtca
                                                                     1200
gegetetgtt tactgegegt geoegagetg gaggtactgg gaegeaatta eggegtgatg
                                                                     1260
ctgcggatcc agtataaaca gcagctggcg caatggataa acggcactct acagcccaat
                                                                     1320
gagegagtet ateaceteae egggtatgae atggeggtge gtetggatge ggagtegeat
                                                                     1380
caacagegea ttgagaeget ggaegageat atcaageagt tegttittgt etgggatggt
                                                                     1440
atgccggtac agcctcaggt cggcataagc tattgctatg tgcgctcacc cgtcaatcac
                                                                     1500
ctctatctgg tgctggggga gctgggcatc gtggccgatc tctccctttc taccaaccac
                                                                    1560
ccggaaaatc ttcagcagcg cggggctgtt cacttgcagc gtagcctgaa agataaggtc
                                                                    1620
gegatgatga geogtttaca ggeogegetg gagcaggacg ettttaccet getggttcaa
                                                                     1680
eccepttegeg ggetgegegg egattgttat caegaggtge tgetgegaat gegtgatgat
                                                                    1740
aatggggcgc tgatctttcc cgaacagttc etgcccatag cacaggagtt tggtttatcg
                                                                    1800
togogtgtog atttatgggt actggagegt acgttgagtt toctggcaca gcaccgccag
                                                                    1860
eggttgeegg geeagegett tgegateaac etegeacett etacegteta eegggegeag
                                                                    1920
tteeegettg aagtgageeg eetgttagee aaataegeeg ttgaageatg geagttgate
                                                                    1980
tttgaagtga ccgaaagcag cgcctttggt catgcggatc tggcggcgtc taccctcagg
                                                                    2040
aaattacaaa aaatgggcat coggatogco attgatgatt ttggcacogg ctacgccagc
                                                                    2100
tatgegeggt taaaaagegt ggaegeegae ateeteaaaa tegaeggegg tittattege
                                                                    2160
aatattgtca gcaacagcct ggattaccag attgtggctt ctatttgcca tctggeccgg
                                                                    2220
atgaagaaaa tgctggtggt ggcggaatat gtggaaacag aagagatacg tagcgcggtg
                                                                    2280
cacgogetag gtategatta tgtgcagggt tatttgattg ggttgccggc tgagcttgat
```

acgttgctcg acacggagcc ttctcaggag agcgcctga

2340

```
<210> 4405
 <211> 1434
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4405
 cgaatgtcag gatttaaagc aggttttctg tgggggggg ccgttgcggc gcaccagctt
 gaaggegget ggaaagagg eggcaaggge gtgagegttg eegatgteat gaeggeaggt
                                                                       120
 gcccatgggg taccgcgtga aatcaccaac ggcgtgatgg aggggaaaaa ttacccaaac
                                                                       180
 cacgaagcca togacttota toaccgotat aaagaagaca toaaactott tgccgaaatg
                                                                       240
 gggttcaaat gctttcgcac ctccatcgcc tggacgcgta tcttcccgaa aggcgacgag
                                                                      300
 ctggagccga acgaagcggg actccaattc tatgacgatc tgttcgacga gtgcctgaag
                                                                      360
 cacggcatcg agccggtgat cacgctttcc cacttcgaga tgcctttcca cctggtgacq
                                                                      420
 gaatacggcg gctggcgcaa ccgtaagctg atcgacttct ttgtccgctt cgcgaaggtc
                                                                      480
 gtttttgagc gctaccagca taaagtgaag tactggatga cctttaacga gatcaacaac
                                                                      540
 caggocaact tocacgaaga ctttgcgccg tttaccaact ccgggctgaa atatgcgccg
                                                                      600
 ggagaagatc gcgagccggt gatgttccag gcggcgcact atgagttggt ggccagtgct
                                                                      660
 ctggcggtga aggcggggcg cgagatcaac ccgtcactgc aaattggctg catgattgcc
                                                                      720
 atgtgcccca totatccgct gacctgtgcc ccggacgaca tgatgatggc gatgaacgcc
                                                                      780
 atgeategee getaetggtt cacegaegtt caegtgegeg geaagtatee geageatetg
                                                                      840
 cteaactact ttgaacgtcg cggcttcgcg ctggatatta ccgaagaaga taaagtggcg
                                                                      900
 ctgacgcagg gctgcgtgga ttacatcggg ttcagctact acatgtcttt cgctaccaaa
                                                                      960
 gegaeggegg ataateegae getggattae gaegagagea agageetggt ttetaaceeg
tacgtgcaga aatcggactg gggctggcag atcgatcctg tcgggctgcg ctactccctg
                                                                      1080
aactggttct gggatcacta tcagctgccg ctgtttattg tggaaaacgg ctttggcgcg
                                                                      1140
ategaegtge aggagagega eggeaeggtg aacgaecagt acegeattga etacetttee
                                                                      1200
gcccacatcc gcgagatgaa aaaagcggtg gtggaagacg gcgtggatct gatgggctac
                                                                      1260
acgccgtggg getgtatega cetggtetet geeggeaceg gegagatgaa gaaacgetae
                                                                      1320
ggotttatot ttgtogataa agataacgaa ggtaacggta cgctgaaccg cagcaagaag
                                                                      1380
aaategtteg actggtataa geaggtgatt geeageaacg gagageaget ataa
                                                                      1434
<210> 4406
<211> 891
<212> DNA
<213> Enterobacter cloacae
<400> 4406
aatoggtoac aaagoattog otgototgat ataaatotoa taagattagt tgoggagaga
gacgcgatgg aaatcaaact gcatgccaac gccaccacca caccgcgtat ccgtcgttat
cttcagcagt cagataaaag cgacagagag cttgccgttg agttgggtat ctcggtcacc
                                                                      180
acceptcagge gctggegcaa cegegaccag gttteggata accacaccae gecaaaagtg
                                                                      240
atacataaag cgttgagaca agagcaggca gcactcataa atgctctgcg tgatatcacc
ggtgcacege tggatgaact gctgctgctg gtgaatgacg gactcgggat cgccgtttcc
                                                                      360
egegegacee tgaacegeta ceteaaaceg getteggtaa gacaaaaggg ggegtegttg
                                                                      420
cagggcaaaa aggcgctgaa ggccggtatc atgccgcaga agctacttct gcatcatcag
                                                                      480
cogetatege tgcatatgga cgacggtggg gagcaacace tgctctgggc gcgtgaacce
                                                                      540
gttagegget ggtgetaege eeggetttat geeggtgtet egeegeagtt getgaeeege
                                                                      600
tggacgaacg aggtgctggc tgcctgtccg gctgatattc aatctgttga gacttttggg
                                                                      660
ctggcagtga acttgccgga gcataacgtc accgtaaaag tgcattcaca gtattatctc
                                                                     720
gecetteagg teacegtgee gttacgegaa ateatteege gggtgaacag tgaaceggeg
                                                                     780
ggagcgctgt tgatccaact gtgtgagttt tacaaccggg gaaaaagcgca gaaaaagctg
                                                                     840
ggagagcgta cgccgcaggc gtttctgaaa gcgctgcggc gtaacgatta g
                                                                     891
<210> 4407
<211> 906
<212> DNA
<213> Enterobacter cloacae
<400> 4407
ggctcttgtt cgcacagagg atggctcatg ttcacgggaa gtattgtcgc gcttgttaca
                                                                     60
cogatggatg aaaaaggtaa tgtctgccgg tcaagcatga agaagctcat tgattaccat
```

```
gtcgccaatg gaacctcggc gatcgtttcg gtagggacta ccggtgaatc cgctacgctg
                                                                       180
 agccacgaag agcacggcga cgttgtgatg ctgaccctgg aactggcgga cgggcgtatt
                                                                       240
 coggtcateg cggggacggg cgcaaacgca accgcagaag ctatcagtct gacccaacgt
                                                                      300
 tttaacgaca geggeattgt eggetgtetg aeggtgacec ettattacaa eegteetaet
                                                                      360
 caggaaggtt tgttccagca tttcaaagcc atcgctgaac atactgactt gccacaaatt
                                                                      420
 ctgtataatg tgccgtcccg taccggttgc gatatgctgc cggaaaccgt tggccgtctc
                                                                      480
 togaaagtaa aaaatattat ogggattaaa gaggogacag ggaacttaag oogogttoat
                                                                      540
 cagatcaaag agotggtttc agacgacttt atcotgttga goggtgatga tgogacogog
                                                                      600
 ctggacttta tgcagetegg tggtaacgge gtgatttccg tgacggegaa cgtggeggeg
                                                                      660
 egegatatgg etgacatgtg caaactggee geageeggte actttgatga agetegegtg
                                                                      720
 attaatcago gtotgatgoo gttgcacaat aaattatttg togaacccaa toogatooca
                                                                      780
 gtgaaatggg catgtaagga gttggggctt gtagcaaccg acacgctgcg tctgccaatg
                                                                      840
 acaccgatta ccgaccacgg tcgtgaaatt gtcgctggcg cgctgaagca tgccggtttg
                                                                      900
 ctqtaa
                                                                      906
 <210> 4408
 <211> 291
 <212> DNA
 <213> Enterobacter cloacae
<400> 4408
tcatggcgtt tgggtttaat ccgcacgcca tgccgtggct tcaggcgcag ggcgtcgaca
                                                                      60
cogacgactg ggggggcatc aaggcotoog tggagagcog ttatogctac cagacctoga
                                                                      120
atccgcagat ttttgctggc ggtgatgcgg tacgcggtgc ggatctggtg gtcaccqcqa
                                                                      180
tggcggaagg gcgccatgcc gcgcagggga teatggactg gettggcgtg ccgccgcgca
                                                                      240
acatgcatta acgcagacgg gcgacaaagc gggcttcacg gcgtagtata a
<210> 4409
<211> 621
<212> DNA
<213> Enterobacter cloacae
<400> 4409
acagacteat tttgeegtgg agecegtatg teecegaaca ttagegttat taaagacaaa
                                                                      60
atcetttetg aaaattaett tgteetgegt aacateaett acgateteae cegtaagaae
ggggacgtca ttcgccataa acgcgaagtc tacgaccggg gcaatggtgc aaccattctg
                                                                      180
ctqtataacc gtgaaaagca aagcgtagtg ctgatccgcc agtttcgcat cgcgacatgg
                                                                      240
gtcaatggca acgcggacgg acgtctgatt gaaacctgtg caggtctgct ggacgacgat
gagccggaag tgtgtatccg caaagaagcc attgaagaga cgggttttga ggtggggacg
                                                                      360
gtgcagaaag totttgagot gtttatgtcc cotggcgggg teacegagot gatccacttc
                                                                      420
ttoattgogg aatatacoga tgoocagogo acgcacoggg goggtggogt ggacgatgaa
                                                                     480
qacattgaaq tgctggaaat gcctttcgct aaggctgttg acatggtgaa acgcggcgag
                                                                      540
atcopcgacg gtaaagcggt gatcotgttg caatatotgc aaaccagcgg gctgatgaat
                                                                      600
geogeggegg aagegegata a
                                                                      621
<210> 4410
<211> 456
<212> DNA
<213> Enterobacter cloacae
<400> 4410
togaagatga agagtactga gttccaccct ggcgactacg acgttcacgg togtctgcgt
                                                                      60
ctgccttttt tgttctggtg cgttttgctg ttgcaggccc gcacctgggt gctgttcgtg
atggetggeg egtegeggg geagggegat acgetaetga atetetttta tecegateae
                                                                     180
gatgogttct ggctggggtt actgcccggt gtaccggcgg tgctggcgtt cctgtgcagc
                                                                     240
ggaeggegge agtteeteec gegettetgg egegeactte getggetatt gattetggeg
                                                                     300
caggttgtgc teetggtetg geageeegtg etetggetgt acggegagee getateaggt
                                                                     360
atcgggattg cgctggtggt ggcggatatt gtcgcgctgc tgtggctggt cacgaatccc
                                                                     420
cgtttacgcg cctgttttat gcaagagtca gattaa
                                                                     456
```

```
<211> 639
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4411
 aacggcactt tttgccgata ctgcactcca acaagcgttg atttactacg taaggacgtc
 toaatgaaat ogotgogttt acttttatge geteteeege tggegttaae eggetgttee
 acgeteteat ceateactg gtetgeggee tateegtgga actggtttgg tteeteaacg
                                                                      180
 gaagtgaccg agcagggcgt gggcaaaatt accgcctcga cggcactgga tcaggatgcc
                                                                      240
 attcaggatg ccatcggcag tgattatcgc ctgcgcagcg gcatgaaaac cgagaacggc
                                                                      300
 aacategtge getatttega agegttgaaa gaegacaagg tggegatggt catcaacgge
                                                                      360
 gataaaggta cggtcaaccg cattgcggtg atggatgaag agattccgac ctcaggtggc
                                                                      420
 gtgaaggtag gtacgccgtt tggcgagctc taccagaaag cgtttggcca ctgcgccagt
                                                                      480
 gtgccgtcgg aggagagcgt ggcggtcgag tgtaaggccg acggcagcca gcacattagc
                                                                      540
 tatgtattca geggcacetg gaacggteeg gaagggttaa tgeegtetga egacaceetg
                                                                      600
 aaaaagtgga aagtgagcaa aattatctgg aagcagtaa
                                                                      639
 <210> 4412
 <211> 1023
 <212> DNA
<213> Enterobacter cloacae
<400> 4412
gggtgcgcaa tggccgttac tgtactgaaa aaaggatcgc tggcactggc aggtttactg
ctggtggcgc aggcgcaggc aaccgagttg ctgaacagtt cttatgatgt ttcgcgcgag
                                                                      120
ctgtttgccg cccttaatcc cgcatttgaa cagcagtggg cgaaagagaa caacggcgac
                                                                      180
aagetgaeca teaaacagte geacgetgge teatecaage aggegetgge cattttgeag
                                                                      240
gggctgaaag cggacgtggt gacctacaac caggtcacgg acgtgcagat cctgcacgac
                                                                      300
aaaggcaaac tgatcccggc gaactggcaa agccgcctgc cgaacaacag ttcgccattt
                                                                     360
tactecacca tgggetteet ggtgegeaag ggeaaccega agaacateea egactggaac
                                                                     420
gacctggtgc gttcagacgt aaagctgatc ttcccgaatc cgaaaacctc cggcaacgca
                                                                     480
cgttacacct atctggcggc gtgggggggg gcggacaaag ctgacggtaa cgataaagcg
                                                                     540
aaaaccgaac agtttatgac ccagttcctg aaaaacgtcg aggtgtttga taccggcggt
                                                                     600
cgtggcgcaa ccactacett cgccgaacgc gggctgggcg acgtgctgat cagetttgaa
                                                                     660
tccqaggtga acaatattcg taaacagtac gaagcgcagg gcttcgaagt ggttatcccg
                                                                     720
aaaaccaaca ttotggooga gttocoggtg gogtgggtgg ataaaaacgt taaggotaac
                                                                     780
ggcacagaaa aggcggcgaa agcctacctg aactatctgt acagcccgca ggcgcagacc
                                                                     840
gttatcaccg actactacta cogtgtcaac aacccggacg tgatgagcaa gctgaaagac
                                                                     900
aaattooogo agaccgagot gttoogogtg gaagatcatt toggogootg gootgaggtg
                                                                     960
atgaaaacgc attttgccag cggcggtgag ttagacaaat tgctggcggc ggggcgtaag
taa
<210> 4413
<211> 921
<212> DNA
<213> Enterobacter cloacae
<400> 4413
gtaaaaatcg tgaatacact cgaacacacc atcggcaaca cccctttggt caaacttcag
cgcatggggt gtgacaacgg cagcgaaatc tgggtcaaac ttgaaggcaa taacccggcg
                                                                     120
gggtcggtga aagaccgggc ggcgctgtcg atgattgttc aggccgaaaa gcgcggcgag
                                                                     180
ataaagcccg gcgatgtgct gatcgaagcc accagtggta acaccggtat cgcactggcg
                                                                     240
atgatagecg ceetgaaagg etategtatg aagetgetga tgeeggataa eatgagecag
                                                                     300
gagcgccgtg ccgccatgcg cgcctatgga gccgagctga ttctggtgag caaagagcag
                                                                     360
gggatggaag gggcgcgaga tttagcgtta gcgatggcgg agcgcgggga aggcaagctg
                                                                     420
ctogaccagt ttaataaccc ggacaacccg tacgcgcact acaccaccac cggcccggaa
                                                                     480
atetggeage aaacegeegg gegeateace caetttgtet eeageatggg gaceaeggge
                                                                     540
acgatcaccg gtgtgtcacg ctttctgcgt gaacaggata agccagtgac gattgtcggc
                                                                     600
ctgcaaccgg aagagggag cagtattccg ggcatccgcc gctggccggc ggagtatatg
                                                                     660
cogggcatct ttaatgcgca gcttgtggac caggtgctgg atattcatca gcgcgaggcg
                                                                     720
gaaaatacca tgcgtgagct ggccgtacgt gaaggcatct tctgcggcgt cagctctggc
                                                                     780
```

```
ggtgccgtag cgggcgcgat ccgggtggct gagtccacgc cgggagcggt ggtcgtagcg
                                                                      840
 attatttgcg atcgcggcga ccgttacctg tctaccggcg tctttggtga agagagttat
                                                                       900
 tcgcaggggg cggggattta a
                                                                       921
 <210> 4414
 <211> 723
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4414
 ttgatgtatg tcaagcaaga tgggtatggc gcaatccgaa aaaaacggta taatcccgcg
 atttttttgc ggatgccacc tcagaggaga aagagaatga agattgtgga agtgaaacac
 ccactegtta aacacaagtt gggcetgatg cgtgageatg acatcagcae gaagegtttt
                                                                      180
 egegaactgg cttetgaagt gggtageetg etgacetaeg aagegaeete tgatetggaa
                                                                      240
 acggaaaaag tgaccatcga aggctggaac ggcccggtac aggttgagca gatcaaaggt
                                                                      300
aaaaaaatta ccgtggtgcc aatcctgcgt gcgggtctgg gcatgatgga aggcgtgctg
                                                                      360
gagcacgtcc caagcgcgcg tatcagcgtg gtgggtatet accgtaacga agagacgctt
                                                                      420
gageeggtee egtaetteea gaagetggte tetaacattg atgagegtat ggegetggtg
                                                                      480
gttgacccga tgctcgcgac cggcggttcg atgatcgcca ccatcgacct gctgaaaaaa
                                                                      540
gegggatgea geageateaa agtgetggtg etggttgegg egeeggaagg tategeggeg
                                                                      600
ctggaaaaag cgcacccgga cgttgaactc tataccgcgt ctgtcgacca gggactgaac
                                                                      660
gagcacgggt acatcatccc ggggctcggc gatgccggcg ataagatttt tggtactaaa
                                                                      720
taa
                                                                      723
<210> 4415
<211> 1113
<212> DNA
<213> Enterobacter cloacae
<400> 4415
atacaattca ccgtetcact cccgccattc gattcaggga agggttgtat gctcgaaatg
                                                                      60
ttaatgeagt ggtateggeg teggtttage gaceeggaag eeattgettt getggteatt
ctggttgccg gattcggtat cctgttcttc tttagtggcc tgctggcacc gctactggtg
gcgattgtac tggcgtatet gttggagtgg cccaccgcgc gtctggaaca tatcggctgt
                                                                      240
tecegeeget gggegaceag cattgteetg gtgetgtttg teggtattet getgetgatg
tccttcgtgg tgatgcccat cgcctggcaa caggggatct acctgatccg tgatatgccc
                                                                      360
ggcatgctga ataaactgtc tgattttgcc gccacgctgc cgcgccgcta tcctgcgctg
                                                                      420
atggacgccg ggattatcga tgcgatggcc gaaaacatgc gcgcccgcat catgaccatg
                                                                     480
ggtgattegg tggtgaaata etetetggee tegetggtgg ggttgetgae getggeggtt
                                                                      540
tacettgttc tcgtgccgct aatggtgttt ttcctggtca aagataaaga gcagatgctg
                                                                      600
aacgeggtge geegggtget geegggeaat egeggteteg eeggteaggt etggeaggag
atgaaccagc agatcaccaa ctacattege ggeaaagtgc tggagatgat tgtggtggge
gtggcgacct ggattggctt cgtgatcttc gggctgaact actcgttgct gctggcggtg
                                                                      780
ctggtcggat tctcggttct gatcccgtat atcggcgcgt ttgtggtgac cattccggtt
                                                                      840
gtgggggtgg cgctgttcca gtttggtctg ggtacggagt tctggagctg tttcgccgta
                                                                      900
tacctgatta ttcagggact ggacggaaat ctgctggtac cggtgctgtt ctcagaagcc
                                                                      960
gttaacctgc atccgctggt gattatcctg tcagtggtga ttttcggcgg getgtgggga
                                                                      1020
ttetgggggg tattettege catteegetg gegaegetga ttaaageegt ggteeaegeg
                                                                      1080
tggccggatg tgccggcggt ggaagataag tag
<210> 4416
<211> 1044
<212> DNA
<213> Enterobacter cloacae
<400> 4416
ggagatttga tggcttattc agtacagaag tcgcgcctgg cgaaggttgc gggtgtttcg
                                                                      60
ettgttatge teetegetge etgtagttea gaetegeget acaagegeea ggtgageggt
                                                                     120
gatgaatcct atctggatgc gccgccgctt gctgaacttc acgcgcctgc cggcatgatc
                                                                     180
ctgccgatcc agaacggtga ttataatatt ccggttacca acggcagcgg cctggtgggt
                                                                     240
anagegeteg atattegtee gecageteag cetetggege tegtgagegg egegegeacg
                                                                     300
```

```
cagttcaccg gtgatacagc ttctctgctg gtggaaagcg cacgcggtac aacgctgtgg
                                                                       360
  cogcaggttg taagcgtcat tcagtcgaaa aactatacga ttgataaacg cgacgacgcc
                                                                       420
  agccaagett taaccaccga etggattgag tggaaccgte tegatgaaga ceageagtae
                                                                       480
  cgtggtcgtt atcaagtctc cgttaagccg cagggttatc agcaggeggt taccgttaag
                                                                       540
  ctgttgaatc ttgatcaggc aggtaaaccg gttgccgatc cgtccgccat gcagcgctac
                                                                       600
  agcactgaaa tgctgaacgt gattgcagcg ggtctggata agaacgctac cgatgccgca
                                                                       660
  aacqccgcgc agaaccgtaa cggctcaacc tttgacgtgc agagcggtgc agacgatacc
                                                                       720
  ggtctgccga tgctggtggt gcgtgcgccg tttaaccaga cctggcagcg tctgccagca
                                                                       780
  acgettgaaa aagtgggeat gaaggtgact gacagcacce gttcaacggg cagtatcaca
                                                                       840
  gegaeetata ageegetgte tgatagegee tggcaggagt tgggggcaag cgatecacag
                                                                       900
 ctgccttccg gtgactacaa aatccaggtc ggcgacctcg ataaccgcag cagcctgcaa
                                                                       960
  tttategate egaaaggaca caegetgace caggegeaga acgatgeget ggtegetgee
 ttccaggccg cattcagcaa ataa
                                                                       1044
 <210> 4417
 <211> 1968
  <212> DNA
 <213> Enterobacter cloacae
 <400> 4417
 taccttegge aaagetatgt gatgttgggg tttgaacage tggttaacca getteagegt
 accgggcacc geoggetggt ggtgctcage ggegatgaag cgtggacgtt gagccaggtg
                                                                      120
 accoatctgc gogatacgtt accaggagac tggctgtggc tggaggaaaa cccctctaag
                                                                      180
 gccatcageg gcctgctggg acgtgaatac ctgcacgccg tttttgacgc gcgagacggg
                                                                      240
 tttgacgtct eggecttege egeccteage gggaccetge gegeeggaag cettetggtg
                                                                      300
 ctgctggtgc cgccgttctc cgtctgggcc gacaggcccg acagggattc tctgcgctgg
                                                                      360
 agegacageg cagageegat egecaceeeg cactttgtte accaettttg teggatgett
                                                                      420
geogeogatt cagatgecat egtetggeat caacategte etetgtgeet teeegttgeg
                                                                      480
 ccagatttac cegectggca gecegecage ggtgaacege agegegagea ggetgaaate
                                                                      540
ctegaegete ttetgaecat gtetgeggge gtggeegeeg tgaeggegee gegeggaege
                                                                      600
 ggaaagteeg ceetggeggg catgttgetg ageggeatte aggggagtge agtagtgaeg
                                                                      660
gcaccggcaa aaggggcgac ggatgtcatc gcgcgtttcg ccggggaacg tittcacttt
                                                                      720
 atggccccgg atgcgctgct ggcctccacc acagaagctg actggctgat tgtcgatgag
                                                                      780
 geageegeta teeceggeee getgetggag aagetggegt egegetttee eegegtgttg
                                                                      840
 ctgaccacca cggtgcaggg ttatgaaggc acgggcaggg gattcctgct gaagttctgc
                                                                      900
 geocggttca gegggetgeg gegttatace ttatecaege eagttegetg ggetaeegga
                                                                      960
 tgcccccttg agcggatagt ggcgaacgcg ctgctgttcg acgatgcgct tatcgatcgc
 aaaccggcag gggaggtacg tttaacgtcg ctggagcccg ggatatggga gagcgatccg
                                                                      1080
 gegegegggg caggegtgta tgaactgett tgtgeegege actaecgaac gteececete
                                                                      1140
 gatttacgcc ggatgatgga cgcccccggc cagcactttg ctgttgctca ggcgggcgcg
 gagatcgctg gcgcgctctg gctggtggag gaggggggat taccccctga acttagccgc
 geagtatggg eggggttteg teggsegegt ggaaatetgg tggegeagte getggeggeg
                                                                      1320
 cacggeggtt egeogetege ggegaegetg aaaggeegae gegteageeg cattgeggtt
                                                                      1380
 catececate gecageggga aggeategge cageggetga teegeagtge cageggagaa
                                                                      1440
 gattatetet eggteagett tggetatace gaegagetgt ggegtttetg geggeagtge
 gggtttgtgc tggtgcggat gggcagccac cgggaagcca gcagcgggtg ctatacggcg
 atggcgttgc tgccgctgag cgaggcgggg catcagetet gcgaacagge gcatcagegt
                                                                      1620
 ttatgtegtg atatgegegt cetgteggee tggaatggeg aaaagateee ggtgaeggat
                                                                      1680
 gcatgggaag ctaccettaa tagtgatgac tggctggagc tggcggggtt tgcctttgct
                                                                      1740
 caccgggcgt tttcaacctc ggttgcggcg ttaacgcgat tggtgttagc cgtggacatc
                                                                      1800
 ccactecegg egetgegegg gaaaatggaa gggaataege acgatttegg gegeaaageg
                                                                      1860
 ttgctggcga agctacgcga ggaaaccgca cacgcgcttg aaaggcttga ttactcccgt
                                                                      1920
 agccagcagc tgaaagccga cattttgcaa tggcaatttt ttcaatga
 <210> 4418
 <211> 1134
 <212> DNA
 <213> Enterobacter cloacae
```

<213> Enterobacter cloacae

```
gacetatteg tttccgggge tgtgccgttc atgcgctact gcgtttttct tctcttct
                                                                      120
 atttgcgtgc ttcccgcgcc tcgggtgtgg gctgcacctg cgcagcagtc tttttcagac
                                                                      180
 tggcaggtga cctgcaataa ccagaacttc tgcgtagcgc gcaacactgg cgagcategc
                                                                      240
 ggtctggtca tgtcgctgag ccgcagtgcg ggggcaaaaa cggacgccag cctgcgcatt
                                                                      300
 gateteggtg ggetttegge geeteeggtg aaagageetg acategeeee geggetgetg
                                                                      360
 ctogacaatg tgccgcttaa actcacgtcg caacactggc agttaacccc ctggcatctt
                                                                      420
 aaaacagacg atacgggcac catcaccacg tttctgaaaa ctattcagga aggtcaggcg
                                                                      480
 ctgactctgc gcggggggaa gcagacaatc tctctggccg ggctgaaagc ggcgctgctg
                                                                      540
 tttatcgatg cccagcaaaa acgcgtcgga agtgaaacgg catggattaa aaaaggggat
                                                                      600
 agtocaccgc tgagcgtgcc gcctgcgccg gcattaaaaa aggtggcggt ggtgaacccc
                                                                      660
 acgccaacgc cgctgacgca taacgaattg aacgatctgc tggattacgg taactggegc
 atgaaccaca gccagtgete tetegateeg aaccggegtg aggtgegegt gaeegegetg
                                                                      780
 accgatgaca aagegetgat gatcatcage tgtgaggegg gggegtacaa caecgtegae
                                                                      840
 ctggcgtggc tggtgtcgcg taaaaaaccg tttgcggcca ggagcgtgag attgcgtctg
                                                                      900
 cogtttacco ettecageca gagtagegae atggagetga tgaatgecag ettegatgaa
                                                                      960
 aaaaagcgcg agctgaccac gctggcgctg ggacgcggga ttggcgactg tgggatccag
                                                                      1020
 accegetgge gttttaacgg ccagegette egtetggtae getaegegga agagecaage
                                                                     1080
 tgtgataact ggaatgggcc agatgcctgg cccacgctgt ggatcacaag gtag
                                                                      1134
<210> 4419
<211> 918
<212> DNA
<213> Enterobacter cloacae
<400> 4419
cactotgcaa agtogotttg gtogaogtgt ggtaggtoac tgatggogga agttacgcaa
                                                                      60
ttgaageget atgaegegee eegeatcaac tggggeaaat ggtttetgat tggtaeegge
                                                                     120
gtgctggtct ccgcattcat tctcgtcgtg ccgatggtgt acatcttcgt acaggccttc
                                                                     180
agcaaaggga ttatgcccgc gctgcaaaat ctggccgatc cggacatgct ccacgccatc
                                                                     240
tggctgacgg tgatgattgc cctgatcact gtcccggtga atctggtgtt tggcgtattg
                                                                     300
ctggcctggc tggtaacgcg ctttaacttc ccggggcgtc agctgctgct gaccctgctg
                                                                     360
gatatecegt ttgeggtgte teetgtggtg gegggtetgg tttatetget ettetaegge
                                                                     420
tocaatggcc cgctgggcgg ctggctggat gaacacgacc tgcaaatcat gttcgcctgg
                                                                     480
ccggggatgg tgctggtgac cgtctttgtc acctgtccgt tcgtggtgcg cgagctggtg
                                                                     540
ccagtgatgc tcagccaggg cagccatgaa gatgaagccg cggtgctgct cggcgcttcc
ggetggcaga tgttccgccg cgtcacgctg ccgaatatcc gctgggcact gctttacggc
                                                                     660
gtggtgctga ccaacgcccg tgcgatcggt gagtttggcg cggtgtcggt agtatccggc
                                                                     720
togattogog gogaaacoot gtogotgoog ttacagattg aattactgga acaggactac
                                                                     780
aacactgteg gtteetttae tgeegeageg ttgetgaege tgatggeeat tttgaeeetg
                                                                     840
tttttgaaga gtgtggtgca gtggcgttta gagaatcagg aaaaacgtca gcatcaggag
                                                                     900
ggaaatcatg agcattga
                                                                     918
<210> 4420
<211> 456
<212> DNA
<213> Enterobacter cloacae
<400> 4420
agatoggegt ggatggtgga aacacoggea geggggacea ttggggttea tttagccaaa
gaagttgatt tetttagtat eggtaceaat gatttaaege agtacacett ggeagttgae
ggtggtaatg atatgatttc acatctctac cagccaatgt caccgtccgt actgaatttg
                                                                     180
atcaagcaag ttattgatgc ttctcatgca gaaggtaaat ggactggcat gtgtggtgag
                                                                     240
cttgcaggcg acgaacgtgc tacacttctg ttgctgggta tgggtctgga cgaattctct
                                                                     300
atgagegeca tttecatece gegeattaag aagattatee gtaacacgaa ettegaagat
                                                                     360
gcgaaggtgt tagcagagca ggctcttgct caaccgacaa cggacgagtt aatgacgctg
                                                                     420
gttaacaagt tcattgaaga aaaaacaatc tgctaa
                                                                     456
<210> 4421
<211> 387
<212> DNA
```

```
<400> 4421
etgaaccgcc tegetgtgcc acggcagegc gtccagcett gegetgeget gteggegetg
                                                                      60
tttaaccagc ttatccagca cggctggggt ggcgagcgta agcacctctg ccgggcagtt
                                                                      120
ttcaacgcag gccgggcctt gcggcctttc caggcagagg tcgcatttgt gcgccgaggc
                                                                      180
ctttacgetg tegtttteca geggggegat cagcatgtec ategtgecaa aeggacagge
                                                                      240
caccacgcag gctttacagc caatgcattt ttgttgattg acctgtacgc tgtcgctgtg
                                                                      300
ttgcgtgatg gctccgttcg ggcagctttg cgcgcagggc gcattttcac agtggtggca
                                                                      360
ggtcacgggg ctttttcgca agcctga
                                                                      387
<210> 4422
<211> 591
<212> DNA
<213> Enterobacter cloacae
<400> 4422
ccacgcaaag gaagaacagg titgacaacc tcatcacaac attacctggt tatcactgcg
ctgggtgctg acaggccggg tatcgtgaat accatcactc gccacgtgag cagctgcggc
tgcaacatcg aagacagccg gctggctatg cttggcgaag agttcacgtt catcatgctg
                                                                      180
ctttccggaa catggaatgc cattaccctc atcgaatcta ccctgccgct gaaaggcgca
                                                                      240
gagetggatt tactgattgt gatgaagege accaeegege geeegegtee ggetetgeet
                                                                      300
gccacggtct gggtacaggt tgaagtgcct gattcacctc atctgattga acgttttacg
                                                                      360
gegetgtttg acagecatea gatgaacatt geegaactgg ttteeegeac acageeggge
                                                                     420
gatgaaaacg caatcccgac gctgtttatt caaattaccg cacacagccc tgcctcgcag
                                                                     480
gatgogtcaa atatogagoa agogttcaaa goodtotgta cagaattaca ogogcaaggo
                                                                      540
agtataagcg togtogatta ttogcagcac gaacaggatg gagttgagta a
                                                                      591
<210> 4423
<211> 462
<212> DNA
<213> Enterobacter cloacae
<400> 4423
agettggeag cetgeaacag gecegetaeg atgegegaat egaceagetg egeggeetge
                                                                      60
aacaacgett taageegtae gagaagatgt aataaaggag aagteatgae agaegeggta
                                                                     120
aaaatttacc ataaccetcg ctgctccaag agccgcgaga cgctgaatct gctgaagtct
                                                                     180
aacggcatcg atccggaagt ggtgttgtat ctggagacgc cgccggatgc gcagacgatc
                                                                     240
egecagetge tgaagatget taacatggge agegeaegeg acetgatgeg teagaaagaa
gatetgtata agtegeteaa tetgaaegat accagtetea etgaagateg getgatteag
                                                                     360
gcgatggtcg acaatcctaa gctgattgag cgcccgattg tggtggcgaa cggcaaggeg
                                                                     420
cgtateggee gteegeegga agaegtaete gggategtet aa
                                                                     462
<210> 4424
<211> 696
<212> DNA
<213> Enterobacter cloacae
<400> 4424
atgaaaaaca togtggtgot catttooggo aacggaagca atttgcaggo aatcatagac
gcctgcaaac agaagaaaat caatggcacc attcgggcag tattcagcaa caaggccgat
geatteggee ttgagegege gegggaageg aacatteetg egeacgeget ggaageeage
                                                                     180
cagttegeeg ggegtgaage etttgaeegt gagetggtge aggagattga egeetaegeg
                                                                     240
cetgacgtgg tggtgctggc aggetacatg cgcatcctga geceggettt tgttgcacac
                                                                     300
tacgcoggac gactgotcaa tatccaccot tocctgotac caaaatacco eggtotgoac
                                                                     360
accoatcgtc aggtgctgga gaacggcgat gaggagcatg gtacctccgt gcatttcgtt
                                                                     420
accgacgage tggacggegg tccggtcatt ttgcaggcaa aagtaccggt ctttgacggt
                                                                     480
gacaacgaag acgacgtgac cgaacgtgta caggetcagg aacacgccat ttatccgctg
                                                                     540
gtggtaaget ggtttgttga eggeegtett gagatgegeg acggegeage etggetggae
                                                                     600
ggagtgaagt tgcccccgca gggttatgct gccgaaggag tagtctgttt gaattgcccg
                                                                     660
goggogotto gottgcacgg goctacggto cogtag
                                                                     696
```

```
<210> 4425
 <211> 537
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4425
 ttattcacct ctgcggtgcc aaaaagaaca agattcaccg caacccagga cagaaaaatg
                                                                      60
 ttagattacc gcttcccgac agctttgcag atggttctca gcgtagcgat ggcggagcaa
                                                                      120
 togggtgaac gttcgacgag tgcaatcotg gcctacggcc tggaggcgaa tocgagcttt
                                                                      180
 atcogcaagt taatggttcc gctcgcccgc gacggcatta tcgtctccac gcttggccgc
                                                                      240
aacggeteta tteatettgg eegeeeggeg gaagagatta eeetgegtga tatetaeett
                                                                      300
teegteactg aagataaaaa getgtgggeg teeegteetg aegteeegge eegetgegtg
                                                                      360
gtcagegeca acgcctgctg gtacttcaaa tcaatcgctg atgaagegga geaggetteg
                                                                      420
 ttageggttt tagegegeca taeegtegee agegegetgg aagaggtgaa aaaageegat
                                                                      480
accagegggt gegateeggt geeggaacte tgtacgcage ataaaaaage geettaa
<210> 4426
<211> 519
<212> DNA
<213> Enterobacter cloacae
<400> 4426
gagaagatca tgggtttgtt cgataaactg aaatctctgg tttctgatga caagaaagac
teeggaacta ttgagattgt tgeteegete teeggegaga tegteaacat egaagaegtg
ccggatgtag tgtttgctga gaaaatcgtt ggtgatggca ttgctatcaa accaactggc
                                                                     180
aacaaaatgg ttgctccagt tgacggcacc atcggtaaaa tttttgaaac caaccatgcg
                                                                     240
ttototatog aatoogatag oggtatogaa otgttogtto acttoggtat ogacacogtt
                                                                     300
gaactgaaag gogaaggett caaacgtate goggaagaag gocagogtgt taaagttgge
                                                                     360
gaccoggtaa ttgaattoga totgocactg ctggaagaaa aagccaagto taccotgacg
                                                                     420
ccggttgtta tctccaacat ggacgaaatt aaagaactga tcaaactgtc tggcagcgtt
                                                                     480
accgtgggtg aaaccccggt tatccgcatc aagaagtaa
                                                                     519
<210> 4427
<211> 927
<212> DNA
<213> Enterobacter cloacae
<400> 4427
tcaaaaaagcg cactccagga aacgttgatg aaaccgaatg cacagctggt caaaactttc
ctgatgcagc tacaggacgc gatttgccag aaactttccg ccgcagacgg cggtgaattc
caggaagacg cctggcagcg cgaagcgggc ggcggcgggc gcagccgcgt gctgcgtaac
                                                                     180
ggcqqtattt ttgaacaggc cggggtcaac ttctcccacg tccacggtga tgcaatgcca
gcgtccgcca cggcgcatcg gcctgaactg gcgggccgca gcttcgaggc gatgggcgtc
                                                                     300
togetggtgg egeateegea taaccegttt gtgccaacca gccaegecaa egtgegettt
                                                                     360
ttcatcgcgg aaaaaccggg ggccgatccg gtctggtggt ttggcggcgg tttcgactta
                                                                     420
acgccttact atggcttcga agaggatgcc gtgcactgge acaccaccgc gcgcgacctc
                                                                     480
tgcctgccgt ttggcgaaga cgtttacccg aaatacaaaa agtggtgcga tgactatttc
                                                                     540
tatetgaage acegegaega geagegegge ateggeggge tgttetttga egateteaae
                                                                     600
acgccggatt ttgataccgc attcagcttt atgcgcgcgg tgggtgaagg ctttaccgat
                                                                     660
gcctatctgc cgattgtcga acgccgcaaa aacaccgact acggcgtgcg cgagcgtgag
ttccagcttt accgccgcgg gcgctacgtg gagtttaacc tggtatggga tcgcgggacg
                                                                     780
ctgtttggcc tgcaaaccgg tgggcgcacg gagtccattc tgatgtcgat gccgccgctg
                                                                     840
gtgcgctggg aatacagcta cgcgccaaaa gaaggcagcc cggaggctgc cttgagtgag
                                                                     900
tttattcggg ttcgggactg ggtgtaa
                                                                     927
<210> 4428
<211> 975
<212> DNA
<213> Enterobacter cloacae
<400> 4428
```

```
ctcttttatt tccaaggagt aattatgaac cagctagacg gcatcaaaca atttaccacc
                                                                      60
 gtggttgcag acageggega categagteg attegtcact accageegga agaegegace
 accaaccect cgctgctgct caaggeggee ggtcttgege actttagtea tctgattgat
                                                                      180
 gacgcccttg cctatggcaa acagcgcggg caaacgcagg agcagcaggt cgccgaggcc
                                                                      240
 agogacaago tggoggtcaa tatoggtgog gaaattotta aaagoataco gggacgogto
                                                                      300
 tecacegaag tggaegeeeg cetetegttt gaecaggaaa agageateaa caaggetege
                                                                      360
 cgcctggtgg aactetacca ggagcagggg atcgataagt cacgcatcct gatcaagctt
                                                                      420
 gcgtctacet gggaaggcat ccgcgcggcg gaagtgctgg agaaagatgg gatccactgc
                                                                      480
 aacetgacge tgetgttete ettegeecag gegegtgeet gegeegaage gggegtgtte
                                                                      540
 ctgatttcac cgtttgtcgg acgtatctac gactggtatc aggcgaaaca gccaatggat
                                                                      600
 cogtacgtgg tggaagaaga tootggcgtg aaatcggtgc gtaatatota cgattattac
                                                                      660
 aagcagcacc gctacgaaac catcgtgatg ggggccagct tccgccgcac cgagcagatc
                                                                      720
 ctggcgctcg cgggctgcga ccggctgacc atctcccctg agctgctgaa aaagcttcag
                                                                     780
 gagagtgaag agacggtgat cogcaagett gtgccgacet ctaccgttet gccaaaacca
                                                                      840
 aaacccatga ccgaagegga atteegetgg gagcacaatc aggacccaat ggccgtggaa
                                                                     900
 aaactggegg aeggeateeg teagttegee gtegaceage geaaactega agatettete
                                                                     960
 gctgccaaac tttaa
                                                                      975
<210> 4429
<211> 384
 <212> DNA
<213> Enterobacter cloacae
<400> 4429
atccacaaaa gaacaaaagg attcactatg gttgtgatgt acggcattaa gaartgcgac
acqattaaaa aagcccgccg ctggctggaa gcacacaaca tcgactatcg cttccacgat
                                                                     120
taccgtgccg acgggcttga ccccgcgttt ctccattccg ccatcaacga actgggatgg
                                                                     180
gaagegetge tgaataceeg egggaceace tggegaaaac tggatgaate teteegggee
                                                                     240
acgatcaacg acgccgacag cgcagccaaa ttgatgcttg aaatgccggc aatcatcaaa
egeceattge tetgeaagee aggteageet atgetgetgg gttteagtga aaccetttat
                                                                     360
tcagatttat tcgttgaggt gtag
                                                                     384
<210> 4430
<211> 1131
<212> DNA
<213> Enterobacter cloacae
<400> 4430
totatgteat geoeggteat tgagetgaet cageagetta ttegeogtee tteeettage
coggacgacg caggitgica ggcattaatg attgagcgcc tgcgtgccat cggttttacc
                                                                     120
gtggagcaca tggattttgg cgatacgcag aacttctggg catggcgcgg tcaggggggg
                                                                     180
acgctggcgt ttgccggaca tactgacgta gttcccgcgg gcgacgcaga ccgctggatc
                                                                     240
aaccogcett ttgagcegae cateegegae ggeatgettt teggaegegg egetgeggae
                                                                     300
atgaaaggtt ccctggctgc gatggtcgtg gcggcagagc gtttcgtcgc ccagcatccg
                                                                     360
aaccataaaa accgtcttgc gtttttgatt acctccgacg aagaagccag cgcccataac
                                                                     420
ggcaccgtga aggtcgttga ggcgctgatg gcgcgcaatg aacgtctgga ctactgtctg
                                                                     480
gtgggcgaac cgtccagcac cgaagtggtg ggcgatgttg tgaaaaatgg ccgccgtgga
                                                                     540
teectgaeet geaatttgae tatteatgge gtgeagggee aegttgeeta teegeaeetg
                                                                     600
geggataacc eggtacaccg egeegegeeg atgetgaacg aacttgtgag cattgaatgg
                                                                     660
gataaaggca atgaattttt cccgccaacc agcatgcaga tagccaacat caaggctggc
                                                                     720
accggcagca acaacgtcat teceggcgat etettegtee agtttaactt eegetteage
                                                                     780
accgaactga ctgacgagat gatcaaagcg cgagtgattg cgctgctcga gaaatatcag
                                                                     840
ctgcgctata ccctcgactg gtggctgtct ggccagccgt tcctgacgca gcgcggtaaa
                                                                     900
ctggtggatg cggtagtgaa cgccattgcg cactataatg aaattaagcc acaactgctg
                                                                     960
acaacgggcg gcacgtctga cggacgcttt atcgcccgca tgggcgcaca ggttgtcgaa
ctgggtccgg ttaacgcgac gattcacaaa atcaatgaat gcgtgaacgc tgccgattta
                                                                     1080
caactgctgg coogcatgta tcaacgtatt atggagcaac tcgtcgcctg a
```

<210> 4431 <211> 201 <212> DNA

## <213> Enterobacter cloacae

```
<400> 4431
cgaatggact ggctttcaaa gtactggtgg attetggtgt tggtatttet ggtaggcgtg
                                                                      60
ctgcttaacg tgattaaaga tctcaagcgc gttgaccaca aaaagttcct tgccaacaaa
                                                                      120
coggatotto ogcogcacog tgattttaac gacaagtggg acgatgaaga cgactggcog
                                                                      180
aagaaggacc agaagaagta a
<210> 4432
<211> 1428
<212> DNA
<213> Enterobacter cloacae
<400> 4432
ggagttatga tgatcacgta ccagtttatc aacgegettt cagacgegaa gccgcagage
catttgattg cgcgcgctga cagttccctg ttaccggata gcgctcttat cgctgaaatg
                                                                      120
egecageaga geacegtege ggaegegege tttggetgeg egecgtttge eegeateaet
                                                                      180
ctgttgccgg atgcgctctg gcatgacgcc ctgaccgaag ggttgatcac ggccctgcga
                                                                      240
cogetgetta cogeccoge cagegorgaa etogtgetgg acgtgacgga tategacgat
                                                                      300
gtggtgctgg cgcaggtact gcgttttctc tttaatcagg cgcacatgct cagtgacctg
                                                                     360
aagetgaaga agaeggaega agegetgege ettacetgea teaetgeeet etgeetgeeg
                                                                     420
gaacagcagg cgaagctgga gacaaccttc cgccagcagc aggccattgc gctcggcatg
                                                                     480
gttgcggcac gacgtctggc ggatatgcca tccgaccgct gtacgccgca gtttgtggtg
                                                                      540
gaagaggege aaaaactgtg tgeegeeage cetgetetge getgegaggt gttggatgaa
                                                                     600
aagcaaattg ttgagcaggg gotggggcta otgcacgccg ttggcaaagg ggcgacotgc
                                                                     660
cogcotogec tgctggctat tcactataac ggcgtgtctg atggcccggt gcgctgctac
gtgggaaaag gcattacett tgacacegge ggeetgtgge tgaaggaagg egegggeatg
                                                                     780
tacaccatga aatatgacat gtgcggcgcg gctaacgtgc tcgggctgat gctgaccgtt
                                                                     840
goggagcaga aattaccogt gogcatcatg ggogtgotgg ogctggogga aaacgccate
                                                                     900
ggeccegacg ccatgeagec eggeacggtg geaacagect geaacggeat taeggtggaa
                                                                     960
atcaacaaca ccgatgccga gggccggctg gtgctggcag acgctatcgc ctgggcgagt
                                                                     1020
cagogocato ogcaggogoa ttatattatt gatatggoga oottaacogg agoggtggtg
                                                                     1080
aaagcgctgg ggtatgagct gagcgggctg atgacccagg atgagccgtt gcgtcaggca
                                                                     1140
ctgacgeteg egggcaaaeg gageggegae gaggtgtggt ceetgeeget ggatgegagg
                                                                     1200
ctgagaaagc aaaccgacag cgcgattgcc gatctgtgca acacgccgac caacaatgcg
                                                                     1260
gcgatcagcg cctcggcggc gtggctgctg caccatttct gcccgccgac tartccgtgg
                                                                     1320
gcgcatctgg atatcagcgg gacggcgctg tggcgagaaa acggacggag cgtggcgtcg
                                                                     1380
ggaagaccga ttccgctgct ggtggagcac ttgttggggg atctttag
                                                                     1428
<210> 4433
<211> 1041
<212> DNA
<213> Enterobacter cloacae
<400> 4433
gccgtgacca acaaaacttc tctcagctac aaagatgccg gtgttgatat tgacgcaggt
                                                                     60
aatgcgctgg ttgaccgaat caaaggtgtg gtgaaaaaaa cccgccgccc ggaagtgatg
                                                                     120
ggtggcctgg gtggattcgg cgcactgtgc gcgctgccgc aaaaatatcg tgaacctgtg
                                                                     180
ctggtctcgg gtacggatgg tgtcggtaca aaactgcgcc tggcgatgga tcttaagcgt
                                                                     240
cacgatacga ttggtatcga tctggtggcg atgtgcgtca acgacctggt ggtacagggc
                                                                     300
gctgagccgc tgttcttcct ggattactac gcgaccggca agctggacgt ggataccgca
                                                                     360
gecagegtea ttaaeggtat egeogaagge tgeetgeaat eeggetgtge getggtegge
                                                                     420
ggtgaaaccg cagaaatgcc tggcatgtat cacggtgaag attatgacgt cgcaggcttc
                                                                     480
tgcgtcggcg tggtagaaaa atcagaaatt atcgacggca gcaaagtggc tgacggcgat
                                                                     540
gtgctggttg cgctggcctc cagcggtccg cactccaacg gctactctct ggtgcgtaag
                                                                     600
atcetegaag tgageggttg egaceegetg accacegage tggaeggeaa accgetggee
                                                                     660
gateacctgc ttgccccgac ccgcatctac gtgaaaaacg tgctggagct gattgagaac
                                                                     720
gttgacgtgc acgccatcgc tcaccttacc ggcggcggct tctgggaaaa cattccgcgc
                                                                     780
gtgctgccgg ataataccca ggcggtgatc gacgcctcct catggcagtg gccgtccgtc
                                                                     840
```

ttcaactggc tgcaaaccgc aggcaacgtg agegagcatg aaatgtaccg cacctttaac

tgcggcgtgg gcatggttat cgccctgccc gccagcgaag cggataaagc gattaagctg

900

```
ctgacagaaa aaggtgaaaa cgcgtggaaa atcggtacga ttaaagcttc agattccgaa
                                                                     1020
 cagcgtgtgg tcattgaatg a
                                                                     1041
 <210> 4434
 <211> 2067
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4434
 gctgtaatgg gtcaggaaaa gttatacatc gagaaagagc taagctggtt agcattcaac
 gaacgtgtac ttcaggaagc ggccgataaa accaacccgc tgattgaacg tatgcgtttt
                                                                     120
 180
cgccgaatca tcatcagcga agaacagggc ttaaactccc actcgcgaca tctgcttgga
                                                                     240
 aaaatccagt ctcgcgtcat gaaagccgat caggaatttg atggcctcta taacgagctg
                                                                     300
ctgctggaaa tggcacgcaa ccaaatette etgatcaaeg aacgccaget etecgcgaat
                                                                    360
cagcaaaact ggctgcgcca ctattttaaa cattatetgc gccagcatat caccecgatt
                                                                    420
ctgatcaacc gtgaaaccga tctggtgcag ttcctgaaag atgactacac ctatctggcg
                                                                    480
gtagaaatca ttcgtggtga gaccattaac tacgcgctgc tggaaatacc gtctgataaa
                                                                    540
gtcccacgct ttgtaaacct gccgccggaa accccgcgcc gacgtaagcc gatgatcctg
                                                                    600
ctggataaca tootgogota ctgcctggac gatatottoa aaggottott cgattacgac
                                                                    660
gogotcaacg cotactogat gaagatgacc ogtgacgcog agtacgatot ggtgcatgag
atggaggcca gcctgatgga gctgatgtct tccagcctca agcagcgcct gacggcggag
                                                                    780
ccagtgcggt ttgtctatca gcgtgatatg ccggacgcaa tggtggagat gctgcgcgat
                                                                    840
aagetgacea tetecegeta egacteeatt atteceggeg ggegttacea caactttaaa
                                                                    900
gattteattg getteeegaa egteggeaaa geeaatetgg tgaacaaace getgeegege
                                                                    960
ctgcgccata tctggttcga taagttccgc aacgggttcg acgccatccg cgaacgggat
gtactgetet actateegta teatacettt gageaegtge tggaattget gegteaggee
                                                                    1080
teattegate egaacgtget ggegattaaa ateaatattt ategegtgge gaaagattee
                                                                    1140
egeateateg atgegatgat ceaegeggeg cacaaeggea agaaagtgae egtggtagtt
                                                                    1200
gagetecagg etegettega egaagaggee aacatecaet gggeaegeeg aetgaeggaa
gcgggcgtgc acgtcatctt ctccgcgccg gggctgaaaa ttcacgccaa gctgttcctg
                                                                    1320
atotocogta aagagggtga cgaggtggtg cgctacgccc atattggtac cgggaacttt
                                                                    1380
aacgagaaaa ccgcgagaat ctacaccgac tattcgctgc tgactgccga tgcccgcatc
                                                                    1440
accaacgaag tgcgtcgggt gttcaacttc attgagaacc cgtaccgccc ggtgagettc
                                                                    1500
gattatetge tggtgtcace geagaactea eggegeetge tgtacgatat gategacaaa
                                                                    1560
gagattgcca atgcgcagaa cggcttgtcg tccggcatta cgctgaagct caacaatctg
                                                                    1620
gtggacaaag ggctggtgga ccgcctgtac gcggcctcca gttctggcgt tccggtaaat
                                                                    1680
ctgctcattc gcggcatgtg ctcgctcatt ccggaactgg aaggcattag cgataacatc
                                                                    1740
cgcgtgatca gcattgtgga tcgctatctt gaacacgatc gcgtctatat tttcgataac
                                                                    1800
gccggtgata agcgcgtata cctctcgtcc gccgactgga tgacgcgtaa cattgattac
                                                                    1860
egtattgaag tageggeace getgetggat cetegeetga ageagegtat eetggacatt
                                                                    1920
atcgagatcc tgttcagcga tacggtgaaa gcacgttata tcgacaaaga actcagtaat
                                                                    1980
ogotatgtac ogogoggcaa togoogtaaa gtgogotogo agotggogat ttacgattac
attaaatcac ttgagcaacc cgattaa
                                                                    2067
<210> 4435
<211> 1542
<212> DNA
<213> Enterobacter cloacae
<400> 4435
cetatgecaa taaacgataa taccccaege eegcaggagt tegetgeggt egatettgge
                                                                    60
tcaaacagtt tccatatggt catcgcccgc gaggtggatg gcgcgatgca gatcatcggt
cgtctgaagc agcgtgtgca tctggccgat ggtctcgacg cgcgtaacat gctgagcgaa
                                                                    180
gaggetatgg agegegget gaactgeetg tegetgtteg cagaacgtet geaaggettt
                                                                    240
teacegteca gegtetgeat egttggaaeg cataegetae gecaggeget gaaegegeeg
                                                                   300
gaatttetta agegegegga aaaggttate eeetaceega ttgagateat eteeggtaae
                                                                   360
gaagaagcgc gcctgatttt tatgggcgtg gagcatacgc agccggaaaa aggccgcaag
                                                                   420
ctggtgattg atatoggogg tggctccacg gaactggtga ttggcgaaga cttcgagccg
                                                                   480
cgtctggtgg aaagccgccg tatgggctgc gtcagcttcg cgcagatgta tttcccgggc
                                                                   540
ggogtoatca cocgogaaaa cttccagege gegegeatgg cegeegttca aaaactggaa
```

```
aatotggoot ggcaatacog tattcagggo tggaacgtgg cgctgggcgc atcagggtcg
                                                                      660
 attaaagegg cccatgaagt getgetggeg atgggtgaaa aagaegggtt tattaegeet
                                                                      720
 gagegeetgg tgaaactcac egaagaggtg ettaageata agagettega egeeetgagt
                                                                      780
 ttgccgggtc tgtccgacga acgtaaagcc gtgttcgtac cggggctggc gatcctctgc
                                                                      840
 ggcgtgtttg acgcgctggc gatcaaagag ctgcgcctct ctgacggcgc cctgcgtgaa
                                                                      900
 ggcgtgctgt atgagatgga aggacgtttc cgtcatcagg atattcgcag ccgtaccgcg
                                                                      960
 cagagoctgg ccaaccagta caacatcgac cgtgaacagg cgaagegtgt totcgaaacc
                                                                      1020
 acggtgcaga tgtacgagca gtgggaggag caaaatccta agctggcgca tccgcagctg
                                                                      1080
 gccgcactgt taaaatgggc cgccatgctg cacgaggtgg ggctgaacat taaccacagc
                                                                      1140
ggaatgcatc gccattcagc ctatattctg caaaacagcg atctgcctgg cttcaaccag
gagcagcaaa ccatgatggc gacgctggtc cgctatcacc gcaaagccat caagctcgac
                                                                    1260
gatetgeege getttaegtt gtttaagaaa aageagttee tgeegeteat teagetgttg
                                                                     1320
egectgggeg tattgeteaa taateagega eaggegacea eeaegeegee gaegetgaag
                                                                    1380
ctaaaaacgg atgactatca ctggacgctg agcttcccgc acgactggtt cagccagaac
                                                                     1440
gcgctggtac tgctggatct ggaaaaagag cagcagtact gggaagcggt caccqqctqq
                                                                     1500
ctgttgaaga ttgaagaaga gagttctgag gcggcagcgt aa
                                                                      1542
<210> 4436
<211> 225
<212> DNA
<213> Enterobacter cloacae
<400> 4436
ccqtatcgcc caaaagggta tactcaggaa aagaaagtga gtcaggctac gcgtatgcga
                                                                     60
aaacgacatc gatttaacac coggatgacc cgcatcatac tgctcatcag tttcctgttt
ttotttggcc gotttgttta ttootccatt ggcgcctggt atcaccatca ggacaaaatt
                                                                     180
cagtogoago aatoaggoot ogttgtggat togooogago gotaa
                                                                     225
<210> 4437
<211> 1236
<212> DNA
<213> Enterobacter cloacae
<400> 4437
aaaataatgg aaacacctgc actooctogc cgtottgegc toactgeggg atgtaatcaa
                                                                     60
ctcattaact gggggatctc cttttacatg ccgggaacct ttgctcatgc cattacagca
                                                                     120
qaccgaaqct qgtcgtcccc cgaaatctat ctcggcctga cgctggccat gctggttatg
                                                                     180
getattgtet egeegtttgt egeteetetg etggegegtt ttggtggaca aagggtggta
                                                                     240
atgagoggga cottgetgat egeogtaage tgtetgteaa tggeetttae geecacaett
                                                                     300
teaggetggt atggegeetg gttgetgace ggeateggga tgegeetgte getgtatgat
                                                                     360
gegettttet eegetettgt ggaeetatae ggaeegeagg eaegeaggae aatetetegt
                                                                     420
gtcaccctgg cgggcggct ggcgtccgct gtcttttggc cgctgggaga cgccttactg
                                                                     480
aacgtgatgg gttggcagga tgcgctgaag atctacgccc tgttcggtct gctcagtgcc
                                                                     540
ctgettette ggegetteee gegeeagege tttacggtea ageecaaage atgtacgeag
                                                                     600
gtttcccctc atgacaggcg taacggctgg ctttatgcaa ccttcattgc tctcatcacc
                                                                     660
ttogtotota acggeacoto tacceacott coegaattta togceagett eggeetgeeg
gtcgccgtcg gcatgctgtg gggaatgggg cagaccggtg cacgccttat ggaggtgctg
                                                                     780
gcagggggg gcctcactcc gctaaaactg acgcttttca ctgcgctcgc catgeogctt
                                                                     840
tgttttctca tcggactgag cagcgacatg ctggcctggt gtgccgccgg atttgtgttc
                                                                     900
ggctttggtg ccattaacgg gctggtgact atcgtcaaag cgacgctace cetggaactg
                                                                     960
tttagtacag agegetatge cageegeaeg gggetgetge ttattecagg ccaactgatg
                                                                     1020
gcagccgcct ctccgtttgc gtatgcgtgg ctgaataagt cgctgggtat aacaggcgga
                                                                     1080
atgtgggttt ccgcaggaet gacgetggte attgeggggt tcgcagtgge getegtgege
                                                                     1140
agcocaggea aacaaactgt atcgcactgt atcccgageg ctacgctgac aaaccggtac
                                                                     1200
aaaacgcccg cagaagcaaa catccccgat acataa
                                                                     1236
<210> 4438
<211> 1407
```

<sup>&</sup>lt;212> DNA <213> Enterobacter cloacae

aaacgttga

```
<400> 4438
taccgtaccc gttcagaagg cggcaggttg atgcgtaatt tttggcacca cctcaggctt
cccacactgg tcaggcgaat gctggtcgcc cagatgctgc tgcttacqtt qctctqqtqt
                                                                      120
ctctttttaa ccttcatttt getggaagac etgegtagee eteccatact gaegggeagt
gagacttacg aaaccgtttt ttccctggta gagagcatgg acgategeec gcaggegegt
                                                                      240
gatgccgtgc tggcagcgtt cagcaaggcg ctgcgggagg gctatggcgg cggtgaatac
                                                                      300
coggagotgt coatcaacct cattgttogc aagaataacg agattatttt ttottoggat
                                                                      360
ggtgcgccaa cgggggtaaa aaatagccgt ctgggggtca tgcagcatgt ccagagtgag
                                                                      420
gaccatacat ggacaagccg taccctcaaa teegegeact eegacgtgga ggteaccett
                                                                      480
tttacccctg coggtagctg gaatttcttt atctatctga actcgcgcgg ctactacqtc
                                                                      540
atgoogotga tgatatgcat cocttttctt ctgttccccg cgtggctgtc catccgcate
                                                                      600
gegatgegee eetggaacaa ggtggtagat gaaattteat tgegeacgee ggacgatete
                                                                      660
togootttaa aagoogtooo cagacacaga gagottogoo agacggtega cgcgattaat
                                                                      720
gactttctgg ccagggtgca ggaaagegce gaaagggaaa aaatgtttat tgccgatgce
                                                                      780
getcacgaac tgcgtacgcc tetggeogeg atgeggatca acgtegagge attgcagtce
                                                                      840
tgggtcatca gcgaaagcca gcaggaactg cttgcgggca ttgttcgcag caatagccgt
                                                                     900
getgegegte teatcaatea gettetgetg atgatgeaca gegaageaca cateageeet
                                                                     960
gtgccgctga caacgcttat tcaggagcga atggctgccc tggaaccgct ggcgtccgga
cgcagaattg agtttgaatt cttcgccgac gatgaaatcc atgtcgcagg cattcgggaa
                                                                     1080
cgtctggtgt cgctgatcga caatttaatt gagaatgccg tgaagtacag ccctgagggt
                                                                     1140
ggacgcattg aggtacaact gcaatcgcgt gataaatgcg ctcagctgcg cgtctcagac
gegggeeeeg gtateeegat tgaaetgegg gagegegtgt tegaeagatt ttteegegat
                                                                     1260
cctaatcaga cccaaagcgg gagtggactg gggcttgcca tcgtcaaagc cgttacgcag
                                                                     1320
caacacaacg gcagggtcaa totgagtacg toagcogaag gtggtottat ggtgacogtt
                                                                     1380
gatttcccga atccggcgtt cgcatga
                                                                     1407
<210> 4439
<211> 321
<212> DNA
<213> Enterobacter cloacae
<400> 4439
aaacgggtca cotttaagtg caacaaacaa agatgotttt taatgcgtgg cgtaggggga
                                                                      60
agcaagatga acacgggtge atteatteac gatttacteg.actggatega caacaacete
                                                                     120
gatageegte tggacattga aacogtetee aggegageeg getattegaa atggeacete
                                                                     180
cagcggcttt tcaaagaaca taccggctcc cctctcgccg aatatattcg cgcgcaaaag
                                                                     240
ctgcaaaaat cggttgagcg cttagcccac agccatgaac cgattctgta cgtggacttg
                                                                     300
accacgggca agagatecge g
                                                                     321
<210> 4440
<211> 909
<212> DNA
<213> Enterobacter cloacae
<400> 4440
caccaggacc ccaattttta caattcagge egeatgagea cattcaaacc attaaaagea
                                                                     60
ctcacatege gtcgtcaggt tctcaaageg gggctggegg ccttaacgtt aacgggcate
                                                                     120
gcaaagcagg ctcaggcaaa agacgagagc acgcttaaaa ccagtaacgg acacagcaaa
                                                                     180
ccgaaaacca aaaaagccgg cgcaaagcgt ctggtcatgc tcgatccagg ccacggcggg
                                                                     240
atcgacaccg gcgccattgg ccgaaacggt tcgaaagaaa aacacgtcgt gctggcaatt
                                                                     300
gcaaaaaatg tgcgcgcaat tttacgcagc aacggtattg acgcccgcct gacgcgcacg
                                                                     360
ggcgacacgt ttatcccact gtacgatege gtggagattg cccacaagca eggegeagae
                                                                     420
ctgtttatgt ccattcacgc ggatggcttc acaaaccett ccgccgcagg cgcctcggtg
                                                                     480
ttegetetet ecaacegtgg egecagtage gecatggega aatacetete egategtgaa
                                                                     540
aaccgggcgg atgaagtggc cgggaaaaaa gctaccgaca aagaccatct gttacagcag
                                                                     600
gttctgtttg atctcgtgca gaccgatacc atcaaaaaca gcctgacgct cggctcqcat
                                                                     660
atcettaaac ggattaagee egtgeacegt etgeacagea aaageacega geaggeegeg
                                                                     720
tttgtggtgc tgaagtcccc gtccataccg tccgtgctgg tggaaacctc gttcattacc
                                                                     780
aacceggaag aagagegttt acteggeace acggegttte gteagaagat egegaacgee
                                                                     840
ategecteeg gggtcateag ttattteaac tggttegata ateaaaaage geacteeagg
                                                                     900
```

```
<210> 4441
 <211> 1992
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4441
 actatgtccc gtaaagagct cgccaacgcc attcgcgccc tcagcatgga tgccgtacaa
 aaagccaatt ccggccaccc tggcgccccc atgggtatgg ctgatattgc cgaagtgctg
                                                                      120
 tggaacgact tectcaagca caaccegace gateegacet ggtacqateg egacegtttt
                                                                      180
 atteteteca aeggteaege ategatgetg etetaeagee tgetgeaeet eteeggetae
                                                                      240
 gatctgccgc ttgaggagtt aaaaaacttc cgccagctgc actccaaaac gccgggccac
                                                                      300
 coggagatog gotatacgoo gggtgttgaa accactacog goccactggg ccaggggctg
                                                                      360
 gogaatgoog toggootggo gattgoagag ogtaegotgg cogogoagtt caaccaqcoo
                                                                      420
 gaccacgaga tigtogatca ciacacciat giotitatgg gigatggotg cotgatggag
                                                                      480
 gggatetece acgaggtetg etegetggeg ggeaccetgg geetgggeaa getgattgge
                                                                      540
 ttctacgatc acaacggtat ctccattgac ggggaaaccg agggctggtt taccgacgac
                                                                      600
 acggcaaaac gctttgaagc ctatcactgg cacgtggtgc acgagatcga cqgtcacgat
                                                                      660
 cctgaggcgg tgaaaaaagc gattcaggaa gcgcagagcg tgaaggacaa accgtccctg
                                                                      720
 atcatetgee geaccaccat eggettegge tegeogaaca aagegggeaa agaagaggeg
                                                                      780
 cacggcgcgg cgctgggtga agaggaagtg gcgctgaccc gccagaaact qgqctqqaaa
                                                                      840
cacceggeet ttgagatece aaaagagate tacaaggeet gggatgeteg egaaacaggt
                                                                      900
gaaaaaagcgc agcaggcctg gaacgagaag tttgccgctt acaaaaaagc gtatccggat
                                                                      960
ctggcggctg agtttacccg ccgcatgagc ggcggcctgc cggaagactg ggaagagaaa
                                                                     1020
acccaggege tgattgaaaa cetgeaatee aacceggega aaattgeeac eegtaaggea
                                                                     1080
tcacaaaaca ccctgaacgc aattggccca atcctgcccg aactgctggg cggatcggcg
                                                                     1140
gatotggege caagtaacct taccatotgg teeggeteta aatecetgaa ggaggacatt
                                                                     1200
gccgggaact acatccacta cggcgtgcgc gagttcggga tgaccgccat tgccaacggc
                                                                     1260
atogoccacc atggoggett cgtgocgtac accgctacct tcctgatgtt tgtcgaatat
gcccgtaacg cggcgcgtat ggcggctctg atgaaggcgc ggcaaatcat ggtgtacacc
                                                                     1380
cacgacteca teggaetggg tgaagatggg cegaegeaee aggeggtaga geagetggeg
                                                                     1440
agcctgcgcc tgacgccaaa cttcagtacc tggcgtccgt gcgatcaggt tgaagcggca
                                                                     1500
gtgggctgga agctggccgt agagcgtcat aacggaccca cggcgctgat cctgtcgcgc
                                                                     1560
cagaacctgg cgcagatcga gcgcacgccg gagcaggtga aaaatatcgc ccgcggggg
                                                                     1620
tacatectga aagacagegg eggcaageca gaegtgatee tgattgeeae eggtteagag
                                                                     1680
gtggaaatca cggtaaaagc ggcggagaaa ctaaccgccg agggtcacge ggtgcgcgtg
                                                                     1740
gtttccctgc cttcaacgga tatctttgat gcccaggatg aggcgtaccg cgaatcggtg
                                                                     1800
 ctgccttcaa acgtcgcggc gcgcgtggcg gttgaagctg gcattgccga ctactggtae
                                                                     1860
 aaatatgtgg gtotgaaagg ggogattgto ggoatgaagg gttacggtga atcogococg
                                                                     1920
 gccgataagc tgttcccgta cttcggcttt accgttgaga acgtagtgga gaaggcgctg
                                                                     1980
 agcgtgctgt ag
                                                                      1992
 <210> 4442
 <211> 1695
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4442
gtgaccgtta aacgccccgt atcgggaagc ctggctcggg ctttcttttc gatgattgtc
                                                                      60
ttgtccgttc tgatcagcgc cattgcgctg gttacactcg ccagcagcca gcgcgacgcc
                                                                      120
gaggogatta acategoogg ategotgogo atgcagaget acegoetggg etacgaaatg
cagogogoca gocogtogot ggoggagoac ogogoggtot ggoagaaaac gotgagogog
cetgegttge agaagetaaa eegetggtat gtgeetgagg aegteaaaca gegttaceag
cagttgcacc ttggctggca ggagatggac acgcgtatcg ccagcggcga taccgggtgg
                                                                      360
tatcagaacc acatagagga tttcgtgggc aggatagatg cetttgtgct ggcgcttcag
                                                                      420
cactacaccg ascatassat teagetggtg atttgeatgt egetgaeggg eggeetggge
                                                                     480
atcotgctgc tggcggtggt gaccetgegg cgcatecgcc gtcaggttgt getgeegetg
                                                                     540
aataatctgg tggcggcgag cgagcgtatc gaacagggcc agttcgacac tcccqcqccq
                                                                      600
gatactacgc tgcccaacga gctgggccag ctttcccgcg ccttcaacca tatgtcggcg
                                                                      660
gaattacaca coctgtaccg ttocottgag cactcogttg cogaaaaaac cogccacctg
                                                                     720
aatgaagccc atcagcagct cgaaatgctg ttcaaatgct cacaggcgtt gaataccqqq
                                                                     780
```

```
cagatagaca gccactgctt coggoatatt ttgcagattg tgcatgacta tacgcagatg
                                                                      840
 aattacetge aattgegeae eagtgaegae tggeagettt aegaaggaet ggagaeeeeg
                                                                      900
 ggcgagaaaa tgcacaattt accggtgtta atgcaggata ccctgtacgg cgaactgcgc
                                                                      960
 tggcaaagcg cgaccgggga tgttccgctg ccgctcatgg aaagcgtggc gacgatgctg
                                                                      1020
 ggccgggggc tctatttcaa tcaggcgcag aaacattatc agcagttgct gctgatggag
                                                                      1080
 gagegegeca ccategegeg egagetgeat gattegetgg egeaggtget etcetatttg
                                                                      1140
 ogtattcagc ttacgctgct gaagcatgcc gtgccgggcg acaatgcccc ggcgcaggct
                                                                      1200
 atcatcacgg acttototog cgagetgaat aacgcotgge atcagetacg cgagetgoto
                                                                      1260
 accaccttcc gcctgacgct caatcacgcc aatcttcctg ccgcgctaca ggagtctctt
gacgggttgc aaagccagac cagegegaag ttggtgeteg actgeegtet etcategetg
                                                                      1380
gcgctggacg cgcaaaaaca ggtgcacctc ttacagattg tgcgtgaggc agtgctgaat
                                                                      1440
 gegattaaac atgeegaege gagegagatt gtggteaget gegteaceae egeggaegge
                                                                      1500
 actcacacag tcacgatecg cgacaacggt attggtateg gegacgecag tgaacegeeg
                                                                     1560
 gggcattacg ggctgaatat catgcgcgaa cgcgcgggac ggctcggcgg gacattacac
                                                                     1620
 ttttctcagc cgccacaggg tgggacacag gtcagcgtaa cgttccggac gcctgcggcg
                                                                     1680
caggctgaaa aatag
                                                                      1695
<210> 4443
<211> 3141
 <212> DNA
<213> Enterobacter cloacae
<400> 4443
cgtgcagcaa aacgaggtca cactttaatg gcgaattttt tcatcgatcg ccccattttt
                                                                     60
gcctgggtgc ttgcaatcct gttgtgtctg acgggtgtcc tggcgattac ttcccttcct
gttgagcaat accocgacct cgcgccccc aacgtgcgta tcacggcgaa ctatcctggc
                                                                     180
gcctcggcac agacgctgga aaataccgtc acgcaggtta tcgagcagaa catgacgggt
                                                                     240
cttgataacc tgatgtacat gtcctcgcag agcagtgcca cgggccaggc gacggtaacc
                                                                     300
ctgagettta eggegggeae ggateeggat gaageggtge ageaggtgea aaaceagetg
                                                                     360
caatcggccc tgcgtaaact gcctcaggcg gtgcagaacc agggggtgac cgtgcgtaaa
                                                                     420
accggtgaca ccaatatttt gaccatcgcg tttgtttcaa ccgatggctc gatggataag
                                                                     480
caggacateg eggactaegt egecagtaat atteaggace egeteageeg tateaaegge
                                                                     540
gtgggtgata tegacgeeta eggetegeag tactecatge gtatetgget ggateceaae
                                                                     600
aagctgaaca gegtgeagat gacegetaaa gatgteaceg aegetatega ategeagaac
                                                                     660
gcccagattg ccgtggggca gctcggcggt acgccgtccg tggacaacca ggcgcttaac
                                                                     720
gccaccatca actoccagte getgetecag acacetgace agttecgeaa tattactetg
                                                                     780
cgcgtgaatc aggacggttc ggaagtgcgt ctgggggatg tcgccaccgt ggaaatgggg
                                                                     840
geggaaaaat atgactacct gagtegettt aacggcaatg cegegteegg actgggggta
                                                                     900
aaactggcct ccggcgccaa cgaaatggcg accgcgcagc gggtgttaga gcgtctggat
                                                                     960
gaactgtogo attacttoco goacggactg gagtacaaag togoctacga aaccacctca
ttegtaaaag cetecatega agatgtggtg aaaaccetge tegaagetat egegetggtg
tteetegtga tgtacetgtt eetgeaaaac tteegegeea egetgateee caceattgeg
                                                                     1140
gtgccggtgg tgctgctggg aacctttgcg gtgctgtatg ccttcggtta cagcatcaac
accetgacca tgttcgccat ggtgctggcc atcggcctgc tggtggatga tgccatcgtg
                                                                     1260
gtggtggaaa acgtcgagcg cattatgagc gaggaagggc tttcgccccg cgaggccacg
egcaaatega tgggacaaat teagggegeg etggteggta tegecatggt getgteggeg
                                                                     1380
gtatttatcc cgatggcatt ttttggcggc accacgggcg cgatttatcg ccagttctcg
                                                                     1440
atcaccateg tetetgeaat ggtgetetee gtactegtgg caatgateet tacceetgee
                                                                     1500
ctgtgcgcga cgctgctcaa accgctgcat aagggcgaac accacggtca aaaaggcttc
tteggetggt ttaacegeat gtttaacege aatgeggege getatgaage gggegtgggt
                                                                     1620
aaagtactgc accgcagcgt gcgctggatg gtggtttatg toctgctgct cggcggcatg
                                                                     1680
gtottootgt tootgoggot gecaaceteg ttootgoogo tggaagateg eggeatgttt
                                                                     1740
attacttocg tacagttacc gagoggeteg acccagcage agaccetgaa agtggtgcag
                                                                     1800
aaggttgaga actacttcca tactcaggag aaagataacg tggtctcggt cttctccacc
                                                                     1860
gteggetetg geeeeggegg taacgggeag aacgtggege gtatgtttgt gegeetgaaa
                                                                     1920
gactgggacc agegegacag egatacegge tecteetttg ceateattga gegtgeaace
                                                                     1980
aaagegttea acaaaateaa ggaagegege gttttegeea geageeegee egecateage
                                                                     2040
ggcttgggca gctcagccgg gtttgatatg gagcttcagg atcacgcggg tgccgggcat
gacgogttga tggctgctcg cgataaactg ctcgagctgg ccgggaaaga tccgcagctt
                                                                     2160
accogogtto gtcataacgg totggatgac agccotcago tacaggtaga tattgaccag
```

cgtaaagcgc aggcgctggg cgtctccatc gacgacatta acgacaccct gcaaacggca

```
tggggctcaa gctacgtaaa tgactttatg gatcgcggcc gcgtgaagaa ggtctacgtt
                                                                      2340
 cagtetgeeg ccaaataceg catgetgeeg gacgatatea accgetggta tgtgegeaat
                                                                      2400
 aacaccggcg gcatggtgcc gttctcggcg tttgcgacgt cacgctggga gaccggttcg
                                                                      2460
 cogcgtctgg agogttacaa cggctattcg gogctggaga ttgtcggtga agccgcgccg
 ggcgtcagta ccggtaccgc aatggacatt atggaaaaac tggttcagca gttaccgacc
                                                                      2580
 ggetttggee tggagtggae ggegatgtee taccaggaac ggettteegg egeteaggeg
                                                                      2640
 cotgocotgt atgetettte getgetggtg gratteetet geetggegge getgtatgaa
 agetggteag tgeegttete ggtgatgetg gtggtgeete tegggggteat eggegegetg
                                                                      2760
 ctggcaacct ggatgegegg cetggaaaat gatgtetatt teeaggtegg acteeteace
                                                                      2820
 gtgatcggat tgtcggcaaa aaacgccatt ctgatcgtcg aatttgccaa tgagatgaat
                                                                      2880
 gccaaaggtc acgaactgat ggccgccacg ctgcacgcct gtcgtcagcg cctgcgtccg
                                                                      2940
 atcctgatga cetetetgge gtttgtgttt ggegteetge egatggeeae eageteegge
                                                                      3000
gcaggeteca gcagccagca egcagtgggt aegggegtta tggggggaat gatateegeg
                                                                      3060
acgatactgg ctatctattt cgtaccgctg ttetttgtgc tgatacgtcg tcgtttcccg
                                                                      3120
ctgaaggata agccggaata a
                                                                      3141
<210> 4444
<211> 474
<212> DNA
<213> Enterobacter cloacae
<400> 4444
gtaatgaacc cactgaaagc cggtgatatc gcaccgaaat ttagcttacc ggatcaagac
ggcgagcaag taaatttgac cgacttccag ggacagcgtg ttctggtcta tttctacccg
                                                                      120
aaagccatga ccccgggctg taccgtacag gcctgcggtc tacgcgacaa catggatgag
                                                                      180
ttgaaaaagg tcggtgtgga agtgctgggc atcagcaccg ataagccaga gaagctgtca
                                                                      240
cgttttgcgg aaaaagagct gctgaacttc acgctgcttt ccgatgaaga ccaccaggtt
                                                                      300
tgcgagcagt ttggcgtctg gggtgagaag tcctttatgg gcaaaacgta cgacggtatt
                                                                     360
cacceptatea getteetgat tegegeregae getaaagtte ageaegtett tegateatte
                                                                     420
aaaaccagca accaccacga cgtggtgttg aagtggctga aagagaacgc gtga
                                                                      474
<210> 4445
<211> 1632
<212> DNA
<213> Enterobacter cloacae
<400> 4445
ctgtcacaaa aaagactttc ctttttgttt cactgtcagg tttcgcaaaa ccctgatgaa
                                                                     60
tgggattttc ttcatctctt aacacggcta cactcgcaga gcagcggaga tgaacgttat
                                                                     120
gegggttcat eggtcaaatt agcacateca aaatacagga cagtggttat gttcaggcag
                                                                     180
ttgagaaaaa cactggttge gacactgatt geegeegtga eggtgggtea ggtgttgeee
                                                                     240
getttegetg aetegteega tteattgeeg gacatgggea ceaeggeagg aageaegete
                                                                     300
tecateggge aggagatgea gatgggtgat tattacgtac gecagetgeg eggeagtget
                                                                     360
cogetgatta acgaecettt getggtgeag tacatcaacg gtetggggat geggetggtg
                                                                     420
gogcacgoog actoggtaaa aacgoootto catttotatt taatcaataa egacgaaato
                                                                     480
aacgccttcg ccttctttgg cgggaacgtg gtgctgcatt cggcgctgtt ccgttattcc
                                                                     540
gataacgaaa gccagctggc gtccgtcatg gcgcacgaaa tttcgcacgt cacccagege
                                                                     600
catctggcgc gtgcgatgga agatcagaag cgtaacgccc ccctgacctg ggtgggcgcg
                                                                     660
ctgggttcca ttttgctggc gatggccagc ccgcaggccg ggatggcggc gcttaccggg
acgctggcgg ggacgcgtca ggggatgatc agctttaccc agcagaacga gcaggaagca
                                                                     780
gaccgcatcg gcattcaggt tttacagcgt tccggctttg acccgcaggc catgccgagc
                                                                     840
ttcctggaaa aactgctcga ccaggcacgc tactcgtcgc gcccgcctga aattctgttg
                                                                     900
acccaccege tgccggaaag ccgacteteg gatgcccgta accgtgccaa ccagatgcgt
                                                                     960
coggtogtgg tgcagtotto gcaggattto tacatggcca aagtgagaac gottggcatg
                                                                     1020
tacaacteeg gacgtaatca geteaceage gatetgetgg aegegetgge gaaaggeaac
gtgcgcgaga agaacgcggc gcagtatggt caggcgctcc aggcgatgga ggccagcaag
                                                                     1140
tacgatgaag cgcgtaaagc gctacagccg ctgctggcgt cggcgcctga caatccgtgg
tatottgacc togccacoga tatogatotg gggcagaaaa aagcgacoga tgogattaat
                                                                     1260
cgtctgaaag gggcgaaaga cattcgcaac aatccggtat tgcagcttaa cctggcgaac
goctacctac agggcggcca goccggcgag gcggtgacca ttctgaaccg ctacaccttt
                                                                     1380
```

aacaataaag atgaccagaa cggctgggaa ctgctcgccc aggcccaggg gcaactgggt

```
aaccgcgatc aggagetggc cgcgcgtgcg gaaggeetgg cgctggcggg tcgcctcgaa
 caggccattt ccctgttgag cagcgccagc tcacaggtga agettggcag cctqcaacag
                                                                      1560
 gcccgctacg atgcgcgaat cgaccagetg cgcggcctgc aacaacgctt taagccgtac
                                                                      1620
 gagaagatgt aa
 <210> 4446
 <211> 1407
  <212> DNA
 <213> Enterobacter cloacae
 <400> 4446
 ccgatttcac ctttcgctcg ccgcgcttca ctgataatcc acagacataa cataaacaac
                                                                      60
 accteteaat ettgtacgga gtteacaatg aacaatgtte tgggatttet tgaagcaaaa
                                                                      120
 Ctgatgccgc tggcggcgaa aacggcccag cagcgtcatc ttggggccat tcgtgggcc
                                                                      180
 tacgtttcat tcatgccgtt tatcatcgtc ggctccatcc tgctggtgat ctcctccttc
                                                                      240
 cogaatcagg cotatcagca gtttatgtot caggootttg gtgagagotg gagtgogatt
                                                                      300
 atagagatoc ogtttaacgo ggtgttotoa accatgtogo tgtttatoag ottootggtg
                                                                      360
 gectacegee tggctgagca ttatggcgag gaccgcatet cetgeggcat cetggegetg
                                                                      420
 gtcgcgtttc tgatcctgac gccctttatc aaagtggcgg aaaacggcgg cattaccgtg
                                                                      480
 atgccggtgg agtggattgg cagcaaaggg ctgttcgtgg cgatgatcgg ttccctgctg
                                                                      540
 tggacggaac tgttctgctg gctgaagegc aaaaagetgg teatcaaaat geeggacgge
                                                                      600
 gtgcctcctg cggtgcagga gtcgttcgcg gccctgatcc cggccctgct ggtgatqatt
                                                                      660
 ctggtgctgc ttatccgcat catctttgaa aacacccact accacaccat ccaccagttt
                                                                      720
 atttatgaag tggttgccac cccggtgcgc cactacggca cctcttattt cggggcgctg
                                                                      780
 atgaccgtat tcagcatcac cattetgtgg tcagtgggca ttaactcagg ttcgatgate
                                                                      840
 aacgggatta ttcgtccgct gtggatggag aaccagaccg acaacatcgc cgcgattcag
                                                                      900
 gogggaacga ogoogoogca catcatcacc gaacagtttt ttgacatgat ctggatgggc
                                                                      960
ggogogggog coacgotgto gotggtgatt gogatgotga ttittogcoog cagcaaaaac
                                                                      1020
 atgcgcgaag tggcgcgcct cggtgcgggt gcctcggtgt ttaacatcaa cgaaccgatt
                                                                      1080
ctetttggee tgeeggtgat catgaaceca ateatgetea teeegtteaa tetggtgeeg
                                                                     1140
 ctggtgctgg tcaccgtgca gtatgcggcg atgaaaattg gtgcggtcgc cgtcaccacc
                                                                      1200
 ggggtgttta tcccctggac gctgccgccg gttattagcg gctttatcgt caccgggcac
                                                                     1260
ctgagoggea gogtgatgea gotgateaac ctgctgattg gogccatget gtacctgcct
                                                                      1320
ttcatgcgta tcctggataa acagtaccgc gcggcggaaa tagccagcgt tacgcaaacc
                                                                      1380
gacaccaccc ttgcaaaaca ggagtaa
                                                                      1407
 <210> 4447
 <211> 960
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4447
 agcatgtggg gaattatege aacctggega atggegettg aaggegteae ggaatetgeg
 totgogotgg otgogggcaa accggtogot geggoggtag tggatgcogt ogcogcogto
 gaggaettte egetgtataa ateegtegge taeggeggge tgeegaeaga gaacqgegag
                                                                      180
 gtggagetgg aegeggeeta tatggaegge gaeaegetgg egtteggege egtggggaat
                                                                      240
 ctggtggata tcgccaaccc ggtgcgcgtg gcgcacgcgc tcagccgcca gcgctataac
                                                                      300
 agcctgctgg tcggccaggg cgcgcgcgaa tgggcgctga gtcagggctt tgccgataaa
                                                                      360
 accatgetea eggategege eatgeaacae tacegtaage getgeegega aaegetggat
                                                                      420
 aaggggttaa gcccctacga cggacatgac accgtcggca tcatcggcct cgataaacag
                                                                      480
 ggetcgatga gegtegecae ttccaccage ggeetgttta tgaaaaaacg eggtegeete
                                                                      540
 ggtgactcac ccatcatcgg ctccggcttt tactgcgaca gcgaaaccgg cgcggccacc
                                                                      600
 gccacgggcg tcggtgaaga tctgatgaag ggctgtacca gctacgaaat cgttcgccgg
                                                                      660
 atggcgcaag gcatgacgcc gcagcaggcg gcqqattcqq tcqtqttcqa actgqaagac
                                                                      720
 aaactgatgt cgcgcttcgg tcgcgcggc gatctctccg tggtgtgcat gaacagcaaa
                                                                      780
 ggagaatttg gegeegegae caacatcaaa acettetegt tegtggtgge gaeggetege
                                                                      840
 cageccctca cogtttteeg tactgaacge ctgcgggaga aaacgeacta tcacgeggta
                                                                      900
 gatgatgagt ggatgcaggc ctatgccgcg cggatccgcg caccgattga ggagttatga
                                                                      960
 <210> 4448
```

<210> 444

```
<212> DNA
 <213> Enterobacter cloacae
 <400> 4448
 taccgttttt tottcagttg ttottcatgc actgttgata cagttaccaa tgtgaaaatt
 ctactaattg aagacgacct ggatctcggc aatggcgtac gtatcgccct tgcagatcaa
                                                                       120
 ggatttgatg tcatatgggt acgccgcaaa gaggatgcgc tgcatcagct tgggatctgc
                                                                       180
 gtgccggaac ttattttgct agacctgggg ctgcccgatg gcgatggcat gagcctgatg
                                                                       240
 acgcgcctgc gtcaacagct taagggcgtc cccgtcatca tcctgacggc gcgaggcacg
 ctacaggacc gcctgtgcgg tctggatgca ggcgcagacg attatctggt caaacetttt
                                                                       360
 gttctcgccg aactgctggc gcgcgtgaga gcccttgcgc ggcgcagtta cggttttgaa
                                                                       420
 aatgaggcaa tagaaattog oggtttgtog ottoatatto ogaogogtog ogtaacggtg
                                                                       480
 agcgcacgcc acgttgagct gacggcaagc gaatatgcgc tgcttgaaac gttaatgctg
                                                                       540
 cgcgccgatc gcgtgcttac gcgacggtat ctggaagaaa ggttatttgg cacgaaagaa
                                                                       600
 aacctcagca acgcacttga tgtgcatatg ggtaacctgc ggcgaaaaat tggcgatggc
                                                                       660
 tttgtgcgaa cggtgagagg cgttgggtat gtcattgata ccgtacccgt tcagaaggcg
                                                                       720
 gcaggttga
 <210> 4449
 <211> 999
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4449
 attteteege gtttttetge atteateteg etaacttege ttattatggg gateagttte
ctggattcaa gggaacaagg cagattgtca tcattcatca ggcacaagga cctccagaaa
                                                                       120
atgaataatc atttcaggtg tattgggatc gtcggccatc cgcgtcaccc taccgcattg
                                                                       180
 acgacacatg aaatgttgta togotggotg tgtggtaaag gotatgaagt gatggtogag
                                                                       240
 cagcagattg cccaggagtt gcagcttaaa agcgtcagaa ccggcacgct ggcggaaatt
ggccagcagg cggatotogo cgtggtggto ggtggegaeg gcaatatget gggegeggeg
                                                                      360
 cgaacgctgg ctcgctatga tattaaggtt attggtgtta accgtggcaa tctcggtttc
                                                                      420
 cttaccgacc tcgacccgga caatgcgcag cagcagctgg cggacgtgct ggaaggtcac
                                                                      480
tatatcagtg aaaaacggtt tttactggaa gcccaggtct gccagcagga ctgccagaag
                                                                      540
 cgcatcagca ccgccattaa cgaggtggtt ctccatcctg gtaaagtggc gcacatgatc
                                                                      600
gaattegaag tetatatega egaaatette getttetege ageggtetga egggetgatt
                                                                      660
 atttcaaccc cgacggggtc caccgcctac tcgctttcag ccggaggtcc aatccttacg
 ccatcgctgg atgccattac tctggtgccg atgttcccgc atacgctctc ggcgcgtccg
                                                                      780
 ctggtgatca acggcgacag caccatccgc ctgcgttttt ctcatcgccg cagcgatctg
                                                                      840
 gagatcagct gcgacagtca gattgcgctc cccattcagg aaggtgaaga tgtcctcatt
                                                                      900
 egeogetgeg attaccacet gaaceteatt cacceaaaag attacageta titeaacaca
                                                                      960
 ttaageteea ageteggetg gteaaaaaaa ttgttetga
                                                                      999
 <210> 4450
 <211> 1290
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4450
 acgtegtece tgactggtta taacccatta atteteaaga ggtteaaaac catgttteaa
                                                                      60
 gcactgttac gccgtcggga agcccggctc ttttttatca tcagcatcct gttctttatc
 tgcatccata gcattgatgc attcctggcc cccatgatga tcaaccaggg cattgagcca
 cagatcatgg gcatcattat gggcgcgtct ggtctggcaa cccttctgat acgcttcccq
                                                                      240
 ttaggcatta tttccgacgt ggttaaaagc cgcaggatet tcatccagat tggcctgctg
                                                                      300
 ctgccaatta tegeetggee gattgeetgg ettgaaceca atgccattae getgtatetg
                                                                      360
 gcgaaagcgg cagacggcgt cacggcggcg acctgggtgc tatacaacat cctqttcatq
                                                                      420
 ogttacttog gtogcaacga agcocotgoo geogtogogo tgotggegot tgoagggood
                                                                      480
 ateggegtgt tteteggeaa etgtattgge geggtgetga tteaetattt egecaataae
                                                                      540
 ategeetttt ttgteteetg eateteegee etggtggegt tgateetgae gaceegeatt
                                                                      600
 caggacgtgc acgacccggt tcaggccccc acgcttaaag cctgcattac cggcgcgcgc
                                                                      660
 cagcagetgg cogacogtto ogtotggotg attggcatto tggcgacogt ogtoattotg
                                                                      720
 gtgcccttcg ccacccgcga cacgctgacg ccggtctatg ccgagcagct tggcgcccgg
                                                                      780
```

```
geggggatee tegegetget gggtaacatt caecttettt tttacggget ggecategee
                                                                      840
 ctgtgcagct cggtgtttta tcagcgactt gggctggtaa aaaccgccgt gctcggcatc
                                                                      900
 gttttacagg tgatatccac tttcggcatt cccttcacca gcaatatgta tgttatttac
                                                                      960
 ctgtggcagg cgctggcggg gttctcgttc ggtatggcct ttgcggcatt catgtcgctc
 agcgtagtga atacatcgtc tgatgaacaa tocacgcgaa tggggctatt ccagaccatt
                                                                      1080
 tattcctgcg gcatgtttgt cgggccggta atgatgggcg taatgatgca acatattaac
                                                                      1140
 etgtegteeg gttatatatt gattgeegee ettteegttg tggeegetat tgeeaegeeg
 ctgtccgctc gatgggtata tgcccgtaaa acgcaaacct cagcccaatt attaaaaaac
                                                                      1260
ggtgcgtacg ctgccgcgcc ggatcaataa
                                                                      1290
<210> 4451
<211> 1383
<212> DNA
<213> Enterobacter cloacae
<400> 4451
ataccettte ceggetegee gggaggacaa etgacatetg aaaaaagtaa ggagaagega
gtgtcctgga aattaaaaac cggtaaatet accgaagagc gccagcaagc caaccagcaa
ataagagaaa cggttgaaca aatacttgcg gatattgaaa aacgcggaaa taaaqccatt
                                                                      180
ogogaattat coattaaatt ogatogttat gaccgtcagg attatogtot gacgtcogcg
                                                                      240
gagattgacc gctgcataaa acagttaagc cgtcaggata ttcaggatat tgaattegcc
caacagcagg tcgcgaattt tgcccgcgcg cagaaagaat gtctgcggga cctggaaatt
                                                                      360
gaaacgcgtc ccggcgttat tctcgggcat aaaaatattc cgattaacgc cgtgggatgt
tacgtgcctg goggaaaata toccotgctc gcctccgcgc acatgtcgat cattaccgcc
                                                                     480
agegtggegg ggtgeteaag aattateage tgtgeeeege egtttaaegg teageeegee
                                                                      540
coggogatog togoggogca aaaaatggot ggogcaacgg aaatetatge cettggoggo
                                                                      600
attcaggega taggegecat ggegetggge aeggactege tggeaeeggt egatatgetg
                                                                      660
gtoggoocog gtaacgoott ogtogoggag gocaaacgac agotgttogg cogggtaggt
                                                                      720
atogatotgt ttgccggtcc gacggaaacg ctggtgattg ccgatgacac ggttgacgcg
                                                                     780
gaaatgtgcg caacggatet getgggeeag gecgaacaeg gegteaceae ceetgeeate
                                                                      840
ctgctgacga actogctcca gcttgccaaa gagacgctca gcgaagtgga acggctgctg
                                                                      900
gaaaagcttc ctaccgccga cattgcccgc cagtcgtggc aggactacgg ggaaatcatc
                                                                     960
gtotgogaca gocacgaaga gatgotgotg gaggoagato gtategotto egaacatgtt
                                                                     1020
caggtgatga ccgaccggga cgactggttc ctggctaacc tgaccaatta cggcgcgctg
                                                                     1080
ttccttggac cacgtactaa cgtggcctac ggcgataagg tgatcggcac caaccacac
                                                                     1140
etgeccaege aaaaageege aegttataee ggeggeetgt gggtgggeaa gtteatgaaa
                                                                     1200
acctgcacct tocagaaagt cotcagegac gaagccaceg cegaaatcgg cagetattgt
                                                                     1260
tegegtetgt egeteetgga ggggttegee ggacatgeeg ageaggeeaa tattegegtg
egeogttatg geoagaegga agtteeetac geoacacegg eeeeggteag ggaaaaggtg
                                                                     1380
                                                                     1383
<210> 4452
<211> 768
<212> DNA
<213> Enterobacter cloacae
<400> 4452
gocatgacge ttttgcaaac gocctettte accetgcacg gcaaacgege gctggtgace
                                                                     60
ggcgggtcaa gagggattgg cttcgctgcc gccgtcgccc tcgcacaggc aggggcagag
                                                                     120
gtetggattg ccgcccgggg ccgcgaggcg ctggcgcatg ccgcaggtct ggcagcggaa
                                                                     180
cacagoctog catttoacco gotggaactg gatattaccg acgotcagga ggtggagcgt
                                                                     240
gtgctggcga cgttgcccac gcccgacatt ctggtgaaca gtgccgggct ggcccgccac
                                                                     300
cageogttte ttgaggtaaa cgaggaaaat ttcgatgcgg tgatggcget taacctgcgc
                                                                     360
gccacctttt ttatcagcca gcacgtggcc cgcagaatgc gggcgggcgg taagggggga
                                                                     420
togattatto acatotoato goaaatggga cacgttggtg goccogageg tagegtgtae
                                                                     480
tgtgcctcca aattcgcgct tgaagggtta acccgaacga tggcgctgga gctgggcgat
                                                                     540
geggggatec gegteaatac getgtgeeeg acetteattg aaacegacet gaegegtteg
teactegoog accoggoatt tegeogetat gtgetggaca acatcaaact gegeoggoca
                                                                     660
ggcaggctgg aggacattat ggggccggtg gtgttcctcg cctcagacgc cgccgggctg
atcaccggca gtgccctgat ggttgacggc ggctggacgg ctacgtga
                                                                     768
```

```
<210> 4453
  <211> 921
  <212> DNA
  <213> Enterobacter cloacae
 <400> 4453
 acaatgaaaa ttgatcttaa tttgttaccg ctttttctgg cggtcgccga ggagcgcagc
                                                                       60
 ttcagcgctg ccgccgggcg gctgggcatc acccgttccg ctgtcagcca ggggataaqa
 cgtctcgaag atgggtttca gaccetgetg gtgatgcgca ccacgegctc ggtaaggctc
                                                                       180
 accgaagcgg gtgaacggtt gcataaatcg ttgctggggc ccatcgccaa cattgaggcg
                                                                       240
 geetttgacg atgtcacctc ggacagcatg ccgcgcggac agetcaggat cgctgtcacc
                                                                       300
 toaatagogg aagogtitot tiogggooda oigotogoot ogittacggo ogogoatoot
                                                                       360
 goggtatege ttgatgtett egtgteagat gaggaatteg atategtgge agegggetat
                                                                      420
 gacgctgggg tgagactggg cgaagttatc gaaaaagaca tgatcgcgat tccccttacg
                                                                      480
 ggccagcagc gtgaacgggt ggtggcttca cettectatc tggcgacaca cagcgcaccg
 gegeatecee gtgagetggt egeteategg tgtategget ggegeeette eeeggaegtt
                                                                       600
 gececetate getgggagtt tgaggaagea ggegteeett tegatgtgge aattgaacea
                                                                      660
 caaataacca ctaacgatet gegtettatg etcageeteg egetggeegg eggtggeata
                                                                      720
 acctttgcca ccgaggacac cttcacaccg tacattgaat caggacagct ggtttcctta
                                                                      780
 ctggatgcgt ttcttccatc ttttcctggt ttttatctct attttcccca gcgccacaat
                                                                       840
 atggccccca agetcagage cetgategag cacateegee agtggcgaca geteeeegee
                                                                       900
 acgcaaccca cacagegttg a
                                                                       921
 <210> 4454
 <211> 309
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4454
 acgggcagca tacgttcacc gtcgtcgcga gcgatgcggc cggtaacgcc agcgcaccat
                                                                      60
 cagooggett taccettace gregatacea eccegeeace agoggecace attgacaceg
                                                                      120
 totocgataa cgtggggccc gtgcagotto cgcttaacag cggggacacc accgacgaca
                                                                      180
cgctgccgca gttgcaggga accgcaccgg acggcaccac catcacgatc tatgacggaa
                                                                      240
 ccaccetget eggeaeggeg gtgetegaeg geageggegg etggagettt aegecaacea
egeegetga
                                                                      309
 <210> 4455
 <211> 237
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4455
 coggtagogo cgaagogggo ageacogtca coatcogtot ggoggacaat tcaacggtoa
                                                                      60
 cogccacgge agacageaac ggateetgga getacacett ceteaataaa cagacggaag
 gccagacgct gcaaatcacc gccaccgatg cggcagggaa cgtctcgctg cccggctcag
                                                                      180
 cccttgegec ggtggtgeeg etetetgeea geaceaaegt tgaagagetg gegetga
 <210> 4456
 <211> 1413
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4456
 ggacaagaca tgggaaagaa gatgccttac tggtggctct cgtgctgcct gatatctgtg
                                                                      60
 cocgetateg eggeaaacce tgeggegatg attaataceg gacaattaag egaaacgeag
                                                                      120
 gaactcccct ctttaaatgg ccgcgtggcg cccgtagcca gcaaagccgc ccccggcacg
                                                                      180
 ctacagetga atgaageggt taaccgegee gtgacetgge ateeggetat cagtgaagee
                                                                      240
 gtcggcaaac tttatcagca gagcgaaaat gtggacgtcg ctaaatcgaa atattatccg
                                                                      300
 caaattaacg ctggcatgga taacggctat agccacgacg gcgacgataa tggctttacc
                                                                      360
 ccetcgctgg tgctttctct ttcgcaaatg ctgtacgact tcggcaaagt cgcaagccag
                                                                      420
 gtgcgcgccg aaaacgcggg cgtcgcccag cagcaggcca acgtgctggt gagcatcgac
                                                                      480
```

```
accategece aegatacege categecatg gtgcaggtge agaeetggea geagatggte
 gagaccgcca aagaacagct ggatgccctg testecateg geaccetgae gaaacaacgt
                                                                      600
 aatgatgaag gogcaacgto actototgac gtggtocaga cogatgooog tatogaaggg
                                                                      660
 gegegtgege agetgatgea gtateaggeg ageetegaca getegegege eaegetgatg
 agettgetgg getgggacag cetgaacgeg gteageaatg acttteegea aageetggee
                                                                      780
 egeagetgeg acategeega geeggaegat egtetggtge ceteggtatt ageggeetgg
                                                                      840
 gegeaggeca aegtegegea ggeaaatete gattatgeea aegegeaaat gacceetaee
                                                                      900
 gtttctctgg agccggaagt tcgtcactac ctgaacgacc gctacgcggg caacgaaacg
                                                                      960
 egggacegea cecagtacte egegtgggtt aaagtgcaaa tgeegeteta teagggtgge
 ggcctcaccg cccggcgtaa cgccgccgga cacgcggtgg aatccgccca gtccaccatc
                                                                      1080
 cagogoacco gtottgaggt goggoaaaaa ctgotggaag ogogoagcoa ggtgatgago
                                                                      1140
 ctgatgagca cgcttcagat ccagggccgt caggaagcgc tcagcgcccg caccegegag
 ctgtatcagc agcagtatct cgatcttggt tecegeceae tgetegaegt geteaacgee
                                                                      1260
 gagcaggagg tgtatcaggc gcgctttacc caacagcaaa ccgccggaca gctgcatcag
                                                                      1320
 cttcagetca actgtctgta caacaceggg egectgegte aegegttega tettgaaaac
                                                                      1380
 cgcaccatcc agaccgtgga gatccagcca tga
 <210> 4457
 <211> 342
 <212> DNA
 <213> Enterobacter cloacae
<400> 4457
aggeggeeaa agaggggetg gacagcatta tgeagetgee gacegagaae cagegegaag
agacacegat cegecaggae gtgetgegeg geeactatet tittegageag gegeagtiee
                                                                      120
gctatcaccc ggaagatccc cgcatggcgc tgcgcattaa ccgcctggag atcaaagegg
                                                                      180
gcgaaaaagt ggcgatcetc gggcgcaacg gcgcgggcaa atcaaccctg ttgcaggcga
                                                                      240
tggcgggcgg gatggatetg gcgggcggtg aactgcggct cgacaacctc agcctgccgc
                                                                      300
atctggacgt ggctgacgtg cggagaaacg tcggctttat ga
                                                                      342
<210> 4458
<211> 1251
<212> DNA
<213> Enterobacter cloacae
<400> 4458
acaacagoog tatgcagcaa cagcagcagg caacoggaeg ggagtggaaa aatgaaaatc
agtcagcqtg acgttgccgc agtagaagat ctggataacg cgctcgactc cgaaagcggt
                                                                      120
tataccggcg cccggcgcat tgttttcttc tccctggtga tgtttgtggt gctcggcgtc
                                                                      180
tgggcgtggt tcggcgtgct ggacgaagtc tcaaccggca ccggaaaagt gatccccagc
                                                                      240
teacgegage aggtgttgca gtegetggat ggggggatee teacegaget gaacgtgcae
                                                                      300
gaaggggate aggtgcagge eggacaggtg etggegegge tggatectae eegeteggaa
                                                                      360
totaacgtog gogaaagogo ggogogttac ogcgogtogo tggcotocag ogcgogtotg
                                                                      420
tatgccgagg tgaacgatet geogeteaaa tteeegeegt eeetggagaa atggaeegae
                                                                      480
ctgaccgccg ccgaaacgcg gctctacaac tcgcggcgcg cgcagctgga ggacacgcag
                                                                      540
egtgagetge geteegeeet ggegetegee aataaagage tggegateae ceageggetg
                                                                      600
gtgaaaaccg gggccgccag ccacgtggaa gtgctgcgcc tgcaacggca gaaaagcgac
                                                                      660
ctggagctga agctcaccga cgtccgttcc cagtattacg tgcaggcceg tgaagcgctq
                                                                      720
togaaggoca acgoogaggt ggatatggtg toagegatoo tgaaaggoog ogaggattoo
                                                                      780
gttacccgcc tgacggtgaa gtctccggtg cgcgggatcg tgaaaaacat caaggtgacc
                                                                      840
accateggeg gegtgatece geceaaegge gagetgatgg aaattgtgee ggtggaegat
                                                                      900
catctgctga ttgaaacccg cctctcgccg cgggatatcg cctttatcca ccctaatcag
                                                                      960
gaggogotgg tgaaaatcac tgcctacgat tacgcgattt acggtgggct gcacggggtg
gtggagacca tttcgccgga caccattcag gacgaagcga agccggaggt gttctattac
                                                                      1080
egggtattta teegtaceag eeaggattat etggtgaata aggegggeag geaetteteg
                                                                      1140
atcgtgccgg ggatgatagc gacggtggat attaagaccg gagagaaaac ggtgctggat
                                                                      1200
tatatgatca aaccgtttaa cogggcgaag gaggcgctga gggagcggta g
```

## <213> Enterobacter cloacae

```
<400> 4459
 getecaaget eggetggtea aaaaaattgt tetgattttg catecageae titaetgtat
 ataaaaccag tttatactgt atacaaacac agttatggtt tttcatacag gaaaacaatt
 atgotggcac aactgaccat cagcaacttt gccattgttc gtgagcttga gatcgacttc
                                                                      180
 catagoggaa tgaoggogat tacoggtgaa acoggtgoag gtaaatcoat tgccattgat
                                                                      240
 gccctcggct tgtgcctcgg tggtcgtgca gagggggata tggtgcgcac aggcgccgcc
 egtgeegate tetgegeeeg ettetegtta aaagacacae etgeegeeet gegetggetg
                                                                      360
 gaagcaaacc agctcgaaga cggacgtgag tgtttacttc gccgcqtcat cagcagcgat
                                                                      420
 ggccgctccc gcggttttat caatggtaca gcggttcccc tctcccagct tcgcgagctg
                                                                      480
 ggccagctgc tcatccagat ccatggtcag catgcgcacc agcagttaat caaacccgaa
                                                                      540
 caacaaaaag cootgottga tggctacgca ggtgagtacg cgcttactca actcatggcg
                                                                      600
 gagcactate gteagtggea teaaagetge egegaaettg egeageatea geageaaage
                                                                      660
                                                                      720
 caggagogta cogogogogo ogagotgotg gaatatcaac tgaaagagot gaacgaattt
 aaccegcagg cgggtgaatt tgagcaaatc gacgaagagt acaagegtet ggccaacage
                                                                      780
 ggtcagctgc tetecaccag ccagaatgcc cttaacatgc tqqcqqatqq cqaaqacqtq
                                                                      840
 aatttgcaga gccagctgta caacgtgcgt cagcttgtga ccgagctgac cqccatggac
                                                                      900
 aataagottt otggogtact ggaaatgotg gaagaggoog ogattoagat ttoagaagoo
                                                                      960
 ggggatgage tgegecacta etgtgaaegt etggateteg atcegaaeeg eetgttegag
 cttgagcaac gcatctcccg tcagatttca ctggcgcgta agcatcacgt taccccggaa
                                                                      1080
 gagetgeega attactatea gtetetgetg gaggaacage ageagttgga egateaggee
                                                                      1140
 gattocottg aaacottgto totgqogqtt aatotgcato atcaqcaqqo qotqqaaacq
 gegaaacggc tgcacgacgt geggcaacac tatgegcagg agettageca geacattace
                                                                      1260
 gacagcatgc atacgctggc gatgccgcat ggggtgttca ccatagatgt tcgctttgaa
                                                                      1320
gagaatcacc tgacggcgga aggcgcagac cgcgtagaat tccgcgtcac caccaacccg
ggccagcett tgcaggcaat ttcgaaagtg gcttccggtg gtgaactgtc gcgtatcgcc
                                                                      1440
ctggccattc aggtgattac cgcccgtaaa atggaaaccc cggcgttgat tttcgatgaa
gtggatgtgg gtatcagegg cccgaccgcg gccgttgtcg gcaaactgct gcgtcagttg
                                                                      1560
ggtgaatcga cgcaggtcat gtgtgtgact cacctgccgc aggtcgccgg atgtggtcat
                                                                      1620
 caccacttta togtoagoaa ggaaacogat ggogaaatga oggaaacgca catgaagoog
                                                                      1680
 ctggataaac gctcacgctt gcaggagctg gcacgcttgc tcggcggcag tgaagteact
                                                                     1740
 egeaataece tegegaatge gaaagaactg etggeggeat aa
                                                                      1782
 <210> 4460
 <211> 378
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4460
 gccgcgtact gctcgggccc gaaaaggaat caaatcacta tgcgctgtaa aacgctgacc
                                                                      60
 qctqccqcag cggttcttct gatgttgacc gcaggctgtt ccactctgga gaaagtggtt
 taccgtectg acatcaacca ggggaactac ettaccecta acgatgtgte caaaatccge
                                                                      180
 gtgggtatga cacaacagca ggtcgcttat gccctgggaa ccccgatgat gtccgatccg
                                                                      240
                                                                      300
 ttcggcacaa acacctggtt ctatgtattc cgccaqcagc ctggtcatga agatgtaacc
 cagcaaaccc tgacgctgac cttcagcagt gccggcgtgc tgaccaacat cgacaacaag
                                                                      360
 cctgccctga ccaaataa
                                                                      378
 <210> 4461
 <211> 834
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4461
 gategegeeg etgetgegte agtggataac ggagtgeata cagtgegeaa aaacagttta
 aagaccgcat ttctggaaaa taccccgatc gttaacggct ggctggcaat cccctccggg
                                                                      120
 tatagegegg aaattatggg ceateagggt tacqaegeeg teacegtega tttgeageae
 ggcatgattg attttgccag cgcgttgtcg atgctacagg cgctatcggc cacqcctgcc
                                                                      240
 gtgccgctgg tgcgggtggc agataacgat ccggcgcaaa tcatgcgcgt attagacgca
                                                                      300
 ggagoctacg gcgtaatctg cccgatgate tecagegegg aacaggeteg ccgttttgte
                                                                      360
```

gcggcctgtc gctatccacc gctgggggtt cgctcctttg gtccggccag aggtctactc

```
tatggcggca gcgattatcc acagcacgcc aacgacgaga tcctgacgct ggcaatgatc
 gaaacccgcc aagggctggc ggatcttgac gccatccttg ataccqaaqq qctqqacqqt
                                                                      540
 gtgtttattg gccccaacga tctctcgctg acgctgaccg gcagtgccag cgccgaatcc
 caacatcccg aaatgcttgc tgctattgag cgggtgattc actgctgccg ccagcagcaa
                                                                      660
 aagattgccg gtattttetg cactteegge geggeegegg cagegegtat tgeteagggt
                                                                      720
 ttccagtttg ttacccctgc aaacgacgtt atgcagctgg qtcqcqcctc acqtgaagcc
                                                                      780
 attgccctcg cccgcggcaa cgccatccct accaccggtg catccggtta ttaa
                                                                      834
 <210> 4462
 <211> 1950
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4462
 cotototgga attatttoct cogocatota cacttacttt actttttgtt tacggacgtt
                                                                      60
 attttccgtt ttgcgctccc tgtcagtaac gggtctgtaa ttaataacta tcgtggaaac
 aggatatect tetetatgga tttttatttt accegttttg aacategeea geegeetgaa
                                                                      180
ccgcttaaga caccgcgatg ggtcatgtta acatggcagg tattggcggt tgcctcgctg
                                                                      240
attttaggeg etaattatat ttactggege tggacagett cettaaatac egacgegetg
tggtatgcca ttccattggt gctggctgaa accetggcct ggatcggcac agtgctattc
                                                                      360
accataaacc tgtggaaaga agacgateeg eegcaaaate egeeeeegat tgagateaat
                                                                     420
gattqcctqc qctccqaaqa cqcqqaaqcc tcaaqaccca tcaaqqtcqa tctttttatc
                                                                     480
geaacetatt cagaagatgt tgagetggte aggettteaa ttegggaege catgaagatg
                                                                      540
gattacceeg gecegetgga etacaaggtg caegtgeteg atgatggeeg gegteeggag
                                                                      600
atgaaageeg tetgegatea ggaaggegea aactacatet ceegeeagae caatattgge
tttaaggccg gtaacttgcg aaacggactt gagcaaaccq acggtgattt cctgatcatt
tgcgatgccg atacccgggt cttccccact ctgctcagcc acacgctqqq ctactttcqt
                                                                      780
gaccetgacg tggcetgggt tcagacaccg cagtggttet tegacetgee ggaggggaa
                                                                      840
aacctcgcgc gctggcttgg gcgaaaagcg ggcaaaacgg gatacgggct cggatggctc
                                                                      900
gcccagaagt tcatcgggcc agtaaccatc ggccgcgatc ccttttttaa cgatccgcgc
atgittiatg acgicattot gogacggoga aactgggoca acgccgcctt ctgctgcggt
geggeeteta tacacaggeg egaageggta atgeaggeag egetgegeag etacqtetgg
                                                                     1080
acgacagaag aagagatoga togocacaog ogggatatao gogatocogt catgogtgaa
accetteagg acgeeatgeg testeacgtg geettegaca cagaacttae geestataag
                                                                     1200
tttcacgttt cagaagatat ttatacctcc atcctgctcc acggcgatgc cgcccgccgc
                                                                     1260
tggcgctcgg taatgcaccc gcggattgaa tcgaaaatgc tctcaccgca ggatatgctg
                                                                     1320
acgtggatga tccagcgctt caaatatgcc gcgggttcac tggatattct gttccatgac
                                                                     1380
aatattttca geogeogeeg ttttaagete tetttgeege aaacgetgat gtaegeeace
accttotggt octatotggc otgogtgtgg aacactgttt tootgatato goccattgtg
tacctgttta coggoattcc gcctgtatca gcctggtctg aaccctttta tcttcatitt
                                                                     1560
ttgccctttt ttattgtttc ggagetggcg tttatgttcg gcacctgggg aatatcagcc
                                                                     1620
tgggatggca gagcatogta tototoatto ttotocatga atttgcgcgc gotcaacaca
                                                                     1680
gtootgogog gagagcagat caaattocac gttaccccca aagagaggca gacgggaegg
                                                                     1740
 tttetatacc tggtgaaacc gcaaatcgcc atcgtcgtgc tcacgctggc ggggctgatt
                                                                     1800
 tggggcggta ttcaggttgc acgtgggcag gttgacgatc cgtccggcta cgttatcaat
atottotggg gtgcagtcaa cattgeogec atgetgeoge tgatettege egecatgtgg
                                                                     1920
accccggctg aagaagaggt gagcgaatga
                                                                     1950
<210> 4463
 <211> 2727
 <212> DNA
<213> Enterobacter cloacae
<400> 4463
gtaaccatgc gagccacatc cogttccgat ctcaacgcgc tgcctgtggg ggtgatgatt
                                                                      60
tacgatcccg ccgagcatct gctggcctgg aatgaccaga tatcgcgctt ttacccqqtq
atcgcccct ggctgatogc cggcgcttcc ctcgagagcc tggcggagaa atttattgat
                                                                     180
gegggttata acategacte eaccegeege eggaceetge gtgaagegat egttegeaac
                                                                     240
tgecgtcagt caagecateg agaggtgegg cagtegggaa aceggegget ctaegtgeag
                                                                     300
caccagogte tegeogatgg eggeattete ageetgeata eegatattae egagettgae
                                                                     360
```

gacgcccagc gctcgcgcca gcagctgcac gatgattttt tactgaccgc agagtccatt

```
1762
  cagatoggca totggaactg goaggtotot cacqacagco tggaggtgaa cgatacgttg
                                                                       480
 ctggcgatgg tgggtcagtc gcgtacgcag ctqcactacc cqctqcqctt tttactqaat
                                                                       540
 ctggtccatg aagaggatcg tgccgtcctg cgcaacgcga tgatcgcctc caggcaggag
                                                                       600
 cacatgoogg tgtttgaaag tgagattogo gtgcaacacg cgacgcaggg ctggcgctgg
                                                                       660
 atgctggttt cgggacaggt ggtcaccetc agtatgcagc agcaggecga acgggtgate
 ggcaccctac aggacatcac cogcogcaag gaggcogagt tgttagccat tgaagcggcg
                                                                       780
 aaagtggccc gggaggccaa cgaggcgaag agtgcatttc tcgccaacat gagccacgaa
                                                                      840
 attogoacco cgatgaacgg cattotgggc atgactcagc totgcotcga tacacagete
 accoccgaac agogtgaata totttototg gtgatgagtt cagogcagtc actactgcat
                                                                      960
 atcatcaatg acattotoga tttotoacgo attgagtoag gtaagatgac cgtcgataca
 gagocgctgg aaatccgccc ctttgtgcag tegeteatec geoegeatat geecteegee
                                                                      1080
 agegaaaaag geattgaact getggtggat ategeteegg gggtgeegga agtgeteate
                                                                      1140
 gttgatggtc cccgactacg tcaaattctg actaatctcc tgggcaacgc gctgaagttc
 acccatcacg gtgaggttat gctggcaata gagcctacag aaagtgaagg gcactggcgt
                                                                      1260
 tttcgcatac gcgacagcgg cattggcatc ccgatggaga aacaaaaagc cattttcgag
                                                                      1320
 gegtteagee aggeogatag etetaceace egeogetaeg geggtaetgg eetegggetg
                                                                      1380
 accatttctg cocgcctggt aagtetgatg qgcqqaqagc taacqqttca qaqcqaqccq
                                                                      1440
 ggtgaaggca gcgaatttgc ttttacgttg ccactggaag gtcagttggc tqtctcaqca
                                                                      1500
 accgatgete etgtageacg etttaacgge gaateggtae tggtggtaga egacaacagt
                                                                      1560
 accaacctgc ggctgctgga caccatgctt cqccaqatqq qtctqacacc gacctqtqtt
                                                                      1620
 aacaacgccg gggaagcgtt aagcctgacc gcaaaaaggg gatactggcc gctgatcctq
                                                                      1680
 ctggatgccc agatgccgga tatggacggt gtatcgctgg ccattgagct ctctgttatg
                                                                      1740
 cogcaggeog agcaaagcca catcattatg ctcagttcca tgageogcca tttcgatgcc
                                                                      1800
 aatatgetea agegeategg ggttgeeeac tatttgeata ageeggttge ecaaegtgaa
                                                                      1860
ctotatoaaa coatagooag ogtootggoa coogotooco ttgoototoo caeggotgtg
                                                                      1920
cocgettetg egetegttac tgegecegtt actgegeeeg ttactgegea ggecagtetg
                                                                      1980
cqtatcctgc tggccgagga caacctggtg aatcagaaag tcgccagacg cctgctggag
                                                                      2040
 cageteggee acceptigega agtggtatee aatggeeggg aggeactega aegetggegt
                                                                      2100
gaacagteet gggatttgat gttggttgac ttgcaaatgc cagaaatgga cggtgaaacg
                                                                      2160
 gocattogoc tgottogtga ggagacacta acgcgggggc gtagocacca gcccgccatc
 gcgatgaccg cocatgocat gcagggtgac aaggcgcget gtctggeaat gggettegae
                                                                      2280
 ggctatattg ccaageeggt aagteaggag gegeteaggg aggagatage ceatgttete
                                                                      2340
 gccggagaag ataagggtot gccggatgag gcacagetgt taaaacagtg cgcggacgat
                                                                      2400
 cctgaactgg ttaatgaatt gctggcgctg ttcggcaacg gtcttgacga ggcggtggca
                                                                      2460
 gocatggogo tgaacattgo goataatgac ogogatgooc tacggogggo egeteataag
                                                                      2520
 cttcgcggcg aagccgtcac cctcggtttc attcgtcttt cagaagtgct ccagcaattg
                                                                      2580
 gagagtcagg cggtctcgct gaaccagacg gggctgagcg ttttacatgg cgagcttatc
                                                                      2640
 gaggaggcca gacgctctgc ggcctggctg cgccgcagag cacaggaggt taaagatgat
 caggettett etgetgetgg caattag
 <210> 4464
 <211> 468
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4464
 gcaatgaatg ctggctaccc aacgatgeta ttgatacccg gcatgtcagc ctttcagcgt
                                                                      60
 gttaacgaac cagcacctgg cctggccggg cggatgttct tccaggtgca ctgcccqcat
                                                                      120
 ggaaaaaccg gtcccaacgt cgggctgcat ctgcacgttc agcgtaaccc gttttcccqc
                                                                      180
 tgegaaatet teetegacea ttggeagegg catataacee eecegteegt ggagetggeg
                                                                      240
 ceteagttca acattegegt cacetegett cageegggtg cegttgaaag tgaattatte
 gagcatatca gtgacaaaaa ttatcgtgca cagatggaac agctgaagga aaagatgacg
                                                                      360
 ttcctgaaag ccgatgatgt cgccgactcg attccttacg tgttgcaggc accggaacat
                                                                      420
 gtgaacgtgg cagagctgtt tattatgccg cccgaacagc cgtggtaa
                                                                      468
 <210> 4465
 <211> 387
 <212> DNA
 <213> Enterobacter cloacae
```

	1763						
cttcaaggac gattttttc gcaagaaagc ggcaatatgt agacaataca	tggagettae tetaegggag tegaeateat atgaageatt	cagcattatg atcgagcaat caatgcggcc gagtcctccg tcgctggtca	cagtgcagga attaatcatt gttattcctt atgtcgcacc ttgaagggat gagggaaaag	ttcgggatca tgaatctgga tggatttacg actcctctat	atggettgag aacagegett ategecaceg cegggtaaac	60 120 180 240 300 360 387	
<210> 4466 <211> 276 <212> DNA <213> Enter	robacter clo	pacae					
agecetgeee acateggeag eegetteaat	cagegaaceg geggetgteg cagggeggeg	ccggagatet tccgcgccgt	gccccagege ccatgcccgg aggtctccag tggcgtagtg gcttaa	cgtgtaggtt ctcctcttca	gccatgccgg ggaacgatcc	60 120 180 240 276	
<210> 4467 <211> 924 <212> DNA <213> Enter	robacter clo	pacae					
tttatogocg octteggegg atocgeageg teggeggegg geggeggegg ctacagtteg gectaceggg gedaaagag acageacte ettagttta tteggttta tteggttta tteggttta steggetgegg <210> 4468 <211> 891 <212> DNA	tigotaacgo taagocacca gcaaagggt tgagogocat gogtgcacto gogcogaata ccagagataa tgatgaccat atcocatcag tggtgaactg goctcagett ttctggagag tgcctgatga	cctgagcatc gategogteg tcaactcacc cgggcgcgc ttcccccacc tcctgatatc taacaacgatc accgcccgcc ggagaaatg cgaccgtcc caasatgatg aatgggtatc gaagatccag gaagatcag	togotgocot catcaggogg ctggaatcgt ccgacgggag accgatcaaa togggotg accatcaatc gatatcegte gatotgotgg gatotgotgg ttegoetgge tacatgaget gotaccaaac gocatcaac cagttegteg	cggaacagct ggctgggcaa aacaatact tcgtgaaaga cctggctgtt tcacctgctc acggtattcc tattggcctc aacagtcgct acaatacga ttgaagcggc acctgaagga cctgaagga cgcaccatot	caacgtcacg gaaattattt gcgggaggtc aaaagacaat gcgccgtctg ctatgagaac ggactgggac gccggactat tatctcgtcc cagccctgg gcgcatgggac ggcatgggac ggcatgggac ggcatgggac ggcatgggac ggcatgggg	60 120 180 240 300 360 420 480 540 660 720 780 840 900 924	
<4400> 4468 aaggtgcgtt ggtatccagc catcagggaa cagcagcgg gatggcgata gccttcgtag cccegcggcg caggcagatg ggtgacgacg cataaaggcc gtagccgatg	ctggtgccct acatgcttca ctgcctcgg catectgcgg cagcccaga tagatacct ctcatcacgc aagataacgg ccgataaaca cccagcccga ctggcgccca	cacceggee ccacaaacat caaageccae cggegacgge gcatgetgge tgctgtgea tgcteateat gcacetecae ccagaategg acageggea tegettteca	ctotcccaca cccgcccatc caccgggcgc cccgcgcagc gagcggcgcactcggtg ggtcagcgcc tttcggggtt cacgatggcg gatgaacatg gccaggatgg cgaggccaga	atcaggtagg tggatcacgc ggtttgttga ccgatttcg cagttggcga tccctcacca gtcatcggta gtcacgccgg ccgacgtaga	ccgtgacaaa caaacagcg ggatggcgaa gatgcatcag ccgcgctggt tccacgggaa cctggttggc tgatggcgag acgccagggt ccgtgaccgg	60 120 180 240 300 360 420 480 540 600 660 720	

```
780
gegggteggg tatteateee etgeegegtg ggegettteg atgtteteea ggteaaagat
gtagttegee agececageg gtaeggegga egecagatae ggeagegegt geggeageee
                                                                      840
                                                                      891
ctgcataaag ctgtccacgt gcacttccgg cgggttaaag ccgaaggatg a
<210> 4469
<211> 984
<212> DNA
<213> Enterobacter cloacae
<400> 4469
tgtaacgcca gtgttaaaat atgttcaaaa ctgatggtca ccaggagcca taatatgaat
                                                                      60
tocatettta eegaagagaa tttgetggee ttcaceaeeg eggeaegttt tggeagtttt
agcamagegg etgeegaget gggegtaace aceteggeem teagttacme catemanage
                                                                      180
atggagaccg gcctggacgt ggtgctgttt gtacgcaaca cqcgcagcat tgagctgacc
                                                                      240
gaatccggtt tttattttta tcgtaaagcg accgacctgc tgaatgactt tcatgccatc
                                                                      300
aagcgcggga ttgataccat ttctcagggc attgagacgc gggtgcgcat ctgcataaat
                                                                      360
cagettttgt atacgecacg ceatacegeg egtttgetee aagtgetgaa aaaacagttt
                                                                      420
cccacctgcc agateacggt gacgaccgaa gtgtataacg gcgtctggga ttccatcatt
                                                                      480
aataatcagg ccaatatcgc cattggcgcg ccggatacgc tgctggacgg cggcggcatt
                                                                     540
gattataccg agataggcgc gatccgctgg gtatttgcca tcgcgcccac gcatccgctg
                                                                      600
gogttogccc cggagcccat ctccgaaagt cagctgcgtc tgtatcccaa tatcatggtc
                                                                      660
                                                                     720
gaggataccg cgcataccat caataagaag gtgggctggc tgcttcacgg tcaggaggcg
attotggtgo oggacttoaa cacqaaatqo caqtgtoaqa tootqqqqqa aqqtattqqa
                                                                     780
tttttaccgg aatacatgac gcgtgaggcg gtggaggatg ggctgctggt aacgeggcga
                                                                      840
atcaataatc cgcgccagga ttcgcgcatg ctgctcgcca cgcagcatgc ggcgaccggt
                                                                      900
caggicacgo goiggataaa acagcaatti ggooocgaag gogigoigac coggatotac
                                                                      960
agtgacttac tgtggcgtac ctag
                                                                      984
<210> 4470
<211> 513
<212> DNA
<213> Enterobacter cloacae
<400> 4470
aatcagatta ccgacggett tacgacactt atgacgaaga aaaaagcaca taaacctggt
toggogacca ttgogottaa caagogtgot ogocacgagt atttoatoga agaagaatto
                                                                     120
gaggcoggcc ttgcgttgca gggctgggaa gtaaaatcgc tgcgtgccqg gaaagccaat
                                                                     180
atoggogaca gotacgtgat cotgaaagac ggtgaggoot tootgttogg ogogaacttt
                                                                     240
acgocgotga cogtogooto ttoacattac gtttgcgato ctaccogcac cogtaagetg
                                                                     300
ctgctgaaca agcgcgaact ggaatecete tacqgacqca tcaaccqtqa aggettcacc
                                                                     360
gtggtggcac tctctttgta ctggaaaaac gcctggtgca aagtgaaaat cggcgtggcg
                                                                     420
aaaggtaaga aacaacacga caagcgtact gacctgaaag cacgcgagtg gcagctcgac
                                                                     480
aaagcacgta tcatgaaaaa cgcaggacgt tga
                                                                     513
<210> 4471
<211> 588
<212> DNA
<213> Enterobacter cloacae
<400> 4471
atgggaccca caacgaaggg tccaaaaatc gagggtccca aaatggcaaa aatcgctaag
                                                                     60
aagctcactg acactgaaat caaaagcacg aagccagccg ataaagaaat caacttgttt
gacggtgatg gtttgatcct gcgaatcgct cctctcacaa aaggagggaa gaagaattqq
                                                                     180
tatttcagat atgcggtccc agtgagtaag aaaagaacca aaatgagcct tgggacctat
                                                                     240
cotcacetta cactggcaag agocagaaco ttacgagatg aatacettte ettgettgee
                                                                     300
aatggcattg atccccaagt ccataacagc aataaagcta atgccttaaa gaatgctact
                                                                     360
gaacacactc tccaagcogt ggcaaggaaa tggttagatg agaaggtaaa gacctcaggt
                                                                     420
atctcacaag accatgcaga agacatctgg cgaagcctgg agagaaatat ctttccagga
                                                                     480
ttgggtaatg ttoctgtoaa tgagatocga occaaactot taaagcaaca cottgaccot
                                                                     540
attgagcaac ggggagtoot cgaaactgaa tegecaegga taatetag
                                                                     588
```

```
<210> 4472
<211> 774
<212> DNA
<213> Enterobacter cloacae
<400> 4472
cggcggctgg acggctacgt gagggatgca atggaatatc cgcttctgga caataccgat
ctgccgctqq tgctgcttgg tggcaccctg tgtaacgtcc ggctctggca gcccgtcatt
gaaaggetga acateteage ggtgetgtge ateaegetga egggegeaga gteegegeeg
                                                                      180
                                                                     240
caqqqqtcac qqcqqttatt aaaqqttctq ccgccgcgct ttctgctggc gggcttttcg
cteqqeqeqa ttgteqeget geaaatggee geegaegege cagaaagagt gaaegggetg
acgetgattt ccgttaatcc gttgcccgtt gcgccagaca ccctcgcttc acgccgggaa
                                                                      360
geggtacaca cogeocagge geatggeetg geogaetgge tggteteete getgtggeag
                                                                     420
                                                                     480
agctatgteg cecegteacg tetgteegat eggateetge aagagactat ttgeegaatg
                                                                     540
qcqcaagagt qcqqcattga gacctttgcc gggcaaacgg aaatggccat tcaccggcag
gacaaccgga ctgcgtttaa cgccctcgcc tgccccacat tacttctaaa cggcgcgcag
                                                                     600
                                                                     660
qacqttatct qcacqcctca tcatcatcaa ctactqqcaq caqqcaatqc qaacqtgacc
aggeatacgg tggaggetgg egggeatttt atteegetgg aaacceegga tgagategeg
                                                                     774
cogotgotgo gtoagtggat aacggagtgo atacagtgog caaaaacagt ttaa
<210> 4473
<211> 306
<212> DNA
<213> Enterobacter cloacae
<400> 4473
egecatgteg ttggtttttc aacgtettta tttataagca caggegeaat etggeteatg
                                                                      60
gggcgtcgcg ttctccatgc taaaaagttt cttgtatttt atttagatag cgtaaacaaa
                                                                      120
agcatctggc aatttttgat aacgcttcaa atattattaa gcgtagttaa cagttatttt
                                                                      180
agcqcqtqta aacaatcgaq ttttaacctc tctggaatta tttcctccgc catctacact
                                                                      240
tactttactt tttgtttacg gacgttattt tccgttttgc gctccctgtc agtaacgggt
                                                                      300
ctqtaa
<210> 4474
<211> 2277
<212> DNA
<213> Enterobacter cloacae
<400> 4474
gegttttaca tggegagett ategaggagg ceagaegete tgeggeetgg etgegeegea
                                                                      60
gagcacagga ggttaaagat gatcaggett ettetgetge tggcaattag eeetetgetg
                                                                      180
gcccaggcca gccagcccgt cacctggtca ctggccggaa tgtggcgcgt gcatgacgcc
aacctcagca cctttgatgg cgccagcgcg cctgaccgcg actggcgatc gattgcggtt
                                                                      240
coggocaact ggtacagogo oggatacgat catcagggtg coctotggta toggoacgaa
                                                                      300
                                                                      360
tttaccctqc ccaqqcqcqc qcccqatacc atggccaccc tggtctttga tggcgtggac
tattttgccg acgtcacget caacggcagg catcttgccc atcacgaggg gtattttcag
                                                                      420
                                                                      480
egettetegg tagacataag egatgetttg cagegacaca ataagetege egtgegggtg
qacaqteeet qgqaagatec gaaaacaatc tggccgctgc ataaaacgat ggttaaaggc
                                                                      540
gtacttaacc agcacgatac cogcoctggc ggggcctggt cagaggacgg ccaggatgcc
                                                                      600
aactccqqqq qqatctqqtc qccqgtaaaq ctacatttga gccgcggagt gaccatcgac
                                                                      660
qaqqtaatac tgcgtccgga ctggcgtgaa gggctgagca aaccagcgct gcacgccgag
                                                                      720
atcogctace gggcgttgtc tgccggtgac gtaactttgc gcctgtcggc cacgccagac
                                                                      780
aattttacgg geeegeetgt aaageaggaa tteeetgtaa aeettgegag aacggaegga
                                                                      840
aageegeaat egettegegt eacgetgeea atgeaaggeg ceaggetetg gtggeeagtg
                                                                      900
ggctatggca ggccaaacct gtaccgagtg cgcgcaaccc tgacggataa gcaaggagtg
                                                                      960
atggataceg cagttgeeeg tacegggtta egeaagatag tgaagcagee tgacaacaag
                                                                     1020
                                                                     1080
ggctggctct ttaatgacaa acgcctgttt atcaaaggga gtaattacat cggctccccg
tggettagea ecatgacaeg caaaaaatat egeegegatt teaggetggt geaggeaatg
                                                                     1140
                                                                     1200
aacgccaacg cgatacgcgt teactogcat gtggcaggcc gggcacttta cgatgtggct
gacqaaatgg ggctgatgat ctggcaggat gtccccctgc aatggggtta caataacagc
                                                                     1260
gacgccttcg cggataatgc cgtgcgacag acccgcgaga tggttgaaca gtttggtaat
                                                                      1320
```

```
1380
 toccogoca ttatogtotq qqqcqqtcat aacqaqccqc catqqaattc accqtqqatq
 qaaaaacqct ttcccqactq qaataaaaac ctqaaccaqa cgctqacqaa acqcgtcqqa
                                                                      1440
 qacgcgcttt cgcaagatac ctcgcgcata gtgcatcgtt tttctgcggt ggaagaacac
 tactgggccg gatggtactt tggcaccatg cgcgatcttc ttggccccgc caaaaccgcg
                                                                      1560
 ateatcacqq aqtttqqcqc tcaqqcqcta ccqcqactct caaccttgaa aaccatcatt
                                                                       1620
 eccqcccqcc tgatqtqqcc gaaaagcacc gccgccgacg atcccggctg gacgcactgg
                                                                      1680
 aaataccata acttocagec ettocagace tttaaatttg ccaatattcc geggggcaat
                                                                      1740
                                                                      1800
 accattcagg agatgattgc caacacccag cgttaccagg cagagctggt ggcaatggcg
 gcagagaget atogtoggca gegetaccag ceggtaactg ceetetteca etttatgttt
                                                                       1860
 qtaqaaacct ggccctccat caactggggc gtcgtggatt atctgcgtaa gccgaaagcg
                                                                      1980
 ggetactacq ccctgcaaaa agcctatcag cccattctgc cgtcgattga acccgtgacg
                                                                      2040
 gcggtgtggc gtcagggaag cgaagcaacg gttcgcctgt gggcgatcaa tgacacctgg
 teegeetgtg aggegtgteg tetgaagtgg caggtgaage aaaatggteg ggtgetgget
                                                                      2160
 aaaqqcaata caaqcctcac gcttcccccc gattcgggca gcaggatcaa ggacatcacc
 gtcacaccga ccaccaggca taacgttacc attgagtatg agatttcgga tcgcgccggt
 aacaccgtgg gttccaacca gcgcaatgag agagtggaaa gccctcctga gcaatga
                                                                      2277
 <210> 4475
 <211> 11517
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4475
 acagtatttt cgccgggagc gcgttcgtct cttcagaaac gatggctttg ttttacacgc
                                                                      60
 cgtaaccaat cactcagctg gagtaataat tgtatgagcc aaatatctgt tatatctaaa
                                                                      180
ttaactggcg tggaaacgac cacggaaggg acacagataa cactcgatca ctcctcaatc
qttaaactta acgtqgatcq cgccgacatc tcaggttact cccgcagcgg aaacgatctg
                                                                      240
gtgattaccc tcaactcggg cgaagtgatt accctcaaga atttctacgt caccgacgcg
                                                                      300
 caqqqcqtqa qccaqctqqt qcttqaqqaq aqcqacqqtq cqctqtqqtq qattqaaqat
                                                                      360
ccaaccggtg ccgcaaccta tgaatccatc gcctccaccg atgcattact ggcggcgtca
                                                                      420
 gggagtgatg coggoggogc cgctgcgtgg coctgggtgc tgggtggcct ggccgccgca
                                                                      480
 ggtgggattg ccattgcggc gggaactggc ggtggaggtg gcggagatga cgataacaac
                                                                      540
 ageocgaate coggoaatee gggaaateet toogageoag ataccaegee tooggatgee
 cccaccaate tacaggtete acetgaegge aaaacegtea ceggtaeege tgageeggge
                                                                      660
aqcacqatta ccctqaaaga tgccgatggc aacaccatcg gaacgggcaa ggcgggcagc
 gaeggaaaat ttacgattga teteggtaeg ceaeteacea aeggggaaea gateaeegee
                                                                      780
 acceptaces atteatency caatactage cagggeggte aggteatgge accggatete
                                                                      840
 accgcaccgg atgccccggc caatctggag gtctcccctg acggcaaaac cgtcaccggt
                                                                      900
 accgetgage egggeageae egttaceetg aaagatgeeg atggeaacae categgaaeg
                                                                      960
 ggcaaagegg gtagegaegg gaaatttaeg attgatetgg gtaegeeget caccaaeggg
 qaacagatca ccgctaccgc caccgatccg tccggcaata ccagcccggg cgttcaggtc
                                                                      1080
                                                                      1140
 acggcaccgg atttaaccgc gccggatgca ccggagattg tcaccgtcaa tgataacgta
 ggcgccgaaa caggcccgct gagcaacgga caacgcacgg acgatgcccg cccgaccttc
 ageggeatea gtgaageegg caeegteatt acettetatg acaaegggaa acegattgge
                                                                      1260
 accgccacag cogatgccac cgggaaatgg agotttaccc cgtcgaccaa cctgtctgaa
 ggcaaccacg ccattaccac caccgcgacc gatgccgcag gcaatactag cccggcgtcc
                                                                      1380
 acggcggtaa gettegtggt egatacegte gegeetggeg egecagegat egteageate
                                                                      1440
 accgatgatg ttgcgcctgg caccggcaca ctcgggagtg gaagcagcac caacgaccca
 eggecacage teaceggtae ggeggaageg ggetegaega teaceateta tgataaegge
                                                                      1560
 attgctattq gcacaqcgat tgtgggcagc aacggaagct ggagctttac gccgtcggtg
                                                                      1620
 aacctgageg aaggeageca ccagettace gtgegegeca eegacgtege eggtaacact
                                                                      1680
 ggeccageet egeeggtett taeegteaeg gtagatgtea eegegeegea aaegeettee
                                                                      1800
 gggtttatca ttaacgacga cacgggcgta ctgaaaggag cgatcggtgc cgggcagttt
                                                                      1860
 accqatqcct caqaqccacq tctgacgggc agaggcgaac cgggcagcac gatcacqgtt
                                                                      1920
 tacgataacg gcgttgttat cggcaccacc accgttctgc cgaacggcac ctggagcatc
                                                                      1980
 acgccgacga gtccactggc agaaggcgca cactcgatta ccctgcggga aaccgatgcg
                                                                      2040
 gcaggcaacc agagggtct gtctcagccg atcaacttta ccgtcgatct tacgccgcca
                                                                      2100
 gacatgoogg ttgcgacgct caactccgca ggcacccaga tcaccggtac cgccgagccg
 ggcagtaaaa tegteateac caacaatgee gggetgeaaa tegggaeege caetgeegae
                                                                      2160
 agcaacggca actatgtcgt caacctgaac cctgcgcaga ccaacggcga gattatctcc
```

gtggtcgcct ccgatgccgc aggcaaccag agctcaccgg cgctggtcaa cgcagcggat

(3

```
atcaccccac ctgccgcacc gggcaacctg gtggtggcgg aagacggggc cagcgtcagc
                                                                     2340
ggaaccgccg agccaaacag cacgattatc attaaagcgc cggacggtac gatcatcggc
                                                                     2400
                                                                     2460
caggecaccg coggecogga cggcacette accatecoga tttegecage ccagaccaac
ggegaageee ttgaagtgae ggecaeegae ggeageggta acaeeageee gtetggettt
                                                                     2580
geogacgogo cagacagoac cocacogotg geacoggaaa acgtggtgat ctctgeogac
                                                                     2640
ggeaceaeeg taaceggtac ageogageeg ggeageaeeg teaceateeg tgaaaatgge
                                                                     2700
gtgaaggtog gggaaacggt cgccgacgat caggggaatt tcagcgttga actgatcccg
cogaaageca aeggegaage cetgacegee gatgecaeeg atacegeegg aaacacegge
                                                                     2760
cogacogogo cgtttgaogo googgacato acogoggoac aaacccoggt catcacgggo
                                                                     2820
                                                                     2880
gtggtggatg atgccccagg cgtcaccggt cctgtcagcc agaacggtct caccaacgac
aacacgccaa ccatcaacgg aacgggegag cctggcacca ccattaccct ctacagcggt
                                                                     2940
                                                                     3000
actacogtgc ttggcaccgc gctggtttcg gcgaacggtc agtggtccat cacgctgcaa
accgcgctac cggacggcgg gcacgtgctg acggcgacgg cggttgacgc caataataac
                                                                     3060
                                                                     3120
ctcagcggga catcgaacac ctggagcatc acggtggata ccgccgcgcc gggcgcgccg
gecattacgc aggteattga tgacgtaccg ggeogeacgg gtgegetega caccaatgaa
                                                                     3180
actaccaaeg acaegeteec gaegetgaac ggtaccggtg agecgggete caeegtgaeg
                                                                     3240
atcogcotgg acggacagga tattggtact gccgttgtta acagcggtgg cgcatggacc
                                                                     3360
ttcacacctg ctaccccatt agtgaacggg cagcatacgt tcaccgtcgt cgcgagcgat
                                                                     3420
geggeeggta aegeeagege accateagee ggetttaeee ttacegtega taccaeeeeg
ccaccagogg ccaccattga caccgtctcc gataacgtgg ggcccgtgca gcttccgctt
                                                                      3480
                                                                     3540
aacagcgggg acaccaccga cgacacgctg ccgcagttgc agggaaccgc accggacggc
accaccatca cgatctatga cggaaccacc ctgctcggca cggcggtgct cgacggcagc
                                                                     3600
                                                                     3660
ggoggotgga gotttacgcc aaccacgecg otgacggacg gcccgcactc gotgacggtc
cacqcaacqq atgaggeggg taacaccacc atttegeege egtttgaact ggegatcaac
                                                                     3780
acgacegege etgeaaegee ggatatteet gagateaeeg teaaeeegga eggeggeaeg
                                                                     3840
coggggacgg cootgaatoo aggggagacc accogggata coacgccaac cotgagcggc
                                                                     3900
togggcacgo ogggggatat ogtgaacatt tacgatggog otactaaaat tggtgaagoo
                                                                     3960
gagategatg gegacggtaa etggagetgg acgeeggatg atcegeteee tgacggcace
tacgatetet ceetgaeggt cactaaccag gacagegeeg ggaacgaaag egegeegtee
                                                                     4020
acqccqqtqa ccattaccat tgatactgac gcgcctgccc aaccgggaac cccaacggtg
                                                                     4080
                                                                     4140
acagacageg taagecagat caceggacee gtgetggatg gegaateeae caaegateeg
eqtecqqtcc tqaqtqqcac eqqtacqccg aatgacqtca ttaccatcta tgaccagqtg
                                                                     4200
ggtacaggeg ageogoagge cgtgggcage gttacggtgg acggtaacgg taactggage
                                                                     4260
tggegteetg agageaacat tggegaaggg acgcacgaat acacggegac cgccaccgat
                                                                     4320
gaageeggga atgaatetgt geeateagee ggtateaega taaeggtega taeeetegee
                                                                     4380
coggatacto oggitatoag tgocattggt ggogtgoaga atggogagto taccaacgac
                                                                     4440
actacqccaq qcatcqqcqq aaccqqcacc accqgcqaqa cggtgatcat ctacaacaac
                                                                     4500
                                                                     4560
ggcgtggaag tegegegegt agaggtegte aataatgaat ggteetatae eetgeegaca
caaaccgacg geoogotgaa tateaccgte geogoggtgg acgatgeogg taacgttage
                                                                     4620
coggtaagtc cggtctttac ggtggaggtt gatacgcagg cgccaaccgt gccgcaaatt
                                                                     4680
gacgccgtct ctgacagcca gctgaccaac agcgtgcttt acacccgcga cggtacgcca
                                                                     4740
acceteaceg ggattggega geegggtteg agegteaceg teteegttga tggtgtegee
                                                                     4800
                                                                     4860
togooggtgg togtggaggt toagoogaac gggacatggt cotggacogc cgaccotgcg
cteaccqaqq qqccqcatac cttctcagtg gtcgcgagtg acgcgggggg gaatacctcc
gccageteeg gegateteag egtgaeggtg gataceetge egeetgeaac gccaacgaat
                                                                     4980
atgaccattg cogoggaggg caccocgctg accgggacgg cggatgacgg aaccacggtg
                                                                     5040
                                                                     5100
acggttcgtg acgccaacgg caatateate gggaccgggg tcgcgacggg aggeteette
tacattgeec teteccegge ccagttggat geogegacge tgacgetgat egecacggae
                                                                     5160
cocgcaggca atgccagoto gtoaaccaco tttgacgtgo oggactotoo gotogagotg
cctqcqqtqc cqqtqattac qgcgatcaac gatgacgtcg atcccgtcac gggcgacgtg
                                                                     5280
aaaqataaaa ccaccaatga caccacgoot accottacog gcaccgooga tocgggcago
                                                                     5340
qtqateqeca tttatcagga tggatcgetg etteeggtga ceaetgtegt tgeggatace
                                                                     5400
aacggcaact ggagctacac geegetgttg eegetgaegg aagggeeaca cacettegee
                                                                     5460
gtgaccgcca ctaacaccac caccggcgcg accagcgggc agtcgcctgt cgcgaccgtc
                                                                     5520
                                                                      5580
accytcgacc ttaccycccc gacageycca gccategyty egytyaccya tyacytayyt
cogateaccg ggccaatege cgacgggcag agcaccaacg acaaccgtcc taccetgacc
                                                                     5640
gggacaggca cggccgggga caccattacg gtgtacgata acggcgaccc gctgggcacc
                                                                      5760
gttattgtcg gtccgactgg cacctggagc tacacgccgc ctgtgctgga cgacggcagc
                                                                     5820
cacaccetga cegtgacege cacegateeg geaggeaatg agageaeeee gteggeeggg
atcaccattg tggtcgacac cgtctccacc acgccggtga ttaccagcgt gacggataac
                                                                      5880
quaqquaatq eqqeaacqcc tqttccaaqc qqcqatccaa ccaacqacac cacqccaacc
                                                                      5940
```

```
ctgaccggta ccgctgagcc gaacagcgtc gtcgccattt tigatggcac cacgcagatt
                                                                     6000
ggtaccgtgg cagcagacgg taccggcgcc tggacattta ctcctgaaac cgccctcggc
                                                                     6060
                                                                     6120
gaagggaege atgactttac cgtcagagec acggatccgc agggcaacgt cagccagccg
                                                                     6180
tocaacgoot ggagogtoga aatogatott actgogocac aggtgcogac gatogttacg
                                                                     6240
gtcagogaca acgccccggg tggtgtaacc ggcccgctta ccgccgggca ggtgaccaat
                                                                     6300
gacaccacgc caaccctgag cggcaccggc caggegggca ccactattca cgttctgaat
                                                                     6360
aacggcgtgg agattggtac cactacggtc gacggcaacg gtaactggac ctttaccccg
                                                                     6420
gateeggtee tgaeggaegg gaegtataac etgegegtaa aegeeagega tgatgtegga
aacgteteeg eeaactegee agtgttegee tttaeggtgg ataccaetgg eeetgeggee
                                                                     6480
                                                                     6540
ceggtggtca ccaeggtgat agacgatgtc agecegggaa egggaatcat egecagcaac
ggttccacca acgacacccg tccaaccttc aacggtacgg gggaagtggg cgcaacggtg
                                                                     6600
cacgttattg togatgatgt ggaaatcggc acggcggtcg tcaacgccca gggtaactgg
                                                                     6660
accttcacge cgaccaccge getgggtgaa gggccgcata ccattacctt caacgecace
                                                                     6720
gatgeegeag geaatacegg ggteaceteg ecacegttea acetgaeggt ggatacgteg
                                                                     6780
                                                                     6840
gtgcccgacg caccggtctt tacccccgcc accgacaatg ccggtcccgt gctgggcccg
gtogootogg gacaaageac agacgacacc acgccaacge tgaacggcac cgcggcagcc
                                                                     6900
                                                                     6960
aacgcgacca ttaccatcta tgagaatggt cagccggtgg gcaccgccgt ggctgatgcc
aacggcgtat ggagctttac taccggcacg ctggcaaacg gcagccacac ctggaccgcc
                                                                     7080
acggcaaceg atgccgcggg caacatcagt cctgcctcac cgggctttac gctggttgtg
gatacaactg tgcctgccgc gccggttatc acccaggcga tagacgatgt tggcaccatc
accqqqqcqa ttqqctccqq ccagaccacg aacgatcctc tcccgcggct ggtggggacc
agegageege tggccacegt gaatatetat gagggcacta egetggtggg caceggtact
                                                                     7260
geogatgeta aeggeaactg gaccgtegat atcacegtge egetgggeac egggteacae
acctttaccg cagaagcaac ggatcaggcg ggtaacaccg gcgcgccttc cgccgacttc
                                                                     7380
                                                                     7440
agectgatea ttgacaccae geogeoagee etacoggtge tgaccagtgt caccgacgae
qtcqctaatq ctqcqacqcc tqtcqccaac qqcgqqttaa ccaacgatgc acgaccaacg
ctcaceggta cggcagaage cggcgcgacg gtaaccatct acgacaatgg ggtacagatt
                                                                     7560
ggcaccgcgg tcgccaccgg cggcgcgtgg agetttacgc cgtccacccc gctggctgac
                                                                     7620
gggeegeata atetgacett eteegeeace gaegeegtgg geaacgccag egeacagace
                                                                     7680
qqqqqttaca ccatcaatqt ggatgccacc gcccctgtcg caccggcaat cacctcgatt
                                                                     7740
                                                                     7800
gtggatgatg tgggaaccgt caccggccet gtcaccggca ccaacccaac caacgacacc
ogtocgacet taaacggtac ggcggaagec aatgccaccg tacgtattta cgacggcacg
                                                                     7860
acqctqqtqq qaaccqtcac tgccgatgcc aacggcaact ggacgctgcc gcaaaccagc
                                                                      7920
accacgetga tegaaggega geataaette accgecaceg ccacegatge egegggeaat
                                                                     7980
accagegege categoogat tateacgate aacgttgace tgacgeegee agcageecea
                                                                     8040
accgggctgg cggtgatcac caacgggacg caggttaccg gtacggcgga agcgggaagt
                                                                     8100
acceptcacca tcaccagcag cacceggaacc gtgcttggca cagccegttgc ggacggcagc
                                                                     8160
ggaaacttca gcgccaccct cacccctcca cagaccggcg gggagtcact gattgtcttt
                                                                     8220
gctaccgata aggccggtaa cgcgggtatc accacctccg tgattgcccc gatcaccacg
                                                                     8280
atcccgaacg cgccggttat cgctaacatc gacgataacg tcggcacggt gacgggcaac
etgaceaacg ggaaaaccac egatgacace acgccaacce tgageggcac ggegcageeg
                                                                      8400
aacgcgacca tcacceteta taacaacggg gtgctgatgg gcacggtcac cgcgaatgcc
                                                                      8460
                                                                     8520
ageggcaact ggagetteac caegeeggtg etgagegaag ggecacatge etteacegee
acggcgagca acggctcggg caccagcccg attrocacgt cgaccaccgt cattgtcgat
                                                                     8580
                                                                      8640
etcactgege caaeggetce aacegggace ttcaaegeag aeggeagegt actgaeeggt
                                                                      8700
agegoegaag ogggoagcac ogtoaccato ogtotggogg acaattoaac ggtoaccgco
                                                                      8760
acggcagaca gcaacggatc ctggagctac accttcctca ataaacagac ggaaggccag
acqctqcaaa tcaccgccac cgatgcggca gggaacgtot cgctgcccgg ctcagccctt
                                                                      8820
gegeeggtgg tgccgctctc tgccagcacc aacgttgaag agctggcgct gacgaccacc
gcaacggtga ccaactcgca gtacagcgac tatggtttcc tgctggtggg tgccgtaggt
                                                                      8940
aacgtgctga cgctgctcgg caacgacacc gcgcaggtag gtttcaccgt cggcaacggc
                                                                      9000
ggcagtgcgg atattgccgt gaacgccaac gccacgggtg ccgttctttc cctgctcaat
                                                                      9060
                                                                      9120
accettgage tggtggtaca gegetttgac geogecaaca acacetggac cacegtggte
                                                                      9180
gataccqqac aqccqcaqtt cqctqacctq ctgaccctcg gcgcgacggg ggtgtcgctg
                                                                      9240
aacctgaccg gtctggcgga tggtcagtat cgcgtcctga gctacaacac taacctgctg
                                                                      9300
geaaccggtt cttacaccag cetegatgtg geggtgaaag agascagege aggcaccgtg
                                                                      9360
tocogecgaaa ccaacattqt cogtaacqtc atcaccqacq tggatccaac cgcaggcagc
                                                                      9420
qacaacqccc cggcgggcac caccgtcaet gcggtcacca acgcccaggg ctccaccaet
                                                                      9480
agegttacgg etgaeggeae agtgatteag gggeagtaeg geaegetgae cateaacetg
gacggcaget atacetataa cetgaceaac accagegeeg cegtcattgg cegcaeggag
                                                                      9540
aactttacct acaccatcac ccacaacgge accagegeet eggeaaatet ggtgetgteg
                                                                      9600
```

## geggtaaacg atgteageae egegatggae gteacgaegg tteaccatae ggeegeetat tecgatacga eggtegggte ggegagetgg aaegetgege tgettgeete aaeceaggge agegggageg ggaeettegt ggtggateet aatacegege tgcataacgt ggttetgteg 10560 ggcgcaacca ccgtcagaac cggctcgttt aacggtgggt tactgctggg cggcacggcg 10680 10740 accatcaacc tgacgggtct cgatctggag gcgggaacct atacgctgag ctatacgggc aaaatggggc cattgggggt aggaaatatc accatcaccc caagegtgac eggcaccage 10800 tactogotqt cqcaqttcqa cqcqacqggt acccacaccg ttgacggcaa tatottcgac 10920 ggcaccgact cogcaggggc gatggaccag ctccactcgg ttgatacccg cgtgagcatt accggctacg acggcgttac cactacgctg gatccgtaca ccggcagcac gatgtcaaac 10980 atcacqqqcc actacqggac gctqqcqatt gccqctqacq gcagttacac ctacaccctc 11040 aaccogggta tttcgctctc taccattacc agcaaggagg tctttaacta caccctgacc qatqccaacq qtqttaaaqa taccqcqtcq ctqaccattq acatqqcqcc qaaatttqtc 11160 agtteggage ataaegatgt gattageggt aeggeetaeg gegaeaegtt gatttateag 11220 gtgttgaaca acacggeggg taacgccacc gcaggtaaca gcacgggega ccactggacg aacttotooc toacgoaggg agacaagato gacattggog atotgotggt ggggtggaac ggtagegegt egaegetggg gaactatgte tetgttteac aaageggtaa caatactgtg 11400 atotocatog accgtgacgg cacgggagco gootacacta aatotacact cgttacgctg 11460 gacaatgttc agaccaccta cgacgagctt gtaaaccagc aacacatcat tacctga <210> 4476 <211> 2226 <212> DNA <213> Enterobacter cloacae <400> 4476 aaaccgcacc atccagaccg tggagatcca gccatgaagc aacgcgacat cccgcagggt 60 gaaaacatga cggatcaggc gctggagcag tgggcgcagg cgtttggcta cgtggcgacg 120 180 egetategeg ttgeetgete gecaggeteg etegtegeag gegegeegtg getgaaagge aaaccgatgg tgcccgcgct gacgcagctc gcccgtgaag ccgggctgac attccagctg 240 ctgacggcag atcagcagte catcaacage tggcgtctgc cggtggtggt ggagetgaac 300 360 gacggaaaaa toggogtoat ogacaattto gacggogagg atacgotgga ggtoagottt ttegacgaca geacgeacae caacegeetg tegatgageg egatgetgee tgecateege 420 480 caegicateg coetgegice getggeggeg etgaaggaca geegegigga tgeetatate teaaaatace geeeggactg getetacegg etggtgatge gegacetteg ecettacage 540 tgggtgatgc tggctgcact gttcattaac gtgctctccc tctcgggcat cgtcttttcc 600 atgcaggtgt atgaccgggt gatccccgcc cagtcctatc cgacgctcta tgtgctgact 660 720 ateggggtge tgategeeae getgtttgge tttgtgetge gegtggegeg eggacacatt atggatetge tgggcaaaeg eteggatetg egegtetegg ategggtgtt eggecaegeg 780 ctgcggctgc gccacagcgc cattccgcga tccaccggca getttatctc ccagetgcgc 840 gagetggage agateegega gatggteace tectecacea tetecaceat egtegatetg 900 cogtttttta toctgtttgt gattgtgetg gegateateg eccegeaget ggegtggate 960 getceggtgg eggeggtgat catggteetg eetggeetge tgetgeaaaa gaagetggeg 1080 gagetggega ageagtegge geatgaatea accetgegea aegeggtget ggtggaaage 1140 gtgcaggggc tggaggacat caagctgatg caggcagaga accgcttttt gcagcagtgg 1200 aacagotata tooagatoac ogoogaatee ggootgogoa ocogogaaet gaogoagaac ctgatcaget gggggatgac cattcagage etggtetatg ceggggtgat egtggtgggt 1260 gegeogatgg tgategaegg cacettaaee aceggttegg tggtggeege etegatgete 1320

ctgggcgaag gcaccagcag cagcggtatc gtggccgtgg acgataccgc ctcgctgacc

ttegatacca ccgtggaggc gatcaacaac ggcacctcgt cgcagggcgg ctttaccctg

gtggggatca acettggcaa tacgetgggg etgaacetge tggaegatet ggecaaceeg ateatetata aegtggaaga aggeaceaee egeaceatga eegtteagge gteegtggge

ggcgtcgcgc tggcctcggt gttcgacctt tacatctata agttcaacaa tgcgacacag

accttegage agatgegegt tgaaceegge tggetgegeg egeegetget gggeggeace teecegeage tgacattgaa eetgeeegee ggtgagtace tgtteetget caataeggeg

gcggggatca ccgcgctgac ggcctacacg ctgaacgtct tgcaggatca tgtctacagc gtggcaagcg tgagcgagag caccaccggc gatgtgctgg cggatgatat tgcgccagcg

 $\begin{array}{lll} {\tt ggtaccgtag} \ {\tt totccgacgt} \ {\tt taacggcgtg} \ {\tt geggtgaaca} \ {\tt gcagcgggtct} \ {\tt gacggagatc} \\ {\tt accggcgagt} \ {\tt accgtacgct} \ {\tt gcggatcaac} \ {\tt gcggccggag} \ {\tt agtacaccta} \ {\tt caccctgaac} \\ \end{array}$ 

ageggggteg gegeggacea tateageaeg eeggataeet tegtttaeae cateaeegeg eetgaegget egaaagacae ggeategttg aacateaeee eaaeegegge eeeaatggat

9660

9720

9780

9840

9900 9960

10080

10140

10260

```
1380
 geeteacgga tgategeece gatggegaeg etatgeggeg tgetggeeeg etggeageag
 gtgaaggegg ccaaagaggg getggacage attatgcage tgccgacega gaaccagege
                                                                       1440
                                                                       1500
 gaagagacac cgatccgcca ggacgtgctg cgcggccact atcttttcga gcaggcgcag
 ttecgetate acceggaaga teccegcatg gegetgegea ttaacegeet ggagateaaa
 gegggegaaa aagtggegat cetegggege aacggegegg geaaateaac cetgttgeag
                                                                       1620
 gcgatggcgg gcgggatgga tctggcgggc ggtgaactgc ggctcgacaa cctcagcctg
 cogcatotgg acgtggctga cgtgcggaga aacgtcggct ttatgaccca aaacgcccgg
                                                                       1740
                                                                       1800
 ctqttttatg gcaccctgcg cgagaacatt acgctcggca tgccgcgcgc caccgataaa
                                                                       1860
 gagatetteg aggtgetgga gatgtgegge geggeeaget ttgtgeagaa getgeeaaag
                                                                       1920
 gggctggatt accegattat ggagaacggc gtcgggctgt ccggcgggca gcggcagtct
 attetgetgg egeggatget getgegegae eegaatateg tgetgatgga tgaacegace
                                                                       1980
                                                                       2040
 geotecettg atgaacatac cgagegggaa tttattcaac gtetegggge gtggetegge
 aaccgcacgc tggttgtcgc gacccaccgc gtgccggtgc tggagctggt ggagcgcgtg
                                                                       2160
 qtqqtactca aaqatqqcat qctqqtqatq qacqcqccaa aagcccaggc gctgaacaac
 agccqtatqc aqcaacaqca qcaggcaacc ggacgggagt ggaaaaatga aaatcagtca
                                                                       2226
 gcgtga
 <210> 4477
 <211> 447
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4477
 acagacaata caggottgta tttcgctggt cagagggaaa agcagacgat ctctatctct
                                                                       60
 ctccacacaa gtacacgcaa cacaagtgag gcatcaccta tgacacttca acaggcactc
                                                                       180
 cgcaaaccca ccacgccggg cgaggtgttg cagtatgagt atcttgaacc gctcaatctg
 aaaatcaacg atctggcaga gatgctaaat gtacaccgca ataccgtaag cgcgttggtc
                                                                       240
 aataacaatc gcaaacttac tgccgatatg gcgatcaaac tggcaaaagc cttaaatacc
 actattgaat tttggctgaa cttacagcta aacgttgata tctgggaagc gcaatctaac
                                                                       360
                                                                       420
tecegeaege aggaggagtt aageeggata aaaaeegttg eggaagteat ggegaagega
 aaatccggca agccggacgt tgcctga
                                                                       447
 <210> 4478
 <211> 681
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4478
 caatetteta acateaacee agtttatetg aatttttatt tattaaagaa tgaaggetea
 caacataagg agtotgotat gaaaatogto attattggtg coagoggtac ggtoggtogt
                                                                       120
 gctgtgacag aagagctaag ccgtcgtcac gaggtgatca gcgtgggtcg cacgcagggc
                                                                       180
 qaccatcaqq tqqatatcac ctcqcaqqcq agcqtacaqq cgctgttcga aaagatcggc
                                                                       240
 coggtggatg cgattgtotc cgccageggt ggggtacact toggccoget cgcaaccatg
                                                                       300
 accgacggcg agttcaaccg gggettacag gataagctgc tggggcagat tcgtctggcg
                                                                       360
 ctgaccggcc agcactacct gaacgaaggc ggctcgatta cgctgataag cggcattgtg
                                                                       420
 geteaegage egattgetea gggegteaat gecaccaegg tgaatgegge getggaaggg
                                                                       480
 tttgtgegeg cegeggeetg tgaactgeeg egegggatee geattaacet gateageeeg
                                                                       540
 acggtgctga cggaatccgt cgaagcatat gatggcttct tcccgggctt tgaaagcgtt
                                                                       600
                                                                       660
 cccqctqcqa ccqttqcgca ggcctaccgc cgcagcgtgg aaggggtaca gagcgggcgg
                                                                       681
 gtatataaag toggotatta a
 <210> 4479
 <211> 528
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4479
                                                                       60
 ggaaacataa tgtctcttcc tcttatttcg ccgcagcagg caaacgcgct tattgctgaa
 ggegecaaac ttategatat tegegaceee gacgagtatg eeegegagea tatteeggeg
                                                                       120
                                                                       180
 gogcactica ttocgotqqa ttoqttacco qqoqqqotta acqcqqoqco qqqaqaaacq
```

gtgattttcc actgtcagtc cggcgcacga acctcaaaca atgctgctcg tctggcgcag

<400> 4482

```
300
 qcaqcatccc ctqcqaacqc ctqtqtqqtt qaqqqaqqca ttcaqqqctq qaaacaqqcc
 qqqctqctqa ccqttqaaga tcqatcqcag ccqcttccqc tgatqcqtca ggtqcagatc
                                                                    360
                                                                    420
 getgeeggge tgetgateet etgeggegtg gtgttgggtt acagegtete cageggtttt
                                                                    480
 ttcctgctga geggttttgt gggcgccggg ctgctgttcg ccggagtgac aggtttttgc
                                                                    528
 ggtatggcgc gacttetgaa agtgatgeeg tggaaccgac gtaeetga
 <210> 4480
 <211> 240
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4480
 atggcagtta cccttaaact ggctacgctt agagaagtgt cttttataat tttcaattgg
 ttagettgca eggagttatt tatgggtttt tggegegtte tttttaegat tatteteeeg
                                                                    180
 ccgctgggcg tgctgcttgg caaggggctg ggctgggcgt ttattctgaa tatccttctg
 accatectgg getactteec eggtettate caegeatttt gggtteagae gaagagetag
 <210> 4481
 <211> 1773
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4481
                                                                    60
 120
acaggaggcg cgcgatccgc aggtgggcgt catcgtgatg gacttcgtgc tgggctttgg
                                                                    180
cgcgcacgac gatccggtgg gggtgatgat cgaggcgatc aaagaggcac aggcgatcgc
quacqccque auccetcoqc tegauattet egectacete etegecacee atcaegatee
                                                                    240
 geagtegetg gegeageagt geeagetget gacegaegea ggegteatet gggeeageag
                                                                    300
                                                                    360
caqcaccaac accqqattac tqqcacqcga atttqtctqc aaaggggaga aagcataatg
                                                                    420
accactttat tcaaccagce gotaaacgte attaacgteg goattgegat gttcagegac
                                                                    480
gaceteaaaa ageageaegt teeegtgace cagetegact ggacgeegee ggggcaggge
aatatqcaqq ttqttaaaqc gctcgaccag ctggcggaaa aaccgctggc ggagaaaatt
                                                                    540
                                                                    600
gccgccgcga acaaaattgc cctggagcgg attattcagt cccatccggt gctggtgggc
                                                                    660
tatgaccagg coatcaacgt ggtgccgggc atgacccgca cgaccattct gcacgccggt
 ccgccagtta cctgggaaaa catgtgcggg gcgatgaaag gcgcggttac cggcgcgctg
                                                                    780
 gtgtttgaag ggctggcgac ggatctggag gacgccgcaa ggctggcggc gtcaggtgac
 atcacettet egeegtgeea egageacgae tgtgtggget etatggeggg egteacetee
                                                                    840
 qeqtcqatqt ttatqcacat egttgagaac aaaacttacg gcaaccgcgc cttcaccaac
                                                                    900
                                                                    960
 ctcaqcqaqc agatgqcqaa gatcctgcgc atgggggcca acgaccagag cgtgatcgat
 cgtctgaact ggatgcgcga cgtgctcggc ccgatgctgc gcgacgccat gaacattatc
                                                                    1020
 ggcgaaatcg acctgcgcct gatgctggcc caggcgctgc acatgggcga cgagtgccac
 aaccgcaaca acgcgggcac cacgctgctt attcaggcgc tgacgccggg gctgatccag
                                                                    1140
                                                                    1200
 gegggetatt eggtgaegea geagegtgaa gtgttegagt ttgtegeeag eagegaetat
 tteteeggte egaegtggat ggeaatgtgt aaggeegege tggatgeege ceaeggeatt
 gagtacagca ccgtcgtcac caccatggcg cgcaacggct acgagttcgg cctgcgcgtt
 teeggeetge eggggeagtg gttcacegge eeggegeage aggtgategg eeegatgtte
                                                                    1380
 gegggetata ageoggaaga eteegggetg gatateggeg acagegeeat caeegaaace
                                                                    1440
 tacqqcatcq gcggctttqc gatgqcgacq gccccggcaa tcgcggcact ggtgggcggc
                                                                    1500
 acggtggagg aagccatcga tttttctcgc cagatgcgcg aaatcaccct cggcgaaaac
 cequacqtca coatteeqet qeteteettt atggggatee egacegecat egacateaeg
                                                                    1620
 aaqqtcqcqq gcageggcat tetgccggtc atcaataccg ccattgccca taaggacgcg
                                                                    1680
 ggcatcggca tgataggggc gggcatcgtt cacccgccgt ttagctgttt tgaaaaggcg
                                                                    1740
                                                                    1773
 ctgttgacct tccgcgatcg ctacttttta taa
 <210> 4482
 <211> 1011
 <212> DNA
  <213> Enterobacter cloacae
```

aggagtgctg taatgageca gaccacggag aaaaaaccgc gtttaaccac gtcggcgatg

```
attqcctcta tcgcggaaga gggccaggag acgcgagccg caccgttcgg ccacgcgctg
qtgaagetgg eggaacageg aceggaggte gtaggcatga etgeggatet gtegaagtae
                                                                      180
                                                                      240
accgatetge atattttege teaggeetae eeggaaeget tettteagat gggeatggee
                                                                      300
gagcagttgt taatgggggc cgcgggcggc atggcgaaag agggttttat tootttcgcc
                                                                      360
accacctatg cogtottogo taccogoogo gootacgact ttatccatca ggtgattgct
                                                                      420
gaagagcacc tgaacgtgaa gatctgtgcg gcgctgccgg ggctaaccac cggttacggg
                                                                      480
cogagecacc aggogacgga agatattgcg attatgcgcg gtattccggg catgacgatc
                                                                      540
atcgatccct gtgacgcaat cgacacggaa caggcggtgc cggcgatggc agcgcacgat
ggccctgtct atatgcgcct gctgcgcggc aaggtgccgg tggtgctgga ccagtacaac
                                                                      660
taccagitta agattggcaa agctgcgctg ctggaagagg ggaacgatgt cctgatcgtc
geetcaggee tgatgaccat gegtgegetg gaggeggega ageagetgeg taaggataac
gteagegtgg eggtgetgea etegeceace attaageege tggaegaaga gaegateetg
gegeaggetg egaageeggg aeggetggte ategtggegg aaaaccacag eagegtagge
                                                                      840
gggttgtgcg aagccgtcgc gtcgctgttg atgcgcaacc gcgtgaacgt ggatttcgat
                                                                      900
                                                                      960
acceptegege tgccggacge gttccttgat gcgggcgcgt tgcccaccct ccatgaccgc
                                                                      1011
tacqqqatct caaccacagc catggtggag aaaatccggc gcaggctgtg a
<210> 4483
<211> 252
<212> DNA
<213> Enterobacter cloacae
<400> 4483
                                                                      60
ttcaatgtac ggtgtgaagg tgtcctcggt ggcaaaggtt atgccaccgc cggccagcgc
                                                                      120
gaggetgage ataagacgca gategttagt ggttattigt ggtteaatig ccacategaa
agggacgcct gcttcctcaa actoccagcg atagggggca acgtccgggg aagggcgcca
                                                                      180
geogatacac cgatgagega ccageteaeg gggatgegee ggtgegetgt gtgtegeeag
                                                                      240
ataggaaggt ga
<210> 4484
<211> 342
<212> DNA
<213> Enterobacter cloacae
<400> 4484
acgatgaaca ttgatacaga cogactggac gacgtaaaca ttatgacgcc ttcggtgcgc
                                                                      60
cgactggacg cetcggtggc ggcggtattt aaggaagcta ttgcccggga gattggggtg
                                                                      120
gatogtaaag cootgatagt cgatttcagc aaaatcgatt ttatcgacag cagoggoott
                                                                      180
ggcgcactgg tttccctgct gaagatgatg aatggtaaag gtgaaatgat gctgtgtgcg
                                                                      240
ctgaaccccg gtatacgcaa catgttcacc ctgacccgta tggatcgcat atttcgcatt
                                                                      342
tgcccggatc gcgctacggc actttcgcat ctaaatcagt ga
<210> 4485
<211> 291
<212> DNA
<213> Enterobacter cloacae
<400> 4485
agagaggtgc ccatgagegg taagegttat cctgaagagt ttaaaaattga agcagtcaaa
caggitigting atogitigtica tictigtitico agrigtigica caegitetega tateaceaet
cacagtettt aegeetggat aaagaagtae ggeeeggatt etteeaetea taatgaacag
                                                                      180
                                                                      240
tcagatqctc aqqccqaqat ccqccqtctt cagaaagagt tgaagcgggt tacggacgaa
                                                                      291
cgggacatat taaaaaaagc cgcggcgtac ttcgcaaagc tgtccgactg a
<210> 4486
<211> 411
<212> DNA
<213> Enterobacter cloacae
<400> 4486
```

aaaccgtttt tcactgatat agtgacette cagcacgtce gecagetget getgegeatt

```
qtccqqqtcq aggtcggtaa ggaaaccgag attgccacgg ttaacaccaa taaccttaat
                                                                     180
atcatagoga gocagogtto gogoogogoo cagcatattg cogtogocac ogaccaccac
ggegagatee geetgetgge caattteege cagegtgeeg gttetgaege ttttaagetg
                                                                     300
caactootgg gcaatetget getegaccat cactteatag cetttaccae acagecageg
                                                                     360
atacaacatt tcatgtgtcg tcaatgcggt agggtgacgc ggatggccga cgatcccaat
                                                                     411
acacctgaaa tgattattca ttttctggag gtccttgtgc ctgatgaatg a
<210> 4487
<211> 624
<212> DNA
<213> Enterobacter cloacae
<400> 4487
aacataggga gtotgaatat gtotgcaact gcactggtta cagaatttot gotggoggca
                                                                     60
                                                                     120
qaaqaqqqca atatcqacgc gctaaaagcc tgcctggaaa aaggcgtgga tattaacgta
accaaccgcc agaaaagaac cgccattatt attgccagcc tgaaaaagca ttacgcctgt
                                                                     180
                                                                     240
gtggaatttt taattgeege eggggeggat attgataaae aggaceagae etgttttaae
cccttcctga tcaqctqcct qaccaatgat ttaaccctgc tgcgcattgt ccttccggcg
                                                                     300
                                                                     360
gatocqqatc togaccqtct gacqcqcttt ggcggcgtgg gcattacccc tgccagtgaa
aaagggcacg ttgaaatcgt gcgtgagctg ctggaaaaaa ccgacatcaa cgtcaaccac
                                                                     420
accaattttg toggotggac googttgotg gaggocatcg tattaaacga cggcggcgca
                                                                     480
                                                                     540
aagcagcagg aaattgtgaa gctgctgctg gatcacggcg cgaacccgca catgaccgat
                                                                     600
aaatacggca aaaccccgct cgaactggcg cgggaaaaag gcttcaacgc gatcgcagac
                                                                     624
ctgctgctgg cggcaggcgc gtag
<210> 4488
<211> 1650
<212> DNA
<213> Enterobacter cloacae
<400> 4488
cgcattcggt cagcettccc ctggctggcc gttactgaaa aaacgcattg ttaccgacgt
                                                                     60
gcatttagca cgacggcggc ccccttttat cttaaacagg tgaaaataat gccaaccaaa
                                                                     120
atogtoataa aaaagaatac gtatttogat toggtttoot taatgtoggt ttocaccaaa
                                                                     180
gccaataaat tgccgggcgt cgagcaggcg tttgtggcga tggcgacgga aatgaacaaa
ggcgtattaa aaaacctcgg gctattaacg ccggaattag cggacgcgaa aaatggcgac
                                                                     360
ctgatgatcg tgattaaagg cgacgcggca aatgatgaaa ccctggccgc cattgaagcg
ctgttcacgc gtaaagagcg cacgggctca catgaagcac gctacgcgtc gattgccagc
                                                                     420
gocaaaaccc atogtoogga cagcaacctg goggtgattt cogtoaacgg caccttogco
                                                                     480
gecegggaag egegteagge getggaaaac gatettaacg tgatgetgtt eteegataac
                                                                     540
gtatcgctcg acgacgaget ggcgctgaag cagctggcgc atgaaaaggg tctgctgatg
atggggccag actgcggcac cgccattate aacggcgcgg ggctgtgctt cgccaacgcg
                                                                     660
                                                                     720
gtgcgtcgcg ggccgattgg catcgttggc gcctccggta ccggcagcca ggagctgagc
gtgcgcattc atgagttcgg cggcggcgtg tcgcagttaa tcggcaccgg cggacgcgat
                                                                     780
                                                                     840
cttaqcqaqa agatcggcgg cctgatgatg ctcgacgcca tcgacatgct ggaggcggac
gaegegacte gggtgatage geteatetee aaacegecag caccegeggt ggetgagaag
                                                                     900
                                                                     960
gtgctggccc gggcacgcgc ctgccgcaag cctgtagttg tgtgcttcct gggccgcaac
quaccocctq cogatgaaga cggtttgcag tttgctcgtg gcaccaaaga ggcggccctg
aaageggtge tgettacegg cattaaaaaa gaegaeetgg atttacatee getcaactgg
                                                                     1080
cogotyatog aagaggtacg caccegooty acgtegoago agaaatacat togoggooty
                                                                     1140
ttctgcggcg gcaccctgtg cgacgaagcg atgtttgccg cgctggagaa gtttgacgat
                                                                     1200
gtttacagca acatccagcc ggacccggcc aggcgtctga aagatatcag cgttagccag
                                                                     1260
goccacacet teettgattt eggtgaegat gattteacea aeggeaagee acacecaatg
                                                                     1380
atequecequa ceaucequat cageegeetg ctacaggagg egegegatee geaggtggge
gteategtga tggaettegt getgggettt ggegegeaeg acgateeggt gggggtgatg
                                                                     1440
atogaggoga toaaagaggo acaggogato gogaacgoog acaaccgtco gotggaaatt
                                                                     1560
ctcqqctacq tqctcqqcac cqatcaggat ccgcagtcgc tggcgcagca gtgccagctg
                                                                     1620
ctgaccgacg caggcgtcat ctgggccagc agcagcacca acaccggatt actggcacgc
                                                                     1650
gaatttgtct gcaaagggga gaaagcataa
```

```
<211> 990
<212> DNA
<213> Enterobacter cloacae
<400> 4489
gggcaccaga acgcaccttc taaaggaaac aaaatgaaag agcttatggt cgtcgccatc
ggeggeaaca geattateaa agacaacgee agecagtega ttgageatea ggegeaggeg
                                                                      180
gtcaaagcgg tggctgagtc ggtgctcgaa atgctggcct cggactatga catcgtgctc
acccatggca atggcccgca ggtggggctg gatctgcgcc gcgccgaaat cgcccacgag
                                                                      240
egggaaggge tgeegetgae eeegetggea aactgegtgg eggataccca gggeggeate
ggetacetga tecageagge geteaacaac egeetggegg egegtggega geaaaaggeg
                                                                      360
gtcacggtcg tcacccaagt ggaggtggat aaaaacgatc ccggctttac gcacccgaca
                                                                      420
                                                                     480
aaaccgatcg gagcgttctt cagcgaggcg cagcgcgacg agctacagct cgcgcacccg
                                                                      540
gactggeatt ttgtcgagga ttcaggccgg ggetatcgcc gcgtggtggc ctcgccccag
                                                                      600
ccgctgcgca tcgtcgaggc ggatgcgatt aaggcgctaa cgcagaaagg ttttgtggtc
ateggegegg geggtggagg cattecegtg gtgegeagtg aacagggega ttaccagage
                                                                      660
gtggatgegg ttategataa agatetetee accgegetge tggegegega gateegege
gacgtgctgg tgatcaccae eggegtggag aaagtgtgeg tgaacttegg caageegaac
                                                                      780
                                                                     840
caqcaqqcqc tggatatcgt caacqtggcg cagatgacgc gctacatgga tgagggccac
ttcccqqcqq qcaqcatqtt qccaaaaatc qtcqcttcqc tggaattttt acgccatggc
                                                                      900
                                                                      960
qqcaqqcqcq taatcatcac ctcqccqqac tqcctqcccg cagcqctqcg cggtgaaacg
                                                                      990
ggtacccata ttattaatga aggaagataa
<210> 4490
<211> 1335
<212> DNA
<213> Enterobacter cloacae
<400> 4490
gttatgtctc gtatagaaca agctgtcccc tacataaagg ctaaaaaaac caattaccgt
                                                                      60
ttogttgtgc tggcattaat ttttattgtt tatgccatta actatgctga ccgaacaaat
attggtgcag tactgccgtt tatcattgac gaatttcata tcaataattt cgaagccggt
                                                                     180
gccatcgcca gcatgttttt tttgggatac gccctgagcc aaattcctgc gggctttttt
                                                                      240
attgccaaaa agggaattcg cggcatggtg gcactgtcga tattcggctt ctctgccttt
                                                                      300
acctggctga tgggcaccgc aacctcagtt ctgggcctga agtgtatccg cctggggctg
                                                                     360
                                                                     420
gggttaacag aggggccgtg cccggtcggg ctggcctcca ccatcaataa ctggtttccg
                                                                      480
ccaaaggaga aggccacggc cacgggcgtc tacatcgccg ccaccatgtt cgcgcccatc
ctegtgcege egetggeagt gtggategee atgacetggg getggegetg ggtettette
                                                                     540
                                                                      600
teetttgega teeeeggeet ggteattgee gteetgtggt atetgetggt acgeaccagg
coqtccqaga gcgcattcgt ctcqaaagcg gagctggaga ccattaccgc cggtcaggag
                                                                      660
accoeggacg ccagacggga aaatategtg atttcaccag getttgcacg cetegategg
                                                                      780
ctqatccqcq tqcqqqaatt agccccqgta agcacggtaa aagggctgtt tacctcgaag
aatatteteg gegactgeet ggeetatttt atgatggtea gegtgetgta eggactgttg
                                                                      840
acgtggatcc cgctctatct ggtgaaagag aaaggcttta cgtttatgag catggggctg
                                                                      900
gtegecagea tgeegtgeat eggtggattt ateggtgega tttttggegg etaegtetee
                                                                      960
gacaaactgc teggeegeeg aegtaaaceg accatgatgt ttacegecat cagcacegtt
                                                                     1080
ttaatgatgg ttattatget gaatatteeg caaageaeeg tegeggtttg egtegggtta
ttttttgtog goototgtot gaatategge tggecegett ttaeggetta tggaatgget
                                                                     1140
                                                                     1200
gttgcggaca gtaaaaceta teegattgee gegtecatta teaatagegg eggtaatete
ggcggatttg tttccccgat gctggcaggt tatctgctgg ataaaacagg tagttttaat
                                                                     1260
tccgtgttta tttatttcgg tatttgcgca gccattggct taataatgat tatgctgctg
                                                                      1335
gaagageega aataa
<210> 4491
<211> 762
<212> DNA
<213> Enterobacter cloacae
<400> 4491
tggagtaaat gtatgetact gaaaaataaa gtegeegtta ttaceggege ggetteegta
                                                                      60
egeggtttgg gtttegetae ggegaaatta tatgetgaae agggtgegaa agtggtgatt
```

```
ategatttaa aegetgaage eageeggget geegeegega geettggega egaacatetg
                                                                     180
                                                                     240
ggcettgcgg cgaacgtcag caatgaatta caggttaatg ccgccattga gcaggtgctg
gggaaatacg ggcgcatcga tattctggtg aataacgccg gcataactca gccgatcaag
                                                                     300
ctgatggata tcaaacgcga aaattacgat gcggtgcttg acgtcagcct gcgcggcacg
                                                                     360
ctqctaatqt cccaqgcggt tattcccact atgcgcgcgc aaaagtcggg cagcatcgtc
                                                                     420
tgcatttcat cggtatcggc ccagcgcggc ggcggcatct ttggcggccc acactacagc
                                                                     480
gctgcaaaaag cgggtgtgct ggggctggca aaagccatgg cgcgtgagct ggggcccgac
                                                                      540
aatqtqcqcq taaactqcat cacqccqggt cttatccaga cggacattac cgcaggcaag
ctgagcgatg agatgaaaac gtccattctg gcgggcattc cgcttaaccg cctcggagac
                                                                     660
gegeaggata ttgeeegege egegetgtte eteggeageg acetetette ttaeteeace
                                                                      762
ggtatcacgc tcgacgtgaa cggcgggatg ctgatccatt aa
<210> 4492
<211> 858
<212> DNA
<213> Enterobacter cloacae
<400> 4492
ggagatacga cgatgacgga taccacagtt caacaggttg ccgccgcggc ctggcgcatt
                                                                      60
egeogetacg egetgegeat gggegaagtg caggggeagg getacategg geaggegetg
                                                                      120
                                                                      180
ggetatgeeg atgtgetgge caeegegttt acceaeggaa tgaacettaa geegggegag
coggagtggg aggggggtga cogttttttg ctctctcacg gccactacgc cattgcctgt
                                                                      240
                                                                      300
tacqccqccc tqattqaaqc qqqgatcqtt cctgaagagg agctggagac ctacggcgcg
                                                                     360
qaeqaeagee geetgeegat gteeggeatg geaacctaca egeegggeat ggagatetee
ggeggttege tggggeaggg ettaageatt ggegttggea tggegetggg getgaagege
                                                                     420
                                                                      480
aaqcaqaqcq cqqcatqqqt cqttaactcc atgtcggacg gcgagctgga cgaagggtca
acctqqqaaq ctgcgatgtc ggcggcacat cacggcctgt cgaacctgat cgtgctggtg
                                                                      540
                                                                      600
gacattaacc gecageagge ggatggeaac tegeaegega teeteggett tgageegetg
qaaqataaat qqacctcctt cqqctqqtac gtgcaqcqcq tcaacqqcaa cqatqtccct
                                                                      660
                                                                      720
teactggtaa eggegtttga taacgecaaa egetaceegg aaaaceagee gegegteatt
ttgtgcgaca cgctgatggg caagggcgtg ccgttcctcg aaaagcgtga caagaaccat
                                                                      780
tttattcqcq tqqatqctqa cgagtggcaa aaggcactcg ctgtgctgga tgccaacaaa
                                                                      840
                                                                      858
cctgaaggag tgctgtaa
<210> 4493
<211> 1185
<212> DNA
<213> Enterobacter cloacae
<400> 4493
agaatgtotg caaacaaact ogocagcago gogcagggoo tgcaatcoto tgccatcogt
gaattattaa aacatagcaa aatggcagge gtgatttege tgggtggegg tattecaaat
                                                                     180
coggacotgt togatcatga aggtttaaaa atogoogotg atgoogtgot gtotcagcat
tttggcgaag cgttccagta cggtctgacg gaaggcgtcc cggggctgcg cgaagagatc
                                                                      240
                                                                      300
caacqcatct gtgaaggtcg cggcatcgcc tgtaaagccg atgacgtggt cattacttcc
                                                                      360
ggetegeaac agtegettga egtgetggeg egggegttaa teaacceggg egataeggte
                                                                     420
gtegtggage ggeetaceta ectegeegeg ttgeaggtet ttggeetgge geaggegaaa
                                                                     480
tttgaatccg tcggtaccga cggcgacggc atgaaagtgg atgaacttga agcgctggtg
                                                                      540
gcaactaaaa ccatcaaagc ggtttatatc gtgccaacet ttggtaaccc gggcggcgtg
                                                                      600
acqctctccq aaqcqcqtcg taaacagctg gtggaattat cgaagcgcta tgacttcgtg
                                                                      660
attatequag aegacecgta cagegagate aactacaeeg aegaagegtt cegecegetg
attgctcatg ccaaagatat cggcaatgag gataacgtgg tgtacacctc cacctttct
                                                                      780
aaaateeteg egeegggtac eegegtggge tgggtgetgg tgeeggagtg getaaagege
geggtagtga accteaagea aaccacegat ttgeacacea geacgetgte geagetgatg
                                                                      840
                                                                      900
acgtacgaat atctgaaaac cggtcgtctg gcgaatcaga ttaaaatgat ccgcgaagcc
                                                                      960
tatogocaga aataccagac gtttgcaacg gaactggaag ccgagctggg cgatgtgatg
togttocaca ageogaaggg egggatgtto etgtgggega aaatgaataa eggcatcaat
acgacgaaat ggctggaaaa aacgttgagc aacggcgtcg tgtttgtgcc gggtgagttc
                                                                      1080
ttetactgca acgagecgga ccacaccacg etgegeatgt etttegttac cccaacggat
                                                                      1140
                                                                      1185
```

qagcagctta aagaageggt tegaegeetg agaattteee tgtaa

```
<210> 4494
 <211> 435
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4494
 atcagtgagt tgactgtggc taacgacgtt acttttcccg ccacgttaac ctccgtctcg
 cogcttgogg catggcttga gogtcagatg gcttcgctgt cogttagoga tgactggogc
 tttgcgctcg atctcgccgc ctgtgaaacg gctaccaaca ttattcgtca tgcgctacat
                                                                       180
                                                                       240
 gaggatocgg aacgttgott caccgtggag ttcatcgtta ccgtctcgga cgcggcgctg
                                                                       300
 cgttttacgg acgatggcga taaatttccc gctgaacgtc tcgcggcggt gcgtgacgac
                                                                       360
 gegacgttcg atgectetet tttggetgaa ageggeagag gactgaaact catttttttg
                                                                       420
 tatqtcqata atttcacggt ggaaaacgtt gcagggaaaa atatcaccgt tctggagaag
                                                                       435
 aggatggtcg gataa
 <210> 4495
 <211> 1200
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4495
 ttccccctca cttacgggtg cgggttctta ttgtctgaaa acagagcagg agtttatatg
 tottocaccg aagcaacaaa taaagcacca googtaccog aaaaaagcag ogtgaaatot
                                                                       120
 ctgaaagagg aacctgtatt acaggtggag cgtcgtgatt ttgtcgatct ggtaccggaa
                                                                       180
aaaagaccgc gtgtgcaatc attacgcggc tttgatgact gctataccga tattgtcgat
                                                                       240
                                                                       300
tatateqtte getgeaceca taaaatatgg gatgagegeg atgteggett aatttattet
cactatacce ataactgcgt gctgtataac gcgctgggga cactctataa ccgtgaacag
                                                                       360
                                                                       420
 gtggtacagg atacgctgca acgcttaatt gccttcccgg aacggcgcgg aatggcaacc
caggittatot ggaacggaaa tgatgitgac ggittittata cototoacet ggitgacggga
                                                                       480
agegggegge atacccagea cagceattta ggcaageega ccaaccgcac cttcgttace
                                                                       540
 eggacegtgg eggattgeat gatecaegag aataaaattt ategggagtg ggtggteage
                                                                       600
 qacaacatgt cqttaatqaa acagcttggc ctgaacaccg atcaaatcgc atttaatatg
 gcaaaagagc agttcgataa aggcttccgc gtgatggaca tcggcgaaaa cggccgcatg
                                                                       720
 ctggggcaat atccgccgga gatggagtgc gatgtttcca ttgcgcacac cgatactgag
                                                                       780
 qaqcaqtqcc tqcqttqqct gcatgagatc tacaaccgcc ggatgtttgg caagatcaaa
                                                                       840
                                                                       900
 gaagtgtatg cgcctaacgt acagtggcac ggtccgctga tgaaagagct gtacggcacc
 geggeggtaa cocateagae getggegetg gtggggatga teeetgaegg egegtggetg
                                                                       960
 coqcaqcata tttgttccaa cccgtgcgat gaaggcggcg tcaaagtggc cgttcgctgg
                                                                       1020
                                                                       1080
 atcatcgaag ggcatcacct gggttacggc gaactgggca agccgaccgg agagcgactg
 tttgtgatgg gcatgtcgca ctaccacatc gtcaacggaa aaattgttga tgaatgggtc
                                                                      1140
 gtgtatgacc acctggcgct gttggcgcaa atcaaactcg gccagatgga ggacgcgtaa
 <210> 4496
 <211> 1296
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4496
                                                                       60
 atqttaaatc aqqtqaqctq qattaaqcgc ccgcaggggc aggatgcgca ggccgatcgt
 tocctgacgg agaaggtcag cgccattatc gagcgcgtga aaaccgaagg cgatacggcg
                                                                       180
 ctaagageet tttegeagea gtttgataag gtegteeeeg egeagtttga ggtgagegag
                                                                       240
 caggagateg cegaageact ggaggggatg gatgeceaga egegeegega cagtgagttt
 gcgattaatc aggtgtgteg ttitgegeag gegeagetgg egaccatgea geegetggag
                                                                       300
                                                                       360
 gtagagacgc tgcctggcgt gcatctcggt caccggatca tcccggtgca gacggtgggc
                                                                       420
 tgctacgtgc egggeggteg gtatecgatt eteteegete eegtgatgte gattgtteet
                                                                       480
 gcqacqqtqq cqqqttqtga acagattatc gcctgtctgc ccccgggegc ccatceggeg
 atgattgcag tttgccatct ggcaggcgcg caccgcattt tcaaagttgg cggcgcgcag
                                                                       540
 gccattgcgg ctatggcctg gggaacggag agcattccgt cggtggacaa aattgttggg
                                                                       600
 ccaggcaacg ccttcgttaa tgaagcgaaa cgccaggttt ttggtcgggt cggcattgat
                                                                       660
                                                                       720
 geectegeeg ggeegagega gattiteact ategeggaeg acagegeega ecegegeatt
 ctqqccqccq atatgctggc gcaggcagag cacgatattc atacccgegt egggctggcg
                                                                       780
```

```
acaaccagee gggatatege tgagegtace etggeggagg ttgagegtea getegeeage
 ctgccaacgg cggcaacggc gggggaggcg tggcgccggc agggtgagat tgtgctctgc
                                                                      900
                                                                      960
 gaagatgaag ogcagotgat tgottttgot gaccatatgg ogaoggagca tttgcaggtg
                                                                      1020
 catacoogeg atcogcacgo cacggoggog aagatoogca actatggoto gotgtttatt
 ggtcagaacg ccagtgtggt gttctctgat aaatgctgcg gcaccaacca cacgttaccg
                                                                      1080
                                                                      1140
 acqatqqcgg cggcacgcta taccggcggt ctgtgggttg gcgcgtacgt caaaatctgt
                                                                      1200
 accoatcagt ggattgacga gcagggtatc ccggcaatcg cagaaccggc gatccgccag
 agoogtaceg aggggatgca ggggcacega egggeggegg aaattegtet gegteegeag
                                                                      1260
                                                                      1296
 gacattgatg ccattactac cggcatgcgg gactaa
 <210> 4497
 <211> 1365
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4497
 aacgtatooc gggcagoott otgoooggtt ttoatcacga gagagootga gactatgaag
 egectgatac egecagaega etgeceggag gaaattgeec acegtetega egteatacag
cagcaccggg cgctcaacgc gatcctcggg gttaaccctg acgctatgtc tcaggcggaa
                                                                      180
cagcatcage ageagegteg acgtggagaa cegateggee ceetgeacgg egtgeegetg
                                                                      240
                                                                      300
 atogtcaaaq ataatattgc ctgcgcgccg atgcccatta ctcttggctg ccgggcgctg
 gesteastta acqcqacage qqatqcacqq qtqqtqcaqc qattqcqcag cgcgggggcg
                                                                      360
                                                                      420
 attattctcg ccagggccaa tatgtccgag ttcgcgttcg atgtgcgctc gcgaagctcg
 ctgggggggg atgtggggaa tocactttgc ccgacactca ccgccggagg ttccagcgga
                                                                      480
                                                                      540
 ggatgegetg eggeegtgge ggegggaatg geggatggeg cattgggtac egatacegge
                                                                      600
 agetetatee geatteectq tagetatace gggetgatgg ggetaeggee tgeetttege
                                                                      660
cqttcacaqc tqqacqqtgt agcgccgctc tcgcccagca aagataccgt tgggccaatg
 gtacatageg ttgaagatge egeettgetg catgeggtga tecatggeet geegeeggtt
gegetteetg tgegtteget gaaaggegtt egetttggtg tggtaacege gttacaggga
                                                                      780
                                                                      840
qaqqatqaqq tacaqctqga qgtctggcaq tcggcgctgc acacqttgcg ccgtgccgga
                                                                      900
 gegacgetgg tggaggtttc actocotttc ottgaagagg tgaggcaggc cacctgcotc
                                                                      960
 agtotqtatq aatttogogt ggogattgac gactggotta gcaaacagco tggogotoco
 teeggaetga egageattgt ggaeteegge gettteetge eggagtttge geegttteta
                                                                      1020
                                                                      1080
 egteagatge tggegagtaa eacgetgaaa acceegetet ggetggeggg gegtegettt
                                                                      1140
 caqcqcctqt tqcqqcagaa cctttgccag gtggcggagg cgcagcgcat cgacggattt
 qtgtatecea ccgtacaacg attaccagaa agtatggcga agatgccgcc aggetgcgcg
 coggaactgg cogecatcag oggoctgoot gocattacgt tgccctgtgg cgtaagccgt
                                                                      1260
                                                                      1320
 ateqqtetge eggtggggat ggagatgtta teggtgeagg aggatgagge ggeactgatg
                                                                      1365
 gtgctggcgc tggcgtgtga gggggcgctg ggcgagaagg gatag
 <210> 4498
 <211> 477
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4498
 atgttattat ttgtctgttg tgtgaccatg gaaaatgcta tgcctcagat tagccgtact
                                                                      60
 qegettgtte cetacagege ggaacaaatg tatcagttag tgaacgaegt teagteetat
 coggaattta ttocaggatg caccggtage cgagtgetgg aatccggccc gacgcagatg
                                                                      180
 actgoggoog tggatgtoto caaagogggg atcagcaaaa cgttcaccac gogcaataco
                                                                      240
                                                                      300
 ctgacgagca atcagagtat tttgatgcat ctggtggatg gtccgtttaa aaaactgatg
 ggagggtgga agtttacgcc actgagcgct gacgcctgcc gcattgagtt tcatctqgat
                                                                      360
                                                                      420
 tttgaattta ccaataaget gategaactg gegtttggee gaatetttaa agagetggee
 togaatatgg ttcaggcgtt caccacgcgc gccaaagagg tttacagtgt cgcataa
                                                                      477
 <210> 4499
 <211> 381
 <212> DNA
 <213> Enterobacter cloacae
```

```
gacccttccg ggcggttggc aaaggggatt attccctggg atgttttggg aagaagtggt
                                                                     120
tgggaaaaat teeggggttg tteagtgaag aaaaacgcag cgagecagge tgaattagag
                                                                     180
cgtcaacgcg ctgaacagca ggataaaatt aatgctctgc tggaactgat gaaagctgac
ggtatttete egagegatet gttaggeagt gacetggege aggegggtea geegaegaaa
aaacgtaaag cgcgtgcggc gaaatatcgt tttattgacg cgaacggtga agaaaaaacc
                                                                     300
                                                                     360
tggaccggtc agggacgtac gccaaagcca attgcgaccg cactggcaaa cggtaaatcg
ctggacgatt tcctgatctg a
                                                                     381
<210> 4500
<211> 1632
<212> DNA
<213> Enterobacter cloacae
<400> 4500
aaaggogotg ttgacottoo gogatogota otttttataa ggcatgoato catgaaaaac
                                                                     60
atgaaactgg agtggaaaag aggtgactgg gcagcttatt tcgggttgat gaccaacaac
                                                                     120
                                                                     180
ctgaccaatt tgctgaccat gatggggttg ctcatttttg tcgtcggcat cccgaaggag
attqtttatq qacqcatcqc qccaqccttc gggctggcgg tgctggtggc gagtctttgc
                                                                     300
tatacqtqqt ttqqcctqca aatqqcqcqc gctaccqqac gaacqqacqt caccqcqttq
cogtocggcc cgagegcgcc gtcgattttt accgtgacct tcctggtctt aatgccggtt
                                                                     360
taccaqcaaa ccqqcqatqc qqatttcqcq attcaqattq qcctggtgtg gtgctttgtg
                                                                     420
gaagegatga teetegeggg eggtteette ettggggaaa eeattegeaa gatqateeeg
                                                                     480
cgtaccgtgc tgctgtcgtg cctgtccggt cttggcctgc tgctgctggc gatgaacccg
                                                                     540
atgttgcagg cgttcgaagc gccgaccgta tcgtttatcg tcctgctgct gatcttcatt
                                                                     600
aactggtteg gtaaaaagee gattttegee egtateeega eeggeetget getgttaatt
geoggtactc tacttgcgtg gatotccggc ctgcaaagcc cggatgccat taaagcgtcc
                                                                     720
atgteatect teggetttaa eeegeeggaa gtgeaegtgg acagetttat geaggggetg
                                                                     780
                                                                     840
coqcacgege tgeogtatet ggegteegee gtacegetgg ggetggegaa etacatettt
gacctggaga acatcgaaag cgcccacgcg gcaggggatg aatacccgac ccgcaaggta
                                                                     900
atgctggcga acggtctggc ctcgatgctc ggctgcctga tgggcaatcc gttcccggtc
                                                                     960
acggtetacg teggeeatee tggetggaaa gegatgggeg ceageategg etacaceetg
                                                                     1020
gcgtccggcg tgaccatgtt catcgtgccg ctgttcgggc tgggggcctt tatgctcgcc
                                                                     1080
atcatacega tgaccgccat cgtgccgatt ctggtgttta tcggcgtcgt caccgccaac
                                                                     1140
caggtggtga gggaaacccc gaaagtggag gtgcccgtta tettcatetg cetgttcccg
tggatcgcca actgggcgct gaccatgatg aacagcgtga tgagcgccgc ggggaccagc
                                                                     1260
geggegaaaa teggeacega egtgttgeac agcaagggta tetactaega aggeetgatg
                                                                     1320
                                                                     1380
catcteggea acggegegee getegeeage atgetetggg getgtatege catcttegee
atcotcaaca aaccgctgcg cggggccgtc gccgccgcag gaggcgcgct gctggcgctg
                                                                     1440
                                                                     1500
tttggcgtga tccacgcccc ggtggtgggc tttgccgagg gcagttccct gatgtttgtc
acggcctacc tgatgatggg cgggatgttt gtggtgaagc atgtgctgga tacctctgtt
                                                                     1560
aatecceete teeetgtggg agagggeegg ggtgagggea eeagaacgea eettetaaag
                                                                     1620
gaaacaaaat ga
                                                                     1632
<210> 4501
<211> 1458
<212> DNA
<213> Enterobacter cloacae
<400> 4501
                                                                     60
teateacete geeggaetge etgeeegeag egetgegegg tgaaaegggt acceatatta
ttaatgaagg aagataagat gagtgagaat aaaagccgcc gcgagtttat cagccagagc
                                                                     180
ggcaaaatgg ttactgcctg cgcgctgttt ggcgccacgg gttccgtcgc gtatgctgcc
gattetgtaa aggeaacetg egagaegggt aaacegatga acateacege aaaacattae
                                                                     240
                                                                     300
tatotoqaca acqtqctqct qqaaqccqqq tttaactacq acqqcaqcqt qgcgacaagc
                                                                     360
accogcaccg agotgaaaac gotggagatc aaagacggga aaatcgtogc cotgogcgat
                                                                     420
aacggcagcc acgccgacgc gaccctgccg cactacgacg cgggtaaaaa gctgatgctt
                                                                     480
coqqqqatqc qcqacatqca cattcacctq qataaaacct totacgqcgq cccgtggcgc
                                                                     540
tecetgaace gteeggeggg caccaccatt caggacatga teegeetgga geagaagetg
                                                                     600
ctgccggagt tacagcccta cacgcaagaa cgcgccgaaa agctgatcga cctgatccag
                                                                     660
tocaaagggt ccaccatogc cogcagocac tgcaacatag agcoggttto cggcctgaaa
```

aacctggaaa atttgcaggc ggtactggcg cgccggggcg caggctttga ctgcgaaatc

```
780
 gttqccttcc cqcaqcacqq cctqctqctq tcqaattctq aaaaqctqat qcqcqaqqcq
                                                                       840
 atgcaggcqq qqqcqcatta tgtqqqcqqq ctqqacccaa ccagcgtcqa cgqcqcqatq
 gagaaatccc togacactat gttccagatt gcgctggatt acgacaaagg ggtggatatt
                                                                       900
 cacetgcatg aaaccagece ggcgggcgtg geggeggtga attacatggt ggaaaccgtg
                                                                       960
 qaqaaaacqc cqqcqctqaa qqqqaaqctq accatcaqcc acqccttcqc qctqqccacq
 cttaacqaac aqcaqqtqqa tqaqatcqcc acccqcatqq cgqcacaaca gqtaaccatc
                                                                       1080
 gcctcgaccg tgccgattgg caccctgcac atgccgctga agcagttacg tgataaaggc
                                                                       1140
 gtgtttgtca tgaccggaac cgacagcgtg atcgaccact ggtcgccgta cggtctgggg
 gacatgctgg agaaagccaa cctctacgcc cagctctata ttcgcccgaa cgagcagacg
                                                                       1260
 ctttcqcqqq cqctqggcat cgccaccggc gacgtgctgc cgctgaacga caaaggtgag
                                                                       1380
 egegtgtggc ctaaagegea ggacgacgcc agetttgtgc tggttgacgc etcetgttcc
                                                                       1440
 gcogaggogg tggcgcgcat ttctccgcgc accgcgacgt tccacaaggg gaatctggtc
                                                                       1458
 tggggcacgg tcgcctga
 <210> 4502
 <211> 861
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4502
 ecqctacqqq atctcaacca caqccatqqt qqaqaaaatc cqqcqcaggc tgtgatttat
                                                                       120
 aagacqqata cgttgtcaac gggcgagggg tgctttaccc tcgccactgt tgcgataaag
 gagtccgtta tggcacaaaa catctacgac aacccggcat tttttgaagg ctatgcccag
                                                                       180
 etteegeget eggtteaggg eetgaaegge gegeeggagt ggeeegeget eaaggeaatg
                                                                       240
ctgccagatt taaccggtaa agcggttgtc gatctcggct gcggctacgg atggttctgt
cgcgcagcgc gcgagctggg cgcgtctgac gtcacgggtg ttgatatttc agaaaaaatg
                                                                       360
ctcgcccgcg cggctgaact gactgatgac aatcggatte actatcagcg tagcgatctg
                                                                       420
 gaatetetgg egetgaaage gaatageete gatetggtet acageteget ggegetacae
                                                                       480
tacctgoogg agotggacac gotattogco aacgttcago gogogotaaa accoggtggo
                                                                       540
agoctqqtct tctcqatqqa qcacccqatt tatacctqcq ccacccqtca qqqctqqctq
                                                                       600
 accgacgaca goggogagog gttotggggo gtgaatcatt atcaggacga aagccagogo
                                                                       660
 gtcagcaact ggctggcgga cggggtgatt aaataccacc gcacgctggg caccacgctt
 aacgcgctga tcaaggccgg attgacgata agcgaagtca atgagtgggg accaacgcag
                                                                       780
                                                                       840
 atgcaggttg acgcctggcc cgcgctggcc gaagaggcgg aacgcccgat gctggtgctg
 atcgccgccc gtaaggctta a
                                                                       861
 <210> 4503
 <211> 903
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4503
 ccagaggttc ggaatatgga taagcttcgc ggcatggaga cgttcatcgc ggtggtggaa
 ageggeaget ttaceggege ggeggeeegg etggagatgt eggeggtgat ggtegggaag
                                                                       120
 tatattacgc agctggaatc gcagctcggt acgcggctgc tggagcgcaa cacccgtcgc
                                                                       180
 cagagootga cogacgoogg acgogtttat ttogtagagg coaggogogt gotggagoag
                                                                       240
 gtotogattg otgaaaacgo ggttgagogo otgogagoca caccogoogg caccotgogo
                                                                       300
 gtgacagege ecacetegtt tggeggetge gttategege etetgacgge caegtttttg
                                                                       360
                                                                       420
 cagogttacc cggaagtgcg catcgaactg gatctcacca accgaatggt tgatctggtc
 gaggaagggg togatotggc cattogtato ggtgagatoc gtaatgagga cotggtggcg
                                                                       480
 aaatatetgt gteectacaa catgacgate tgegeegege eggattatet ggegegteae
                                                                       540
 ggtacgcogc aaacgccagc cgatctggtg gatcacctgt gcctgtcgca cacggtatgg
                                                                       600
                                                                       660
 acggcgcgta acgagtgqcg gctgccgggt gtggaaggcg aagtgcgctg gaagcgtgat
                                                                       720
 queqtettac gatquaatqa eqqetacqqe ttacqcatqq eqqeqqqaqe eqqqqqqqa
                                                                       780
 cttctgctgc aaccggaagt gctggtggcg gaagagctgg cgagcggcag gctggttcgg
 gttctggaag cgtttacgcc cgcgccgagg ccggtgcatt tactgtggcg ccaggatttg
                                                                       840
 eggeogetge ctaagetaac ggaatttatt geceatatte tgetaagatt gggcacaata
                                                                       900
                                                                       903
```

<210> 4504 <211> 744

```
<212> DNA
 <213> Enterobacter cloacae
 <400> 4504
 actcaactga aggagcaaaa catgaacaaa gtgatcttaa ttaccggtgc ctccagcggt
                                                                      60
 attggagaag gtattgccag agagttggga aaggcaggcg caaaagtttt cctgggggca
 cgcaggctgg agcgcatcca cgccctggct gatgaaatcc gcagcgcagg aggagaggca
                                                                      180
                                                                      240
 gaggeteagg tattagaegt taccageege eagtetatgg eegeettegt tgaggetgea
 cgggaaaagt ggggccgcat tgacgttott attaacaatg cgggcattat gcctctgtct
                                                                      300
                                                                      360
 ccqctttcqq ctqqcaaqca qqatqaqtqq qaacqcacca ttqacqtqaa tattaagggg
 gtactgtggg gaattggogc ggttctgccg attatggaag cccagaactc ggggcagatc
                                                                      420
 attaatattg getegategg tgeettgtee gtegtgeeca eggeegeagt ttattgtgeg
                                                                      480
                                                                      540
 accaaatttg cggtccgggc catttccgat ggtttgcgtc aggaaagttc aaacatccgc
                                                                      600
 qtqacctqcq tcaaccccqq aqtqqtqqaa agcqaactqq cctcgaccat tacgcacgaa
                                                                      660
 qaaaccatqq cggtgatqga tgcgtaccgg gctattgctc tcaaaccagc tgatatcgct
                                                                      720
egegeegtge gecacateat egaggegeet gagagtgteg ataccacega aateaccate
                                                                      744
 agacetacgg cetecgcaaa etaa
 <210> 4505
 <211> 1269
 <212> DNA
 <213> Enterobacter cloacae
<400> 4505
attocgggaa ggcaccgtca gcgtcatctg gttcttaccg ctttaggagg gcgtatgttg
                                                                      60
tcacagcacg tectgatagt tgaagactca etggtttate gtegeetget tageegaatg
                                                                      120
ctgacgcagt gggggtatac cgtctacgag gcggagaacg gcgttgccgc gcttgagatc
                                                                      180
ctoquadace agecagteag cotggtgate agegactggg atatgcegga autggatgge
                                                                      240
ctgacgttgt gccgggaggt tcgcagccgt cagttcggac attatgttta tttaattttg
                                                                      300
                                                                      360
cttaccqcac qcqaaqaqcc ggqcgatctg acggtggggt ttgacgccgg tgcggatgat
ttteteaaca ageeggtega geagagtgag etgegggege gattgeaege gggggeaegg
                                                                      420
gttctgtccc ttgaggccac gcttgctacg cgtaatgcac gtctcagtga ggcgttaagg
                                                                      480
cagatagage aagacettga agtggeggeg eggateeage agteggttet geetgegeat
cagttgcgtt accgggatta ctttgcagac tggatttttt tgccgtcagc ctgggtgtcc
                                                                      600
ggcgatattt tcaatgtott occgctggac aatcacctgg gattctactg tgtagatgtg
                                                                      660
toggggcacg gogttggtgc ggcgatgatg toacttgccg tggcccgtca gtttctgcat
                                                                      720
 ggcagggcgg tagagcgttt tctgtttgcg gacgatagcg acgttgcctc ccctgcggaa
                                                                      780
 gtcgttcgga tcctgaatgg tcgcttttgc agcgaagagg ttgagataat gagttatttc
                                                                      840
                                                                      900
 accatgattt acggtgttat cgacctgaca acaggtgaag gcaagctttg ccaggecggg
 catcotacgo ogttoattgt gaaccotggo ggogaggtoa ggacggtagg tgaaggoggo
                                                                      960
 gegeoggtag gattgatgee ggateteage tggteagaeg taagettete getggegeeg
                                                                      1020
                                                                      1080
 qqtqaqcqcc tctqcctqtt tagtgatggc atcaccgagt gtgaaaatcc tgacaacgaa
 cagtttggtc aggctcgttt gcagcgtcgg cttcaggatg acgccacgct cgcactggaa
                                                                      1140
 eggetettae egeagtttge geageatett ataegetgge geageggaaa ataeegtgaa
                                                                      1200
                                                                      1260
 cagcaggcca tggcggacga tgtttcctta ttagtaattg agcgtacagg agtaaacgat
 gaacattga
                                                                      1269
 <210> 4506
 <211> 1209
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4506
 totoqatott qttqtqaqaa ttttaatttt ttqtqtttqca tacqcatqca aaqqtqqtqt
                                                                      60
                                                                      120
 aagtataaaa aacacccact tgctgaggcg tttgaagcac gcgcaaatgg gcaggacgtt
 gataaggaat caggggtaat gaaacgtaag acttttgcag cagtcacate ccaacaggte
                                                                      180
                                                                      240
 gctcagctgg cgggggtatc gcaatctgcg gtgtcgcgaa cgttcacgcc gggggccagc
                                                                      300
 atttcgccgg caacgcgtga aaaagtgctg aaggcagcgc gcgagctggg ttatcgcccg
                                                                      360
 aatgegattg ceegtteget caacacgget egttegegea ttateggtgt egteatttet
 tactttgata acceptttta etegeaggtg etggaggege tggegeaaaa getggataeg
                                                                      420
 ctgaactatc acctgctgct gttcgttggc gaccgggagg gcaacgttga ccgtattttt
                                                                      480
```

```
540
 gaccagatta tgcagtaccg ggtggatggt attgtgctgg cctcggtgac gctgtcgctg
                                                                       600
 qaqttatctq aaqaatqcct tqccqccqqq atcccggtag tgctgtttaa ccgcagcgaa
 gagagtggca tggcctccag cgtcaacagt aataacgaag cggccgcgcg gcagattgcc
                                                                       660
                                                                       720
 gagtttctgc tggcgggga gcacaagcgt tttgcctacg tgggcggcgt ggccgattcc
                                                                       780
 coggtcaata ttgcccgcca gcgcgggttc atctccacgc tggaagaaca tggcatcacc
                                                                       840
 qatqtqcqqq tqqtqcacqq qaattacqac qctcagcaaa ccacccgggc agcctatacc
 ctgttttega cgtcgccagc gccggatgcg gtctttgtcg ccaacgatca tatggccgtc
                                                                       900
                                                                       960
 acggtaatgg atgtggcgcg ctatgagttt ggtttgcgca ttccggagga ggtctccgtt
 gtogggtatg acgacattgg cocttocggc tggccctctt atgcgttgac ctcggcgtcg
                                                                       1080
 caqccqqtqq qcqcqatqqt qqatqccacq gtgqaactgt taatgaaaca aattgacagc
                                                                       1140
 qqaaccataq agcctgaaca gattacggtg cccggtacgc tggtgatacg ccactcggcg
 egtegeceae geageggegt tategaaace aatggtttaa egetatteea gtetaaggag
                                                                       1209
 cqcacatqa
 <210> 4507
 <211> 984
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4507
 acaqtcaqat qctcaqqccq aqatccqccq tcttcagaaa gagttgaagc gggttacgga
                                                                       60
                                                                       120
 cgaacgggac atattaaaaa aagccgcggc qtacttegca aagctgtccg actgaggtac
                                                                       180
 quettatec quacaacaq coqttqctqq cotqttcqtt tqctctqtcq qqttctgqat
                                                                       240
 qtccatccqa qtqqatttta tttctqqctt cagcagccac attcgcagcg tcaccagaca
                                                                       300
gatcagatgc tgaccgggca aatcaaacag ttctggcttg agtctggctg cgtctatggt
tatogcaaga tocatotoga totgogtgat acoggacago agtgoggagt gaacogggto
                                                                       360
                                                                      420
tggcggctga tgaagcgtgc cggaataaaa gctcaggttg ggtaccgtag cccacgagca
 egtaaaggeg aagecagtat egtgacacec aacaggetee ageggeagtt caateeggac
                                                                       480
tcaccggatg agcgttgggt gacggacata acctacatcc gaacccacga aggctggctg
                                                                       540
 tatotggccg tggtggttga cotgttotoc cgaaaagtta toggotggto aatgcaacco
                                                                       600
 egcatgacaa aagagattgt cetgaaegea ttaettatgg eggtgtggag gegtaateet
                                                                       660
                                                                       720
 caaaagcagg tactggttca ctctgatcag ggtagtcagt acacgagcca tgagtggcag
togttoctga aatoacacgg totggaaggo agcatgagto gtogoggtaa otgocacgao
                                                                      780
 aacqcqqttq cqqaaaqctt tttccaqcta ctqaaacqcq aacqqattaa qaaaaqqatc
                                                                       840
 tacqqaacqa qaqacqaagc cagaaqcgat atttttgatt atatcgaaat gttttataac
                                                                       900
 agtaagcgtc ggcatggttc gagcgagcag atgccaccgg ctgaatatga aaacctatat
                                                                       960
                                                                       984
 tatcaacggc tcagaagtgt ctag
 <210> 4508
 <211> 372
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4508
 tegaactggc gtttggccga atetttaaag agetggcete gaatatggtt caggcgttca
 ccacgogogo caaagaggtt tacagtgtog cataagattg ctgttgaggt ggtgtatgog
                                                                       180
 ctgccggaga agcagtattt gcagcgcgtg acgcttgaag agggcgccac cgttgaggcg
 getatcoggg cotcoggcat cottgaactt cgccgtgata ttgacctggc gaagaataaa
                                                                       240
 gteggeattt atageegtee ggttaagete ggtgatgtge tgaaagaggg cgacagggtt
                                                                       300
 qaaatctatc qtcctctgat tgccgacccg aaagagttgc gccgtcagcg agcagagaaa
                                                                       360
 teeggtaagt ag
                                                                       372
 <210> 4509
 <211> 2427
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4509
 agacacaata ateccegete atecggetgg ttaggecegt ggtgcctgct ggtgggtgtg
                                                                       60
 atacttcttg taacgggget cttttttgct atcggtggtt ttaaactggt ttccgtgggg
 qqqaqttqqt attttctcat cqccqgggtt atcactctgc tctctgcgat tcagttcttc
                                                                       180
```

```
240
 cgccgcaagt cctctgccgt ggggctgttt gccctggtgt ttcttggcac cctgatttgg
                                                                      300
 qcatttttcq atgccqqqct cqacttctqq ccqctqqttt cccqtttaat qqtacccqcc
                                                                      360
 gggctgatgg tgctggcagc tgccacctgg cctgcattgc gtaaacgtga aggaaaaccg
 tectgegeaa aaggggetet gggggtetge geggteetta ttategeeat gggegteace
                                                                      420
 tttgttcaga tgtttcaacc ccatccgacc gtgccgttta gcggtgaaaa acgtccgctg
                                                                      480
 gtaccggtaa aagatgatgc gaaacagcag aactgggatc actacggtaa tacggccggc
                                                                      540
 ggtagteget ttgtggeget ggaccagata accegtgaca acgtgaaaaa cetgaaaccg
                                                                      600
 gtetggaeet accatacegg tgaegtaeeg gaaagteegg aeggeaatgg egeagaagat
 cagcaaacgc cgctacaggt tggcgatcgt gtcttcctct gtacgccgca taacaacgtg
                                                                      780
 atcgccgtgg atgccgatag tgggaaagag atctggaaag cggaaatcaa cgccaaatct
                                                                      840
 gcaatctgga tgcgctgccg tggcctggca tactttgatg ccaccaaacc gctggcacag
                                                                      900
 ccaacggtag cgggctccac gccggttctg ccagcgcagg tcgcaccggg cgctgcatgc
                                                                      960
cagogoogta tootgatgaa tactattgao ggtaagotga togogttaga ogoogataac
 ggcaaattct gcccggactt cggtactaac ggcagcgtta acctgcatga agggatgggc
                                                                      1020
                                                                      1080
 quequetcaq atoccaccta egtgetgacq teggececga egetggeggg tacgaeggtt
 qtcqttqqtq qccqcqttqc qqataacgtc agcaccqata tgccgggagg cgttatacgt
                                                                     1140
                                                                      1200
 ggttatgacg tgatcaccgg ccagctgcgc tgggcgttcg acccgcgtaa tccggatccg
aactatqttc tqaaqccqqq cqaacattac aaacqtaqct ctqcaaactc ctgggcccct
                                                                      1260
 atgtcctqqq atqcqtcqat qaataccqtg tttatcccqa tggggagttc ctccgtcgac
ctgtggggcg ctgaccgtat teeggaagat cataaatacg ccacctcaat cetegegetg
                                                                     1380
 gatgegacta cegggaaaga gaagtgggta taccagaceg tgcataacga cetetgggat
                                                                     1440
ttcqatatcc cgatgcagcc qagcctqgtt gatttcccga caaaagaggg caacaagccc
                                                                     1500
gcggtggtgg tgggcaccaa agcggggcaa atttatgttc ttgatcgcct gacgggtaaa
                                                                     1560
cogotcactg aagtgaaaga ggttccggta aaaccagcgg atattccacg tgaacagtac
                                                                     1620
coqqcaacqc agccgcqctc tgtggggatg ccgcagattg gcgcggaaac cctgaaagaa
                                                                     1680
toggatatgt gggggggac geogtttgac cagetggeet gtegtateag etteaaatea
                                                                     1740
atgegttatg acggtetgta caegatgeeg ggaacegata ttteeetgag etteeeggge
                                                                     1800
 togotggggg gaatgaactg gggtagtotg tocacggato cgaacaacca gtacatotto
gtcaacgaca tgcgtctggg tctgtgggtc cagctgatta aacaagatcc gcaaagcgca
                                                                     1920
 gtggcaaaca cgggcggtga agccgtgaac gccggtatgg gcgctgttcc gatgaaagga
                                                                     1980
 acgocgtatt oggtcaacaa aaaccgttto atgtcaccgo tgggtattco gtgccagaaa
                                                                      2040
 ecaccgtttg getetetete tgegattgae etgaaaacae agaaaategt etggeaggtg
                                                                      2100
ccggtcggta ccgttcagga taccggtccg tttggggtaa aaatgcgtat gcagatgcct
                                                                      2160
gtcggtatgc cgacgctggg cggtacgctg gccacgcagg gcggtctggt cttcattgcg
ggaacccagg attactacct gcgcgccttt gattcctcta cgggggaaga agtgtggaaa
                                                                      2340
gegegtetee eggtgggtag eeagggegga eetateaget atgtateace gaaaacegge
                                                                      2400
 aaacagtaca ttotgatoto tgooggoggt goacgocagt cgooggatog tggtgactac
 gtgattgcct acgcgctgga taaataa
                                                                      2427
 <210> 4510
 <211> 378
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4510
 ttaaatcggg tacacgcaaa ccggcaaaac agcagaagga gcagacccat gcagcagttt
                                                                      60
                                                                      120
 gaatggatec acgeggeetg getggettte gecategtte tggaaattat tgegaacgte
 tttctgaagt tctccgacgg ttttcgtcgc aaagcctacg gcctgttatc gattgccgcg
                                                                      180
 gttctggggg cgtttagcgc cctgtcgcag gcggtgaaag gcatcgatct gtccgtggcc
                                                                      240
 tatgegetgt ggggeggett eggtattgee gecaecetgg eggeaggetg gattatgtte
                                                                      300
                                                                      360
 gggcagcgtt taaacaataa aggctggata gggctggtat tactgctcgc cggcatgatc
                                                                      378
 atgattaaac tggcctga
 <210> 4511
 <211> 918
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4511
 tactttaaaa atatgaatat tgagctgcgc catctgcgct attttgtcgc cgtcgccgaa
                                                                      60
```

gagetgeatt ttggtegtge ggeggeaagg etgaatatet eteageeace getaageeag

```
180
caqatccaqa teetqqaqca qeaqqteqqq qeqeqtetqe tqqeqegaac caacegeage
                                                                     240
qtgaqcctqa cqqcqqggg aaaacagttt ctcgccgata gccggcagat cctgagtatg
gtggaggacg ccgccgccag agcggaacgg ctttatcttg gggaaacggg ggagctgcgc
                                                                      360
atcgggttta cctcatcggc cccctttatc agcgctgttt cacaaacgct atcctcgttt
egeogtaaet tteeggatgt geatatteag acgegegaaa taaataceeg ggageagata
                                                                     420
tegeegetta acgaaggate getegacetg gggetgatge gtaacacgca gttgcctgat
                                                                     480
accetggegt ggcaggtgat ceteegegaa eegetgatgg egatgateee eegggateat
                                                                     540
cogetegeeg egeageacag egteacgetg getgaactgg egaaagagee gtttgtettt
tttgacccac aggtgggtac cgggttgtat gacgatattc ttggtctgat gcggcgatat
                                                                     660
qqccttqtcc cqactatcqc gcagqaqqtg gqqqaagcca tgacgatcat tggtctcgtt
geogeaggge ttggegtate gatteteeeg geoteattta aaegggtaca aetggeggaa
                                                                     780
atgcgctggg tgaagatagc cgagcaggat gcagtctcag agatgtggct ggtgtggtct
                                                                     840
                                                                     900
aaacatcatg aacagagcca tgcggcacag cgtttcaaag aacaattaat taccgcttct
                                                                      918
cgcgggcatt atttatag
<210> 4512
<211> 687
<212> DNA
<213> Enterobacter cloacae
<400> 4512
ggctctgaaa tgacaaaaat aacgccagaa tatacggtag ttgacttatc acgttgggca
agaaaggaac actttgaagt atttcagggc tttgctcaat ctacatttaa ccaaacggtt
                                                                     120
cagotggaca ttacogtgot gotaaagoat atcaaagagg ttggotggaa attttatoot
                                                                     180
qcqattattt cccttatttc tcacqtcqta aaccqqcatc cqqaattccq tatqqccatq
                                                                     240
                                                                     300
aaggatgatg agcttgtaat atggaatgag gttcatccaa gctataccct tttccataaa
gaaacggaga cattttcatc gttatggagt cattacgatg gaaatattca ccattttcag
                                                                     360
cgcgtttatg cagaagatgt tgcccgctat ggcaatatcc ttgcttactg gcctaaggaa
                                                                     420
gagtcccggg agaatatatt tttcatatct gatattccgt gggtcagttt tagcagtttt
                                                                     480
aacgtcaacg tcgctaacat gcggaatttt tttgcgccca tgttcacgtt tggaaaatac
                                                                     540
tataaccagg atgaaaaagt cttgttgcct ttcgccgttc aggtccatca ttctgtttgt
                                                                     600
gatggettee atgtageeag gatgateaac gagttgeaag agttatgtga taatttacea
                                                                     660
caccattcag aggcgccgaa cgtgtga
                                                                      687
<210> 4513
<211> 723
<212> DNA
<213> Enterobacter cloacae
<400> 4513
                                                                      60
acggtaaatg atgtgaacaa atacgcagcg ataacgctac tggcaacggt actggtggga
tgcgacaaca acaccgcgcc gctgtcattt acgccagaga tggcgagctt ttcgaacgag
                                                                     120
tttgactttg atcctctgcg cgggccggtg aaggatttta cccagacgct attcaacgat
                                                                     180
aagggtgaag tetetaaaeg tgtgaeegge acgatgteaa eggaagggtg tttegataeg
                                                                     240
cttgaactgc acgatotoga agogaatacg ggogttgogc tggtgotgga tgctaactac
                                                                     300
tacgtcgatg cggaaaccca gcagcagaag gtaaagttgc aggggaaatg ccagctggcg
                                                                     360
gaactgoogt ctgccggcct gacgtgggac accgacgata acgggtttgt ggttgcagcg
                                                                     420
cacagtaaag agatggaagt gaagtaccag tatgacgccg acggctaccc gctgggtaaa
                                                                     480
actacggttt ccggcgacca gcgtttatcg gtcaagtcgg tgccttcgaa agatctgcgc
                                                                     540
                                                                     600
aagcgcatgg attatacggc ggtaagcctg ttgaacgata aaccgatggg caatgtaaag
cagagotgtg attacgatog coacaacaac coggtgaact gtgagotget gataacagat
                                                                     660
                                                                     720
gacageqtea aacetqeeqt tgagegeaag tacaccatea aaaacageat tgaatattat
tga
<210> 4514
<211> 1116
<212> DNA
<213> Enterobacter cloacae
<400> 4514
gaaqetqqca qeqaaatacc cgtacgatcc ggcttatctg ccggtggccc gtctggaaga
```

```
cggcactctc tggaactggt aaacgaggag cgaatgatga aaagcgtagt gatccaacag
                                                                    180
cequatege togagattga ggagegteet etecegttge egggggeagg egaegteege
                                                                    240
gteaaaatta agetegeegg tatetgeggt teagacagee atatetateg egggeataae
cegtttgeaa aatatccgcg ggtaatcggt cacgaattct ttggcgaaat agacgcggtt
qqcqaaqqcq tggaqgqcac ccgactcggc cagegcgttt cggtggatcc ggtgatcagc
                                                                    360
                                                                    420
tgegggcact gttacccetg tteegtegga aaaccgaacg tttgcaccte getggtggtg
ctgggcgtcc atcgcgacgg tggtttcagc gaatacgccg tcgtgccggc gaaaaatgcc
                                                                    480
tggcacatte eggatgegat ecetgacaaa eaegeggtga tggttgagee atteaceatt
                                                                    540
geogecaacg tgacggggca ggcgaaaccc accgaacagg acgtggcgct gatctacggc
                                                                    600
                                                                    660
gcaggcccga tggggctggt caccgtgcag gcgctgaagg gcgtttacaa ggtgaagcag
gtcatcgtgg tagaccgcat tgatgagcgg ctggagatgg cgcaacgcag cggcgcagac
                                                                    780
tqqqtcttca acaacqqcqa qcaqtcgtta cagactqcqc tggatgaaaa aggcatcaag
                                                                    840
cogacattaa toatogatgo tgootgtoat cogtocattt tgoaggaago gattacgotg
                                                                    900
gegteteegg eggegegeat egtgetgatg ggatttteea gegaeeegag eeagategtg
                                                                    960
caqcaqqqqa tcaccqqcaa aqaqetqteq atettetett cqcqcctgaa tqccaacaaa
ttcccqqtqq tcattqactq gctggaaaaa gggctgatcq accctgaaaa actggtcacc
                                                                    1020
                                                                    1080
catacatttq actatcacca cqttacaqac qccatcqaac tqtttqaaaa agaccagcgg
cagtgetgea aagtettget caegttegae caataa
                                                                    1116
<210> 4515
<211> 2037
<212> DNA
<213> Enterobacter cloacae
<400> 4515
                                                                    60
acqatgtcgg tcaacaatcc tttttttgaa attagcctgt tgccttatca ggcgccacgt
tttgatgcga tcaacgacag ccattategc ceggegtttg atgaagcaat gegectgaag
                                                                    120
180
ctggcgcttg aaaaaagcgg ggccatgctg tcgcgcgtga gcagcgtatt cttcgccatg
                                                                    240
acgtccgcac acactaacga tgatcttcag gcgctggacg agcagttctc caccgaactg
gccgggctgg cgaacgatat ctggctaaac gatacgcttt tcgcccgcgt ggaagccgtc
                                                                    360
tggcaggatc gcgaggcgct ggatgccgaa tcccgccgac tgacggagga gacgtatcag
                                                                    420
cacttigtte tigegggege gegtetgaae geegatgaaa aageegaget gaaatetetg
                                                                    480
                                                                    540
aataccqaag ccgccacct gaccagccag ttcaaccagc gcctgctcgc ggcgaataag
gegggaggge tggtggtgga egatgttege cagettgaeg ggeteagtge ggaggagatg
                                                                    600
                                                                    660
gotgoogogg ctcacgotgo ogcagaaaaa gggotgaagg aacgotggot gatooogott
                                                                    720
ttqaatacca cqcaacagcc cgcgctggcg gcgctggcgt tgcgcgagac ccgtaaaaag
ttgttcagcg cgggctggga acgcactcag aaaggcgacg aaaacgatac gcgcgagctg
                                                                    780
atcogtcggc ttaccgcgtt acgggcaaga caggcgcagc tgctcggctt tgacaactat
                                                                    840
gcgagetgga gcattgccga tcaaatggcg aaaacgccgg aagccgcgct cgaattcatg
                                                                    900
cgcggaatag tgcctgcggc gcgcggcagg gctgcgctgg agcaggcgga tattcagaaa
                                                                    960
qtcatcqacq acqaqcaqqq cqqttttacq gtgcaggcct gggactgggc gttttatgcc
gaacgogtgo gotcagogaa atacgogotg gatgagtogo agatcaaacc ctatttogog
                                                                    1080
ctcaataccg tgcttgaaga tggcgtattc tggaccgcca cgcagctgtt cggtatccgt
                                                                    1140
                                                                    1200
tttqtcqaqc qtttcqatat tccqqtttat cacccggatg ttcgcgtgtg ggagattttc
gaccatacgg gtgaaggcat ggcgctgttc tatggcgact ttttcgcgcg tgattccaaa
                                                                    1260
                                                                    1320
gegggeggtg egtggatggg gaattttgtt gageagtett aegagtttge tgegegteeg
gtgatttata acgtctgcaa ctatcaaaaa ccggcgaacg ggcaaaccgc gctgatctcc
                                                                    1380
tgggatgatg tgattaccct gttccacgag tttggccata ccctgcatgg tctgtttgcc
                                                                    1440
agceageget atgecacget tteaggeace aacaegeege gtgatttegt tgaattteeg
                                                                    1500
tegeagatea atgaacactg ggeeageeat eegeaggtgt ttgegeactt tgetegteat
                                                                    1560
tatcaaaceg gegaacegat geeggatgeg etgegggaaa aaatgeteaa tgegacecag
                                                                    1620
                                                                    1680
tttaacaagg gttatgacat gacggagcta ttgagcgccg cgctgctgga tatgaactgg
                                                                    1740
cacqqcattc aqqaqcccqt tqaaqacqtq qaaqcctttq aagccgccgc gttgaaaaaa
                                                                    1800
gaggggttgg atottocago ogtacogoog ogotatogoa goagotattt ogocoatato
tteggeggeg ggtaegegge ggggtattae gettaeetgt ggaegeaaat getggeggae
                                                                    1860
                                                                    1920
gatggctatc agtggtttgt cgagcagggt ggtttgaccc gcgaaaacgg acagacattc
                                                                    1980
cqcqaqqcqa ttttqtcccq cqqcaacagc actgatctag ctgaacttta ccggaactgg
```

cgcgggcacg atccgaagat cgaaccgatg ctggagaatc gcggattgag tgcgtaa

```
<211> 825
<212> DNA
<213> Enterobacter cloacae
<400> 4516
atoggtoata aggagacggg tgtgogoaac gtaaagattg aagaggtoga gcagctagat
cgtgaagtgg tagcgatagg caatgactat gtgcagggat ttatgctgcc acagcacaaa
                                                                      180
categoogeg egeagetget atatggegeg aceggattaa tgeatgteat aaceeaggat
                                                                      240
ggagagtgga ttgttcctcc acaacatget gtttggatcc cacccgaaac tatgcacgcc
gtcaaatttg ttggcgtgac cactcgcagt ctgtatatag aaccagattt cgtgaatgcc
                                                                      300
                                                                      360
ttottaaaat atootogtty tyaagttatt agogtatogo cattattacy toagotatty
                                                                      420
cttgagtcag tggatttacc gccactgtat gaaagcacgc gtgaccgtgc actgataaat
etgatgatat tggagetgge ggetatgeeg gttegegaat tegatattee getgeegega
                                                                      480
                                                                      540
catecogece tactogetet ttgtcaqqeq tttttactca atccetcaat ccatgateca
                                                                      600
gcagageget gggcaaatge getgtteatg agegacagea cetttegteg ceattteett
aagcaaatgg gcatgtcatt ttctgtctgg cgccaacgag catgcgtggt tagcgcgctg
                                                                      660
                                                                      720
quattottga taacqqqaaa acccqtaaat qaaqtaqcct tqactcttqq atacqataat
gcatcatect teqeaacgat gtteegeegt gtcacaggac agccaectte gtattateac
                                                                      780
                                                                      825
coggcattat toaaaaagtt coacgggaca gggcaccgat catag
<210> 4517
<211> 495
<212> DNA
<213> Enterobacter cloacae
<400> 4517
ataatgataa ataaaatact ggtcagtgcc tgcctgatgg gccttaaagt ccgttataac
gqqaaagaga aagegcagat gactcatcaa cttgcteget ggcaacagga geagegeetg
                                                                      120
gtgatccact gccctgagtt ggctgcgggg ctacctgttc cgagaccacc cgctgagatt
                                                                      180
atqtctqctq aqqqtaaaqa cqtaatqcqt qqacaagcca gaataattga aaacaccgga
                                                                      240
acagatgtta cogggcatta toaacttgca gootggotgg ototgogago agcacaagaa
                                                                      300
gcaggatgta ctgctgcttt gttaactgat ggtagtccaa cgtgcggaac tcagtttatc
                                                                      360
tacaacqqtt ctttcaqtaa tcagcgtaaa tcgggtatgg gagtggcagc atcattactc
                                                                      420
                                                                      480
tocgagoatg gtattgoggt attttcagaa actoagtttg oggagottgt gaactggatt
                                                                      495
gaagaaaggg aatga
<210> 4518
<211> 309
<212> DNA
<213> Enterobacter cloacae
<400> 4518
atatatagat tcatcaacag gaggaatgat atgaaaaaag cactattagg gagtgtattg
                                                                      60
getttaacag tagcaagett eggegeatet geggeagata tgattteeaa ggatgaageg
                                                                      180
caccacttca aacttgaata ccttggtaat gtatctgtag gggcttcagg tggacaaatt
tottcacott cagatottca toaaaaacto toaaaactgg cagacgagaa gggcgggaaa
                                                                      240
                                                                      300
tactacgtca ttatcgctgc ccgcgagcat ggccctaact tccaggccgt cgcagaagtc
tttaaataa
                                                                      309
<210> 4519
<211> 1590
<212> DNA
<213> Enterobacter cloacae
<400> 4519
caaagegaat gtcacacaga caaaageagg aatgegatte eeetettaga etgeatacae
                                                                      60
accetqoqaa qeataacqaa qqaqtateet atgteegaat cacacqtege cateetgeea
                                                                      120
                                                                      180
ggcgtgcagc agtttttaga tegecagcac ggcetgtgga ttgaagggcg tcaggeggca
                                                                      240
tecgacageg aaaagegeet gaacgtetac aacceggega eeggagaggt tattgeetee
accordegate coagegeega tgategegat cettegeega tettetegete ecceptet
                                                                      360
gtcgcccgaa gctgggcagg gcgtctgccg gcagagcggg aacgcatcct gctgcggttt
```

<212> DNA

```
geogatttgg tggaacagca tggegaagag ctggcacagc tcgaaaccct ggaqcaggqq
                                                                      420
 aaatccatta acatctcccg cgccttcgag gtgggatgca ccctgaactg gatgcgctac
                                                                      480
 acggcagggt tgaccaccaa aattgccggt aaaaccetcg atctctcgat tccactgccg
                                                                      540
cagggcgcgc gttatcaggc gtggacgcgt aaagagccgg tgggagtcgt ggcggggatt
                                                                      600
gtgccgtgga acttcccgct gatgattggc atgtggaaag taatgcccqc gctgqcgqca
                                                                      660
ggttgctcca tcgtgatcaa accetcggaa accacgeege tcaccetgtt acgggtggeg
gaactggcga gcgaggcggg gatcccggat ggcgtgttca acgtggtgac cggtagtggc
                                                                      780
gccgtctgtg gcgcggcgct aacctcgcac ccgcgcattg ccaaagtaag ctttaccggt
                                                                      840
 tegacggega egggeaagea gattgeeege gtggetgegg atacgetaae qqqeqtqaeq
                                                                      900
ctggagctgg geggcaaaaa cceggccate gtgctgaaag acgeegatee ggegtgggta
                                                                      960
attgaagggc tgatgaccgg cagetteetg aatcaggggc aggtetgegc ggccageteg
cgtatttata ttgaggetee getgttegae aegetggtea geggetttga aeaggeegtg
                                                                      1080
aaatetetga gegtegggee gggeatgteg ceggatgegt ttateaacce getggtgteg
                                                                      1140
egegeecatt gegataaggt teaggegtte etggatgagg egaaggegea caatgeggag
                                                                      1200
ctgatcgccg ggaaccgggg accagacggc aaaggctatt acgtttegcc aacgctggtg
                                                                      1260
gtcaaccegg ataatcatet gegactgaeg egtgaagaag tettegggee ggtggtgaac
ctggttcgtg tggacgacgg ggaagaggcg cttcagctgg cgaacgacac tgaatatgge
                                                                      1380
ttaacggcca gcgtctggac gcagaacatc agtaaagege tggegtacac cgacaggtta
                                                                      1440
caggccggaa cogtgtgggt gaacagccac acgctgatag acgccaacct geegttegge
                                                                      1500
ggcatgaage agtetggcae egggegegat tteggeeeeg actggetgga tggetggtgt
                                                                      1560
gaaaccaagt cggtgtgtgt gcggtattaa
<210> 4520
<211> 999
<212> DNA
<213> Enterobacter cloacae
<400> 4520
cttttaagaa accaaatgat tcaccatttt gctatttqtq gtgatttaac gaatcacaaa
                                                                      60
ggtggttatg tgacgcaaga acaacgcttt gagcaacgca tcgcacagga gacggccatc
                                                                      120
gagcegeagg actggatgee ggatgeetac egcaagaege tgateegeea gattggacag
                                                                      180
caegeceact etgagattgt eggeatgetg eeggaaggga aetggateac eegegeaceg
acgctgcgcc ggaaagccat totgctggcg aaggtgcagg atgaagccgg acatggcctg
                                                                      300
tacctttaca gegeggegga aacgetggge tgegeeeggg aggacateta teaaaagatg
                                                                      360
ctcgacggca agatgaaata ctcctccatc ttcaactatc caaccetgag ctgggccgat
                                                                      420
atoggggtca ttggctggct ggtggacggg gcggccattg tgaaccaggt ggcgctgtgc
                                                                      480
cgtacgtctt acggcccgta tgcccgggcg atggtgaaga tttgtaaaga agagagcttt
                                                                      540
caccagogte agggttttga ggcctgcatg gegctggegc agggtagega agcccagegg
                                                                      600
cagatgttgc aggacgccat caaccgcttc tggtggcccg cgctgatgat gttcggacec
                                                                      660
aacgacgaca actocccaaa cagogooogo agtotggoot gqaagatcaa acgotttggo
aacgatgage ttegecageg ettegtggae aacaeggtge etcaggtgga gatgetegge
                                                                      780
atgaccgtgc cggatcccga cctgcgtttc gatgaagaga gcggtcacta ccgcttcggc
                                                                      840
gaaatcgact ggcaggaatt tgacgaggtg atcaacgggc gcgggatctg caaccacgaa
                                                                      900
cgtctggccg caaaacgtaa agcctgggac gacggcgcat gggtgcgtga agccgctctg
                                                                      960
gcccacgcgg aaaaacaacg cgcccgccag gccgcataa
                                                                      999
<210> 4521
<211> 300
<212> DNA
<213> Enterobacter cloacae
<400> 4521
gaggaatcaa ccatgagcaa cgtttactgg ccgttatacg aagtttttgt ccgttcqaaq
                                                                      60
caggggctgt cgcaccggca tgtgggcagc cttcacgctg ccgacgaccg catggcgctq
gaaaacgcgc gcgatgccta tacccgccgc agcgaaggct gttctatctg ggtggtgaag
                                                                      180
gegagtgaaa tegtegette eeageeggaa gagagegggg agttttteqa teeggeggaa
                                                                      240
agcaaggtct accgccatcc gacgttttac accatccctg atggtatcga gcatatgtga
                                                                      300
<210> 4522
<211> 798
```

## <213> Enterobacter cloacae

```
<400> 4522
aggacgetaa ttgtggaate tattetgage catgttgage agggegtaat gaccattacg
ctgaaccgcc cggagcgcct gaacagcttt aacgacgtca tgcaccagca gctttccgaa
                                                                     180
tgcctgaagc aggccgagcg cgatgacgcc atccgctgcc tgctgatcat cggggcagga
                                                                     240
egeggtttet gegeegggea ggateteaac gacegtaacg tegaceegaa eggeeeggeg
                                                                     300
eccgatetgg geatgteegt tgagaetttt tacaaccege tggtgegeeg ectggeaaaa
ctgccgaagc cggtgatttg cgcggttaac ggcgtggcgg cgggcgcggg ggcgacgctg
                                                                     360
                                                                     420
gccctcggct gcgacatggt gattgcggcg cgctccgcca gttttgtgat ggccttcagc
aageteggee tegteeegga etgeggegge acetggetge tgeeggeget ggeeggaege
                                                                     480
gcccgcgcca tggggttggc attgctgggc gataagetca gcgctgagca ggcacaggcc
                                                                     540
tggggaatga tctggcaggt ggtggacgac gagcagetet ccgccaccgt acagcagatg
                                                                     600
                                                                     660
gegetgeatt ttgcctcgca geegacettt ggeetggget tgatcaagca ggegatcaac
geogeogaaa eeaacaceet egaegeeeag ettgatetgg agegegaeta teaacgeetg
                                                                     720
                                                                     780
geoggacgea gegacgacta eegggaagge gteagegegt teetggeaaa aegegegeeg
                                                                     798
aactttacgg ggaaataa
<210> 4523
<211> 1332
<212> DNA
<213> Enterobacter cloacae
<400> 4523
tgtgagtacc ctgcgatgat aaatacaaca aagcttgatc cgatcgaaac cgcgtccatt
                                                                     60
                                                                     120
gatgaattgc aggcgttgca gaccgcgcgc ctgaagtgga cgctgaacca cgcctacaac
aacgttccga tgtacaaacg caagtttgac gccgcgggcg ttcaccctga cgattttaac
                                                                      180
gagetggegg acetgeaaaa atteeegtge aceaecaage aggatetgeg egacaactae
                                                                      240
cogttogata cotttgcggt geogatggag caggtggtgc gcatccacgc ctcgtcgggc
accaccggaa agccgaccgt ggtgggatat acccagaatg atatcgacaa ctgggccaat
                                                                      360
                                                                     420
ategtegece gtteectgeg egeegeeggg ggeagegega aggataaaat teaegtggee
                                                                      480
tacggetacg ggetattcac eggegggetg ggggegeact aeggtgeega gegtetgggt
                                                                      540
gcaacggtga tecegatgte eggeggecag aeggagaage aggegeaget gateegegat
tttcagccgg atatgatcat ggtgacgccc tcatactgcc tgaatttaat tgaagagctg
                                                                      600
gagogtcaga tgggeggtga cgccagegcc tgttccctgc gegteggegt gtttggegcc
                                                                      660
gagccgtgga cgcaggcgat gcgccgcgaa attgaaaaac ggctgggcat taccgcgctg
                                                                      720
gatatetatg gteteteega agtgatgggg cegggegtgg egatggagtg tettgaaace
                                                                      780
                                                                      840
getgaeggee egaccatetg ggaagateae ttetaceegg agategteaa eeegaatgae
ggcacgccgc tggctgacgg cgagcagggc gaactgctgt tcaccaccct gaccaaagag
                                                                      900
gegetgeegg tgatecgeta cegeaccege gaceteacge geetgetgee gggcactgea
                                                                      960
egeaceatge geoggatgga tegeateage gggegeageg acgaeatget cateattege
                                                                      1020
ggcgtgaacg tcttcccgtc acagctggaa gaggagatcg ttaagttcga acatctttcg
                                                                      1080
                                                                      1140
ccacactatc agetggaggt gaacegeege gggcatettg atteacttte ggtgaaggte
gagctgaaac agagcagctt aacgctgace catgagcagc gctgtcaggt ctgccatcag
etgegteate ggattaaate gatggtgggg atetegaceg aegtgatgat egttaaetgt
                                                                      1260
                                                                      1320
ggcagcatac cgcgctccga gggtaaagct tgccgggtgt ttgatttgcg taaagtggca
                                                                      1332
gecaacggtt ga
<210> 4524
 <211> 963
<212> DNA
<213> Enterobacter cloacae
<400> 4524
ttcatccagg aaaaaaataa caacagaatg aatcacatga ataaacttga tgcctttatc
                                                                      60
cagcatgcag teagetetgt teeegteage ggaacgtege ttatateete actgtatgge
gacgogottg cgcaccgogg oggagagate tggeteggea geetggegge eetgetggaa
                                                                      180
gggatgggat ttggcgagcg ctttgtgcgc accgcgctgt ttcgcctcaa caaagaggc
                                                                      240
                                                                      300
 tggctggatg tgtcccgcat tggccgccgc agettttacc gtctcagcga caaggggctg
cgtttgacac gccgcgcgga aaataaaatc taccgtgcgg aactgccggc gtgggatggc
                                                                      360
```

aaatggetge tgetgetete egaggggetg gataaaacca ceetegegga egtgaaaaaa

```
480
caqcteatet qqcaaqqqtt eqqcacqctt qcaccqaqee tqatggcete geegtegeag
                                                                     540
aacctggcgg acgtgcagtc tctgctgcat gacgcgggcg tggcggaaaa cgtcatcttc
                                                                     600
tttqaaqccc attcgccgct ggccttgtca cgcgcggcgc tacgatcccg cgtggaagag
                                                                     660
tgctggcagc tgaccgaaca aaacgcgatg tacgaaacgt ttatcaactc gttccgtccg
                                                                     720
ctgttgccgc tgctgaaaga aacgccgcct gaggattiga ccccggaacg ctgcttccag
                                                                     780
atccaqctqt tactcattca tttttatcqt cgcqtqgtqc tgaaagatcc gctqttgccq
qaqqaqttac ttcctgcgca ctgggcggga cagagcgcgc gacagctgtg cattaatatc
                                                                     840
                                                                     900
taccagogog tggoggoggg agocotggog tttgtcagtg agaaggggga aacototgtg
ggcgagetge cegetecegg caegetttat caccagegtt ttggtggtet gaatateaca
                                                                     960
                                                                     963
<210> 4525
<211> 615
<212> DNA
<213> Enterobacter cloacae
<400> 4525
qqaqaqqqta tgcctgttta tcaaattgat ggtctgacgc cggtcgtgcc tgaagagagc
                                                                     60
tatqttcacc cgaccgcggt gctgattggc gacgtgatcc tcggcaaagg cgtttacgtg
gggcccaacg ccagcctgcg cggcgatttt ggccggatcg tggtgaaaga cggcgcgaac
                                                                     180
                                                                     240
atccaqqata actqcqtqat qcacqgtttt ccqgaqcagg acacggtggt ggaagaggac
                                                                     300
gggcatateg gecacagege gateetgeac ggetgeatta teegeegtaa tgegetggtg
                                                                     360
gggatgaatg cggtggtgat ggacggggcg acgatcggcg aaaacagcat cgtcggggcg
geggegtttg tgaaggecaa ageggaaatg eetgegaate acttaattet tggeagteeg
                                                                     420
                                                                     480
qcqaaagcga ttcgtgagct aagtgcgcag gaaatagagt ggaaaaagca gggcacgcgg
                                                                     540
gagtatcagg tgctggtgga tcgctgtaag cagacgctgc atcaggtgga gccgctgcgg
gaagaagage eeggeegeaa aeggetggte ttegatgaga atttaeggee eaagtegget
                                                                     600
ggccgggata aataa
                                                                     615
<210> 4526
<211> 1548
<212> DNA
<213> Enterobacter cloacae
<400> 4526
                                                                     60
ageggegtta acetggtttg ecgacacget gegeetegae tgggaacega aagggattge
                                                                     120
cgtcacggtc gtttcacccg gttttgtcga cacgccgctg acccgcaaaa acgatttccc
gatgccgggc cgggtcagcg tgggggacgc cgtccacgcc attcgtcgcg gtctggcaaa
                                                                     180
                                                                     240
agggaaggat cacategogt tteeegeegg gtteageetg gegetgegee tgettteegg
cetgecegat gtacttcage gegeactget gegeaggatg gtgcgaccat gaaaategca
                                                                     300
attateggea geggeatege egggttaace tgtgeetgge ggetegeegg acateateag
                                                                     360
                                                                     420
atcacqqtqt ttgagqcqca ggccaccccg ggcggccata ctgcaacggt agatgtcgac
acgccccaga gtacctttgc categatacc ggttttatcg tctacaacga cegcacctat
                                                                     480
cogogottca tggggctqct cagogaactg ggcatcageg ggcaaaaaac gcagatgagt
                                                                     540
                                                                     600
ttttcggtac ataacccgca gagcgggctg gagtacaacg gccacacgct gacgtcgctg
ttcgcccagc gtcgtaatct gctgaaccct gccttctgga cgctactgaa ggagatcgtg
                                                                     660
                                                                     720
cgctttaacc ggctggcgaa acagacgctc cggggcgaag tcgatggatc cgccacgctg
gaaacgttee tgegecagea cegetttaeg coetttttg egegecacta cateetgeca
                                                                     780
atgggagegg ctatctggtc gtcgtcgcta caggagatga aacgctttcc gctgccgctc
                                                                     840
tttttacget tttttgaaaa ccacggtetg etggacatta eccategtee geagtggtae
                                                                     900
qtcqtqccaq geggeteceg ggagtatate egegegatga tggacaaget tggcgatege
                                                                     960
ctgacgetge acctcaacge geeggttcag aaggttgtte gecacgateg tggegtegat
                                                                     1020
attgageggg aaggegteae teatacette gateaggtga tettegeetg teaetetget
caggogotgg cgatgotoge cagoocaacg caggotgaac gtgaggtgct gggtgatatc
                                                                     1140
ggctggcagc gtaacgaggt ggtgcttcac agcgatccgc gctggctgcc ggtgcgcaag
                                                                     1200
cgcgcgtggg cgagctggaa ctaccgcctc agcgagcagg atcgggccag cgcctgcgtc
acctacaaca tgaatatett geagggaetg cegeegggta geeegetgtt ttgegteace
                                                                     1320
                                                                     1380
ctcaaccegg aaaegeeggt ggaagaaege tatgtgetge geegetttgt etatgageat
                                                                     1440
cogottttta accogoaaag ctggcaagec caggcccgac geggagaaat aaacggtcgc
cageggaget ggttetgegg egegtaetgg tacaaegget tecaegaaga tggegtaege
                                                                     1500
```

agtgegetgg aegtggtaaa egetategeg geeggggagg geaactga

```
<210> 4527
<211> 1227
<212> DNA
<213> Enterobacter cloacae
<400> 4527
acgctcatga ccgatcccgt ctttgcgctt gaacccgata tcccgcgcaa cgtccgcgtc
gegegatggt tgctcttccg cctgctgaac ggtctgcgcg gtggctcgct gacgctgcgt
gaaggegege agaegtteea gtteggegae geeteegeeg egetteatge tgaggtgeag
                                                                     180
gtacttgctc cgggcgtcta ctggcgcatt ttaaccgggg gcagcctcgc cgcggcacaa
gcgtggatgg atggcgactg ggagacgccc cacctgacgc cgctgctgga gctgattgca
                                                                     300
                                                                     360
cgtaatagcc aaatcctcgg gcaactggaa aaagggtttc gcctgctcgg gaaaccggtg
                                                                     420
gageggetac ggcactggat geggegeaac tecegegete aggegegtga aaatattgee
                                                                     480
quecattacq atctqqqcaa eqecttctac geccatttee ttgatgaaga eetgetgtac
tocagogogo tgtttaacgg ggacgagcag gatttgaacg cggctcagca ggcgaaaatg
                                                                     540
                                                                     600
qccaqgetgt gcgaccaget ggcgctcacg gcaaacgate atctgctgga gattggcacc
ggctgggggg cgatggcgga atacgccgcc cgtcactacg gctgtcgggt gaccaccacc
                                                                     660
acqctqtcqc aqqaqcaqta ccactqqqcc accqcqcqgga tcqtccqggc agggtIgcag
gatogogttg aggtgotgot ttgogactac cgcgatotga ccggggttta cgacaaactg
                                                                     780
                                                                     840
gtotoggttg agatgatoga agcogtoggo caacgotaco tgocaacgtt tttccgtaco
tgtcaggegc gtctgcgtcc aggegggcgg atggcgattc aggccatcac cattcaggat
                                                                     900
cagegetate gegactacag caaaagegte gattttatte agegetacat etteccegge
                                                                     960
ggctttttgc ccagcatcac cgccatgaat gaactgatga cccgccatac cgattttgtg
gtgcgtaatc tcttcgatat ggggccggac tacgcccgca cgttggcgca ctggcgtcag
                                                                     1080
cgtttcgttc acgcctggca ggagattgaa aagctcgggt ttgatgaccg tttccggcgg
                                                                     1140
atgtggctgt actacetegg etactgtgaa geegggttta atgeeegeae cateagegtg
gtgcagctga ctgcggaacg cgtatga
<210> 4528
<211> 3942
<212> DNA
<213> Enterobacter cloacae
<400> 4528
                                                                     60
aaaqaqattt tatccqqcaq tgcactgccc gttaacqcta tgacaqaaca ccaaaaattg
accttcccga tgctgatgca aaagcttgat tcgctgatgc tgcgcgataa acagcggttt
                                                                     120
gegegeegte tgcacggcgt taagaaggtt aaaaateetg atgcacaaca ggccatttac
                                                                     180
                                                                     240
caggaaatgg ccaaagagat tgaacaggog gcagggaaag ttgtgctgcg tgaagccgca
egeceggaga ttacctatce ggaaaacetg ceegtcagee agaagaaaca ggacattett
                                                                     300
gaggeegtac gegaccacca ggtggtgate gtegeggggg aaaceggtte aggtaaaace
                                                                     360
                                                                     420
acccaqttqc cqaaaatctq catggagctg ggccgcgggt tgaaagggct gatcggtcac
acccagocgo gtogtotgge ggegogoaco gtggogaaco gtattgogga agagotgoaa
                                                                     480
aeggageegg geggetgeat eggetaeaag gtgegattea gegaeeacgt eagegataae
                                                                     540
accatggtta agctgatgac agacggtate etgetggegg aaatecagea ggategtetg
                                                                     600
ctgatgcagt acgacaccat catcatcgat gaagcgcacg agcgcagcct gaacatcgac
                                                                     660
                                                                     720
tteetgeteg getacetgaa agagetgetg eeeeggegte eggatetgaa aateateate
acctctgcga ccattgaccc ggagcgtttc tcaaaaacatt tcaacaatgc gccgatcatt
                                                                     780
gaagtotcag googaacota cooggitgaa gigogotato goocgatigi ggaagaggog
                                                                     840
gacgataccg agogogacca gottcaggoc atottcgatg cogtcgacga gotgggcaac
                                                                     900
gagagttetg gegacattet gatetteatg ageggegage gegagateeg egatacegee
                                                                     960
gatgogotca goaaacgoga totgogotat accgagatco tgoogotgta ogogogootg
                                                                     1020
tegaacagtg agcagaaccg cgtgttecag cegcacageg gacgeegeat cgtgetggeg
                                                                     1080
accaacgtgg ccgaaacctc gctcaccgtg ccgggcatta aatacgtgat cgacccgggt
                                                                     1140
                                                                     1200
acggegegea teageegeta eagetacega accaaagtte agegeetgee gattgageeg
gtttcccagg cgtcggctaa tcagcgtaag ggccgctgcg gccgcgtgtc ggaagggatc
tgtattegte tttattegga agacgattte etgtegegee eggagittae egateeggaa
                                                                     1320
                                                                     1380
attotgogga ccaacctggc atcogttatc ctgcaaatga ccgcgctggg gctgggcgat
                                                                    1440
ategeogect tecegittgt ggaagegeeg gataaacgea atatteagga eggggtgege
ctqctqqaaq aqctqggggc catcaccacc gacgagcagg cgacggccta caagctaacg
```

ccattgggcc gccagcttag ccagttgccg gtcgacccgc gtctggcgcg catggtgctg

```
gaggegcaaa aacacggetg egtgegegag gegatgatea teacetegge geteteeatt
                                                                     1620
caggatccgc gcgagcgccc aatggacaag cagcaggcgt cggatgaaaa acaccgtcgc
                                                                     1680
ttecacgata aagagtetga tttectggee tttgtgaate tgtggaacta cetgggegag
                                                                     1740
cagcaaaaaa cgctctcttc aaatcagttc cgccgtcagt gccgggtgga tttcctcaac
                                                                     1800
tacctgcqcq tqcqcqaqtq qcaqqatatc tatacccagc tgcgccaggt ggtaaaagag
ctgggcattc cggtcaacag tgaaccggcg gagtaccgcg aaattcatat cgccttgctg
accggcctgc tgtcccatat cgggatgaag gatgcggata aacaggaatt taccggcgca
                                                                     1980
cgcaacgcgc gtttctccat cttcccgggc tccgggttgt ttaaaaaagcc gccgaagtgg
                                                                     2040
accatggtcg ccgagctggt ggaaaccagc cgtctgtggg ggcgtatcgc cgcgcgtatc
                                                                     2160
qatccqqaqt qqgttqaqcc qgtqgcqcaq cacctqctga aacgctcata cagcgagccg
                                                                     2220
cactgggage gegggeaggg egeggtgatg gegaeggaaa aagteacegt etaeggeetg
                                                                     2280
coggtggtgg cogcgcgtaa ggttaactac agccagatog atccggcgct gagtcgcgag
                                                                     2340
ctqtttatcc qccatqcqct qqtqqaaqqc qactqqcaqa cqcqccatqc gttcttccgt
gaaaacctga agctgcgcgc cgaggtggaa gagcttgagc acaagtcccg ccgccgcgac
                                                                     2400
attotggtgg acgacgagac gotgtttgag ttttacgacc agcgcatcag ccacgatgtg
                                                                     2460
atotoggogo gocatttoga cagotogtog aagaaagooa goaaagagac cooggacotog
                                                                     2520
                                                                     2580
ctcaacttcq aaaaqaqcat qctqatcaaa qagggcgcgg agtcggtcag caagctcgac
taccegaact tetggeatea gggeaacete aagetgegte tgacetatea gtttgageea
                                                                     2640
                                                                     2700
ggggccgacg cggacggcgt gaccgttcat attccgctgc cgctgttaaa ccaggtcgac
gagagegggt ttgagtggca aatteeegge etgegeegeg agetggteat tgeattaate
                                                                     2760
                                                                     2820
aaatccctgc ctaaaccggt gcggcgtaac tttgtgccgg cgccgaacta cgccgaagcg
tttttgggec gegtcacgtc getggagetg cegetgetgg aegegetgga gegtgagtte
                                                                     2880
egaegeatga cegggaecae categaecge gaegaetgga aetgggatea ggtgeecgat
                                                                     2940
cacctgaaaa teacetteeg egtggtggac gataaaaaca aaaagetgat ggaaggeege
tegetttegg aactgaagga egeectgaag ggcaaagtge aggaaaccet gtetgeegtg
                                                                     3060
geggaegaeg gtategagea gagegggetg cacatetgga getttggtea getteeggaa
                                                                     3120
agctatgage agaagegegg gaactataag gteaaageet ggeeegeget ggtggatgag
                                                                     3180
                                                                     3240
egegacageg tggegattaa getetttgae aateegeagg aacaacagea gatgatgtgg
egegggetge gtegactget tetgettaac atceegtege egattaagta tetgeacgag
                                                                     3300
aagetgeega acaaagecaa getggggete taetttaace egtaeggtaa ggtgetggat
                                                                     3360
ctgatcgacg actgcatctc ctgcggtgtg gataagctga tccacgaggc gggcggtccg
                                                                     3420
qtctqqacqq aaqaqqqctt tgctcagctt catgaaaagg tgcgcgcgga gctgaacgac
                                                                     3480
acceptggtgg agattgccaa acagglegag cagatcetta cegeegtgtt caatatcaac
                                                                     3540
                                                                     3600
aagggcotga agggggggg ggatatgace atggcoctgg ggctgtegga egtgaaggeg
cagatggegg ggetggtgta teggggettt gtgaceggea aeggetttaa gegtetggge
                                                                     3660
                                                                     3720
gatacgctgc gttatttgca ggcgattgag aagcgtctgg agaaaatggc ggtcgatccg
                                                                     3780
categogate gegegeagat getgaaagte gaaaaegtge ageaggegtg geageagtgg
ctcaacaaac tgccgccage gcgtcgcgat gacgacgacg tgcgggagat ccgctggatg
                                                                     3840
                                                                     3900
ategaggage tgegegteag ettettegee cageageteg gtacgeegta teegattteg
                                                                     3942
gataagogta tottgcagto gatggagcag atotccggct aa
<210> 4529
<211> 1062
<212> DNA
```

<213> Enterobacter cloacae

<400> 4529

cgcaatgctt	tatcaggata	ctccactatg	aaaaagatcg	gatttttgtc	gtttggtcac	60
tggacgccgt	caccccagtc	cggcacgcga	accgcggctg	acacgetget	acagtccatc	120
gatctggtgg	togcagooga	agagetggge	geggaegggg	cttatttccg	tgtgcaccac	180
tttgcccgcc	agctcagttc	gccattcccc	ttgctggcgg	caataggcgc	gaaaaccaaa	240
cgtatcgaaa	tegggaeggg	cgtgatcgac	atgcggtatg	aaaatccgct	gtatatggcg	300
gaagatgctg	gegeggeaga	tctcatctcc	ggcgggcgat	tacagettgg	tatcagccgg	360
ggttccccgg	agcaggtgat	tgatggctgg	cgttattttg	gttacgtgcc	gcaggaaggg	420
gaaaccgaat	ctgatatggc	gegeegecae	actgaggtac	tgcttgatgt	attacgcggt	480
gaagggtttg	cgaagcctaa	cccacagccg	atgttcccaa	acccgccggg	attgttgcgt	540
ctggagccgc	attcagaagg	cttacgcgat	cgtatctggt	ggggggctgg	ctctaatgca	600
acggcagtat	gggcggcaaa	actggggatg	aacctgcaaa	gctcaacgct	gaaagatgat	660
gaaaccggcg	ageegtteea	tattcagcag	gcaaaacaga	tccgtgccta	ccgacaggcc	720
		cogtcageca				780
ctgatggacg	aacgcgaccg	gatgtatttc	ggctcaagcc	gcaatgagag	cgacagcgtg	840

			1791			
aagetgattg aeegtgeega	aacagttgaa atcagctggg	gcgggccatt aaaggatgaa cgtggaatac atggcgcgat	gegategegg aacgeacatg	aageggatae tgategagte	getgttgett	900 960 1020 1062
<210> 4530 <211> 1290 <212> DNA <213> Enter	cobacter clo	pacae				
gagtacqagg gcggtgtgcag gcctggcac catctggttg ttcotegcgc cttaatgoag cgtcaccagc gataccgaaa ctgggagacg ggcagacga ggcagaagta tactgoggta gggaagta tactgoggta tgggaacta tgggaacta ttgtggaacta ttgtgataatc ttttccaatc	tggttgetga thtatcgoct aactggcacc agagacaga aacaggaagc tgcgcgacct agcgaccat atgctgaaaa tgctgagaaa tgctgagaag tgctgagaga tgctggaaaa tgctggtagaaa tgctggtagaa acattgctg gctcacca gcgttetgg gctcacca gcgctggg gctcacca atgtcgggg	caccatagec tagtcagecg gattgatcag ggecagtat aattcaggag ctggcactac cagcagcaag tecgatge cacaccaggat tagttaaeg tcacaccaget gattggcgcagg ttggcgcaggt tgtggcgaggt attgttegg aaggcaggg cattctggc cagcaggg tcagagagg tcagagagg tcagagagg tcagagagg tcagaggg tcagaggg tagcagagg	gggcatatog cttggtccgg accaagattg ccgggcagcc ctggtgytgg attctgacc gcgsttgcga ccgttttatg gtgccggtct gctcccggg ttgatcacc accaggtcg attgcaag tccacggtct gcatcacgg tccacggttcg attgcaag tccacggttg gattgcagg attgcagg tccacggttg gattgcagg	atcagatcaa tttegegaaat gtggeogtee ggattageeg aggacegget acategacea teaceetgee aaaacgteaa acatteagea gegeegeta atcegaegg tegaaageet acggaegtea acggaegtea tatcegtaegg tegaaageet acgaeggaeat acetgtttaa tettteegge	gcagaccaac cgatcttteg gctggaagce gcgggaatc ggaactcceg gttettatt gggaattatt aggaattact ggtaatccag tgatatcag tgatatcag tgtaatcag tgtaatcag tcgtaatcag tctgatgct aaaacgctgc gctgaagctg cttaagcgc cttaagcgc ccccaaaaa gatttccgca	60 120 180 240 360 420 540 600 720 780 900 900 91020 1080 1140 1200 1200 1290
<212> DNA	robacter cl	oacae				
tecegegegt gttgcaaaag caaagegtet gaggaaagea gcaaatetga etgatgaaeg gctaatgaeg gctaatgaeg cactaegetg etgeettate tteggeggta	agcgtttett tacttcagga gcagtaaaaga egtetetgga gcgtegetes atttacgtee gcattcagga gcctgeeget aaatcatcga tgeecegege	. gattggttgg	agcggtaaac ggggtgggga gatgccgtta atcaactaca gtcgttgaag tgggtggtge aaccatgcct gtggcgaacc aaaaagctgc gaattagcgc	gcgttgcagg ataaggatgc atcctategc gcctgctttc ggaccggcgg aggagcagtt tgctgacggc gtgttaaccc ctggcccgct	atacaagccg cctggttctg cttaagcgaa tgatggcctg ctggcgcagc gccggtgatt gcaggctatc gggccttgcg ggtgggcgaa	60 120 180 240 300 360 420 480 540 660 660 699
<210> 4532 <211> 351 <212> DNA <213> Ente	erobacter cl	.oacae				
<400> 4532 atcaatccto ctgtgcgaaa	: acqaaacqac	g aaaaatgtto g ottittgoog	aaaacgacgc tggctctggc	tgctttttt taaagcgggg	. cgcgaccgcg g cgcttccgcg	60 120

```
etgetgetga teeeggeggg tgtgteeetg geeetttttg tetggetget caccetgeat
coggccgcca gcgggagggt atatgcggcc tacggcggag tgtacgtctg taccgcgctg
                                                                     240
ctgtggctgc gcgttgtcga tggcgtccgg ctaagcctgt atgactgggc aggcgcgctg
                                                                     300
                                                                     351
attgccctgt gcggcatgtt gatcatcgtg gccggttggg gacgcgcata a
<210> 4533
<211> 1254
<212> DNA
<213> Enterobacter cloacae
<400> 4533
atttcctgca tcacaacgag cgatgtaagg aaatggatta tgaagattgt cggggctgaa
gtttttgtca cctgcccggg gcgtaacttt gtcaccctta aaattacgac tgatgaaggc
                                                                     120
attgteggee tgggtgatge caegettaac ggacgtgaac ttteegttge etettacetg
                                                                     180
                                                                     240
aaagateace tgtgecetca getgattgge egegatgege acegeatega agatatetgg
cagttettet ataaaggege ttactggegt egtggteegg teaceatgte agegatttet
                                                                     300
                                                                     360
gccgtggata tggcgctatg ggacattaag gcgaaagccg cgaacatgcc gctctatcag
                                                                     420
cttctgggcg gggcttcccg ggaaggggtg atggtttatt gtcacaccac cgggcacacc
attgacgacg tgctggaaga ttatgcccgt cataaagaga tgggcttcaa ggcaattcgc
                                                                     480
gtgcagtgcg gcgtgccggg aatgaaaacc acctacggca tggccaaagg caaagggctg
                                                                     540
                                                                     600
gegtatgaac etgegaccaa gggegeetgg eeggaagage agetgtggte eacegagaaa
tacctegact teacgeccaa actgttegac geagtgegea geeagttegg ttteagtgaa
                                                                     660
                                                                     720
catcheette acgacatgca ccaecgtetg acgeccateg aageggegeg gtteggcaaa
agtattgaag attacegeet gttetggatg gaagateega eteeegetga aaaceaggag
                                                                     780
                                                                      840
tgttteegee tgateegeea gcacacegte acgecaattg eggtggggga agtgtteaac
agcatotggg actgcaagca gotgattgaa gagcagotca tigactatat cogogocaco
                                                                      900
                                                                      960
ataacccatg egggeggeat cacegggatg egtegeattg eggactttge eteaetetae
caggtgegta ceggeteaca eggeeegteg gatetgtege egatttgeea egeegeggeg
                                                                     1080
ctgcattttg acctgtgggt accgaacttt ggtgtgcacg agtatatggg ttattcagag
cacatgetgg aagtgtteee geacagetgg egettegata aeggetatat geaceeggge
                                                                     1140
gacaagccag ggctgggcat tgagtttgat gagaagctgg cagcgaaata cccgtacgat
                                                                     1200
coggettate tgccggtgge ccgtctggaa gacggcacte tetggaactg gtaa
                                                                      1254
<210> 4534
<211> 1437
<212> DNA
<213> Enterobacter cloacae
<400> 4534
gagootgoga agacaggoto taagtggtac goatottaco titoagagat agocattatg
actcaagcac aacetcaaag aagtacgtca gatttggtga aageegeegt atetggetgg
                                                                      120
                                                                      180
ctgggcaccg ccctggaatt tatggatttc cagetetact cccttggege cgcgctggtg
tttcatgaaa ttttcttccc tgagcaatcg gcggccatgg cgctgatcct ggcgatgggc
                                                                      240
acctacggcg caggetacat cgcgcgtatc gtcggggcat ttattttcgg cagaatgggc
                                                                      300
                                                                      360
gacagaattg googtaaaaa agtgotgttt atcaccatca coatgatggg gatotgcacc
                                                                      420
accttaateg gegtgetgee gacctaegeg cagateggga ttttegeace ggtgetgetg
gtgacgetge gtattattea ggggettgge gegggggeag aaateteegg tgegggeaee
                                                                      480
atgctggcgg agtacgcgcc gaagggtaaa cgcggcatca tctcctcgct ggtggccatg
                                                                      540
ggcaccaact gcggaacgct gagcgccacg gcgatctggg ccgtgatgtt ctttgccctc
gategtgaag aacttattge ctggggetgg egegtgeeat teetegeeag egtggtggtg
                                                                      660
                                                                      720
atgatetteg ceatetgget gegtatgaac ettaaagaga geceggtgtt tgagaaggtt
aacgacgccg aaaccgttgc gccagcggcg gcgcaggata cctcattagg cgcgatgttt
                                                                      780
aagagcaaat cgttctggct ggcgacgggg ctgcgctttg gccaggccgg taactctggg
                                                                      840
cttatccaga ccttccttgc cgggtatctg gtgcagacgc tgttatttga taaggcgatc
                                                                      900
ccaaccgatg egetgatgat eagttegatt eteggettee teaccatece getgetggge
                                                                      960
tggetgteeg ataaagtggg gegeegtetg eegtatatte teettaacat tteageeatt
                                                                      1020
attetggett accegatget gtegattate gtegataaga gttacgcace gggegtaatt
                                                                      1080
                                                                      1140
atgeteteta teategttat teataaetzt geggteeteg ggetgtttge getggaaaac
atcaccatgg cagagatgtt tggttcgcgg aaccgcttta cccgcatggc aatctcgaaa
                                                                      1200
gaggegggag ggetggtgge egtaggettt ggteeggtge tggeggggat ettetgeaat
```

atgaccgggt cetggtggcc aattgtggcg atgetggtgg cgtactcgct gattgggctg

<210> 4535 <211> 1476 <212> DNA

<400> 4535

<213> Enterobacter cloacae

```
cgagteteaa teatggaaaa eeagttatta eaggegaagg eaaegegtee teagtaegat
egegacagee teaaggeacg cattgtteat ttagggtttg gegegtttea eegegeacae
caggoggtgt acaccgatat actogoogca gaacagggca gogactgggg ttactgogaa
                                                                     180
gttaacctga ttggcggcga acagcagatc gccgatctga aggcacagga taacctttat
                                                                     240
acceptage agatetete ceategetes acaseses testes este aaaaac
                                                                     360
gogotgcatg ogcaggtoga ogggotggaa accgtgttgg oggcgctgtg ogagccacag
gtegecattg ttteeetgac cateacegag aaagggtatt gecatteece ggcaacagga
                                                                     420
caactgatgt togatcatco gttaatogtt googacotgo aaaaccocca toagcogaaa
                                                                     480
                                                                     540
tetgegeegg gegttgtggt tgaagegetg gegeggegta aggeggeggg getgeeagea
ttcagcgtga tgtcatgcga taacatgccg gagaacggcc acgtgatgcg caatgtcacc
                                                                      600
tgcgcctacg cgcgcgctgt tgacggcgaa ctggccgact ggattgaagc gaacgtcacc
                                                                     660
ttcccgtcaa ccatggtgga ccgtattgtg cccgccgtca cggctgacac gctggataaa
ategaacage tgaceggegt acgegateeg geaggtgteg cetgegagee gtteegeeag
                                                                     780
                                                                     840
tgggtggtgg aagataattt cgtcgccgga cgtccaaagt gggaaaaggc cggtgcggaa
ctggtttctg atgtcattcc gtttgaagag atgaagctgc gaatgcttaa cggcagccac
                                                                      900
togttootgg octatotogg otacottgoo ggttatcago acattaacga otgcatggaa
                                                                     960
gatgaacatt atcgcgcagc cgcgcatgcg ctgatgctga aagagcaggc gccgactctg
                                                                      1080
aaagtgaagg gggtggattt agctcactat gctgacctgt tgatcgcgcg ctacagcaat
cogaccotgo gtoaccgcac otggcaaato gccatggacg gtagccagaa attgccgcag
                                                                     1140
                                                                      1200
eggatgeteg atteegtgeg etggeacetg gtecaccaga aaccetteee getgetggee
                                                                      1260
ctcggtgtgg cgggctggat gcgttatgtc ggcggtgtgg atgagcaggg taacccgatt
gaggtgagtg accegcaget ggeggtgatt caggeggegg taaacggtag egetgaagge
                                                                     1320
gaaagccgcg ttaatgcgct gttgggcatt gaggctattt tcggtaacga gctgccgaag
                                                                     1380
                                                                     1440
gacgeggtgt ttgtggegte ggteatgeag gettateaga egttgetgea aaaaggegeg
                                                                      1476
aaggccacgg ttgctgagta cgccacccgg ctttaa
<210> 4536
<211> 2148
 <212> DNA
 <213> Enterobacter cloacae
<400> 4536
 gcagocatto egecegttae aaceategeg teagaagetg aggageegee egtgeacaac
                                                                      60
                                                                      120
 gataagcatt atcccttcat aaaagtcagc atgacggcgc tggcgctgct ggtcgctccg
 ctogogotae aggogoagga taaggocaet gaggoetete aggggaccca ggaategett
                                                                      180
 aacattgatg cogcogatca gcaggcacco ggaaccacaa aaaccaccga cgatgcotca
 aceggeageg gtgacggaaa gaatgtegee teggeeagee ageeegegae geegetggtg
                                                                      300
 cccggcacgc ccacctggga cagettccac ggccagetta acgcgcagaa atacageccc
                                                                      360
 ctgacccaaa ttacggcgga taatgtcggg aaattaacga aagtctggga attccatacc
                                                                      480
 ggogacgtet eggatggtaa aggegataeg ceagetaeeg tetggteege aaegeceatt
 ttogccaacg atacgeteta cattggcacg coattegate geetgattge getggateeg
                                                                      540
 ggtacgggta aagagaagtg gcattatgac acgaaatcgt cgcgcaaggc gctgacccag
                                                                      600
 ccagtgctga aaaaccgcgg cgtttcctac tggcaggcca aaaatccggt gagcggagag
 gcatgccaga agatggttta tatgggcacc gttgacggca agctctttgc gctggacgcc
 gattcaggca aaccttgcag cggctttgcg aataacggcg tgttggatct gaaccagtgg
                                                                      780
 aataccgtta acgcgaagta tccgctctct gtcctgcaac cgccaaccgt tgtcggcaac
                                                                      840
 catctqctgg tgggctgggc cgggaaggac tgggcctatg ccgaagcccc tccgggcacc
                                                                      900
 gtattttcag tcaacgccca gaccggtaag cttgaatgga cctttgaggc gatcccggca
                                                                      960
 gagattogca agogtacogg tacogocaac gtotggacgo acatgtoogo ogatgaggoo
                                                                      1080
 aacgggctgg totatotoco ggtttcatog coatotocca actattgggg cggcaaccgc
 gtggacgeta ttecgettgg cacetegace accgegetgg acateaacae eggtaaagtg
                                                                      1140
 gtotggtooc gtoaatgggt acaccacgac gtotgggatt acgatattaa ctocgccccg
```

1437

gtotocgott tgotgatgoo ggaagtgogo gacogogato tgagtgaago cgaagatgoa gooqaagogo ogoataaaga agoggtagoo taoggogogo totottoaog cogotag

```
acgctgatgg acatcaccgt agacggcaag cagatcccgg cgctgattca ggccaccaag
                                                                     1260
cagggtttcc tgttcgtggt taaccgcctg acgggggagg acgtatggcc aatcgaagaa
                                                                     1380
cgtccggttc cgcagggtga tggttcggtt cagggtgaag ttctctcgcc cacgcagccg
ttcccgacca aacccgcgcc gctgctcgac cagtcgaaaa aaccggaaat ctggaagctg
                                                                     1440
                                                                     1500
geggatateg teggtggegg ceagtgetee egtetgtggg ataacetgae etatgaggga
                                                                     1560
atgtatacte egeogaceae aaagggegaa ggeaegetaa eetateetga tagegetgge
ggcgtacagt ggggtggggt ggcgttcgat ccgcaaaaac agatcgccat cgtcaacacc
                                                                     1620
togoatatog tocagtacgt gaagetetac ageogegaag attacgataa cgcagacaaa
                                                                     1680
gaeteeggta acgaaagegg etttgeecca caggaaggeg eecegtaegg tatgegtetg
                                                                     1740
                                                                     1800
ctggtggcga gcaactggct gggcatgccg tgctggcagc cgccgtttgg cgaaatcgtg
                                                                     1860
gegetggaca tgcatacggg cgatgtgaaa tggcgtcgtc cggttggcgc ctcccagcag
tatggettet teatgeegga gagetggggt teacetacea ttggtggeee ggeagtgaeg
                                                                     1920
                                                                     1980
gcgggcggcg tgatcttcat cggtgcttca atggatgcca aagtgcgtgc ctactcggtc
gagageggtg aagagetgtg gteegateag geagaagege eggeagtage gaaceegtea
                                                                     2040
gtotatgaat ataaaggtog coagtatgtg goottogtgg caggogggaa tacgatcotg
                                                                     2148
aaggatcagg tgggcgatca ggtggtggtc tacgccttgc cggaataa
<210> 4537
<211> 201
<212> DNA
<213> Enterobacter cloacae
<400> 4537
ggaacaacaa tgaaaaagag ggctggtgta ctcaccgtgg ccgtcgtcgc gctgctgtca
                                                                     60
ggetgeaege egegeattga agtggeageg eecaaagage egateactat caacatgaac
                                                                     120
gtgaaaatcg agcatgaaat ccatatcaag gtggataaag acgttgaagc cctgctgaaa
                                                                     180
                                                                     201
tecegeageg atetettetg a
<210> 4538
<211> 594
<212> DNA
<213> Enterobacter cloacae
<400> 4538
gaaggggeta cataccgaac acctegggee gatgetggea gagatgeagt atetecageg
cgtttacccc ggccagcagt ggtaaaggag gacgccatgc aacgcctcgt cgacatcgcg
cotgoacaaa tooogoagat ttgggogotg ttaagocaga tooocgacco ggaagtgoog
                                                                     180
gtgctgacca tcaccgacct gggcatggtg cgcagcgtga aggcacaggg ggaaggctgg
                                                                     240
                                                                     300
gttatcggct tcacgccaac ctattcgggc tgtccggcaa cggagcatct gctgggggcg
atocgogaaa cootgacogg aaacggotit agocoggtac atattgtgot gcaactggag
                                                                     360
cccgcctgga ccaccgactg gatgaccgac gatgcccgca ggcgcctgcg tgaatatggc
                                                                     420
                                                                     480
atcagecege etgttggtca tagetgecat geceaegtte eegeggaggt gagetgeeeg
cgctgtgcga gcaccgatac ctcgcttatc agtgaatttg gatccacggc ctgcaaagcg
                                                                     540
ctctaccgct gcaatacctg ccgtgagccc ttcgactatt tcaaatgtat ttga
                                                                      594
<210> 4539
<211> 783
<212> DNA
<213> Enterobacter cloacae
<400> 4539
tgcgaagggg atggcatgag cgaactgatt gttacccgtc atggccgcgt gttgcagcta
                                                                      60
                                                                      120
acgettaace gteeggegge gegeaacgeg eteaacaatg egetgeteet geaaategeg
                                                                      180
gageagettg aggeegeege egeggatget gagategeeg tetgegtgat gtaeggeaac
gaacgctgct ttgccgccgg ggccgatctc aacgaaatgg cggagaaaga cctgcccgcc
                                                                      240
accetgaacg atateogtee geagetgtgg gegeggatea acgeetteae caaacegetg
                                                                      300
attgccgccg taaacggctt cgcgctgggg gcaggctgtg agctggcgct gctctgcgat
                                                                      360
gtogtgattg ctggcgataa cgcccgtttt ggcctgccgg aaatcaccat cgggatcatg
                                                                     420
cogggogcag goggoaccca goggotgato ogcagogtag goaaatogot ggccagoaaa
                                                                      480
atggtgctga cgggcgaaag catcacggcg gtgcaggcgc acagcgccgg gctggtcagc
```

gacgtotato oggootogot gacgotggag tacgcootga agcaggoago gotgatggog

```
cgccattcgc cgctggcgct acaggcggcg aagcaggcgc ttcgccagtc gcaggaagtc
cogetteagg cogggetgge geaggagegt cagetgtttg egetgetege ggecacegae
                                                                     720
                                                                     780
gatogooggg aagggatoaa ogoottttta caaaaacgca coccagactt taaaggacgc
                                                                     783
<210> 4540
<211> 1581
<212> DNA
<213> Enterobacter cloacae
<400> 4540
tcaagcagge gatcaacgce gccgaaacca acaccetega egeccagett gatetggage
gogactatea acgcotggco ggacgcagcg acgactaccg ggaaggcgto agcgcgttoc
tggcaaaacg cgcgccgaac tttacgggga aataatatgg tgaatatcca tacggtcgcc
                                                                     180
                                                                     240
qtcattggca gcggcaccat gggcgccggg attgccgaag tggcagccag ccacggtcat
coggttctgg tgtacgacat tgacgcageg gcgatttccc gcgccgtcga cggcattcgc
cagoggotgt cotcacgogt tgcgcgtgga aaactototg ccgacgccgg ggagcagato
                                                                     360
                                                                     420
ctegecegee tgacgeeggt gacgaatate agtgetetgg egaaageega tetggtgate
                                                                     480
gaggeggeet eegagegget tgaagtgaaa aaggegetgt ttacceaget ggeagaggtt
tgcccgccgc agacgctgct cgccagcaat acetcgtcca tttccgttac cgcgattgcg
                                                                     540
goggagataa accaccotga acgogtogoo gggotgoact tottoaatoo tgccccggtg
atgaagetgg tggaggtggt cagegggetg gegaeeteae cagaagtgge egatgegetg
                                                                      660
tgcgagctgg cgctgagctg gggaaagcag ccggtacgct gccagtccac gccggggttt
                                                                      720
atogtcaacc gcgtggcgcg cccgttctac tcggaagcct ggcgcgcgct ggaagagcag
                                                                      780
                                                                      840
gtggcaacgc ccgaggtgat tgacgccgcc ctgcgagacg gcggaggctt cccgatgggg
ccgcttgagc tgacggacat gattggtcag gacgtcaact ttgccgtgac ctgctccgtg
                                                                      900
                                                                      960
tttaatgcct tctggcagga gcgtcgtttt ctgccgtcgc tggtgcagca ggagctggtg
ctggcggggc gtctgggtaa gaaaagcggg cagggcgttt accgctggct ggaggacaaa
                                                                     1020
cocgccgtca gatggctcgc cocggtcagc gacagcttca accccatgcg cgtacagcga
                                                                     1080
agaagtgacg gtgtcacgga aattgacgat ctgttgctga tcgaaacgca gggtgagacc
                                                                     1140
gegeagtege tggegetgeg coatggetge ceggtggtgg tggtcgaccg categagegg
                                                                      1200
                                                                      1260
gatgtggccg tgatagccgc cgcacccggc aacccgcacg ccgccacgca gaaagccatt
                                                                      1320
tactgtttgc agcaccagca gaaacgggtg gtacagattg ccgattaccc cggtctgctg
                                                                      1380
gtctggcgca cggtagcgat gattgccaac gaagcgctgg acgccctgca aaaaggggtc
gccagegage aagacatega tacegecatg egettagggg teaactatee etgegggece
                                                                      1440
atogootggg gogagogoot tggttggoag ogtotgttaa ogotgotgga gaacotgcaa
cgtcactacg gegaggaacg ctategeece tgttcactge tgegecageg tgegettetg
                                                                      1560
                                                                      1581
gagagtaget atgagteata a
<210> 4541
<211> 1290
<212> DNA
<213> Enterobacter cloacae
<400> 4541
aattoagaac caacaacaga aaaccgtogo totttttogo gggaaatogo accgcaccgg
eggeagtatg acaggagaag eetgatgegt gaegeattta tttgtgaggg tgtgegtace
coggtoggto gotacggtgg aggattatoc agogtgegtg cogatgactt aggggccgtg
                                                                      180
cogotgogtg ogotgotggo gogttaccog cagotogato tggagogcat agatgatgtg
                                                                      240
atottoggot gogcaaatca ggooggagag gataacogca acgtagogog catgtogtog
                                                                      300
ctgctggccg ggctgcctca gaccgtttcc ggtaccacca ttaaccgcct gtgcggctcc
                                                                      360
                                                                      420
qqtctqqatq cccttggctt tgcggcacgc gccattaagg ccggggatgg cgatctgctg
                                                                      480
ategeoggtg gegtegaate catgtocogt gegeogtteg tgatgggcaa agecacegeg
gcgtttcagc gtcaggcgga gatcttcgac accaccatcg gctggcgatt tgtgaatccg
                                                                      540
                                                                      600
ctcatgcate agcaatacgg aactgacage atgccggaaa cggcagagaa tgtagcggaa
ttgttaaata taagccgtgc cgatcaggat gcatttgccc tgcgcagcca gcagcgcacc
gcgcgggcgc agcagaatgg cgttctggcg caggagatta tcccggtaca ggtggcgggg
                                                                      720
                                                                      780
aaaaaaggtg ccgtaacgga agtgagcgtg gacgagcatc cgcgcgccga aaccaccctt
                                                                      840
gaacagettg cogegetgaa ageteegtte egeaagaacg gtgtggtgae ggeggggaac
gcctctggcg tgaacgacgg ggcggcggcg ctgattatcg ccagcgagcc gatggcgctt
                                                                      900
gcccaggggt taaccccgcg cacacgcatt gtggccatgg cgaccgcggg cgtcgagccg
                                                                      960
```

```
egectgatgg gattaggece ggttecegee accegtaagg tgetggaaeg tgeeggaete
                                                                     1020
agtatcaccg atatggacgt cattgagett aacgaageet tegeogeaca ggegetggge
                                                                     1080
                                                                     1140
gtgctgcgtc agctgggttt gccggatgac gcggagcatg tgaacccgaa tggcggggcg
                                                                     1200
atcqcqttag gtcatccgct gggaatgagc ggtgccagac tggcgctggc cgcgagcaat
                                                                     1260
quattgcacc gacgcggcgg gcgctacgcg ctgtgtacga tgtgcatcgg tgtgggtcag
                                                                     1290
ggcattgcca tgatccttga gcgtgtttga
<210> 4542
<211> 1986
<212> DNA
<213> Enterobacter cloacae
<400> 4542
ggccattcaa tgaaattaac cctaattgct aaacatctgg cgcttgccgg tgtgttgacg
tegetgtege tttcctegtt tgeggaagta cageegeagg atgeeactge caegaceegg
caggtaaata acgccctgta taacaaatta ccgtttgccg ataaaaccga ctttgagaac
goccataaag gttttatogo coogotgoca caaaacatga ttaaaggoga goaggggaac
gttatctgga acccggcgaa atatgatttc gtgaaagagg gtgagaaagc cccggatacg
                                                                     300
                                                                     360
gtaaacccga gcctgtggcg tcagtcacag ttgatcaaca ttggcgggct gtttaagctc
accqacggcg tgtatcagat ccgtaatctc gatctctcca acatgaccat cattgaggc
                                                                     420
gagaagggca ttaccgttat cgacccgctg ttaagcgctg aaccggcgaa agaagcgctg
                                                                     480
gatetetact atgcaaaccg eggcaagaaa ceggtegteg etgtggtgat cacccacage
                                                                     540
caegttgace actatggegg cetgegegge gtggttgacg aagetgacgt caagtetgge
                                                                     600
aaagtgaaaa totacgegee ggatggettt atgaaagagg eggttteega aaacattatg
                                                                     660
geoggaaacg cgatgageog ccgtgcgagg tatatgtacg gcaacctgct gaagccggat
                                                                     780
qcaaaaggec aggtgggtge aggcettgge accaccacet etgegggtae tgteaecete
                                                                     840
atcccgccga ccgactacat tacccatacc ggtcaggaag aagtgatcga cggtttgacc
tacgacttta tgatggcgcc gggttcagaa gctccgtcgg agatgctgtg gtatgtcaaa
                                                                     900
                                                                     960
gagaagaaaa tgatcgaggc cgcagaggac gtgacccata ctctgcacaa cacctactcc
ctgegeggeg egaaaateeg egaeeegetg geetggteta agtacattaa egeegeeatt
gagegetggg gegeggaege ggaagtgatt attgegeage accaetggee gaeetggggt
                                                                     1080
                                                                     1140
aacgagaata togtoaagot gatgaaaggo cagogogata tgtatogota catcaacgac
                                                                     1200
cagaccetge gtatggcaaa caaggggetg accegegaeg agategeege egagtttaaa
                                                                     1260
etgeeggaat egetggaaaa acagtgggeg ageegeggtt actaeggete egttageeac
                                                                     1320
gacgicaaag ccacttacgi gittiatete ggetggiteg aeggeaacee ggeaaceete
                                                                     1380
gacgagetge egectgaact ggetgagaag aagttegtge agtacatggg eggegetgat
gccatcatgc agaaagccaa agoggattat cagcagggta attaccgttg ggttgctcag
                                                                     1440
gtggtaagca aagtggtott tgoogatoot aacaaccagg otgooogtaa totggaagco
gacgegetgg agcagttagg ttaccaggeg gaagegggea cetggegtaa ettetacetg
                                                                      1560
accggogogo aagaactgog taatggogtg aagaagetgo ogacgoogaa caccgocago
coggatacog tgogggcgat gaccooggaa atgttetteg actacetggg tgtgcacate
                                                                      1680
                                                                      1740
aacggggtac gggccggtaa cgcgaaggcg gtcttcaatg tcgatctcgg taaggatggc
ggcaaataca agetggaget ggaaaaegge gtgetgaaee atacegeeaa egegeaggeg
                                                                      1800
aaggatgetg aegeaaceat caegetggae egtaceaege tgaacaacat catcettaag
                                                                      1920
aaagagacgc tgaagcaggc gatggataag ggtgacgtga aggtgagcgg aaacggggcg
aagctggaag agatgctgag ctacatggac acatttgact totggttcaa tattgtgacg
                                                                      1980
                                                                      1986
ccataa
<210> 4543
<211> 948
<212> DNA
<213> Enterobacter cloacae
```

## <400> 4543

tacaccatta	cagcagggcg	atcgctttgt	ggtcacctgg	atgatgcact	ggtcgcaccc	60
gegtattgee	cggggtgcag	tgcgacagct	geegggetge	tccgtggtag	acatgcgcga	120
cgatcgcatt	gttcgccagc	gggattacta	cgatgccgga	gagatgattt	acgaacatct	180
cccgatactc	ggctgggccg	tacqcqgcqt	gaagcggaga	gtgaaatcat	gaaaacggtt	240
ctgatcaccg	gcgcaagctc	gggcatcggg	geggggetgg	cgaaatcttt	tgccgacgat	300
ggttaccggg	tgattgcctg	egggegegat	gegeaacgte	tggccgctgt	gcatcagcac	360
agececaaca	tcacggtgcg	cctgttcgat	atgacagaca	gggacgcctg	tegecaggeg	420

<400> 4546

```
1797
ctggcggact gtgctgccga cacggtgatt ctctgcgccg gaacctgcga gtatctcgac
cgcggcgagg tggatgccga gctggtggcg cgggtcatga ccaccaattt catggggccg
                                                                     540
gtaaactgcc ttgcggcgtt gcagccgcaa ctggtatccg gcaaccgcgt ggtgctggtc
                                                                     600
agttegatgg egeactgget teactteeeg egageegaag eetatgggge etetaaageg
                                                                     660
                                                                     720
gegttaacet ggtttgccga cacgetgcge etegactggg aaccgaaagg gattgccgte
acggtcgttt cacccggttt tgtcgacacg ccgctgaccc gcaaaaacga tttcccgatg
                                                                     780
                                                                     840
ccgggceggg tcagcgtggg ggacgccgtc cacgccattc gtcgcggtct ggcaaaaggg
aaggatcaca togogtttoo ogoogggtto ageotggogo tgogootgot ttooggootg
                                                                     900
cccgatgtac ttcagcgcgc actgctgcgc aggatggtgc gaccatga
                                                                     948
<210> 4544
<211> 753
<212> DNA
<213> Enterobacter cloacae
<400> 4544
acgctatege ggccggggag ggcaactgag atgaacaget gcctttacca eggcacattg
egecategie ggettgegee gaaagegeae cattitacet atagegigt tatggegigg
                                                                     180
ctogatotog atgagetgga cgegetgeec teegteggeg tgegeegtaa cegegttgeg
cocgoggeat titatgatgo ggactaccog ctgggcacgo cgotcaaaga gcacgtcett
                                                                      240
gagcgtctgg aaaatctgac cggcgagcgt ccggcggggc gggtcatgct tctgactcag
ctgcgctatt tcggttttca tttcaacccg gtcaattttt actactgcta tgacggcgaa
                                                                      360
gacactetge getgggttet egeegaagtg egtaacaege egtggaatga acgacattae
                                                                     420
tacgeggtag eggggeggga egeceegeeg acgeagaaag egttteaegt etegeeettt
                                                                     480
aatccgatgg atatggttta ccactggcgc ttcaacagcc cggacagcac getgcgcatg
                                                                     540
                                                                      600
catatogaaa accatcagga gacgaaggtg tttgatgcca cootgacgct gogcogggcg
                                                                      660
ccqctqacqc gcgcagcgct gcgttcgctg ctggcgcgga tcccgttgat gaccctcaaa
                                                                      720
acceptttcg coatttactg gcaggogete aggetgtgge tgaagegegt gcegetgeat
                                                                      753
aaccatcccc tcaqcaggag tgaacgctca tga
<210> 4545
<211> 963
<212> DNA
<213> Enterobacter cloacae
<400> 4545
tototactgg acgctggtgg tgctgtttcg cgagcagggg ctggtcatct ggatcgcgct
                                                                      60
ggeggtgett geetggetgt tattacegee ateacacegg gtatacgeee ttgtgetgge
                                                                      120
ggcgtcgggt gcgctgctgg acgccctctg ggcgctgacg gggctgattg cgttcacagg
                                                                      180
egegteeetg atgeegetat ggatggtgge getgtggeta atgtttgeea eegtetggae
                                                                      240
gcacctgacc cgcacgacca cettgccagg atggttgctg acggtgctgg cgactctggg
                                                                      300
cggaccggta gcctacctga tcggcgagca tcttggggcc attacgtttc aggagccgac
                                                                      360
                                                                      420
etttategte gteagetgga tgttccccgg etggctggtg ctgatgetgt ttttccacct
gttgatgggg agacaacaat gagaaatctg gtactgatgc tcgcgttatc cgtcttcacc
                                                                      480
tgtaccgtgc aggcggcaga ctggctgagc tggcgcaagg tgggtgacgc cacceteacc
                                                                      540
tgggggccgt ttatcgtcta tacctctcag cttctgacgc ccgacggcag ctatacagga
ttagacggcg ataatgcgct gattatcacc tatgcccggg acatcgatgg tgacgacctg
                                                                      660
gtogaggoga cocgtgacca atggcaggog cagggcattt tgcagcagga gccgcagagt
gaageetgge tacgeatget gtecaegete tggeeegaeg teaegeeegg caegeagete
                                                                      780
gcgtttgtgg ttaataacgg ccagggacaa ttctggtatc gccccacggc gtcgcagaaa
                                                                      840
aaatttacgc cactegggee acgeeagacg geagegttta geteaegett tetggegata
                                                                      900
tggctcgatc cccgcaccga atatcctgaa ctgcgtcagc agttaactgg aggagcacaa
                                                                      960
                                                                      963
tga
<210> 4546
<211> 546
<212> DNA
<213> Enterobacter cloacae
```

acquacatga caaaactcac octacaagag cagatgotga aagogggott agtcagcagt

```
aaaaagatgg ccaaggtoca gcgcacggcg aaaaaatccc gcgtccaggc tcgcgaggcg
                                                                       180
 agagaggetg ttgaagagaa caagaaagee cagetggage gtgataagea getgagegaa
 cagcaaaaac aggcggtgct ggcaaaagag ttcagggcgc aggtgaagca gctgattgag
                                                                       240
 atgaaccqca tcaccqtgqc qaaqgqcaac attaccttta actttaccqa cqqcaacctg
                                                                       300
 atcaaaaaaa tegaggtega taageagaeg caaacccage tgatcaaegg cegtetggeg
                                                                       360
 attgcccgac tggtgattaa tgcgaagggc gactgtgatt acgcgattat cccggcggtg
                                                                       420
 gtggcggata aaattgccca acgcgatgcg gacagcattg tgcttaacag cgcgctgagt
                                                                       480
 caggaagagc aggacgaaga cgatecgtac gcagacttta aaatecctga cgatttaatg
                                                                       540
                                                                       546
 tggtaa
 <210> 4547
 <211> 846
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4547
 cgcgcagaaa gggggataat cgatggctct gtatgctgta aggaggtaac gatgacaatg
 geactittee estatetaes tagesesases etcaseacq tagaataccat tagaaqqqqqqq
cttgctcagg acgactatca ggacaatcag cccgttgatc tggtgattct ggcgggtaat
                                                                       180
                                                                       240
geggtggtee cegegattga tgetgeetgt aaaaacgegg etgaacaggg tgtteetetg
                                                                       300
atcatcageg gegggategg teactegacg acetteetet acgeogogat tgcgaaacac
cocceptata acaggatace caccaceggg egggetgagg cagetattet ggeogacate
                                                                       360
geoogtgaat tetggaacat teeggetgag eatetteaeg ttgaggatea gtegaceaae
                                                                      420
tgtggtgaaa acgecegett cageegggeg ttgatgaaac aateeggaet gaaegeegee
                                                                      480
egggtgetgg tggtgeagga eeegaegatg eageggegea caatggetae gtttgeeege
                                                                       540
gtatgccgcg acgaggccgc agcgcccgca tgggtgagtc atcccggcct gacgcccgtg
                                                                       600
ctgcaaaaca gcgacgacgg totggtgttt agcggcccgg ccgaggggtt atggccggta
                                                                       660
gaacgttace tgtcgctggt gctgggtgaa tttccgcgac tcagggacga catcaacggc
tacggtcogg cgggacgtga tttcattgcc catgtcgata tccctgccga cgtggacgcc
                                                                      780
gogtggcaga tootgcgaaa cgacgtcatt otcaccgacg cgctggtgag ccgttetetg
                                                                      840
                                                                       846
 ctgtaa
 <210> 4548
 <211> 984
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4548
 aacatgtege aceggaaatg ggatggegeg ategeaatge gtaatetgge eetetggtat
                                                                       60
                                                                       120
 cgccggtttg gtgagcctga atcggtactg caagcagaaa ccacaccatt gtccccgcga
 cagoogggag agatacgtgt gogcatgett ttttctccgg tgaacgcctc cgatctcatc
                                                                      180
 cccatcaccg gggcatatcg ccatcgcacg ccgctgcctg cgatagccgg ttatgaaggg
                                                                      240
 gteggaatag tgaccgaaac geeegeeget tateeggege tgetgggeaa gegggteetg
                                                                      300
 cogttacggg ggcagggaac ctggcagcgc tatgtcgact gcccggcggc gtatgcggtt
                                                                      360
 eccgtecegg acgaegtega etcgettett geegegeggg egtatateaa teegettgee
                                                                      420
 gcacagatga tgctggaccg ctatcctccg gtcgggaaaa cggtgctgct caccgctgcc
                                                                      480
 ggttctgact gcgccgttct gctcgggcaa tgggcacgcc aggcgggtgc agaggcggtt
                                                                      540
 tacgggatcc atcgctcgcc cgtgcacgct caacgtctgg ctgaaaaggg gatcgtcccg
                                                                      600
                                                                      660
 attgegease acqatatgge egeegtease getgeegeeg egegegeaga egtggtgtae
                                                                      720
 gacgccacgg gcggcagcct ggcggagacg atcctgagcg tgatgcccga aaccggcacc
                                                                      780
 tttgtetget aegggetget etcegggeag acetteegge ageageggee gttgeegge
 gtggcgtggt ttcacattcg taactatctg gacgcgctga gcgctgaggc gtggcaggcg
                                                                      840
 gagtttcggc gcatctggcc taaactgcgt gccagtcagt gcagcgatgt caccetctac
                                                                      900
 ccqctqtcqq aatqqcaqcq qqcaqtaqqc aactatcqcq aaqcqqqaaq aacqqqcaaq
                                                                      960
 eccatgetgt egatggacaa ttaa
                                                                      984
 <210> 4549
 <211> 432
```

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

1799							
agaaaaaaca accttgtcga gtcatgatta gtggcatacg ttatttgatg	tgttttactg tgaaatgggc cgettteeta cattgtggga aaaceetgae ttaaateggg	tgtccgcagt gattttatta gagcgtgagt tattttcctc aggtgttggt gacaatgaaa tacacgcaaa	getetggega gatggeagea tetttegegg attttattga attgeeggge	togtogotga coggttttat ttaaaaaaat ttacgotgtt tgacgaccct	aattaccggc tttgatgctg cgcgctgggc tagcgtcatg ggtcgcgggt	60 120 180 240 300 360 420 432	
<210> 4550 <211> 456 <212> DNA <213> Enter	cobacter clo	pacae					
cgatatggag acgcccgccg tatcaatggg gccttttccg gtcccggttg cgctatagcc	atggctgtgt atctggacgc agcttgtgca acagctacat agctgatggg tgcggatgga	egteeggetg tgaegeeetg teateeetge ggatgggaag ggaggeegaa tgaegateeg eggaetgtae taegetgaaa	gegeattte attgeetace egagtgaete geggeeegge gagegtggea etetattate	ggcgctatgg agtttgccga accgtccgga tgggactcgg cgcttatacg	ttttacgcag cggtaaccac ggggcaatgg gctggcctat cgttttacag	60 120 180 240 300 360 420 456	
<210> 4551 <211> 459 <212> DNA <213> Enter	robacter clo	pacae					
tttgaaatgg ggcgcgacga ttcaatgccg aaggcgctga ggcaacgtac attggatcaa	atttgagega teaccetggt atattaagaa aaeggetest gegatgaaat gaaaceegag	caggettatg taaageggta caacattete gttegaaga tgatatgtee catcaagete catgacaace ggtgttagtg	egecatgegg cetaacagea tatatgaceg ceggaaaata ageaaagagg catetgetgg	tcaacctcgc gccgttcatt ccgagtctga ttgattgtga ggaaatatga	gaaggcggaa actgcggggg taagaagatg agttcgcttc cgttattgtt	60 120 180 240 300 360 420 459	
<210> 4552 <211> 183 <212> DNA <213> Enter	robacter cl	pacae					
atagccaaaa	aaattgcaga	egeactgaca gttacgaaaa gaegggeete	aaaacagggc	aggaagtttc	tgaaatagag	60 120 180 183	
<210> 4553 <211> 2646 <212> DNA <213> Enter	robacter cl	oacae					
ccgctgacgc cctgttggaa	tgctgatgac cgcgcatcgc	gtttgaagaa	tgggtaccca agcccacggc	cgctcgccgg tcacgcgcca	attactegtg gatetggete egecetgate aaaegtgace	60 120 180 240	

<400> 4555

```
ctgtcacacc ccagccgttg ggatcttgat attggcgcac ttgaacttaa ctctgtctgc
                                                                      300
 ctgagcaaat taccgcagtc agcgtcctca acggtggcgc cgaaaacgct ggcgcagtgg
                                                                      360
                                                                      420
 caggecated tgcccaacac etggetgace atecaceget ttaccettte teeetggcag
 cagtgggagg gtgagctgca tgcttcactc acgccagccc gccaggacat cacttataac
                                                                      480
                                                                      540
 ggcgagcagg tgagcattaa ggggcagttg cgcggccaga cgctctccat cagccagttc
                                                                      600
 gatgtgcaac tgccggatca gccgcagccc gtgaagctga tcggtgaatt taccctgccg
                                                                      660
 ttggtaccgg acggcgtgcc ggtgaaaggg catacggtcg cgacctttaa cgtgccacag
 ttatectege tggtegatge egatetggae tgggaggaea ateagggeea getggtggte
                                                                      780
 atggcgcggg acaaccccga tocactgctc gatttaccgt ggcagatcac cgctcagcag
                                                                      840
 ttaaccatca gcgacggacg ctggaactgg tcagcctccg gtatgccgat gagcggtcgc
 gtegggetga aagtggataa etggeageag gggetggaga aageeacett caeggggegg
                                                                      900
                                                                      960
 ctcaacgtgc tgacccaggg tgatgcgggg aagggcaacg cggtgctgaa tattggtccc
 ggotogotoa gtatggaaaa cagogotatg cogotgoaco tgagogggga agocaagcaa
 aacgatetga teetgtatge cagacteeeg gegaagetga ceggeageet ttaegateeg
                                                                      1080
                                                                      1140
 cagettacgt ttgaaccogg cgcattattg cgctcgcgcg ggcgcatcat cgactcgctg
 gatategatg agateegetg geegetggea ggegtgaage teaegeagaa gggegtggae
 ggccgcctgc aagccattct gcgggcgcat gaaaacgaga tgggcaattt tgagctgcat
 etggaeggee aggetaaega etttttaeeg gaeaaeggtt tgtggeagtg gegetaetgg
                                                                      1380
ggtaaaggga atttcacgcc gatgaatgeg egetgggatg teeggggaac eggggagtgg
cgcgacaacg ttatcgaact gaccgatctt tccacggggt tcgacaaatt gcagtacggt
                                                                      1440
 acgatgetgg teageaagee gegeetggtg etggateace eggtgegetg gtegegggae
                                                                      1500
coggataacc ccaccttrag oggogogoto gogotoaatg cogggoaaac aagottotog
                                                                      1560
ggeggaageg tgetgeegee gteegttitg acetteageg ttgaegggae agaeeegaeg
                                                                      1620
gtgttccagt ttaaagggaa cctgcatgcg gacgacatcg gcccggtcca ggtgaatgga
                                                                      1740
egetgggatg gegaacgeet tegeggtaag geetggtgge caaaacagte tettaeggtg
ttecagecgt tgatecegee agactggaaa atgaceetge geggeggega aatgtaegea
                                                                      1800
                                                                      1860
 caggtggett tetcagegge etcegateag gggtttgagg ceggggggea eggggtgetg
                                                                      1920
 aaagcgggca gcgcgtggat gccggataac gaaatcaacg gcgctgattt tgttctgccg
ttccgcttaa gccaggatac ctggtcgctg ggcacgcgcg ggccggtaac gttacgaatc
                                                                      1980
                                                                      2040
gacgaggtaa aaaacctggt cacagecega aatateaceg eggateteea gggegattat
 ccctggaceg aagegaacec geteetgete accaaegtga aggtggaage geteggeggg
                                                                      2100
 aaaatcacca tgcagcagtt gagaatgccg cagcacgatc cggctttact acgcgtggat
                                                                      2160
 aatattteet eeagegaact gataagegeg gtgaateega ageagtttge eatgteegge
 ccggtgagcg gcgcgctgcc gttctggctg gacaatgaaa aatggatcat taaagatggc
                                                                      2280
                                                                      2340
 tggctgacca accoggggcc gatgacgctg cgcatcgacc aggacacggc ggatgccatt
                                                                      2400
 gtgaaagaca acgtggttgc cggggcggcg atcaactggc tccgctatat ggaaatttcg
 cagtogtgga caaaactcaa tgtggataat ctgggtgtgt taaccatgca ggcggccatt
                                                                       2460
                                                                      2520
 aaaggcacca geegegtega gggcaaaage agtttegtaa acetgaatta caeccatgaa
 gagaacattt ttaccetetg gegeageetg egetttgggg acaatetgea aacatggttt
                                                                      2580
                                                                       2640
 gagcaacatg cggcgatacc cottotccgc ggttcgacag gcaaggaaag tgaggaacaa
                                                                       2646
 caatqa
 <210> 4554
 <211> 348
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4554
 aatocogcag cgatotgtto tgaggatgoo atgaaacgat tagototgat gttactggog
 ctggggatga acgttcacgc cgccacgctt acgctcaacg atgcacgtgc ccaggggcgc
                                                                       180
 qtaqqqqaaa ccctgagegg ctatcttgeg cccgttcagc acgacgctga aaccctggeg
 ctggtgagcc gtatcaacgc cgcacgcacg gaaagttacc agcagttagc tgacagcaat
                                                                       240
                                                                       300
 aatttgcccg tcgacgaggt ggcgaaaatg gcgggacaaa agctggtggc gcgcgcccag
                                                                       348
 ccgggtgaat acgtgaaggg gattaacggc aagtggctaa aaaagtaa
  <210> 4555
  <211> 774
  <212> DNA
  <213> Enterobacter cloacae
```

```
60
 tggtatcgag catatgtgag gttggggatg aacaacgtat ctgcttatgc cctgtgtctg
                                                                      120
 ggcgacaacg gtctggtgct ctcacagcgt ctgggcgcct ggtgcggcca cgcgccggag
                                                                      180
ctggaaattg acctggcgct cgccaatatc ggccttgatc tgctcgggca ggcgcgcaat
                                                                      240
tteetqaeet acqccqctga acqggaaggt aaggtgatg aagataccct ggcctatggc
egegatgage gteagtteeg caatttgetg etggtggaac agecaaacgg cagettegee
                                                                      300
gacaccattg cocgtcagta totgatggat gogtggaacg tggcgctcta cgagcggctg
                                                                      360
atocacagea gegacagtea gettgeegee ategeggeaa aagecattaa ggaggegege
                                                                      420
                                                                      480
tateacctgc gctttagccg cggctggctg gtgcggctgg gggacggaac agaaacctcc
gcacaaaaaa tgcagcaggc ggtggatagc ctttggcgct ttacggctga actgttcgac
                                                                      540
                                                                      600
qctqacqaqq tcqaqctqqc qctaattqat qacqqcqtqq cggttgatcc gcgcgacctg
egggaccegt gggagegega agtgtttget ggeetggegg aagecaccet eegegtgeee
                                                                      660
gaagaggtgg cgtatcgcac gggcggtaag aaggggctac ataccgaaca cctcgggccg
                                                                      720
                                                                      774
 atgctggcag agatgcagta totocagcgc gtttaccccg gccagcagtg gtaa
 <210> 4556
 <211> 1200
 <212> DNA
 <213> Enterobacter cloacae
<400> 4556
getgeeegeg etgtgegage accgatacet egettateag tgaatttgga teeaeggeet
                                                                      60
gcaaagcgct ctaccgctqc aatacctgcc gtgagccctt cgactatttc aaatgtattt
gaggetgeca tgacaaegtt teatteatta acagtggeaa aagtggaace egaaaceege
                                                                      180
                                                                      240
gacgoggtga coattacett egeggtgeeg caggogttac aggaggogta cegetteegt
cocqqtcaqc atctqaccct gaaaqccaqc cctggcgggg atgaactgcg ccgctgctac
                                                                      360
tocatotgoc ggagcacogo gtgcggtgag atcagegtgg cggtcaaago catcgagggo
ggacgttttt cccgctatgc ccgggacgag atcaaaccgg gcatggcgct ggaggtgatg
                                                                      420
                                                                      480
qtqccccaqq qqcattttqq ctaccaqccq caggccgaac gcgaaqqcca ttatctqqcq
attgccgccg ggtccgggat caccccgatg ctggcgatta tgtccgctac gctggccact
                                                                      540
qaaqeecaca qecacttcac cetqatttac qqcaaceqea qeageeagag catgatgtte
                                                                      600
egeegggege tggeggacet gaaagataaa taccegeage gtttgeaget gategeeate
                                                                      660
ttcagccagg agacgctcga cagcgatctg ctccatggcc gcattgacgg ggaaaagctc
                                                                      720
caqqqqtqq caaaaacqct qgtgaatttc cqtcagtacg atgaagcctt catctgcggc
                                                                      780
                                                                      840
ccgtcggcga tgatggatga ggccgaagcg gcgctgcaag cgctgggtat gccggaaaaa
gogatocato ttgagogott taacacgoog ggtacogoog ttaaacggac agocagogtg
                                                                      900
                                                                      960
caqqeeqatq gecaqaaggt caceqteegt caggacggge gegacaggga gatcaceetg
 acggcggacg acgaaagcat tettgacgcg gecetgegte agggggggga tetgeettac
 qcctqcaaqq qcqqcqtatq cqccacctqc aaatqcaaaq tgctqcqtqq gaaagtcgat
                                                                      1140
 atggcgacca actacagcct ggagccggac gagctggccg caggctatgt gctgagctgt
 caggogotgo ogttaacogo ogacgitato glogatitig algogaaggg galggoalga
                                                                      1200
 <210> 4557
 <211> 513
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4557
 cgctgctgga gaacctgcaa cgtcactacg gcgaggaacg ctatcgcccc tgttcactgc
 tgcgccagcg tgcgcttctg gagagtagct atgagtcata acgcctggca taacgcccgc
                                                                      120
 qcqatqtacq aacqqqacqc ctqcqcqcaq qcqatqgqga tqgacattct cgacatgggc
                                                                      180
 qagggetaet eggtggtgae catgaceate acceegeaga tgeteaaegg geataaaaee
                                                                      240
 tgccacggcg gacagetgtt ctcgctggcc gataccgcct ttgcctacgc ctgcaacagt
                                                                      300
                                                                      360
 caggggetgg eggeggtgge etcaggetge gecategatt ttetgegtee gggetttgee
                                                                      420
 ggcgataagc tgaccgctac cgcgcgggtg aagcatcagg gcaaactgac cggcgtatac
                                                                      480
 gacattgaaa ttcagaacca acaacagaaa accgtcgctc tttttcgcgg gaaatcgcac
 cgcaccggcg gcagtatgac aggagaagcc tga
 <210> 4558
 <211> 978
```

<sup>&</sup>lt;211> 978 <212> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 4558
 gaaaaatgcc ataatgcagg aaacacctgt gcaggaaatg cattaatgat agatgccgga
                                                                      60
 catatoagoa ttogogogot gotgatotto atogatgttt atgaaacgoa gaatttotoo
                                                                      120
 gtggtggcga ggcgggaagg gatttctgcg tcgcaggtct cacgcqtqat ccaccagctt
                                                                      180
 gaggacgccc tcgggcaaca gcttttctac cgcaacacgc gggcgattat gcccacagag
                                                                      240
 agegggeate tttttgtgeg etatgecegg gegatggeeg ggaatatgga ggaegegega
                                                                      300
 cgcgagctgg atgaacgcgc ccgcgagccg tcgggcacgc tgcgtatcaa tggcccggtc
                                                                      360
 tttttcggac agaggcacat cgcgccgggc ctgccggggc ttctggcgcg ttacccgcgc
                                                                      420
 ctctccattg aactgaccct caccgacgat tttatcgatc cgcaccgtga cgccgcggac
                                                                      480
 gttatettee geateggege getgaeggae teetegttte aegeeegggt gttegggeag
                                                                      540
 cagttotacc atotggogge ctcgccggac tatotgcaaa aacatggoge accegagggg
                                                                      600
 coggacgate teageogtea ceaetgtotg gtttacegeg getegteegg gectaacege
                                                                      660
 tggctgatcc gacagccggg cgaggcgtgg gttcactatc ccatcgtacc gctgatqact
 tocaataacg oggaaacgot octgattgog gogotgggog gtatgggogt tgtgctttto
                                                                      780
 ceggactgga tggtgagcga acgactcaaa ageggtgage tggtggcaet getgeeggaa
                                                                      840
 atggagtgtt caattaatac ggagccattg acgattgcgg cgatttaccc gaacgcgcgt
                                                                      900
 cateegeeee tgaaegteag ggeggtgatt gattactata ttgagegatt eggtaegeeg
                                                                      960
 ctgtactggc aaacctga
                                                                      978
 <210> 4559
 <211> 483
 <212> DNA
<213> Enterobacter cloacae
<400> 4559
ttacaggagc aggttatgac agtacccgta caacatccta tgtatattga tggacagttt
gttgcctggc agggtgatgc atggattgac gtgatcaatc cggccacgga agaggtcatt
tecegtatte eegaeggeae egeeggaggae geeegeaaag ceattgaege ggeagagege
                                                                      180
gcgcaggetg gctgggaggc gctgccagcc attgaacgcg ccagctggct acgcaaaatt
                                                                      240
teegeeggga teegegageg egteagtgaa ateagegegt tgattgtgge egaaggegge
                                                                      300
aagatocago agotggogga agtggaagtg aactttacog otgactatat ogactatatg
                                                                      360
geogagtggg egegeeggta tgaaggggae teatteagag egacagtega catgecaggg
                                                                      420
gcgaaggtag tgcgtactat tcagagegac agtcgacatg ccaggggega aggtagtgcg
                                                                      480
tac
                                                                      483
<210> 4560
<211> 1668
<212> DNA
<213> Enterobacter cloacae
<400> 4560
aaggtaaacc acgttatgcg cctgccccaa cgcgaccctt atgctcctcg cgagtggcag
                                                                      60
ccacacgaga aacccgccct gctgggttcc ccttccaccc cggaacatcc aaccccaaaa
eggategeet atggegtggt eggeetgetg gtatgtetga eeggggeget gggtaaegeg
                                                                      180
gtcgtcaccg ctaatctgca aaatctgcaa ggcacttttg gcgcctggtc gactgaaatc
                                                                      240
gcctggttgc ctgccgtcta tgtcatgacc aacgtttcca tcaacctgct gctggtaaag
                                                                      300
tttegecage agtacggttt gegegeettt aeggaagget teetggtget gtatgtgetg
                                                                      360
gtoacctttt tocacctgtt tgtgaacgat cttagctcgg cgctgatggt aagggcggca
                                                                      420
cacgggatgg tegeogoogo geteageteg eteggeattt attaccagat ccaggeetgg
                                                                      480
cccgcgaage atcgactgaa ggcgctgace attggcatta ccgggtcgtc gctggcgatc
                                                                      540
cogotggogo ggotgttctc cacogagota ttacagottg atgagtggog ogggotgtac
                                                                      600
ttottogago tgggtotggo cotgatotoc otggcotgog tgatggtgot aaagotgoog
cogggcgate ggcgcaaagt cttcgagaag aaagatttca ttaccttttt tttgcttgcg
                                                                      720
cocggoatgg cgctgctgtg cgcggttctg tcgttagggc gtctggactg gtggtttgaa
                                                                      780
gcgccgtgga tcggctgggc gctggccctc tcgctggtgc tgattgtctc tgcgatcgtg
                                                                      840
tttgaacata accgcagcaa cccgctgctt aatacccgtt ggctgtccag cggcagcatc
                                                                      900
gtacgcctgg ggctgattat gctgctgatc cgcatcgtac tggcggagca gaacacgggc
                                                                      960
gtcatcggct ggctgcaata tgtgggccta cagaatgaac agatgaccca tctggcgtgg
                                                                      1020
gctattiteg cogggatogt etgoggtate gtcaccaget gtctgacgat taageceact
                                                                      1080
```

aaactggcct ggccgataat cacctegetg gtgctgatga tegtegecte getgetggac

```
agocagteca acaacetgae ceggeeggat cagettattt teagecagtt cetgetggge
                                                                      1200
 tteggeageg etttetteet egegeetgeg atgetggeag ceattggegg ggtgategee
                                                                      1260
 gacccgcgca acctggtcag cttttccgtg atgtttggca tgagtcagaa ccttgggggc
                                                                      1320
 etgetgggtt cegegateet eggeacette cagacetgge gegagaagta ceattecage
                                                                      1380
 ctgctggctg accageteae caccettaac cegetggtga acgaacgtat teagetttae
                                                                      1440
 acceagatgt acaaaageet gattggegae agtteeetge tgggaaceea ggeeattace
                                                                      1500
 cagetecaga eggtgaegge gettgaggea aacattetgg ettacaaega taettatete
                                                                      1560
 ctgacggcga gcattgccac tgccacgctg gtctggattt tatggcgctt gctgcgcctg
                                                                      1620
 cgcatcaccg cccgtatggc ccttaagaac gccactggca acaagtaa
                                                                      1668
 <210> 4561
 <211> 1452
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4561
 gccggaggcg taccggctgc tgcgccctgg catgtcggtg caggtgacca tcgacacgcg
                                                                      60
 ggaggegaaa caatgaeget tegeeegata geeggeetge tgatgatgge tateetggeg
 ggatgccagt cggttgacgt tgagcccgcc aaatcgtccc tgcacatacc ggcccagtgg
                                                                      180
 egegegaegt eggggeeage eagecegaea gageagetet ggtggegaaa tttteaegae
                                                                      240
 agcaatctga accgctatgt ggatcaggcg ctgaagaaca acagcgacgt gctgattgca
 cgcgagcgga ttaacgagta ccaggcccgg gtgttcgccg ccgacggcag tctgttcccq
                                                                      360
 tegettgaeg egggegtgae egggaegege geaegetege agteegeege eaeggggett
                                                                      420
 coggtatacg gtacgttgta caaaggcage ctgaccgcga gctacgacgt ggatatctgg
                                                                      480
 ggcgtaaacc gtagcacctc cogtgeoget gaagcategc tggaggcaca aaaggeggeg
 gcagoggogg otgatettac ogtogcatca toggtggcot cogggtatgt caccotgetg
                                                                      600
togotggatg aacagettog ogttacccaa tocacgetga agtogogtga agaggegtto
                                                                      660
 aatotogoca aacgacaatt tgagacggga tacagototo goottgagot gatgcaatog
                                                                      720
 gattetgage tgegegeeae eegegeeeag gtteeaetge tteageaeca gattgeaeag
                                                                      780
caggaaaatg cgcttagcct gctgctgggc agcaaccegg gtgacgttgc gcgcggtgaa
                                                                      840
agetttgatg coetgacgee getgaaactg coeteccage tgeegtegae actactcaac
                                                                      900
 eggegeeegg atategtica ggeggaaegt cagetgattg eggeagaege gaegetggeg
                                                                      960
 gcatcgcgcg ccagcctgct gccgtcaatc aacctcacgg ccacgggatc ggtgcaggat
 cgcacgetgt cgggattgct ggataacccc ctacagetet ggagcgtggg cggcagtatt
                                                                      1080
cttgegeege tgetgaaceg teaggegetg aatgegeagg tggatatete ccagteceag
                                                                      1140
cggaatcagg ctctgtatag ctacgaaaaa accgtgcgta acgcgtttgc tgaggtgaat
gacageettg atgecateae eegetateag gaacagetta eegagetget ggeacageag
                                                                      1260
geggtegege aggagaeget geggattgeg caaaaceget accgcaacgg gtactettet
                                                                      1320
 tatetggatg tgetegatge geagegeaeg etgttetegg tgeagaceag egtggtaeag
                                                                      1380
gtgaaaaaca acctgttgct ggcgcaaatt gatttgtata aagcgctggg cggcggttgg
                                                                      1440
agcagtgcgt ga
                                                                      1452
<210> 4562
<211> 696
 <212> DNA
<213> Enterobacter cloacae
<400> 4562
tteggggget attgetgeta taetegetae caeggeaaae gttgegggga gaggettage
                                                                      60
gtgaattttc aggatatcca tacctattat cagcaactca atattgggca attttttccg
                                                                      120
cacatgettt gtaaaggega ggeettaace gttgeegeaa ataaaaaact cacegtegag
                                                                     180
cctggctata tctatttttg cactgaaggg tcgctgacga tattaatgcc tgatgatggc
                                                                     240
cttaatattg gcaatactat cgagtatatg ccgatagggt taatggaaag gtattgtcca
                                                                     300
ctggcgaagt atgaatatcg cagcagtgcg aaggtgaagc tggtgagaat atcctgggtc
                                                                     360
gacttcgacc agatatttt ccagggcggg cctgagcgca tgcaggcgct ggccaccata
                                                                     420
ctgacctaca tgtccatatt taccategac ctgcacaatg aacgcaggca ggtcaccagc
                                                                     480
taccagacca tcaaaccaat gctgtaccgc tatctctatc ggcaggagac ccacaeggga
                                                                     540
gagaatgagg gcctggcgct gttratcatc aagegeacta acctgtcacg aacgcatgte
                                                                     600
tttegegtge tggeagatet aaaageeggg ggetatatea ceatgaageg eggaaagetg
                                                                     660
gtgtcgattg accggcccct gccggatgcg tattga
                                                                     696
```

```
<210> 4563
 <211> 2091
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4563
 ttcgagatca aactatttat agtgaaatca cgaaacatct ggagagaaga aatgcagcag
 ttagecaget tettgteegg catetggeaa teaggeeggg geegegageg caccateace
                                                                      120
 cacgocatca goggggaaac gotatatcaa gtoaccagog aagggotgga tatggoggoo
                                                                      180
 gegegeegtt aegecattga acaeggegga gaagtgetee gegeaatgag etttategag
                                                                      240
cgcgccgcca tgctgaaggc ggtggccaaa catetgctga gccagaagga tcggtttat
                                                                      300
 gecetyteag eccagacegg egegacgaag getgacaget gggtggatat tgaaggeggt
                                                                      360
ateggeacee tettcaccta egeaageete ggeageegtg agetgeegga egataceetg
                                                                      420
tggccggagg atgagctgat cccactgtcg aaggaaggcg gctttgcggc acgtcacgtg
                                                                      480
ttaacgtega aatceggegt ggeggtgeat atcaacgegt tcaacttece gtgetggggg
                                                                      540
atgetggaaa agetegegee caectggett geegggatge eegecateat caagecegee
                                                                      600
accgccaccg cgcaggtgac tcaggcgatg gtgaaagcga tcgtggagag cggactggtg
                                                                      660
coggacggcg ccatcagect gatetgcggt ggcgcgggcg atetgctgaa ccacetcgae
                                                                      720
agccaggacg tggtgacgtt taccgggtcg gccagcaccg ggcagagcct gcgcgtccac
                                                                      780
cogaatatog togcacatto cattoogttt accatggaag cagattotot taactgotgo
                                                                      840
gtgctgggtg aggacgtgac gccggaacag ccggagttta cgctgtttat ccgcgaagtg
                                                                      900
gtgcgcgaga tgaccgccaa agccgggcaa aaatgtaccg ccatccgccg catcatcgtg
                                                                      960
ceggaagege aggttgaage egteageeag gegetgattg egeggetgga gaacgtggte
gtcggcgatc cggcccagga aggggtgaag atgggggctc tcgtcaacag tgagcaacgt
                                                                      1080
gctgacgtgc aggaaaaagt cgatcatctg ctggcctcgg gctgccagat ccgtctgggt
ggtaaagetg atttgcagge geetggegea ttetteceae ecaceetget gttetgeeeg
                                                                      1200
cagooggacg aaaccooggo ogttcacgoo accgaagcot ttggccccgt ogcaaccotg
                                                                      1260
atgccetgce gtaacaccga gcacgccatg cagetggegc gggcgggegg cggcagectg
gegggaacge tggttaegge agataceege gtggegegge agtttattge tggtgeegeg
                                                                      1380
egegeecaeg gaegeattea gateeteaae caggaateet egaaagaate taceggeeae
                                                                      1440
ggttcaccgt tgccgcaget ggtgcacggt ggtccgggac gtgcgggggg cggcgaagag
                                                                     1500
ctgqgcggcc tgcgcgctgt gaagcactat cttcagcgca cagccattca gggcagcccg
                                                                      1560
tecatgeteg cegegategg taaacagtgg gteegtggeg eggaggtgea ggaagatege
                                                                      1620
qttcatccgt tccgtaaata cttcgaggag ttacagccgg gcgacagcct gctgaccccg
                                                                      1680
egtegtacce tgacggaage ggatategtg aattttgeet geetgagegg ggateattte
                                                                      1740
tacgcccata tggacaaaat tggcgcggcg gagtcgattt ttggtgagcg cgtggtacac
                                                                     1800
ggttatttcc tgatttccgc cgcggcgggg ctgtttgtcg atgccggggt tgggccggtt
                                                                      1860
attgccaact atggcatgga aaacetgege ttrategage eggtcaagee gggtgatace
                                                                      1920
atteaggtge geetgaeetg taaaegtaaa aegetgaaga aacagegeae tgeegaggaa
                                                                     1980
aaacccaccg gcgtggtgga atgggctgtg gagatettca accagcacca gcaggccgtg
                                                                     2040
gegetetaet ceateetgae getggtggeg egeeageagg gtgaettetg a
                                                                     2091
<210> 4564
<211> 231
<212> DNA
<213> Enterobacter cloacae
<400> 4564
cggataagta cgagaggaga aaataccatg atgacatacg accgtaaccg aaatgcaatc
accactggca geogegtcat gattagegge acaggtcagt teggegtgat taaagegate
                                                                     120
cacagegaeg geettaatge egageaggtg egtegtggta aaaeggttga agtggaagga
                                                                     180
tgcgaaggta agttcgaacc gattgagctg attcgcctgg ggatgcacta a
<210> 4565
<211> 939
<212> DNA
<213> Enterobacter cloacae
<400> 4565
cgagacctgc caaagtggct actttgggcg cggaatattc cacactatta taaaattaga
                                                                     60
ttottaaatt ttogggttaa catcatgatt tatgactgtt ttttatacta tgacgaagat
```

```
atgttgeteg acateagatt acatactete getgatgttg ttgacegttt tgteattgta
                                                                      180
 gaagcaacac actottttac gggcataccg cgagaattgc atttcgatat tacgaagttt
                                                                      240
 gccaaattca aagacaaaat catttacgtg ccttttgacg cgcagcctat tttaaaccgg
                                                                      300
geggataata accaggttga tgeatgggea aatgaageag egettegeaa etecattatg
                                                                      360
aacgggttaa aagacgcggc agacgacgat ctgattetgg tgtcagacgt tgacgaaatc
                                                                      420
 tteteteeeg acaeggteag ggeeattaat eegegegege tetgeacgae tatteateaa
                                                                      480
 aacgtattca actatcagtt taatctccag gttcacaaca cggatggtac gccgagaaaa
                                                                      540
 tgtacettge egegegegae gteetattae aaeettaage atttetteea eggtgageet
gaatetttee gaaaetggaa gegtgegege aaagataaaa actggteatg gttaaatgg
                                                                      660
 aactggctaa aaatcaataa taagattgtg aaagatggcg gctggcattt ctcctgggta
atgaccccag aaagaattto ogaaaaaatg totaccattt otcataccga atacgatotg
                                                                      780
coggaattoa ataaccogga acatattatg aaggttatca ccaacgcoga agatatctgg
                                                                      840
ggacgagacc gaaaactggt caggcaagag gtatcaaaac gcaccetgee ttettatetg
                                                                      900
gtagacaatc agcaccatta ttcgcaattt attttatga
                                                                      939
<210> 4566
<211> 348
<212> DNA
<213> Enterobacter cloacae
<400> 4566
ccctgctatg cttacagtct acacagtgaa aaggagctac agatgaaacg gttaccctgg
                                                                      60
attacegece tgetgttaat gagtgettea eeegetette ttgeggeece ggatteetge
                                                                      120
gagegegtga aaagegacat teageagaag attateaaca aeggegtace ggagtetgge
                                                                      180
tttaccetga acategtece gaacgateag geegateage eggatgegea ggtegttggg
                                                                      240
cattgtgcca acgatacttt caaaattttg tacacccgca ccagtagcgg caactacccg
                                                                      300
gtgagcggcg caggtacgca ggagaatgcg cccgctgagc cgcaatga
                                                                      348
<210> 4567
<211> 270
<212> DNA
<213> Enterobacter cloacae
<400> 4567
ccctgtggat gcagagcaac gaggtatcaa aaatggggat atggtgcgcg tcttcaacga
                                                                     60
ccgcggcgaa gtgcgcattg ctgcgaaagt caccccgcgc atcatgcccg gcgtaagegc
                                                                     120
gatgggccag ggcgctggca tgacgccaac atgaacggcg atcgtgtcga tcacggctcc
                                                                     180
tgcatcaata ccctgaccac gcaccgcccg tcaccgctgg cgaaaggcaa cccgcagcac
                                                                     240
acgaacctgg tgcaqatcga gaaggcataa
<210> 4568
<211> 783
<212> DNA
<213> Enterobacter cloacae
<400> 4568
gcgttcaggc aaagctcaaa ccggaggtat totttgctga ttaaattaaa gaaagaacga
acgcatcagg aggatcgtcg tettgecete tggetggega cetcegeggg actgetgaat
                                                                     120
gccattgege tgggegegtt eggetttttt ecetegeata tgaegggeaa tacetegeag
                                                                     180
ctatccagcg aagtttcctc caccgatete agegatatte tittettegg egecattatt
                                                                     240
ctttcgtttg tctcaggtgc catcgctgcg cggattattg ttatctgggg gattatccat
                                                                     300
aacatcaggc tggtattcag ccaggttctg tttgttgaag ggctattact ggcaggggta
                                                                     360
tecetgtacg aaatgtattt teacteettt gecacgaate aggagattat tatttteetg
                                                                     420
tgcgggttga tgggaattca taattccacc tccactcagc tatccggtgg acgggtaaga
                                                                     480
tecacacaca teaceggeac getgacegat gegggeattt egetggeete egttatggte
                                                                     540
gccatgctgc gccgggatta ttccaaagat acggccgcgc aaaagagtca gctcaaaacc
                                                                     600
catttaacta coettttete etttateage ggaggtateg eggggetgat cetgtteaga
                                                                     660
gagtttggat tocacgogat getggegetg ggcetgatge tggtagtegt egeegeette
                                                                     720
totatogtoc gcatctcgtg gcgggtacga aaagtgcgcg ccgcgcttag tcgacaggtt
                                                                     780
                                                                     783
```

```
<210> 4569
 <211> 672
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4569
 caaacagttg ctgtaggagg cgctatggag acgattcact atattctcga caactgggac
 tatetettaa eeetgaeget geaacaeetg tggetggtgg eaetegeegt eggeetggeg
 attattattg gogtgoogot gggoatttta attgtoogoo ataaatggot ggoaacgoog
                                                                      180
 gtgctgggga ttgccaccat tgtgctcacc atcccgtcaa ttgcgctttt cggcctgatg
                                                                      240
 atcoccetct tttcgctgat cggtcagggc attggtgccc tgcccgcgat tacggcggtg
                                                                      300
 tteetetatt egetgetgee gattgtgegt aacacccata eggegetega eageetgeee
                                                                      360
 cocggectge gtgaageggg acgeggeate ggeatgaeet tetggeageg tetgegetgg
                                                                      420
 gtggagatcc cgatggcgct gccggtgatt tttggcggta tccgcaccgc cgtggtgatg
                                                                      480
 aacattggcg tcatggcgat tgccgccgtg attggcgcgg gcggtctggg cctgctgctg
                                                                      540
 cttaacggta ttggcgggag tgatattcgt atgttgattg cgggcgcgct gatgatttgt
                                                                      600
cttttagcga ttgtgctcga ctggttgctg caccgtttgc aggtggtact gactccgaag
                                                                      660
gggattcgat aa
                                                                      672
<210> 4570
<211> 1503
<212> DNA
<213> Enterobacter cloacae
<400> 4570
ttcagacacg aggacttcat gaaaaacaat aactatcaac aactcacccg cacettccag
egectetece gettetetea ecteteetee ategecaget gggacatgtt caccatgatg
cogccaggeg geagegeege gegeggtgaa gegetggegg agatgagegt cetgcaacat
                                                                      180
cagatoctga ocgataaaaa agtgggtgaa tggotggogg oggoggcaga ogaagatotg
                                                                      240
aacgacgttg agctggccaa cctgcgtgaa atgacgcgct actaccagca ggcaacttta
ctgccggaat cgctggtgga ggccaaatcg ctggcgggca gcaggtgtga acacgcgtgg
                                                                      360
egeactcage gteeggeeaa egactggeag ggetttteag ceaacetgaa agaggtggtg
                                                                      420
aaactcagtc gtgaagaagc cogoctgogc gctgaggcta aaggctgcac gccttacgac
                                                                      480
gegetgetgg atatetttga accegacatg accagegete geetggatgt getgttegge
                                                                      540
gatetgaagt cetggetace ggagttgetg geaaaggttg tggaaaaaca ggeteaacga
                                                                      600
tegttegtte egecacaggg teeetteeeg acegecaege agegegaget gggeetggaa
                                                                      660
gcgatgaaaa tgcttggctt cgattttaac ggcggtcgtc tggacgttag cgcccacccg
ttotgoggog gogtgoogga agatgtgogt atcaccacgo gttacgatga agatgaactg
                                                                      780
ctcagcgcgc ttttcggcgt gatccacgaa accggacatg cccgctacga gcaaaacctt
                                                                      840
cogegageat gggccggtca geccgttgeg etggcgcgct etacggcgat ccatgaatee
                                                                      900
cagagettgt tetttgaaat geagetagge egeagegaeg ettteetgaa geatetgett
                                                                      960
coggoggttc atgcccgttt cggcagccag gcggcattca gcgaagagaa tttcattgcc
                                                                      1020
tggaaccage gegtgaagee gggetacate egegttgatg eggatgaagt gagetateeg
                                                                      1080
gegeatgtgg tgetgegeta tgagategag egegegetaa teaatggega aattgaagte
                                                                      1140
gatgatattc ccgcgttatg ggatgagaaa atgcaggcct ggcttgggtt atccaccaaa
                                                                      1200
gataactate gcaacggetg tatgeaggat atecaetgga eegaeggegg ttttggetae
                                                                     1260
ttcccgtctt acacgctggg ggcaatgtat gcggcacage tgttccatgc cgccaaaact
                                                                     1320
gcgctgcccg ggttgcagat atccattgcc gggggcgatt tctcagcact gtttgactgg
                                                                      1380
ctgcgtcaga atatctggca gcacggcagc cgtttcagca catcgcagct catcacccag
                                                                      1440
gecaegggeg aagacetgaa tateegetae tteegegaae acetgaegte eegetatetg
                                                                     1500
taa
                                                                      1503
<210> 4571
<211> 1461
<212> DNA
<213> Enterobacter cloacae
<400> 4571
ataccettte egecagattt geetegeege cattetgaat ataaccetet teeteetgea
                                                                     60
occeptaceac gtcactcctc gttccccctt gatctttgct atcaatatac aatactgtat
ataaatacag tatttattaa cggtgatcat aatgcagttt ttcaccccac ctggcgatac
                                                                     180
```

```
cagagogago tgaccatgtt tgcactgtgt gatgtgaacg ctttctatgc ttcctgtgaa
                                                                       240
 acggtttttc gcccggacct gaagggacga ccggtggtcg tgttgtccaa taacgatggg
                                                                       300
 tgcgtcatct ctcgctccgc tgaagccaaa ccctttgtga aaatgggtga accgtacttc
                                                                       360
 aaacagaaag atcgcttcag gcatcatggc gtggtttgtt tcagcagtaa ttatgaactt
                                                                       420
 tacgcggata tgtccaaccg ggtaatgaac acgcttgaag agatgtcgcc tcgtagcgaa
                                                                       480
 atatactcca ttgatgagat cttttgcgat cttaccgggg tacgtaattg tcgcgatctt
                                                                       540
 teegattttg ggeatgaaat gagagegaee gtactgeaae geaeceatet gaeegteggg
                                                                       600
 gtgggcateg cacecacaaa gacgetggeg aaactggcaa atcacgeggc aaaacgetgg
                                                                       660
 cagetecaga egggaggegt tgttgattta tecaatgtgg ategteagag aaagetgatg
                                                                      720
 geggegetae eegtegaaga egtttggggt gtaggaegte geatagegaa gaagettgag
                                                                      780
 atgatgggga ttaagaccgt cetgcaactg gcagacaccg atatccggtt cataagaaaa
                                                                      840
 catttcaatg tcgtgctgga gagaacggtg cgtgaattac ggggcgaacc gtgtcttgaa
                                                                       900
 ctggaagagt ttgccccggt aaagcaagaa atcgtctgtt cgcgctcgtt tggcgaacgc
                                                                      960
 atcaccgaat atgacgatgt acgccaggcc atctgtagtt atgccgcccg ggcagcagaa
 aaacttogoa atgagoatoa goattgoogo tttatotoog tatttgttaa aacotogooo
                                                                      1080
 ttegegetta aegagecata ttatggeaat agegegtegg taaaaetget caceccaaec
                                                                      1140
caggatagec gggatattat eggegeatea gttegttgte tggatgeggt etggaagaac
                                                                      1200
 ggccateggt accagaaagc cggtgtgatg ctgggagatt tttatagcca gggcgtegeg
                                                                      1260
caacttaatc tgtttgacga caacgcaccc aggaaaaacg gccaaaagtt aatggatgta
                                                                      1320
 ttagaccatc tgaatgctga aaatggccgt ggcacgcttt acttcgcggg acagggtatt
                                                                      1380
cagcagcegt ggcagatgaa acgggaaatg ctttcacccc gctacacaac ccgctttgcg
                                                                      1440
gateteetea etgttaagtg a
                                                                      1461
<210> 4572
<211> 996
<212> DNA
<213> Enterobacter cloacae
<400> 4572
ccetgtacat ttccaaccgc taatcgctct gcccgccatc cgtgcgggca tttttgtttg
actacctggc ccatcttcat gtttattaaa gtcctcggtt ccgccgctgg cggtggtttc
ccccagtgga actgtaactg cgccaactgt cagggtttgc gcgacggtac ccttcaggcg
                                                                      180
acccctegea cccagtegte gateategte agtgataagg geaaagagtg ggtgetgtgt
aacqcctccc ccgatatcag ccagcagatt gcccatacgc cagaactgaa taagaaagag
gttetgegeg geaegeatat tggeggeatt atteteaceg atagecagat tgaccacace
                                                                      360
accgggctgc tcagcctgcg cgaagggtgt ccacatcagg tatggtgtac gccggaggtg
                                                                      420
catgaagate tttecagegg attecegatt tttaccatge teeggeactg gaaeggegge
                                                                      480
ctgattcatc accognitize geogeteacc geotttageg tggangectg cectgatttg
                                                                      540
cagtttaccg etgtccccat cgccagtaac gcaccgccct attcgccgtg gcgcgaccac
                                                                      600
cogotgoogg ggcataacgt ggcgctgttt atcgaaaacc gccgcaacgg tcagacgctq
                                                                      660
ttctacgcac cgggtctcgg tgaacccgat gacgctatcc tgccgtggct caaaaaggcg
                                                                      720
gactgtctgc tgattgacgg caccgtctgg caggacgatg aactccaggc caccggcgtc
                                                                      780
gggegcaata ceggeegega catgggecat etggegeteg gegatgaaca eggeatgatg
                                                                      840
gegetgetgg cetegetgee ggcaaagege aagattetga tecacattaa taacaccaae
                                                                      900
cogatectta acgagoagto googoagogt cacgooottg ogcagoaggg aatagaagtg
                                                                      960
agetgggaeg ggatgaacat caegetteag gaetaa
                                                                      996
<210> 4573
<211> 1209
<212> DNA
<213> Enterobacter cloacae
<400> 4573
eggegageat tgccaetgce aegetggtet ggattttatg gegettgetg egeetgegea
tcaccgcccg tatggccctt aagaacgcca ctggcaacaa gtaatgacta tttttcagga
                                                                      120
gaggttatga gtcagcagga tgccgccaaa gagcaggcca acacccgtaa aaacgtgcgc
                                                                      180
gtegtgteca ttttcacege egeggetate ggeattgteg gggtaetggt gateetttat
                                                                      240
gcctggeage tgcccccgtt cacgcgtcat gcccagttta ccgataacgc ctacgtgcgc
                                                                      300
ggccagacta cgttcatcag tcctcaggta aacggctaca ttaccgaggt ccatgttcag
                                                                      360
gatttegege aggttaaaaa aggegagetg etgttgeaga tagatgaeeg tatetatege
                                                                     420
```

cagegegtee ateaggeega ggegeagetg geaatgaaaa ttgeagetet taataacaac

```
ctgcaacagc gcagaagtgc ggaagcggtg attgccaaaa acgaggcggc gctgaaaaac
                                                                      540
 gcccgtgccc aaagtctgaa aacccaggcg gatttgaaac gcgtgaaaga gctgaccgcg
 gacggetece tttecatteg egagegegat teggeactgg ecagtgeege ccaggggage
                                                                      660
 gccgatatcg accaggcgaa agcaacgctt gagatgtcgc gtcaggattt acaaacggtt
                                                                      720
 atogtcaatc goggotogot ggaggoogac gttgagaatg caaaagcogc gotggagotg
                                                                      780
 gegeagateg atetgeaaaa caeceggatt gtegegeege gtgatggtea getegggeag
                                                                      840
 attgcagtgc gtctgggggc ttacgtcgcc gccgggacgc accttaccac gctggtcccq
                                                                      900
 cogcagoact gggtgatogo caatatoaaa gagacgoago tggcgaattt acgogtogga
                                                                      960
 cagccggtga aattcaccgt cgatgcctta aacgataaag cctatcaggg ccgcgtggag
                                                                      1020
 agcatatoco oggocacagg ogtogagtto agogotatoa occoggataa ogcoacgggo
                                                                      1080
 aactttgtta aaatcgccca gcgcatcccg gtacgcattg aagtactcgg tgagccggag
                                                                      1140
gegtacegge tgctgegeee tggeatgteg gtgeaggtga ccategacae gegggaggeg
aaacaatga
                                                                      1209
<210> 4574
<211> 858
<212> DNA
<213> Enterobacter cloacae
<400> 4574
aggtateget taeggeeegg aagtggetae caaagegeag teegaegega aageegetat
                                                                      60
egacageetg gtegetgeet aagateteee ceteteaceg eeeggtggga gggtttttet
                                                                      120
tttcctgcat atttcgtatc atccgcaccc actctccagc ccggcggcct gatgtctgtc
                                                                      180
attategata egittatige accaecetgi caegacgaca tigagateet eiggeaggae
                                                                      240
gagcatetge tgetgateaa caaacettee ggeetgetta geeteteggg aaaaaateeg
caaaaccgtg attocgttca ccatcgtctg gtgcaaacct ttoctggctg cacgctggtg
                                                                      360
categoettg attttggeac etegggeetg atggteattg egegtaacaa ggegattaac
                                                                      420
geogegettt gteaceagtt eagecagege geogtgagea aggtttaeac egecetgttg
                                                                      480
tgcggacatg tggaacagga cgaagggacc gtggatgccc cgattgccaa agatcaggca
                                                                      540
ctgtttccgc tgatgacgat ctgtgcccgc accggtaagc ccgctcgctc tcgctatcgg
gtgatggaac gtatttatca ggatacgaca atgccattga cgcgggtaga gcttaccecg
                                                                      660
gagaceggge geacecacea getgegeatt caetgeeage agttaggeea ecetattetg
                                                                      720
gggtgegate tgtatggtgg tetggaatgg eegggegegg aagaaaegee eeggetgatg
                                                                     780
ctgcatgcca gcgttctgaa ttttattcat ccgctgagcg gcgagacgat aaacgcctgt
                                                                     840
cacgccgcgc cattetga
                                                                     858
<210> 4575
<211> 1041
<212> DNA
<213> Enterobacter cloacae
<400> 4575
aaggttette teatgaaaac attgeteeeg acategaegg etggeageet geegaaacee
acctggcttg cgcagccgga aacgctctgg tegccgtgga aactccagga cgaggaatta
cttgcaggga aacaggatge gctacgtttg tetetggatg aacagatteg egeegggatt
gatatogtca gogaogggga acaaactogo cagcatttog toaccacett tattgaacat
                                                                     240
ctcageggeg tggattttga gaaccgtcag acggtacgca tccgtaaccg ttacgatgcg
                                                                     300
agcgtgccga ccgtggtaga cgcggtggcg cgtcagaaac cggtgtttgt tgacgacgcg
                                                                     360
aaatacctge gecagetgae ggacaageeg ateaagtggg egetgeeegg eeegatgaee
                                                                     420
atgategaca egetataega tgeteactat aaaageegtg aaaagetgge etgggagtte
                                                                     480
gcaaaaatcc ttaatcagga agcccgcgag ctggaggcgg ccggtgtcga cattattcag
                                                                     540
ttogatgaac otgootttaa ogtottttto gacgaggtga atgactgggg cattgoogog
                                                                     600
ctggagegeg ccattgaagg actgaaatge gaaaccgegg tacatatetg ttacgggtac
                                                                     660
ggcatcaaag ccaatacgga ctggaaaaag acgctcggct ccgagtggcg ccagtatgaa
                                                                     720
gaggcattte caaagttgca gacctcaaag ategatatta tetegetgga gtgecacaac
                                                                     780
togogogtgo ogatggatot gotggagott atcogtggta aaaaagtgat ggtoggggoa
                                                                     840
attgacgtcg ccacccagac catcgaaacg cctgaagagg tcgccgatac gctgcgcaag
                                                                     900
gcgttgcagt ttgttgatgc agataagctc tatccgtcca ccaactgcgg tatggctccc
                                                                     960
ctttcccgcc aggtcgccaa cggtaagetg aaggcgttaa gcgccgggge tgacattate
cgtcgcgagc ttgcccgcta a
```

```
<210> 4576
 <211> 2502
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4576
 cgctggtggc gcgccagcag ggtgacttct gacacacctc tttcttgccg ggtgtcgctc
 cgcttacccg gcttacaact acctgaccgg gggtgtgatg cacccccgct ctttttaac
 ctggcaagac tgacaaacaa cctggcagat gcaggcaaac gcttttcgtg cgcgcctgtc
                                                                      180
 aggataacgo tgacactaca caataaacac aacaagatga ggtctgcgat gggaagcaat
                                                                      240
 tettettttt etgecegtag aacggeactg gecatggeeg ttgegetetg ttgegeetgg
                                                                      300
 caatcocctg tttacgctca cggcagcgag gcgcatatgg tcccgatgga caaaacgctt
                                                                      360
 caggogtttg gcgcggacgt gcagtgggat gattacgccc agatgttcac catcgtcaaa
                                                                      420
 gacggtgcct ttgtgaaggt caaacccggc gcaaataccg ccatcgttaa cggcaaaccg
                                                                      480
 ctgacgetee aggtgcccgt ggtgatgaag aacaataagg cgtttatccc ggagacettt
                                                                      540
 atcaacgatg totttcagtc cggtcttgat cagacattcc aggttgaaaa aagcccccac
                                                                      600
 ccgttaaacg cgctgacggc tgatgaaatc aaccaggccg tagcaatcgt gaaagcctca
                                                                      660
geggatttta aacccaatac eegetttace eagattgege tggeggagee agaaaaggee
                                                                      720
 aaagtetggg actttgtget taacggcacg geggtggatg egeecegeca ggecaatate
                                                                      780
 atcatgcttg atggtaaaca catcatcgaa agccgggtgg atctgaagga gaaaaagatc
                                                                      840
ctccgctggg agccgatcaa agacgcgcac ggcatggtgc tgctggatga cttcaatacc
                                                                      900
gtgcagcaga tcatcaatga aagcccggag tttgccgccg tgctgaaaaa gcgcggcatt
                                                                      960
accgacccga agaaagtgat caccaccccg cttaccgtcg gcttttttga cggcaaggat
                                                                      1020
gggctgaaac aggaagaccg cctgctgaaa gtgatcagct atctcgacgt gggcgacggt
aactactggg cgcacccgat cgaaaacctg gttgcggtgg tggatctcga gcagaagaaa
                                                                      1140
atccagaaga ttgaggaagg cooggtogtg coggtgcogc tcacgcogcg cocttatgat
ggccgtgacc gcgttgaaac ggtgaaaaaa ccgctggaga ttatcgagcc ggaaggcaag
aactacacca tcaccgggga tagggtgcac tggcagaact gggattttca tctgagcctg
                                                                      1320
gactcacgcg teggecegat aatetecace gtgacetata acgacaacgg caaaaagega
                                                                      1380
caggtgatgt atcaggggte geteggegge atgattgtge egtaeggega eeeggatate
                                                                      1440
ggotggtact ttaaagcota cotggactoc ggogattacg gcatgggtac cotgacctoc
                                                                      1500
cogotggtgc gcggcaagga tgttccgtct aacgccgtga tgctcaacga aaccatcccg
                                                                      1560
gattacaccg gegegecaat ggagateece egggegateg ceattttega gegttacgee
                                                                      1620
gggccggaat ataagcatca ggaattagga aaacccaacg tcagcaccga acgccgcgag
                                                                      1680
ctggtggtgc gctgggtcag caccgtgggt aactatgatt acatcttcga ctgggtattc
                                                                      1740
cacgaaaacg gcactatcgg cattgatgca ggggccacgg gcattgaagc ggtgaaaggc
                                                                      1800
gtgcagacga aaaccatgca tgatgccacc gcgaaggatg acacccgata cggaacgctg
                                                                      1860
ategaccata atattgtegg taccacceae cageacatet acaaetteeg tetggatatg
                                                                      1920
gacgtggacg gcatcaacaa caagctggtg gccatggatc ccgacgtcaa accgaacacc
                                                                      1980
getggeggae egegeaceag caccatgeag gttaatcagt atgatattga taccgaacag
                                                                      2040
caggeggege agaagtttga eeegggeace ateegeetge tgageaatac cageaaagag
aaccgcatgg gcaacccggt ctcatatcag atcatccctt acgcgggcgg tacacacccg
                                                                      2160
gtagegteeg gegegaagtt tgeeeeggae gagtggattt atcacegeet gagetttatg
gataaacaac tgtgggtaac gcgttaccat cccgacgaga tgtacccgga gggaaaatac
                                                                      2280
cegaacegtt ceaegeaega taceggeete ggeeagtaca geaaagataa egagtegetg
                                                                      2340
aacgaccagg ataacgtcat ctggatgacc accggcacca cccatgtogc ccgtgccgag
                                                                      2400
gagtggccaa taatgccgac ggaatgggtg cacacgttgc tcaagccgtg gaatttcttt
                                                                      2460
gacgagacge caacgetegg caagaaaaaa gagcagaaat aa
                                                                      2502
<210> 4577
<211> 2037
<212> DNA
<213> Enterobacter cloacae
<400> 4577
cacactttca ccaggattcg aagtotocac aaacaacgto acagtttact gagaggtttt
                                                                     60
aggatgagaa tcaatgagat cgtcaggagt ctcgcgctgg cgggatgttt tatttctacc
agttccgcct gggccgcaga agcacctaag gatgccagcg cagcaacgca acaggccaac
                                                                     180
aacgcactot toaaccagot tootttotoo gataacacog attttaccaa ogoccacaaa
                                                                     240
gggtttattg cocceptgcc tcaggaaatt atcaaagggg agcaaggcaa cacceptctgg
                                                                     300
gateeteage agtaegettt tateaaagaa ggegataagg egeeegaete ggttaaceeg
                                                                     360
```

```
agottatggo gtcagtccca gotgatcaac atcagoggto tgtttgaagt gaccgaaggo
                                                                      420
 gtctaccaga tccgtaacct cgacctgtca aacatgacta ttattgaagg taaagaaggc
                                                                      480
 attaccgtgg tcgacccgct ggtgtcggca gaaacggcca aagtcgggat ggatctttac
                                                                      540
 tataaaaatc geggtaacaa geetgtggte geegttattt acaeecacag ceaegttgae
                                                                      600
 cactatggcg gcgtgcgcgg cgtggtggat gaagcagatg tgaagtccgg caaggtgaaa
                                                                      660
 gtotacgcgc ccgccggatt tatggaggcc gccgtcgcgg agaatatcat ggcgggtaac
                                                                      720
 gtcatgagcc gccgcgccag ctatatgtac ggcaacctgc tgaagccgga tgcgaagggc
                                                                      780
caggteggeg egggtttegg caccaccacc teegeeggga eggtgaccet gategeaeeg
                                                                      840
accaatatca togagaaaga tggtcagaaa gaggtgatog acggcctgac ctatgatttt
                                                                      900
 atgotogogo ogggatogga agegeettet gagatgetet ggtatatega agagagaaaag
                                                                      960
ctgatcgagt ctgcgggaaga tgtcacccat accettcaca acacctacte cctgcgcggt
gcgaaaattc gtgaaccgct gccatggtcg aaatacatca accaggcaat tgtacgctgg
                                                                      1080
ggtgataagg ccgaagttat catggcgcag caccactggc cgacctgggg caacgagaat
                                                                      1140
gtggttaacc tgctgaaaag ccagegegac ctgtatcgct acattaacga ccagaccctg
cgcatggcga atgaagggct gacgcgtgac gagatcgccg ccaacttcaa gctgccgaac
                                                                     1260
tocotggoca atacotgggo caacegaggo tattacggtt cagtcagcca tgacgtcaaa
                                                                     1320
gccacctacg tgctctattt aggctggttt gacggcaacc ccgcgaccct ggatgaactg
                                                                     1380
cogcotgaag aagcogogaa gaaatttgtg gagtatatgg gaggogogga tgccatcotg
                                                                     1440
agcaaagcga aaaccgactt tgaccagggg aactaccgct gggtggctca ggtggtcagc
                                                                     1500
aaagtggtct ttgccgatcc aaataatcag gccgcgcgaa acctggaagc ggatgcgctg
                                                                     1560
gagcagetgg gttatcagge tgaatcagge cegtggegta acttetacet gaccggegee
                                                                     1620
caggagetge gtaacggegt ggtgaaagga cegaceeega acacegeeag eeeggacace
                                                                     1680
gtgcgcgcga tgacgccaga aatgttettt gactatetgg cggtgcacat taacggtgaa
                                                                     1740
aaageggegg atgeaaaate ggtgtttaae ategaceteg geagegaegg eggtaaatae
                                                                     1800
aagetggaac tggaaaatgg cgtgetgaac cacacggega acgeegaage gaaagaeget
                                                                     1860
gacgegaccg tgaccctcaa cogcgatacg ctgaataaaa tcatcctgaa agaagtgacg
                                                                     1920
cttagacagg cgcaggataa tggcgatatc aaagtgaccg gcgatgccgc aaaactcgat
                                                                     1980
gccatgctcg gttacatgga taaatttgaa ttctggttta acattgtgac cccgtaa
                                                                     2037
<210> 4578
<211> 1158
<212> DNA
<213> Enterobacter cloacae
<400> 4578
aggeageact egegggegga ggtteegeec geteaaggaa aattetette aatggaaaaa
agacatccag ccacacccga acccgcgaca tggcctaccc gtaaatcaat ggttgttcac
                                                                     120
gggctggccg tgaacctgcc gtggctcgcc tttgtgaatg ccagctttgc ccttatggtc
                                                                     180
etgetgegea attegetgtt eggecatate gatgecetee tgeacateag ecegeetetg
                                                                     240
eggeagatga tagaegeete eatgetggge gtggtgatee ttteegtgge getggtgate
                                                                     300
atggcctggc gccacatccg cggcgtcagc gccgttttgt ttatgtgcag tctgctgtgg
                                                                     360
togataagtt gttactggtt tatcaacgtg ttacatette egeateeetg geetatatte
                                                                     420
gttaccetge tgatggeegg tatgacegeg etetatttte acceggtgge actgetetge
                                                                     480
ttcaccgttc cgctatggat aagcctgccc gttgccagca tgctgctgaa tcaggaaatt
                                                                     540
aattatogot togooggget gtgggtggtg tteacettca ttetegtgtg egggegetat
                                                                     600
atcctgttga gttggtttga agaggcgtgg cgtcgcaacc agcagaatca gcgtttaatt
                                                                     660
tegeggetgg atgegetgge ccatcaggat eegetgaega aaaeggeeaa eeggegggeg
                                                                     720
atggagetgg tgetggaaaa egeegtggag caaggeaaae gettegeggt getgatgetg
                                                                     780
gatgtcgact acttcaaact gtataacgac acctatggtc accaggcagg agacgcgtgt
                                                                     840
ctegegaggg tggcagaggt gctgaacacc teggtgegea egecagagga tgtggttteg
                                                                     900
cgctacggtg gtgaggagtt tgtggtgatc ctctttgact gtgaagaaag cgttgctgag
                                                                     960
aaagtogoog ogoggatooa ggotggootg ogoacogoag coattgogoa cagogogtog
                                                                     1020
aaggtgagtg aatgtgtgac ggtgagtatg ggcattgccg gctataccgc aggactggcc
                                                                     1080
ggcccggaaa tcatcgcccg cgccgatgcg gcgctgtaca gggcaaagga ggccgggcgg
gatcggtggt cgcgttaa
                                                                     1158
<210> 4579
```

<sup>&</sup>lt;210> 457 <211> 438 <212> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 4579
 ttcaggaagc tgccggtcat cagcccttca attacccacg ccggatcggc gtctttcagc
                                                                       60
 acgatggccg ggtttttgcc gcccagctcc agegtcacgc ccgttagcgt atccgcagcc
                                                                       120
 acgegggcaa tetgettgee egtegeegte gaaceggtaa agettaettt ggcaatgege
                                                                       180
 gggtgcgagg ttagcgccgc gccacagacg gcgccactac cggtcaccac gttgaacacg
                                                                       240
 ccatecggga teccegeete getegeeagt tecgeeacce gtaacagggt gageggegtg
                                                                      300
 gtttccgagg gtttgatcac gatggagcaa cctgccgcca gcgcgggcat tactttccac
                                                                      360
 atgccaatca tcagcgggaa gttccacggc acaatccccg ccacgactcc caccggetct
                                                                      420
 ttacgcgtcc acgcctga
                                                                      438
 <210> 4580
 <211> 951
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4580
 atgcaacaat gcgaaaacag tgacggtgca gcgagaacat caatggcgtg tgcaagcgaa
 caggacaatt ttcagcagtg gctggcgcaa attaaccagg tttgtgggcg ctttgcggca
 cgtccgttag agggggcgtt tctcggcgaa ctggaaacca gctataccca aagtctgaag
                                                                      180
ctgagcacgg tgaccgccgc aggcgttaac ctttttcgca cccgtcagga gatcaaaaac
                                                                      240
ggcaacgacg cotggttota caccgtgttt cagotggaag gcagogoogg aategaacag
                                                                      300
gacaaccage gegegatget gaaageeggg gatateaege tgattgaege eteeegeeeg
                                                                      360
tgctccattt actggcagga gcgttcccgc cagatttcgc tgctgctccc gcgacaaatc
                                                                      420
attgagcaac acgcgcgttt tcaggaagtg aggtgcgcgc tgcccctctc cagcagtctg
                                                                      480
cetacegtae agetgageta eegactgeta eaggagagea tgggcaatge egateteage
                                                                      540
gccagcgaaa gcgaagcggc gctggaggcg atggtgtgtc tgctgcgtcc ggccttccag
                                                                      600
cagcaacacg aggtgctgcc gcgcaaggag cgtcagttcc gccacgttct gtccctgatt
                                                                      660
gatgatcata ttcagtcaga ggcgttaaga ccggagtgga tagcttcaga gagcggcatg
                                                                      720
toogtgogga gottgtacog catgtttgoc gggaaagggo tggtggtggo goagtatatt
                                                                      780
aagaaccgtc gcctcgattt atgcgctcag gcgctgcgtt ccatcagcga tgacgaaaag
                                                                     840
ctggcgggca ttggctacag ctggggettt accgaccata gccatttttc caccgccttt
                                                                      900
aagcagegtt teggggttte geegggegaa taeegtaage gttaeegeta g
                                                                      951
<210> 4581
<211> 1020
<212> DNA
<213> Enterobacter cloacae
<400> 4581
cgtggttcca aaatcactgg agaaagtctt atgaaactcg cggtatatag cacaaagcag
                                                                      60
tacgacaaaa agtatctgca acatgttaac gagacgtacg gtttcgatct tgaatttttc
gactttctgc tgactgaaaa gacggctaaa accgctcacg gctgcgaagg cgtgtgtatc
                                                                      180
ttegttaacg acgacggtag cegaceggtg etggaagagt tgaaaaaaca gggegtgaaa
                                                                      240
tacattgece tgegetgege gggetttaac aacgtegate tegatgeege caaagagetg
                                                                      300
ggtctgaagg tcgttcgcgt cccagcctat tctccggaag ccgtggctga acatgccgtc
                                                                      360
gggatgatga tgtcgctcaa ccgtcgtatt caccgtgcct atcagcgcac ccgtgatgct
                                                                      420
aacttetete tggaagget gaceggettt accatgtacg gtaaaacege aggegtgate
                                                                      480
ggtaceggca aaattggtgt ggccgcccta cgcatcctga aaggatttgg catgcgcctg
                                                                      540
ctggcgtttg atccgtaccc aagcgccgct gcgctggagc tgggcgtgga gtatgtcgat
ctgaaaacgc tettetegea gtetgatgtt atetecetge aetgteegtt gaceeeggaa
                                                                      660
aactatcacc tgcttaacca gtcggcgttc gaccagatga aagacggcgt gatgatcatc
                                                                      720
aataccagcc gcggtggact gatcgactct caggccgcta tcgaagcgct gaaaacgcaa
                                                                      780
aaaattggcg cgttgggtat ggatgtgtat gagaacgaac gcgacctgtt ctttgaggat
                                                                      840
aaatctaacg acgtgattca ggatgacgtg ttccgtcgcc tgtcggcctg ccacaacgtg
                                                                      900
ttgttcaccg gccaccaggc gtttttgacc gccgaagcgc tgatcagtat atcggaaacc
                                                                      960
acgctgggga atttacagca gcttgataag ggcgaagegt gccctaacgc gatcgtttaa
                                                                     1020
<210> 4582
<211> 840
```

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 4582
 aatatggcat togtaacaac gaaagatggt gtcagtattt attacaaaga ctggggtcog
                                                                      60
 aaggatgege ageegategt tttecateae ggetggeege tgagegeega tgaetgggat
                                                                      120
aaccagatge tetttteet tgeagaagge tteegegtea tegeectega eegtegtggt
                                                                      180
catggtcgtt ccgatcaggt aagtgaaggt catgatatgg atcattatgc ctccgacgcc
                                                                      240
 toggcogtgg togaaagoot tgatttgogt aatgoagtgo acgtoggooa etecacoggo
                                                                      300
 ggaggccagg tegecagata egttgegaag taeggccage etcaggggeg ggtggccaaa
                                                                      360
geggtactgg teagegeegt teeteegetg atggtaaaat cagacacgaa eeceggegga
                                                                      420
acgcccattg aggtgtttga cggcttccgc caggcgctgg ccgctaaccg cgcccagttt
                                                                      480
tacetegacg tegecagegg teetttetat ggatttaace gagaeggage agaggttteg
                                                                      540
cagggeacaa tecagaactg gtggegteag ggaatgateg gtagegeeaa ageecactat
                                                                      600
gaaggcatta aggcgttttc agagaccgac cagacggacg atcttaaagc cattacggtt
                                                                      660
cocgtecttg tgttgcaggg tgatgacgat caggtcgtcc cctataaaaa tgccgccctt
ctacaggata agetgetege aaacagegaa eteaaaattt ateeaggett eeegcatggg
                                                                     780
atgcatacca egcatgcaga taccataaac geogatatac tgacatttat tegeteataa
                                                                      840
<210> 4583
<211> 696
<212> DNA
<213> Enterobacter cloacae
<400> 4583
ctggaggttt ctatgtgtgg acgttttgca caagcccaaa cccgtgaaga atatctggct
                                                                      60
tacctggccg acgaaggcga acgcgatatc gcatatgacc ctgaacccat tggccgctac
                                                                     120
aacgttgege ceggtaccaa agtgetgetg ttaagegaac gtgacaaaca actgcacete
                                                                     180
gatccggtat tctggggcta cgcgcctgga tggtgggaca aagcaccact gattaacgcg
                                                                     240
cgtgtagaaa ccgcagccac cagcagaatg tttaaacctc tttggcagca tggccgggcg
                                                                     300
atotgotttg cogatgggtg gttcgaatgg aaaaaggaag gcgacaagaa acagccgtat
                                                                     360
tttattcatc gggccgacgg gcagccgata ttcatggcgg cgateggcag tacgccgttt
                                                                     420
gagegeggeg atgaageega gggatttete atagtgacet etgetgegga taaaggeete
                                                                     480
attgatatac acgatcgacg gccgctggtt ctgtcgccag aagcagcaag agaatggatg
                                                                     540
cgacaggatg ttggcgggaa aaaagcggaa gagatcattg ccgacggtac agtacccgcc
                                                                     600
qacqagttta tttqqcatgc tgtaactcgc gccgtgggga acgtgaagaa tcaggggggg
                                                                     660
gagttaatcg aggtggctca taaaatggaa aaataa
                                                                     696
<210> 4584
<211> 852
<212> DNA
<213> Enterobacter cloacae
<400> 4584
tgggaagcag gacgctaccg gtataagctg cgaaatcatt ttcaggtcga gggtatgatt
                                                                     60
ttgaatgata togcaatoat tgogotggca ggotttacta coggtattac cacogtgott
                                                                     120
tttggetttg geggeggett tgtegtagtg ceattegttt ateaactaat getaeggeag
                                                                     180
accquactgg cactaaacgc catgcatatc gccgttgcta cctctacatc ggtgatgata
                                                                     240
tttaacgegg getgggtcae etategaaac tggegagett gegagettte ategeaaatg
                                                                     300
ttattcccqt tactatggtt tatagccatt ggggctatcg tgggttcctg tctggcagga
                                                                     360
atatttagtg agagtgttgt togogogotg ttoattttot acatgotgac aacaatcago
                                                                     420
gattgtttgt tgcgtaaggg ttttctcgga ggaagttctc tgcgtcgctt gtcatttcct
                                                                     480
gtagtaacgg gcggcggagt aaccattggt atgatagccg cattgcttgg cgtgggcgga
                                                                     540
agogtaatga oggtaccoot gttacggogo catggttatg ogatgcgtga atgcattagt
                                                                     600
gcttctaatc cgctttccct gcccgtcgcg ctatgtggtg ccgtgacgta tgcagttatt
                                                                     660
ggctggcaaa ctattcctgt gaaaggattt ctcggtttta tcaacctgaa aattttaggt
atgttggtac taacaggotg ggcaggaata gtttttagcc gtcgggttat acctgctgta
                                                                     780
cotgatattt ggcacgcacg aatotatgtc atgetgetgt teetggtgtt actggcgatg
                                                                     840
ctatttcagt aa
                                                                     852
<210> 4585
```

<211> 609 <212> DNA

## <213> Enterobacter cloacae

```
<400> 4585
 caccetgege tgtctcgatc gtcgcactgg ccgcacggta gcaccgtaat gtcgacgccg
                                                                      60
 tgtgacgtta agctccgtcc gctggagcgc gaagatttac gctttgttca ccaqctcgac
                                                                      120
 aacaatgcca gcgtgatgcg ctactggttt gaagagcctt atgaggcgtt tgtcgaqctq
                                                                      180
 tecgatetet acgataagea tateeaegat eagagtgaac geeggtttgt ggtggagtge
                                                                      240
 gaaggtgaaa aagccgggct ggttgaactg gttgagatca accacgttca ccgtcgggcg
                                                                      300
 gaatttcaga tcattatctc accggagcac caggggaaag gtcttgcgtc gcgagcggca
                                                                      360
 aagctggcga tggattacgg gtttaacgtc ctgaatctct acaagcttta ccttatcgtc
                                                                      420
 gacaaagaga acgaaaaagc gattcatatc taccgtaagc tgggctttat ggtggaaggt
                                                                      480
 gaactgatcc atgagttctt tattaacggc gaataccgta acaccatacg catgtgcatt
                                                                      540
 ttocagcate ageatotggo ogggoataag tootootoog ocagootgot taaacocaco
                                                                      600
gcgcagtaa
                                                                      609
 <210> 4586
<211> 2325
<212> DNA
<213> Enterobacter cloacae
<400> 4586
gtcatgtccg aagttgaaca tcacggcggg ataagccgtc gaactctggt taaatctact
                                                                     60
gccataggat etctggcgct tgccgccggt gggatcgcat taccttttgg tctgaaaagc
                                                                     120
geogeogoog etgtgoagte egetatteag eeegeagaag ataaagtegt etggggegee
                                                                     180
tgctcggtaa actgcggtag ccgctgcgcg ctgcgtctgc acgttcgcga tgacgaagtc
                                                                     240
tattgggttg aaacggataa taccggcgag gatgtttacg gcaaccatca ggttcgcgcc
                                                                     300
tgcctgcgag gccgttcaat tcgccgtcgc atcaatcacc cagaccgtct gaactatccg
                                                                     360
atgaaacgcg tgggcaaacg cggagaaggc aagtttgagc gtatcacctg ggaagaagcg
                                                                     420
ctggacacca tegeogegag tetgaaaage gtggtegaaa aataeggeaa egaageggte
                                                                     480
tacattaact actoctcogg aattgtaggo ggcaacatca coogttootc coottacgoo
                                                                     540
togotggtog ogogootgat gaaetgetae ggeggettee teagecacta eggeaectae
                                                                     600
agcaccgcgc agategeetg egeaatgeee tacacctaeg geageaaega eggeaaeage
                                                                     660
acateggata tegaaaacae caaactggtg gtgatgtteg gcaataatee ggeggaaacg
                                                                     720
egcatgageg gegggggat cacatactte ettgageagg egegegaaeg gteaaaegeg
                                                                     780
eggatgateg ttategatee gegttatace gacactgeeg cagggegtga agacgagtgg
                                                                     840
atcocgattc gtccgggcac cgatgccgcg ctggtggcag gtattgcgtg ggtgctgatt
                                                                     900
aatgaaaatc tggtcgatca acctttcctc gataaatact gcgtgggtta tgacgaaaaa
                                                                     960
accotgoogg aaggogcaco ggotaatggt cattacaaag cotatattot oggocagggt
gatgacaaaa cogogaaaac tooggattgg gogtotogca taacgggcat cootgoogaa
                                                                     1080
cgcatcatta agctggcccg tgaaateggt teggegaaac eggectacat ttgccaggge
                                                                     1140
tggggcccgc agcgtcaggc aaacggggag caaacgtccc gcgccatcgc catgetgccq
                                                                    1200
atcetgaceg geaacgtegg cattaacgge ggtaacageg gegeacgega atcgacetae
                                                                     1260
accateacca tegaacgcat geogetgeeg gaaaateegg tgaaaacgca aateteetge
                                                                     1320
ttcagctgga cggatgccat cgtgcgtgga ccggagatga ccgccctgcg cgacggcgta
                                                                     1380
egeggeaaag ataagetega tgtgeegate aagtteatet ggaactaege gggtaataee
                                                                     1440
atcatcaacc agcactccga tatcaacaaa actcacgaca ttttgcagga tgagagcaag
tgcgaaacga tcgtcgtcat tgataacttc atgacetegt ctgcgaagta tgccgatatt
                                                                     1560
gttetgeegg atetgatgae egtegageag gaagatatea teeceaacga ttacgeegge
                                                                     1620
aacatgggat acctgatttt cctccagecg gttaccgccc cqaagttcga gcgcaagccc
atttactgga tcatgagcga agtggcgaaa cgcctcgggc cggatatcca tcagaaattc
                                                                     1740
accgaaggcc gtacgcagga gcagtggctg cgctatctgt acgacaaaat ggtcgccaaa
                                                                     1800
gateegetge tgeegteeta egacgegetg aaaaaaatgg gtatttataa gegeaaagat
                                                                     1860
ccaaatggac attttgtggc ctataaaaaa ttoogtgacg atccggatgc caatccgctg
                                                                     1920
aaaaccccgt cgggcaaaat cgagatctac tccagcaagc tggcggatat tgcggcaacc
                                                                     1980
tgggaactgc aaaaagacga aaccatcacc ccgctgccgg tctatacctc aacctttgaa
                                                                     2040
ggctgggacg cgcccgagcg cagcaaattc ccgctgcagc tgttcggttt ccactttaaa
                                                                     2100
gcccgtaccc actccagtta cggcaacgta gatgtgctcc aggccgcctg tcgccaggag
                                                                     2160
gtgtggctta accctgtgga tgcagagcaa cgaggtatca aaaatgggga tatggtgcgc
                                                                     2220
gtetteaacg accgeggega agtgegeatt getgegaaag teacceegeg cateatgece
                                                                     2280
```

2325

ggcgtaagcg cgatgggcca gggcgctggc atgacgccaa catga

```
<210> 4587
  <211> 621
  <212> DNA
  <213> Enterobacter cloacae
  <400> 4587
 ccgatgacaa cccagtatgg attttttatt gattccagcc gctgcaccgg gtgcaaaacc
  tgcgagctgg cctgcaagga ttacaaagac ctgaccccgg acgttagctt ccgtcgtatt
                                                                       120
  tatgaatatg cgggcggcga ctggcaggag gataacggcg tctggcatca gaatgtottc
                                                                       180
 gestattace tgtegattge etgcaaceae tgegaagate eggeetgeae eaaggtetge
 ccgagcgggg caatgcacaa gcgcgacgac ggttttgtgg tggtggacga ggatgtctgc
                                                                       300
 atoggetgte getactgeca catggeetge cegtacggeg egeogeagta caatgeegee
                                                                       360
 aaaggccaca tgaccaagtg cgacggctgc cacagccggg tggcggacgg caaaaagccc
                                                                       420
 atetgegteg aatectgeee getgegegeg etggaetttg geeegattga ggagetgege
                                                                       480
 aaaaaacacg gccagcttgc tgccgtcgcg ccgctgccgt ctgcgcactt cacaaagccg
                                                                       540
 agtattgtga ttaaacctaa cgccaacagc cgtccgacgg gggacaccac cggctacctg
                                                                       600
 gcaaacccga aggaggtgtg a
                                                                       621
 <210> 4588
 <211> 723
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4588
 actgattggc cgtgggctat tttatggtct gcatatgacc gcagggttag caattgcagg
 ttaacacagg tgcgcggggc tacccgcgcg caagtaagga aagttgtaat gaatgatgtc
toacacogog aatogttogo gttoagogoo ogggtactgg gogogotgtt ttatttogoo
                                                                       180
 ccagacageg ageagatege geogetggtg agtgeeetga eegeaggtga etgggtteag
                                                                       240
gactggccgc tggcggagga aaacctgctg cetgtcgcca gtatgtttaa gaccccatcg
                                                                       300
 gatgaagogt tgaaagacgo otggoagogt otgtttattg geoogtatgo octgoeegee
                                                                       360
 cccccgtggg gctcggtctg gcttgatcgc gagtcagtgc tgtttggcga ttcgaccctc
                                                                       420
 gegttgegte agtggatgeg tgaaaaccat ategeetttg agatgeagea gaatgageet
                                                                       480
gaagatcatt toggaacgtt gotgatgotg goggoatggo ttgoogagaa oggtogogaa
                                                                       540
acagaacgcg accagettet ggeetggeat etgetgeeat ggageacgeg ttteettage
                                                                       600
 gtattogttg aaaacgoggo coatcogtto tacacogogo tgggtaaact tgcccagotg
                                                                       660
 acgctggcgg aatggcagtc cactttgctg atcccgattg tcgaaaaaac gctgtaccga
 taa
                                                                       723
 <210> 4589
 <211> 291
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4589
 gaaacacgaa atcctgacgc ccgcgtttcg atggtgacaa cctgggataa gaccttcgcc
                                                                       60
 gagagogata aagtogacca cogcaaggtg acgttogaga accgatacgg gatcaccotq
                                                                       120
 gctggcgatc tgtacattcc caggaacagc ggcgaccaga tgctggcttc tcttctcgtc
                                                                       180
 gttgtgaaat acacctatgt ctacactgaa tcaaatccca tcccgctcca gcgagcatgc
                                                                       240
 atactgggcc ggtatttatg cccgccagtc tgctcgcgtc atcagcaata a
                                                                       291
 <210> 4590
 <211> 738
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4590
 cgcatgcgca cagggagaca caccgcaatg cacccattac ttaaacgttc gctgcttttt
                                                                       60
 gteggegega ttategtggt tetegetete etcaeetggg gaattggaet ggagaegatt
 aaggogogoo aggttgacct gatctaccto gggcaacago acctgattot ggtcttttca
                                                                      180
 tcaatgttct ttgccctgct ggtgggcatt ccaageggta ttttgctgag ccgtccagec
                                                                       240
 gegegtggta tegeogaata tgtgatgeaa atetttaaeg tgggtaacae eetgeogoog
                                                                      300
```

cataaacgac tgcattaa

```
ctggccgttc tggcgctggc gatggtggtg attggcatcg gtgataaacc ggccattatc
  geoetettte tggeetetet getgeegatt gtgegtaaca cetatgeegg getgtgetet
                                                                       420
  gttcccgcgt cgttgctgga agcggcaaac ggtatcggca tgaccaaatg gcagcgcctg
                                                                       480
  cgtcaggttg agatccctaa cgcgtggccg gtgatgcttt ctggtattcg cattgccact
                                                                       540
  gcgattaacg teggtaccgc accgetggca ttcctgattg gcgccagcag ctacggcgag
                                                                       600
  ctgattttcc ctgggatcta cctgaatgac ttcccgacgc tgatcctggg cgcggcgcc
                                                                       660
  accgccctgt tcgccctgat tctggatacg ctgctggcgg cactgggtcg actactgagc
                                                                       720
  ccgcatctcg cgcgataa
                                                                       738
 <210> 4591
  <211> 912
  <212> DNA
  <213> Enterobacter cloacae
 <400> 4591
 caaggagett ctatgagaet gtttteegge etgaeggege tatgegeege egegetette
                                                                       60
 accagccagg cgctcgccgc gccgctgatc ctggcaacca agagetttac cgagcagcac
 attetetegg ccatgacegt geagtatetg caaaagaaag ggtttcaggt geageegeag
                                                                       180
 accaatattg caacggtgat ttcccgtaac gcgatgatca acaagcagat tgatatgacc
                                                                       240
 tgggagtaca ccggcacgtc gctgatcatc ttcaaccaca tcaacaaacg catgtcgccg
                                                                       300
 caggagtcat acgagacggt gaaacgcctc gacgcgaagc acggtctggt gtggcttaaa
                                                                       360
 cotgoogata tgaacaatac ctatgoottt gocatgoage gcaagegege egaggetgaa
                                                                      420
 catatcaata ccatgtctga gatggtggca aagattgagc agatccgtaa aaccgatccg
                                                                      480
 gataacaact ggctgctggg ccttgacctg gaatttgccg gacgcagcga cgggatgaaa
                                                                      540
 cogttgcagg cggcctacaa gatggagetg gaccgcccgc agatccgcca gatggatccg
                                                                      600
ggcctggtet ataacgcggt gcgcgacggg tttgtcgatg cggggctgat ctacaccacc
                                                                      660
gacgggcgcg taaagggctt cgatcttaaa gtgctggaag acgataaagg cttcttcccg
                                                                      720
 agttatgccg tgacgccagt tgttcgaaaa gacacgctgg aggctaaccc ggggctggag
                                                                      780
 gaggcgctga acaccctctc agcccagctc aataacgacg ttatcaccga cctgaataag
                                                                      840
 aaggtggata tegaccatea gteacegeag eaggtegeee gtgattteet gegtageaaa
                                                                      900
 cagttgctgt ag
                                                                       912
 <210> 4592
 <211> 1338
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4592
 acagaatatt tacattttcc taccctaatc ttgtggtcat acccgtcacc agaaaccacg
                                                                      60
 gggatgttta agcaaggatt atgtgtgagc cgtacaacga ccgttgatat cgcgccggcc
                                                                      120
 agogacattg atgatttacc ogcageaccg cagooggtto agtttattaa acgtggtacc
                                                                      180
 coccagttta tgcgcgtcac gctggcgctc ttctcagcag gtctcgccac ttttgccctg
                                                                      240
 ctctactgcg ttcagccgat cctgccggtc ctgtcgcatg aatttggcgt gtcgccagcc
                                                                      300
 agcagcagta tttcgctctc catttcaacc gggatgctgg cgatcggtct gctgttcacc
                                                                      360
 gggccacttt cggatgccat cgggcgtaag caggtcatgg taacggcgtt aatgctggcc
                                                                      420
 teegtgtgta cettgttgte caccatgatg accagetgge acggeattet gateatgege
                                                                      480
 gcgctgattg ggttatccct gagcggcgtg gcggcggtcg ggatgaccta tctcagcgag
                                                                      540
 gagatocaco ogagtttogt ggoottotoc atggggotgt acattagogg gaactotate
                                                                      600
 ggcgggatga gcggacgcct gctcagcggt gtgtttactg atttctttaa ctggcqcatt
                                                                      660
 gcgctggccg ttatcggctg cttcgccctc gcttcggcgc tgatgttctg gaaaatcctg
                                                                      720
 coggaatogo gocatttoog cocgaceteo etgogtooga aaacgttatt tatcaacttt
                                                                      780
 egectgeact ggegegatea agggetgeee egtttgttee tgaceggttt eetgetgatg
                                                                      840
 ggetegtteg tgaegetgtt caactacatt ggetategte tgatgettte accgtggeat
                                                                      900
 cttagccagg cattagtggg tttgctctct gtggcatatc tcaccgggac atggagttcg
                                                                      960
 ccaaaagcgg gegecatgac egegegette ggeegtggte eggtgatget ggtatecace
                                                                      1020
 gccgtgatgc tgttcggact gctgatgacg cttttctctt ccctgtggct gatttttgcc
                                                                      1080
 ggaatgctgc tettetetgc gggettettt geogegeatt cegttgccag cagctggatt
                                                                      1140
 ggcccacgeg cgcgccgcgc taaaggtcag gcttcgtcac tgtatctgtt cagttactat
 cttggttcca gcatagccgg tacgctcggc ggggtgttct ggcataacta cggctggaac
                                                                      1260
 ggcgtgggeg gatttatege getgatgetg tgegeggeac tgetggtggg egegageetg
                                                                      1320
```

```
<210> 4593
 <211> 843
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4593
 {\tt ttacccccac}\ {\tt caga} {\tt gtgtga}\ {\tt tatgcgtaaa}\ {\tt tctgttgtgt}\ {\tt tgttactggg}\ {\tt aacgtttagc}
 ctttttgctg gcttttcaca tgcggatgat ggcgacgatg acgccattag cgccaaagag
 gtaaagacgc tgttttttgg toatgacgat cgtacgcgtg toaccgatcc taccgaatcg
                                                                        180
 ccctgggatg ccatcgggca actggaaacc gccagcggca atttatgtac tgcaaccctc
                                                                        240
 attacgccac gccttgcgct gacggcgggt cattgcctgt taatgccgcc tgaaggcaaa
                                                                       300
 coggataaag cgatcgccct gegetttgtg tegcaaaaag gaatatggcg ctacgaaatt
                                                                       360
 cacggtattg agggggggt ggatccgteg ettggcaaac gcctgaaacc ggatggcgat
                                                                       420
 ggctggattg tgccgcccgg ggcggcctcc tgggatttcg ggctgatcgt tttacgttat
                                                                       480
ccgccgtccg ggatcacccc gctgccgctc tttgatggcg ataaagccgc gctcaccgcc
                                                                       540
gecetgaaag cegeegateg aaaagtaaeg eagteagget accetgttga teacetegat
                                                                       600
togotgtaca cocataogga otgogtggtg acgggttggg ogcaaaacag ogtgotgtog
                                                                       660
catcagtgcg atacgctacc gggtgatagc ggatcgccgc tgatgttaaa aaccgataac
                                                                       720
ggctggcagc tgattggcgt tcaaagttct gcgccagcgg cgaaagaccg ctggcgccc
                                                                       780
 gataaccggg cgttgtcggt gaccggtttt cgcgaccggc tggaagccct ggcgcagcag
                                                                       840
                                                                       843
<210> 4594
<211> 438
<212> DNA
<213> Enterobacter cloacae
<400> 4594
cqcqqaaaag cagaatcgga tgctggagat ccttcagttc aaactcgata tcctgtggtc
                                                                       60
gatgetegae gegatgacea tggcctaege getacagegt cegeettate acaeggteae
                                                                       120
cgacaaageg gcctggcaca caaccegact ggtataagea tgcaaaaaaa ctccategte
                                                                       180
geetttegte geggetateg cetgeaatgg gaageegete aggacageea tgteateete
                                                                       240
tatccggaag gcatggctaa actcaatgag actgcggccg caatcctcga actggtcgat
                                                                       300
ggccaacgcg acgcggcggc tatcattgcc atactcaacg aacggttccc qqaaqccqqc
                                                                       360
ggcgtggatg acgacgtcgt agaattcctg caaatcgctt atcaacagaa gtggattatt
                                                                       420
ttccgtgage cagaataa
                                                                       438
<210> 4595
<211> 2298
<212> DNA
<213> Enterobacter cloacae
<400> 4595
aaccogggaa ctgtaacgat aatgaccatc cgcatcgtgg aactggcagg cggtttacgc
gcaacgctgg tgcatcagcc gcaggcgaca cgcgcggcgg cgctggcgcg cgtgagtgcc
ggaagccatc acgagccacc gcgattegec ggtctcgcgc atttgcttga gcacctgctg
                                                                       180
ttccgcggta gccagcgcta tcagggcgat gatcgactca tggcctgggt ccagcgccag
                                                                       240
ggeggeaacg teaatgeeac caegetgget egceaeageg etttttett egaegttgee
gccgataacc tgtccgacgg cgtcgcgcga ctgcggggata tgttgcaggc gccgctgctt
                                                                       360
teceggeagg acatecageg egaagtggeg gteattgatg eggaaaaceg gettatecag
                                                                       420
cagcatgate cogecoggeg egaageegeg gegegecacg egatggaaea accggaggtt
                                                                       480
tttegeegtt tteaggtggg tageeatgat tetetgggge aagaeaeggg ategetgeae
                                                                       540
gccgcgttgc gcggatttca tcgccgctat tatggggcca gacacctgca attgtggcta
                                                                       600
cagggacege aaacgetgga tgegttagee gagettgeee atacgtttge gacaggtttt
                                                                       660
getteaggtg gegtgeetga ageegeeeee eegttaegee ttagegetga ageagattat
                                                                       720
cagetggeag tgaeggageg accegegetg tggegetgte egttgateeg aaaaagtgae
                                                                       780
aacgtcacct tgcttcggga atttttgctg gacgaggccc ccggaagcct gattgacggg
                                                                       840
ctgcgggcgc gcgggctggc agaagaggta tcgctggact ggctttatca ggatgacgat
                                                                       900
tacggctggc tggcgctaac gcttgacggc gaacggcccg aggccataga cgcgcaaatc
                                                                       960
acgcgctggc tgcgggccct acagcaaacg acgcaagagc aacagcggca ttattatagg
```

```
ctggcacage agegetttag egecetgteg eccettgace agettegeca gegggegttt
                                                                      1080
ggttttgoge ceggegege geeggttgat titteegeet tetgtgeega ettactggeg
                                                                      1140
gegeceacet egtatetgge etgeaaaaaa atggaaaceg etgaaattat egecageeag
                                                                      1200
ggatttgccc tgccgcttag ccactggcgt cgccagccgg ttgcggatga gagccccatc
                                                                      1260
gegtttteet tetaceegca ggetaceeaa tattetgeee cageeetgae gecagaagee
gttocgctgc tgcatttacc ggcgcaggca caagcgccga cgctgatcct ccgcaggcct
                                                                      1380
ttttattcgc gcgtaagcga gtcacagggg gtggcgatcg gcaaacaatt acgccctctt
                                                                      1440
ctagctgaaa tgcgccatat cggcagcagc ggcgagtggc aaacggttga cqqtaqctqq
cagetaaccc tgcggcttcc tgacgccgtg gtgatggcgg aacccatcat cggggcgata
                                                                      1560
atogatogoc totocogoco cacacoggot attacgootg ogocagatgg cattgogato
                                                                      1620
cgtcagttgc ttaagcaatt gcctgaacga ctggcatcgg aaccgtcacg gaatggctgg
                                                                      1680
ctggcggcgt tagetggcgg cagcgccgga cacgcgcacg ggttagcccq qcaqcttgqc
                                                                      1740
ctgctccggg cgccggttaa cgctaagccg ttgccgttaa gcgattgtcc cggcggggtc
                                                                      1800
gaacacattc cgcacgccag cgcggattcg gcgctgctgg tgtttattcc cctgccgccg
                                                                      1860
ggtgcgtcgc tcgccgcgct gcggctgctg gcgttatgct gcgaaccqcq atttttccaq
                                                                      1920
egectgegeg tggaacagca gattggctac gtggtcaget gtcgttatca gcgtattgce
                                                                      1980
gategegatg geetgetget ggegttacag tegeetgate gtteteeegt gaacetgttg
                                                                      2040
ggttgctgca aacgattttt gcgagagetg acgetgtgcg atgaatccga gttcageeta
                                                                      2100
ttgcgacagc agctggcgac gcagatccgc tcaccgatgg atgccagcgc cacggcagtg
                                                                      2160
geogeoctge geoagegeta tggtttgceg gtgttaaege egeaggetat tgatgeectg
                                                                      2220
caacctgacg agatagtoge getatggege gagatgacte geegtegeeg tegetggegg
                                                                      2280
gtgcttttca cgggctga
                                                                      2298
<210> 4596
<211> 666
<212> DNA
<213> Enterobacter cloacae
<400> 4596
ataaagtgtc aacaagcaac ggggcaaccc cctcaatcaa atacaaaaca ggaatttccc
                                                                      60
atgagcaaag tattagtatt gaaatccagt attctggcag ggtattcaca gtctggtcag
                                                                      120
ctgtctgact atttcgttga acagtggcgt gaacagcaca gcgcggatga aatcaccgtg
                                                                      180
eqtqaeetgg cagcaaaccc aatteetgtg etggaeggeg agetggttgg egegetgegt
                                                                      240
cogagogatg cgcctcttac cocgcgtcag caggaageee tggcgcttte cgacgagetg
                                                                      300
attgctgaat tgcaggcgca cgacgttatc gtgatcaacg ccccaatgta caacttcaac
                                                                      360
attectacce agetgaagaa etaettegae etggtggege gegetggegt aacetteegt
                                                                      420
tacaccgaga acggcccgga aggtctggta aaaggtaaac gcqctatcqt cctqaccaqc
                                                                      480
cgcggcggta ttcacaaaga taccccaacc gacctggtgg cgccgtacat gaccctgttc
                                                                      540
ctoggottca toggoattac cgacgtgaac tttgtgttcg ctgaaggtat cgcttacggc
                                                                      600
coggaagtgg ctaccaaage geagteegae gegaaageeg etategaeag cetggteget
                                                                      660
gcctaa
                                                                      666
<210> 4597
<211> 1299
<212> DNA
<213> Enterobacter cloacae
<400> 4597
ataagtcgtc gctcctctaa caacgcggta aatatgatga ataaagccac cactctctca
gctaatatta caacacgete taactggcae tggcaggata acatetggae getgggcete
                                                                      120
tacggtacag ccgtcggggc gggaacgctg ttcctgcccg tggaaatcgg cacccgtggt
                                                                     180
coggitatti tootggicat gotootgotg gggotgoogi tatoootgat cocccatita
                                                                     240
ctcctctgtc gcgtgtatat gcgtgaggaa aagactgaaa acggcacgtt gccgatcttc
ggctccttct tcagoggacg gggtgaaaag ctgatcaccc tgttctattg tgtgaccttc
                                                                     360
ttcccggtaa ccctggttta cggggtggcg ctgattaatg cgctgagtaa tttactggtg
                                                                     420
gagcatctgc atattaccgc cetcagccgt gggccattgt cgtttatcgt ggttgccgca
                                                                     480
ctttatgtgg tgcttagcaa gggccgggac agagtcgtgg ccattatgag cgcgctggcg
                                                                     540
etgeogiteg eggeatetgt actgetgate geograteae trateceggg atggeatetg
                                                                     600
tetaacetga eegatacgge egetgaaatg aacgecaege egetgeeggt aacgetgaaa
                                                                     660
aatatotggc tgacgotgoc gottattacc ttotogtttt gotgtgcgcc tatggtotcc
ccgctgacct cttactaccg ggagaggaaa gcggagggcg agaaaaaggc actqttcqtq
                                                                     780
```

```
atcogcatcg cetatttage catcttegee agtateetet ttttegtget gagetgegtg
                                                                       840
 ctggggatcc cgcatgacaa ctttgtacgg gcgaaggcgg aaaacctgaa tgtgctgtcc
                                                                       900
 gtgatgaaag gaaacggtga tttcagcctg atttaccaca ttgccccgct catcgctatc
                                                                       960
  atoggtatga cgaaatoott totoggogta ggootgtogg togcacaaac gtttggtoag
 ctggctgcca gcgtatccgg caaaaaggcc agcgccagca agcggctggc ctctctggcg
                                                                       1080
 ctgttcctgc tgacctatgg cattgtttat gccaatccgg atgtgctcag cctgattgaa
                                                                       1140
 atgitetgeg gaccactgat egeggtgate etgiteetta teeetgegta ecteatatae
                                                                       1200
 accegeceet egetggegga gettegegge gtgaeggggt ttetggttgt tetgggegga
                                                                       1260
 ctggcaacgc tgtctgcatt gctctggaca atgctttag
                                                                       1299
 <210> 4598
 <211> 246
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4598
 acaatcatgt ttgtggaact ggtttatgac aagcgaaacg tacagggget ggagggagcc
 agggaaatca tootgaccga gotgacaaaa cgcgtgcacc ggatttttcc tgatgccagc
                                                                       120
 gtgacggtta agccaatgca agcgaacggc ctgaacagcg acgccagcaa aagcgaccgt
                                                                       180
 gaaaagetta accgcatget egaggagatg ttegaagagt eggatatgtg gttgatacaa
                                                                       240
 gagtaa
                                                                       246
 <210> 4599
 <211> 897
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4599
 cogacatogt ttactcotgt gcacggtatt totocccaga gtaggccage ctgcgccage
                                                                       60
ctgcaatggc gtcatacaaa tgttgcctta acgacgtgcc ggagagcgtg ctatgttagt
 acaacacaaa aagcgttgag gaacagtgag atgattattt tagttaccgg ggcgacageg
                                                                       180
 ggttttggtg aaagcatcac gegtegette gtegecaacg gacacaaagt gattgcaacg
                                                                       240
gggcgtcgtc aggagcgttt gcaggagcta aaagacgage tgggtgacag cattctgacc
gcacagetgg acgtccgcaa ccgcgccgcc attgaagaga tgattgccaa cctgcctgcc
                                                                      360
 gaatggcgtg aaattgacgt gctggtcaat aacgctggcc tggcgctggg tatggaacct
                                                                      420
 goccacaaag ccagcetgga agactgggag aacatgateg acaccaacaa caaaggeetg
                                                                      480
 gtgtacatga cocgegoegt getgeoggge atggttgaac gtaaccgtgg teatateatt
                                                                      540
 aacatcggtt ccaccgccgg aagctggcct tacgcgggcg gcaacgtcta tggcgcgacc
                                                                      600
 aaagcctttg teegeeagtt eagtetgaac etgegeaceg acetgeaegg aacegegate
                                                                      660
 egegtgaceg atgttgaace gggtetggta ggeggaaceg aattetecaa egtgegtte
                                                                      720
 aaaggcgatg acgcgaaagc ggataaaacc tatgaaaacg cgaatgcgct gacgccggaa
                                                                      780
 gatateaceg aaacegtetg gtgggtegeg aatttgeega ageatgteaa cateaacaeg
                                                                      840
 gttgagatga tgcccgtcag ccagacctat gccggactca gcgtgcatcg cgggtaa
                                                                      897
 <210> 4600
 <211> 708
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4600
 ctctctgaga aatcacaacc catggccgct gaatcgcaac ttaatcctac ccagcccgtt
                                                                      60
 aatcagcaaa tatatcgcat cttacgccgt gatattgttc gctgcctgat cccaccagga
 acgccactct cagaaaaaga ggtttcggta cgttttgacg tttcccgtca gecegtgcgc
 gaggogttta ttaaactogo agaaaacggo ettattoaga toogoocaca gogoggoago
                                                                      240
 tatgtaaata aaatttogot ttogoaggta oggaatggot gttttgttog ocaggocata
                                                                      300
 gagtgegeeg tggtgegteg egeegegteg eteatcaaeg ataaccagtg etacetgetg
                                                                      360
 gagcaaaacc tgcatcagca acgaatcgcc atcgaccgca aacagttaaa cgactttttc
                                                                      420
 cagetggacg acgagtttca ccagaaactg gcgcagatcg ccgagtgcca gctcgcgtgg
                                                                      480
 gataccgttg aaaacatcaa agcgaccatc gaccgcgtgc gctacatgag cctcgaccat
                                                                      540
gtttctccgc cagagatgtt gctgcgccag catcatgata ttttcagcgc gctggaaaaa
                                                                      600
```

cgcgacgtgg aagccgtaga taaagcgatg acgcttcacc ttcaggaaat tagtgagtca

			1819			
gttcagttaa	ttcgtcagga	aaaccgcgag	tggttcagcg	aagaataa		708
<210> 4601 <211> 372 <212> DNA <213> Ente	robacter clo	oacae				
ctggcagccg agcaaactca aaagaacaat gagtgggata	tgcacccgtt cactggcact tcattgagtc ggaatgacac aagaagacgt actgggagcc aa	gtcctcgttc tggtgacagc ccgcagcctg cgcgtttgat	geettegeeg gegeaaagee egteagaaag geeegegaea	caacggcatc gccagaatgc tgaataagcg aatgccagca	ageegaaaee tgeeatggae egtggagaaa aagtgeeaae	60 120 180 240 300 360 372
<210> 4602 <211> 927 <212> DNA <213> Ente	robacter clo	oacae				
<400> 4602						
ttaaacctaa aggaggtgtg gggcagtgcg gagaaggcca gggttattatg cgcgtgggcg ggcggttct tggctggttg cagataagaga atggtccttg aaaggtactc gtgttgcaaa ttgctggatct gtcgtttggatct 210> 4603 <211> 50A	cgccaacage agatggaag tggccggcga tatcggtgct cgtcagcgct ggtggctggt tcagccagct ctgtcccgac ttgcccgct gcaatacgct ttgccgctgg gcaatacgct ttgccgcttat gccactatgccct gccactatgt	tggattgcat gttaatcgtg cgtgcgcagc gagtaatgag gtcggttate tctgggtate ctggtatec gctggccgcg gtcgacgat gggacgata tcaggtatg tcagtatgat tcaggtatg tcgtcgtcag tggacgata	gaatggeege atgggetteg etgttttte teeeegetge ategggegg ggtaaaatge gtttttgtet ggttacacca etgetgetac etggegaatta eagagtteea egcaategg gagecaaaaa	tgatgatett tetggettaa tetggetggt gtgeetteaa gttegetett ecceagettt gggegatgae egetgagett gegtegeeaa tegtetgegt tecageage tgetgegege tgetggegge cacteggeet	caccgttttc ggaaaatgat aatgggtatt ctcgcttaac ctttgccqtg gggcaaaatc ccgggtctat cttcctgacg cgtgacattc ggcgtcgtc cagcgccctg gggttaagc	60 120 180 240 300 360 420 480 540 600 660 720 780 840 900 927
<213> Enter	robacter clo	pacae				
aggccaggct tacagtatac gaagaaaaaa atggcagaag gcggaaaacc accagcaagc	cgaaaaaacg cgcacatttt gggggtgcac tgacatttgc cgtttaccga ttggtctgta ttcccgagcg tccgggccgt	tgetgeaaca aatggetgtt cagtaagaaa etggetgttg tettgeegag caatgetgea	caacgtcaca gaaacaaaat gaggctgacg caaagcggaa cagaaagagt acggataaaa	actgctatac ttgttgtcgt ctcacgacaa tgcagatgga ccgtgcagca	tgtatataat aagaaaaggt actgotcgat tgaaacgcag tatcotgcgt	60 120 180 240 300 360 420 453
<211> 1257 <212> DNA	cobacter clo	pacae				
<400> 4604 tattcgtatg	ttgattgcgg	gegegetgat	gatttgtctt	ttagcgattg	tgetegaetg	60

```
gttgctgcac cgtttgcagg tggtactgac tccgaagggg attcgataat gataaaactg
                                                                       120
  gaaaacctca ccaaacaatt ttcacagaaa cacggccaga cgtttaaggc cgtcgacaac
                                                                       180
  gtcaacctga acgtgcctga aggggaaatg tgcgtgctgc tcggcccgtc cggctqcqqq
                                                                       240
  aaaaccacta cactgaagat gatcaaccgt ctcattacgc caagtagcgg gacaatcctq
                                                                       300
 attaacggcg aagacaccag cggaatggac accgtgaccc tgcgccgcaa cattggctac
                                                                       360
 gtgatccagc agattggcct gttcccgaac atgaccatcg aagagaacat taccgtcgtg
                                                                       420
 ccgcgcatgc tgggctggga caaggcacgc tgtaaatccc gtgccgaaga gctgatggat
                                                                       480
 atggtggcaa tggatccgca taaattcctt caccgctatc cgcgtgaaat gtccggcggc
                                                                       540
 cagcagcage geateggegt cateegegeg etggeageeg atceteeggt cetgetgatg
 gatgaaccgt tcggcgcggt cgacccgatt aaccgtgagg tgatccagaa ccagttcctg
                                                                       660
 gagatgcagc gcaagctgaa aaagaccgtg atgctggtga gccacgatat tgacqaaqcq
                                                                       720
 etgaagetgg gegacegtat tgeegtette egteagggae gtategtgea gtgegeeage
                                                                       780
 coggacgage tgctggcgaa accggcgaat gagtttgtcg gctcgtttgt tggtcaggac
                                                                       840
 eggaegttga aacgeetget getggtateg gegggegaeg teacegaeca geageetace
                                                                       900
 attacggtac gogaatcgac googotgoog gaggoottog coaccatgga tgacaacgat
                                                                       960
 attogogoca ttacogtggt tgatgagoac ggcaaaccgc toggetttgt gaagegoogc
                                                                       1020
 gaagegegta acgccagegg cagetgeggg gatattetge atccgtteeg tatgaceggt
                                                                      1080
 aaggeegagg ataacetgeg egtggtgett tetegeetgt atgagageaa caceagetgg
                                                                      1140
 atgccgattg tggacgagga cggacgctat aacggcgaga tatcccagga ttatattgcg
                                                                      1200
 gagtatttga gttcagggcg tacgcgccgg gcattaaata ttcatagcga gagttaa
                                                                      1257
 <210> 4605
 <211> 1416
 <212> DNA
 <213> Enterobacter cloacae
<400> 4605
 gcattcaggc cgggtactgc ccggcctttt tccgcacgca taccttttgc taacctcccg
atttcccgcc acaatattgt atcgtccccg ttaaatcacg acttcatgca acgtcttcac
                                                                      120
 gettaceceg acateegege gatgtttege egteteetga tigetacegt caceggegtg
 ctggcggcgc tggccgttgc ggtgttccgc cacagcatgt atctgctgga gtggctattt
                                                                      240
 ctcagcaacg aaageggaag tetggtgaac geegeageeg egttategee etggeggegg
                                                                      300
 gcgctgacgc ctgcgctggg tggtctggcc gcggggatgc tgctgtgggg atggcaqcgc
                                                                      360
atgacggcac aacgtcccca cgccccgacc gattatatgg aagegettga gacgggtgac
                                                                      420
 ggccagtttg actacggcgc cagcctggtg aaatccctcg cgtcgttgct ggtggtcgcc
                                                                      480
 ageggeageg coateggeeg tgaaggegee atgateetge tegeogeeet egeegeetee
                                                                      540
 ttttttgcac aacgttgtac gccaaaatcc gaatggaaac tgtggatcgc etgeggtgcc
                                                                      600
 geogeoggga tggccagege ctatcatgeg cegetggegg geagectgtt tategeagag
                                                                      660
 atcctgtttg gcacgctgat gctggcctcc ctcggcccgg tggtgattgc cgctgtagtg
                                                                      720
 geoctgetga ecaegegeet gttaagteee ggegegaata egetatatga tgteeatete
                                                                      780
 agegagatge ttacggeggt ggattattte etgategttg gegtgggtet getggetgge
                                                                      840
 gtttgeggee egetgetgat gtggetgatg geggeeagee acaggetgtt tetgegtete
                                                                      900
 aaacteteae egeegtggea getggegetg ggtggtetga tegteggget getgtegetg
                                                                      960
 ctgacgccga aagtatgggg gaatggctat agcgtggttc aggcgttttt gcagtcgccg
                                                                      1020
 cogctgctgt cggtgattgc cggcgtcttt atttgcaagc tgctggcggt actggcaagc
                                                                      1080
 agegggteeg gegegeeggg aggegtgtte acgecaacet tgttegttgg tatggcaacg
                                                                      1140
 ggaatgetgt ttgcgcagat ctttgcgctg tggtttcctg gctctgagac ggcgatcctg
 cttgggctgg cgggaatggc gacgctgctc gccgccacaa cgcatgcgcc aatcatgtcg
                                                                      1260
 gccttgatgg tctgtgagat gaccgggcag tattttttac ttcccggttt gctggttgcc
 tgtgttgtgg cgtcggtatt gtcgagaacg ctacgccacg actcgaccta cggccagcat
                                                                      1380
 accgccgaaa gccgagagat cgatgtagtg cgctaa
                                                                      1416
 <210> 4606
 <211> 1065
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4606
 ataaaaaact gttcaggaac gtccatggcc aaacctatta tcaccctcaa cgggcttaag
                                                                      60
 atogtoatca tgctgggcat gctggtgatc attctgaccg gcgttcgttt tgcggccgat
```

atcategtgc cttttateet ggegettttt ategeggtga teeteaatee aetggtgeag

<400> 4609

```
cgaatggtgc ggctgcgcat cccgcgtgtg ctggcgataa gcctgcttat cagtattatt
                                                                      240
 atogttgcga tggtgctgtt agtcgcctat ctgggaacct ccctgaacga gctgqcqcgq
 acgctaccga cataccgctc ttccctggcg accccgctgc tgcaaattga accctggctg
                                                                      360
 caacgcgcgg gtatcgaagt ctcggttgaa gaaatgctta aatacatcga tccgaatgcc
                                                                      420
 gccatgacga ttgtcaccag cctgctggca caactctcca acgccatqac ctcgattttc
                                                                      480
 ctgctgttcc tgacggttgt gtttatgctg ctggaagttc cacagctgcc tgcaaagctc
                                                                      540
cagcacatca tggtgcgtcc ggtagaggga atgggcgcca ttcagcgcgc gctcgacagc
                                                                      600
gtttcacgct atctggtgct gaaaacggcc atcagcctgg tgacgggatt agtggtctgg
                                                                      660
gggatgeteg cegegetgga tgtgegtttt geettegtet gggggetget ggeetttgeg
                                                                      720
ctcaactata ttcctaacat cggctccgtg ctggcggcga tcccccctat ccttcaggtg
                                                                      780
ctggttttca gcggtttgta tgatgccctg attctgctgg caggctatct ggtgattaac
                                                                      840
cttgtcttcg ggaacattct tgaaccacgg ataatgggac gegggetggg gctttcaacc
                                                                      900
cttgttgtgt tcctgtccct gattttctgg ggctggctgc tcgggcctgt cggcatgctg
                                                                      960
ctctccgttc cgctgacaat tattgtcaaa attggcctcg agcagaccgc cggtggacaa
agtatogotg tactgotgag ogacatgago cataaggoog attaa
                                                                      1065
<210> 4607
<211> 363
<212> DNA
<213> Enterobacter cloacae
<400> 4607
caggtaacat cagcaatggc totgatococ aaaaactacg cacggotgga aagoggotac
                                                                      60
cgtgaaaaag cgctaaaaat ctacccctgg gtttgtggac gctgctcgcg tgagtttgtt
                                                                      120
tattcaaatc ttcgtgaact cacggttcac catatcgacc acgatcacac caataacccg
                                                                      180
gaagatggca gtaactggga getgttgtge etgttttgte acgateaega geacteaaag
                                                                      240
tacaccgaag cggatcagta tggcaccacc gttgtcgcgg gtgaggatgc gcaaaaagac
                                                                      300
gtgggtgtcg ccacgtttaa cccctttgcc gatctcaagg cgatgatgga caagaagaag
                                                                      360
                                                                      363
<210> 4608
<211> 1038
<212> DNA
<213> Enterobacter cloacae
<400> 4608
aagacagtgg gatgcgctat ggcgattttt gatggtcaca atgacctgtt gcttaattta
                                                                      60
tggcttcacc atcgccagga tccggtaacg gccttattct ccggcattga aaacggacac
                                                                      120
ctcgattatc cgcgcatgca gcaaggcgga ttttccggcg ggctgttcgc gctgttcgtg
                                                                      180
cogcogcagg agtatatogo cogcatggog coacaatacg cotgogagoo gtggcagoog
gtogacatto totggoagea gotgacgeto ottaagcago ttgtogocca otcogacggo
                                                                      300
cgggcgcgat tgtgcctgag cgcggcggat atcgaacgct gccgtcagga taaggtgctg
                                                                      360
gcgatggtgg cgcatattga gggcgcgggc ggttttgacg gcgagggagg cgatctacag
                                                                      420
getttatatg ccgccggggt gcgtagcatt gggcctttct ggaacattgc taaccgtttt
                                                                      480
ggeaceggeg ttaaegggge gttteeegge ageeeggaca geggeeeagg gettaeegea
                                                                      540
gagggtatcg coctcattaa gcacgctaat gccctgaata tgctgattga cgtttcgcat
                                                                      600
atgaatgaaa aggegttetg ggataceget egteatteet cateaceget ggtegeeace
                                                                      660
cactocaacg cocatacget gtgcccgcaa ccgcgcaatc tgaccgatcg geagetgetg
                                                                      720
getateegeg acageggegg egtggetgge gtcaattteg geaacgegtt tetgegegee
                                                                      780
gacggtaaac gcgatagcga taccccgctg agtacgattg ttcgccatat cgactatctt
                                                                      840
attaacatca tgggtgacga tcatgtcgcg ctgggctccg attttgacgg tattacgttg
                                                                      900
cotgatgact tacacgatgt gagtggttta coacggctaa toagcgcgtt gogtgacago
                                                                      960
ggctatgatc aatttgtgct gaataagctg ctgtggggta actggcaaaa ggtattgcaa
                                                                      1020
aatgtttggc aacaatag
                                                                      1038
<210> 4609
<211> 843
<212> DNA
<213> Enterobacter cloacae
```

```
cgagcagtcg ccgcagcgtc acgcccttgc gcagcaggga atagaagtga gctgggacgq
  gatgaacatc acgcttcagg actaactatg cacattegeg aaacgetete geegeaagag
  tttgagcacg cccttcgggc gaaaggcgcc tactatcata ttcaccatcc gtaccatatc
                                                                       180
 gcgatgcata acggcgaggc cagccgcgag cagatccagg gctgggtggc gaaccggttt
                                                                       240
 tactaccaga cgacgatece actgaaagac geggcaatta tggcgaactg ceeggateeg
                                                                       300
 cacacgogto gcaaatgggt gcagoggato otogatoacg acggcagcaa cggtcatgac
                                                                       360
 ggcggtatcg aagcctggct acagctgggc gaagccgtgg ggctcagccg cgaggactta
                                                                       420
 atcagegaac gecaegtget geceggegte egtttegeeg tegaegetta egttaactte
                                                                       480
 gcccgccgcg ccaactggca ggaggctgca tgcagttcgc tcaccgaact gttcgccccg
                                                                       540
 caaatccatc agtcgcgtct cgacagctgg ccacagcact acccgtggat caaagaggaa
                                                                       600
 ggctattttt atttccgcag ccgcctcagc caggccagcc gcgacgttga acatggtctg
                                                                       660
 gagetggega agegttattg egatagegeg gaaaageaga ateggatget qqaqateett
                                                                       720
 cagttcaaac togatatoot gtggtogatg ctogacgoga tgaccatggc ctacgogcta
                                                                       780
 cagegteege ettateacae ggteacegae aaageggeet ggeacacaae eegactggta
                                                                       840
                                                                       843
 <210> 4610
 <211> 1185
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4610
 aattootgoa aatogottat caacagaagt ggattatttt cogtgagoca gaataaacce
 geogteaate cacegetgtg getgetggeg gagetgaeet ategetgtee getacagtgt
                                                                       120
 cettactget ctaacceget ggacttegee eggeaggate aggagetgac cactgaacag
                                                                       180
 tggattgagg ttttccgcca ggcgcgggcg atgggcagcg tgcagatagg tttttccqqc
                                                                       240
 ggogaaccgt tgacgcgtaa ggatctgccg gagctgatcc gcgccgcccg cgatctcggt
                                                                       300
 ttttatacca acctgatcac ctcgggaatt ggcctgacgg aaagcaagct cgacgcattc
                                                                       360
 agcgaggccg gtctggacca tatccagatt agcttccagg ccagcgatga agagctcaac
                                                                      420
getgegetga eggggaataa aaaageette eageagaage tggegatgge eaaageggtt
                                                                      480
 aaagegegeg attaceegat ggtgetgaat ttegteetge aceggeataa tategateag
                                                                       540
 atogataaaa toatogaact gtgcatogag ctggacgccg acgacgtcga acttgccacc
                                                                       600
 tgccagttct acggttgggc gttccttaat cgtcaggggc ttctgccgac gcgggaacag
                                                                       660
 attgcccgcg cggaacgcgt ggttgccgaa tatcggcaaa aaatqqccqc caqcqqcaat
                                                                       720
 ctgaccaacc tgctgttcgt cacccccgat tattacgaag agcggccaaa aggctgtatg
                                                                      780
 ggeggctggg ggtcgatttt cctcagcgtg accccggaag gcacggcgct gccctgccac
                                                                       840
 agegegegee agetgeeggt ggattteeeg teggtgettg ageagagtet ggaateeate
                                                                      900
 tggtatgact ctttcggctt caaccgctat cgcgggtttg actggatgcc ggagccgtgc
                                                                      960
 egeteetgeg atgaaaaaga gaaagaette ggeggetgee getgeeagge etttatgete
                                                                       1020
 accgggaatg cggataacgc cgatccggtg tgcagcaaat cgccqcatca tcataaaatc
                                                                      1080
 ctcgaggcgc gacgcgaagc agcctgtagt gatatgaaga tcggtcagct tcagtttcgc
                                                                      1140
 aaccgaaccc gttctcagct tatctataaa acccgggaac tgtaa
                                                                       1185
 <210> 4611
 <211> 465
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4611
 caacaggaca gattoogoat gactgacaac aatacogoat taaagaaago tggootgaaa
 gtaacgette eteggttaaa aateettgaa gtgetteagg ggeeagacaa teaceatgte
 agtgcggaag acctttataa gcgtcttatc gatatgggtg aagagattgg gctggcaacc
                                                                      180
 gtotatogtg tgotgaacca gtttgatgac gogggcattg ttactogtca taatttcgaa
                                                                      240
 ggcggtaaat ccgtgttcga gctgactcag cagcaccacc acgatcacct gatctgcctc
                                                                      300
 gattgtggca aggtcattga atttagcgat gattccattg aatcgcgcca gcgtgaaatc
                                                                      360
 geogeoogte atggeateeg eetgaceaac cacagootgt acctgtacgg teactgtget
                                                                      420
 gaaggtgatt gccgcgaaaa tgaacatgcg cacgacgcaa aataa
                                                                      465
 <210> 4612
```

<211> 240 <212> DNA

## <213> Enterobacter cloacae

VZIJZ BIICE.	TODACCET CT	Jacae				
ttcaagagcg	tagegeetgt tgetgaatgt gegtgatgga	gttgaaaaaa	gagaaagcgc	atgagcagtt	tgcgacgcag	60 120 180
	cgaagcgttg					240
<212> DNA	robacter clo	oacae				
aaattgactc acagcaccgc tccttgacgg	catgtacaac aattggtaaa ggtggagtac gctggataat	gtactgctgg aaacgcagca	cctggcgcga ccgaccgcac	tcgcgaagag cattaccagt	gtgaagcaga acggatgaac	60 120 180 240
aagaggggct gcctgagcat	gegttgcate ttegttecea tacegeageg	ggtgtgccgg acgctgcgtt	tatttgaccg tctctgaaga	tttcggcgtt gcgtcttcat	gtcattgcgg gaatatgtgg	300 360 420 425
<210> 4614 <211> 356 <212> DNA <213> Enter	robacter clo	pacae				
<400> 4614						
gtttatttat	catttcatat ctgcatatca caaaaaaaga	aaaccgagaa	aagacaaaag	ataatcgaac	cggggcaacc	60 120 180
cctgccgaac cgaaaggatg	ttgtgaagga ccgaactatg agcagatcgt	ctcaggcacc ccgttatctg	ctctggaatg gacatagcca	ccgtagaggc ttcccaagga	tggcgagaag gctggacgac	240 300 356
<210> 4615 <211> 303 <212> DNA <213> Enter	obacter clo	nacae				
		-4040				
ttcactggta aacagtgaaa cccgccgtac	tacatatgtc cgctcgccca cctgtgcggc cgacatcagc	tgeggecagt ggtggtaaat attaagtgea	tcaggtacga aacggtaatg gcaggagcga	tcacctttac cagatgegac cagegggggc	cggttcggtg agtaacatta aaccacattt	60 120 180 240 300
caa	taacgggctg	cyayccctat	ccaagcgggg	cyaayytcca	gegeraerr	303
<210> 4616 <211> 459 <212> DNA <213> Enter	cobacter clo	oacae				
aacggcggtg cagcaggggc ggcatcagtc cgtacgattg	ctgccgcgcg cgcttgaagt tgccaaaagg agttcagcga aaaccttagg ttgtccgcga	accggcagat cggcgcggtt gcaggttaac cccggtgaaa	aaagtgcacg gggtttgagc taccagcgcg agtgcccgtg	agettegeet tgetggatea egetggaagg tgeacetgge	gegtetegee ggaaaaatte tgagetggee gatgeetaag	60 120 180 240 300 360

<221>unsure

```
cotqqccqtq cqctqqtttc cqqcqqqqta atqcqqctcc acqaaaqccc catcatctqt
                                                                      420
 tecaccageg cegecaegte gtgceeggea agaegataa
                                                                      459
 <210> 4617
 <211> 477
 <212> DNA
 <213> Enterobacter cloacae
 <220>
 <221>unsure
 <222>(58)
 <400> 4617
 ccctctgata acagcgcgat gctggaaaag gcgattgccg cggtggcggc tgcaatgncc
 gateegtege gegtgaagat getttgtgeg etaatggaeg ggegtgegtg gaeggeeact
                                                                      120
 gaactgagtg cggcggcaga cgttgcgccg tcgaccgcca gcgggcatct tgcccggctg
                                                                      180
 gttgaagggc agctaattac ctgcctgtcg caagggcggc atcgttatta tcgtcttgcc
                                                                      240
 gggcacgacg tggcggcgct ggtggaacag atgatggggc tttcgtggag ccgcattacc
                                                                      300
 cegeeggaaa ceagegeacg geeaggtteg aggttaacgg teacagagge agaaggggae
                                                                      360
 ttttgttege ggacaaacag ggacggetta ggcategeca ggtgcacacg ggcactttte
                                                                      420
 accgggccta aggtttcaat cgtacgggcc agctcacctt ccagcgcgcg ctggtag
                                                                     477
 <210> 4618
 <211> 744
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4618
cgtttactgg gcaaaaaaga gcccacggta aacgcaccgg ttcgtggatt atatatgtgg
                                                                      60
ggtggcgttg ggcgggtaa gacctggctg atggacatgt tetaccagag cetgcccggc
acqcqtaagc agcgtctgca ctttcaccgt tttatgctgc gggtccatga agagctgacg
                                                                      180
gcgctccagg gcgaaaccga cccgctggag attgtggccg atcgtttcaa ggcggaaacg
                                                                      240
qacqtqctct gcttcgacga gttctttgtt tccgatatta cggatgccat gctgctgggg
                                                                      300
ggcctcatga aagegetgtt tgegegtggg atcaccetgg tggegacete aaatateeeg
                                                                      360
 coggatgage tttategeaa tggtetteag egggegegtt teetgeeage catagatgee
                                                                      420
 attaagcage actgegacat catgaatgte gatgeeggeg tegattateg tetgegeaca
                                                                      480
 ttaacgcagg cgcacctgtg gctttcaccg ctgaacgccg acacaqccag cgagatggat
 aaactgtggc tggcgctggc aggggcgccg cgggataagg cgccagcgct ggagattaat
                                                                      600
 categocogt tgtogaoget tggcgtagag aaccagacge tggccgtete gtttgcaacg
                                                                      660
 ctctgcgtgg acgcccgcag ccagcatgac tacgggccgc tttcacatct gggtctgaac
                                                                      720
 cagooggata gaatgatata tggt
                                                                      744
 <210> 4619
 <211> 339
 <212> DNA
 <213> Enterobacter cloacae
 <220>
 <221>unsure
 <222>(97)
 <220>
 <221>unsure
 <222>(98)
 <220>
 <221>unsure
 <222>(99)
 <2200>
```

<222>(100)

<220>

<221>unsure <222>(101)

..... (10.

<220> <221>unsure <222>(102)

<220> <221>unsure

<221>unsure <222>(103)

<220> <221>unsure <222>(104)

<220> <221>unsure <222>(105)

12

1.11

1U

Ü

14

100

1 de

10

17

<220> <221>unsure <222>(106)

<220>

<221>unsure <222>(107)

<220> <221>unsure <222>(108)

<220> <221>unsure

<222>(109)

<220> <221>unsure <222>(110)

<220> <221>unsure <222>(111)

<220> <221>unsure <222>(112)

<220> <221>unsure <222>(113)

<220> <221>unsure <222>(114)

<220> <221>unsure <222>(115)

<220> <221>unsure <222>(116) <220> <221>unsure <222>(117) <220> <221>unsure <222>(118) <220> <221>unsure <222>(119) <220> <221>unsure <222>(120) <220> <221>unsure <222>(121) <220> <221>unsure <222>(122) <220> <221>unsure <222>(123) <220> <221>unsure <222>(124) <220>

(3

17 

10

10 13

14

f Ų

14

1.3

10 13

2 10

> <221>unsure <222>(125)

> <220> <221>unsure <222>(126)

<220> <221>unsure <222>(127)

<220> <221>unsure <222>(128)

<220> <221>unsure <222>(129)

<220> <221>unsure <222>(130)

```
<220>
 <221>unsure
 <222>(131)
<220>
 <221>unsure
<222>(132)
<220>
<221>unsure
<222>(133)
<220>
<221>unsure
<222>(134)
<220>
<221>unsure
<222>(135)
<220>
<221>unsure
<222>(136)
<220>
<221>unsure
<222>(137)
<220>
<221>unsure
<222>(138)
<220>
<221>unsure
<222>(139)
<220>
<221>unsure
<222>(140)
<220>
<221>unsure
<222>(141)
<220>
<221>unsure
<222>(142)
<220>
<221>unsure
<222>(143)
<220>
<221>unsure
<222>(144)
```

112

1.75

10

1.15

O

1.4 1.0

Prof.

<220>

<220> <221>unsure <222>(145) <221>unsure <222>(146)

<220> <221>unsure <222>(147)

<220> <221>unsure <222>(148)

<220> <221>unsure

<222>(149) <220>

<221>unsure <222>(150)

<220> <221>unsure <222>(151)

<220> <221>unsure

A COLUMN TO A COLU

(7)

. 3

10

10

13

14

<222>(152) <220>

<221>unsure <222>(153)

> <220> <221>unsure <222>(155)

<220> <221>unsure <222>(156)

<220> <221>unsure <222>(157)

<220> <221>unsure <222>(158)

<220> <221>unsure <222>(159)

<220> <221>unsure <222>(160)

<220> <221>unsure

```
<222>(161)
  <220>
  <221>unsure
 <222>(334)
  <221>unsure
 <222>(336)
 <400> 4619
 tggcgtaact gtgtcagaat agagacttet ettttcacga egecagaatg tatgaaageg
                                                                    60
 atcactcttt atgacgttgc ccgcgtggca ggcgttnnnn nnnnnnnnn nnnnnnnnn
 180
 gegetacact atgtqcccaa ccgtqgcgcg cagcagctqg ccgggaaacg cacccgcacg
                                                                    240
 ctggggctga tgaccagcga tctggcgcta catgcgccgt cgcaaatggc ctcaggtctt
                                                                    300
                                                                    339
 cacctcgagg ggagccggaa ccgcgaaagt actntntaa
 <210> 4620
 <211> 426
 <212> DNA
 <213> Enterobacter cloacae
 <220>
 <221>unsure
 <222>(7)
 <220>
<221>unsure
 <222>(58)
 <400> 4620
 atcccgntgc gtcacttccc ggggctgggc attatcagta aattgattgt attgtttntg
 coggoagatg cgtcaatggc ggtgateeet gageteactt cggtgeeegt gegeateace
 etgetggttt eeggeattgt ggttaacgcc ettgecaccg ggatgtatat eggegegggt
                                                                    180
 tttqgcqcag qcccqcqcqa cggcctqatq accqgcatac acqcccqqct qqqctqqtcq
                                                                    240
                                                                    300
 atcogcagog tgogtacogc gatcgaggtg actgtgttga togtoggeta cotcetoggg
 ggagcgtttg gcgttggaac cgtgctgtat gcattaacca tcggcccgct gatccagctc
                                                                    360
                                                                    420
 tqtttqccqt qqtttcqcca qaqaccqcqc attcaqaaaq ctqcacaqcc qqaqcqqatt
 gtttaa
                                                                    426
 <210> 4621
 <211> 385
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4621
 ttcqctttqt qqaqattqqc aqcqctcttt aatqatqatt acaatqqcaa aaaatttaqq
                                                                    60
 tttttccaaa gcaacattgc gtaaggtggg agccaatagt gatggtgatg gctttttatg
                                                                    120
 etttgetgea eaeggaaata geatggagee agtgateget gatggeteta etgttgeeat
                                                                    180
                                                                    240
 aaactgccat gacaagcgta togttgatgg taaaatttac ggcatcaacc aaggtggatg
                                                                    300
 gaaaaqqtta aaaatcctct acaqatctqq qccaqataaq qtqacaatca qaaqctataa
 ctctgatgaa taccctgatg aagaagtaga catggatagc cttgaqqttt taqqaaqact
                                                                    360
 gttttgggta tcaacaattt tctga
                                                                    385
 <210> 4622
 <211> 1290
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4622
```

cagtatcata ttogcttogate ttogcttogate tgogocttgt tgaatcatgag gaatttgaag gttattogcg ttgatcogct tgatcogct tgatcogct taatcogcg tgatcogct adgaatcagcg caaatcaacg tcocgtatca gccgaattg tcagaactg tctgaactt tacagtgaag cttgcagacg ctgcgccaac	ttgccggacg aaggcgagt agttcaattg tggtgacgac ccattccgtc ttggtgacgac ccattccgtc ttgatttac ataatattca tggcggaacg aggccgtacg acaagttgcg acaagttgct aaattctgct ccttgtccgt gctgtgtcgt gctgaaacat aggccgaacat aggtcgagca tcgacgagca	gcgccagttg tgacgtgacg gatcaccgc cgattgttca cettcgcacc gcaacgttt tatgccgctg ggaaatggag gtcgccgcgt ttcgacgtg ctacactggc ggacacggt ggacacgst ggacacgat catcgagttc acacttggt tcatgccaa gcgccacttggt caccattggt caccattggt caccattggt caccattggt catcagattca cacagatcac cacagatatta actgaattag gtcatgcgat	tacqaacctg aaatggtgg ctgctaccgg ctgcttgctc gactggtag tcgatgaccg ccagaactcg gccgatgaca cctcgcctg gatcaggaag gttatcagcg caggagac ccggacacc gacggcgaa ggcatgatga ggcatgatga ccggacacc acggcgaat ggcatgatga tctctcgct atggcggag cgggttaccg	ccacqcagge agcagaaca ggctggtaca agcctctgct gctacgacga tcgtgctgac cggagcagtg tgccgcagtg ccaaggttac ccatgccgc gtaacggtcc ccaaggttatct ccgaaggcga cgcgcgctt ttaccgattat tcatgcaggc cgttgacctt tgtgtgccgt	agacgacag getgttegge cegegegaat gtggatege ttegegteeg ggegaceet tgtctatage gtgtcagtgg ctgecegete gttgacegte getgacegt acgtategg tgetgacet cgaacgeaag gtteetgate gategacet cgaacgeaag gtteetgate gategageete gateagete gat	60 120 180 240 300 360 420 480 540 660 720 780 960 1020 1080 1140 1290
<210> 4623 <211> 1028 <212> DNA <213> Enter	robacter clo	pacae				
aagttttgcc ctggcgcatc atcaatgtcc gaacaactta ataatcagaa ttattatcat tgccagttat tactgggagc tgttattgt aaagaatct gttagcaacc acaaaatacc atcaagtcta tcggaaggag aaatgtaaaa	eggtttaggg cttettoacg gaatgagat tgaaagatat tggatggaa ttggtaggaa ttgtaatcca ttaaaagtca ttggagagg ctatactca ttagaagagg ctatactca ttagagaggg ttggagga tggtatactca agagtctgtaag ctgtatcct aagattctt	cogcottagt togtgaagat ggttacaacc gcacatacgt agacttcgat tacacaccc tttaaagaaa ttcatcggg agacaaatgt ttgctggcca tatgagaatac atttagtcgc taagcgaacc ggggtttagt tgtaattca aagacggoga accaaagtta	acttttcatt tgccatcagc attggcatga tttgctaagt aattacatgg aatgtttc cttataccaa tgtcagcat acgtatgcag agttttcata agcagatgt acaaaaaatta ctgcatcac cattatgcac acttatgcac	atggtgttac atccggtagc tgcctcctgt tttgttatga atgtacttaa acgcacatgt catccctaac ccacaaagca gaagtcgtac tagttgaaaa acattaaaac atatattcac tagctgagaa gtttatgotc aastattagctc aaatattaagcc	ttattggcat gcttgaaagc ttcgtataca gtccctaaat ttatgctaag tgattatcat tctttgctt taataaaaag taatactagt acttatttat tgaattgctt aactcatta atggcgtaaa attgatacat	60 120 180 240 300 420 480 540 600 660 720 780 960 1020 1028
<210> 4624 <211> 246 <212> DNA <213> Enter	obacter clo	acae				
gtatctaaag gttaccggtt	gtateceage etacetgtga	gatgtotgag taacaagato caacgtgaaa cgaagttaaa	tecceaegtg ceaegegetg	gtatgggcga cactgatcga	atctaaccca ctgcctggca	60 120 180 240 246

```
<211> 483
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4625
 acagagttac acggtaacac tgagatcgca atgaaatatc aacaactgga aaacctcgaa
 ageggetgga aatggaagta cetggteaaa aageacegtg aaggggaget gateacetge
                                                                       180
 tacatogaag ccagcgcggc gcaagaaget gtggatatgt tgctgaccct cgaaaacgaa
                                                                       240
 coggtactgg tcaacggotg gattgagaaa cacattaatc cggccctgtt aaaccggatg
                                                                       300
 aagcaaacta teegtgeteg tegtaaacgg catttcaatg cegagcatca geacaccegt
 aagaaateca tegacetgga gtttatggte tggcagegte tggceggget tgegeaaegg
                                                                       360
                                                                       420
 cqcqqqaaaa ccctqtcqga aacqgtggtg cagctgattg aagatgccga gcacaaagag
                                                                       480
 aagtatgcca gccagatgtc gacgctgaag aacgatctac aggcactgtt aggtaaaaaa
                                                                       483
 <210> 4626
 <211> 198
 <212> DNA
 <213> Enterobacter cloacae
 <220>
 <221>unsure
 <222>(109)
<220>
<221>unsure
 <222>(131)
<400> 4626
atttccaago aaattaaaat tattggtgag goggocaggo gggattacaa ogtgacogaa
                                                                       60
 gtegecaata tgetgtacae gttteeagte gggeegggtt tecageceng gggeaatate
 ceqqegagte ntgggaggag ggagtttagg gtattggaga tttttatece gtecgeggea
                                                                       180
                                                                       198
 agegeetget gggtatga
 <210> 4627
 <211> 822
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4627
 ggtattggag atttttatcc cgtccgcggc aagegeetge tgggtatgac cgagecagge
 aaggcattgc tgaccatcgc tgagcgcatt ctcaacgagg ccggcaacgt tcgccggctg
 geggatetet ttaccaacga egetteeggt gtgatgacta tegecaccae ccatacgeag
                                                                       180
 gogogotaca gtottocgac ggttatcaaa gcatttogtg agatottocc ggacgtacgt
                                                                       240
                                                                       300
 ctcgaactga tccagggcac gccgcaggaa atcgaagtgc tgatgcataa cggcggggcc
 qatateqqta teqecaqtqa acqqetqaqe aacqaeeeqe tqetqqtqqe qtteeeqtqg
                                                                       360
 tteegetgge accaeagest getgttacce gecgateace egetgaatca ggtttegeeg
                                                                      420
 ttgacgctgg aagagatcgt caaatggcog ctgattacct accggcaggg cattaccggg
                                                                      480
                                                                      540
 egetegegea ttgatgaage gttcaagegt aaagggetea egeeggaegt ggtgetgage
                                                                       600
 gcqcaqqatt ccgacgtgat caagacctac gtcgagttag ggctggggat tggcctggtg
                                                                       660
 geogageagt etggeggaga atatgaggee ggaaatetgg tgegtetgga taegegteae
                                                                       720
 ctgttcgatg cgaataccgt ctggctgggg ctaaagcgcg ggcagcttca gcgtaaatac
                                                                       780
 gtgtggcgtt ttattgagct atgcaacgcg gggctgtcgg tggatgagat caaacgccag
                                                                       822
 gtgatggage eggaagaggt ggegattgat tateagattt ag
 <210> 4628
 <211> 219
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4628
```

```
qatacqqtcq aqtcqatqqt ccqggcatta cgtaccggga actatagcgt cgtgattggg
tgqttqcctg aggatctgtc gcaagaggaa catttgcgtc tgactgaagc ggctgaagaa
                                                                     120
ggtaacgega tgggtttcat catgeggeca gttegtggag attectateg cagaggacaa
                                                                     180
catcccgggc taaaaattca ctcaaatgtg taccattga
                                                                      219
<210> 4629
<211> 426
<212> DNA
<213> Enterobacter cloacae
<400> 4629
ataacacaaa tottoatgga gtttatoatg ttoaaatcga toatgaccgt atcactgctg
                                                                      60
qccqccqcta ttgcctctac cagcgcagtg gccgcagaca attcagcggg tggtatcatt
aactttaccg gcgctattac cgatacaacc tgtaccatta acggcggtaa aagcgcagac
                                                                     180
                                                                     240
tttaccgttg cgctttcccc tatttcggta aaagatgcag gcaccacggt tggcctgatc
actaagaata aaaaatctat tgcgctgact ttctcaggtt gttcaccagc agccggaacg
                                                                     300
                                                                     360
accggcaccc cgctgaaagt gtatttctcc agcgcggata atatttccac tgacggtaaa
tacctgctga ataacagcgt gaacgaaagc gatgccagcg tggcacgtaa tgtcggtttt
                                                                     420
                                                                      426
gcgtta
<210> 4630
<211> 1026
<212> DNA
<213> Enterobacter cloacae
<220>
<221>unsure
<222>(1017)
<400> 4630
ggttccgggc cggcgctgaa accacggctg cgttctatcg gcgctgccgt cgatcctcga
cgcgategee caegtgetee ggtgacegeg eggateggeg egegeggtgt eeeegeeegg
ttogaccgca cotogacgca coggogogog atgotogoga aggtgcatat ogocaaggto
                                                                      240
caqttqqqqa tqaqcqacga cgactatgtc gcggtcctgc tccgcgcgac cgggcggacc
agegeggeeg agtgeacega eegegagete gaegaegege tgegegaatt caageggett
                                                                     360
ggettegage cacaggegeg etegeegaaa geggegaaac cageggatea teeteteget
                                                                     420
ctgaaqqcqc qqqcqctgtq gatctcqctq catcacctgt gcgcgatcgc cgacccgtcc
gaaaaggege tggaggeett egegeggege eagetegget gegategget eeaatgggeg
                                                                     480
                                                                      540
aaccagtege agggccaccg cetgategag gegeteaagg egategeege gegteaegge
tggaaceteg ceatggatgg ggtgaageet gaggeggtge tgategteac caageggegg
                                                                      600
ctggtcgacg cgatcgcccg ccaagctgcg cgcgcgcgac atcgtgccgg acgggtggag
                                                                      660
                                                                     720
eqaqeqqaaq ateqeacqqe aqetqaecqq gategaggte gaetegatee tgttegeaac
cgacggggaa ctggaccgca tcgcccaggc gccccggcgc caagctgcgg gcggcgatgg
                                                                     780
aggooggggt atgatogogo cogocacoog oggatatgto gtgotgtato gogogoogoa
                                                                      840
                                                                      900
getetgeceg ggatgtggee getegeaetg getggtegga eggttetegg eggaatgege
atggtgccac ctcgcgctgc cccttgcgcc ggccgtgccg gagcggatcg cggcatgacc
                                                                     960
                                                                     1020
acccagaccc agategtete geggaacgaa cagattgagg agttggeege gaggeengtt
ttttag
<210> 4631
<211> 282
<212> DNA
<213> Enterobacter cloacae
<400> 4631
tgctgtcttc gtgtcctcgc tgctgcgcgt cggcctgctg tttttttggc gcgtgtgctg
                                                                      60
gtegageget tteegetgtg ceteggtttt etgggeetgg ttteettegg ggetggtgge
                                                                     180
ctgtatatag gcctgcgtac tartccggtc atttttgaca tcattaaaga cgtggaggac
atotgoocga acgootgggt gattaacttt accaaccogg cogggatggt caccgaggca
                                                                      240
                                                                      282
gtetategee ataceggttt caaacgettt ateggegtet ge
```

```
<210> 4632
<211> 345
<212> DNA
<213> Enterobacter cloacae
<400> 4632
ategegttte etgeeagtee egteggttta agacacttga aggttteegt gatteggttt
                                                                     60
ettgtattte eggtetgega attttggetg gtggatgttg atgatggtet ggagttgetg
                                                                     180
attititt tigticigig ottiogotig gitgattitg egggegigee ettiteetig
                                                                     240
cttttttcqc tggttcgtcg cctggctctg tttgatgctg tcttcgtgtc ctcgctgctg
                                                                     300
egegteggee tgetgttttt ttggegegtg tgetggtega gegettteeg etgtgeeteg
                                                                     345
gttttctggg cetggtttcc ttcggggctg gtggcctgta tatag
<210> 4633
<211> 687
<212> DNA
<213> Enterobacter cloacae
<400> 4633
tttgccaacc agcgcgagcg ccagtcactc tttttctcca ccaccttcga ggtgatgggg
                                                                      60
cacttaacca aatcaaaagg gcgcgtaacg gaagecgata ttcaggtggc cagcgtcttt
atggategca tgaatetgea eggegaatee egcategeag egeagaatge gtteeggatt
                                                                     180
ggtaaatcag ataactaccc getgegtgaa aaaatgegge agtteegtag catetgttte
                                                                     240
qqqcqttttq atttaattcq gatgtttctq gaaattcaaa tccaggccgc cttcgcggat
                                                                     300
ggttctctgc atccgaatga acgggacgtt ttatatgtga ttgccgaaga getgggcatt
                                                                     360
                                                                     420
toccqcatqc aqttcqacca gttrctgcgt atgatgcagg gcggcgcgca gtttggcggt
qqttatcaqc aacagcactc ctccggcggc tggcagcagg cgcagcgtgg ccctacgctt
                                                                     480
gaagatgeet geaacgteet eggegtgaag cegtetgaeg atgteaegae cateaaaege
                                                                     540
qcctatcqta aqctqatqaq cgagcaccat ccggataagc tggtggcgaa aggcctgccg
                                                                     600
ccagagatga tggagatggc gaagcaaaaa gctcaggaaa ttcagaaagc ctacgagctg
                                                                     660
attaaagagc agaaaggttt taaataa
                                                                     687
<210> 4634
<211> 579
<212> DNA
<213> Enterobacter cloacae
<400> 4634
gegggegtea aegteeegga cagegtgttt tatacetetg egatggegae egeggattte
ctgaagcgtc aggaaggcaa aaaagcctat gtggttggtg aaggtgcgct gatccacgag
etgtataaag egggetteac cateacegae gtgaaceegg actttgteat egtgggegaa
                                                                     180
acqcqctcct ttaactqqqa qatqatqcat aaqqcaqcct actttqtcqc caacqgtgcg
                                                                     240
egtttateg ccaccaacce ggacacgcac ggtegtggtt tttateccgc etgeggtgeg
                                                                     300
etgtgtgeeg gtategaaaa aatetegggt egtaageegt ttgttgtegg taaacegage
                                                                     360
cogtggatta tocgogoogo actgaatacg atgcaggcac actcagaaga aaccgtcatt
                                                                     420
qtqqqcqaca acctqcqtac cqatattett gctggcttcc aggcggggct tgaaaccatc
                                                                     480
                                                                     540
ctqqtqcttt ctqqcqtttc acagcttqat gacattqata cgatqccqtt ccqqccaagc
tggatttacc cototgtoga ogaaatogac gttatttga
                                                                      579
<210> 4635
<211> 345
<212> DNA
<213> Enterobacter cloacae
<400> 4635
aacqcttqcq ccccctcccc tttttgcggc attttcataa gcaagcaaca tcacaacgca
                                                                      60
acagggttaa cggagaaggt tatgtgttct atttttggcg tactggatat taaaactgac
                                                                      120
                                                                      180
qeqqeqaac tqeqtaaaaa aqeactegaa ttqtcccgcc tgatgcgcca tcgcggtccg
qactggtcag gcgtttacgc cagcgataaa gcgattctgg ctcacgaacg tctctccatt
                                                                      240
                                                                     300
qttqatqtte aegetqqeqe acagecqetq tataacqaqa aaaaaacgee egegetgget
qttaaacggg aaatttacca acatcaagcc ctgccccccg aataa
                                                                      345
```

```
<210> 4636
 <211> 684
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4636
 agattaatta tgaaatatca gttcttttgg tcttcaacgc ctaaaatata tgagctttta
                                                                       60
                                                                       120
 ttaaatctaa caattggaat agctattata aattatttgg ttcccactga acaagggaaa
 atagggtttt taataaattt atgcatgttg ttaagttttt taactacttt aggtataggt
                                                                       180
 ccagttttct caaattttgt aagcagatca aataattaca atctaatttc aggaaagttc
                                                                       240
 aaqqataqta tttcqcttcq cttttqtqqc tatattqtat ttttaqttat atctttttq
                                                                       300
 cttatttata taataaagee caatetttta attettgeta tteettttt getagggaaa
                                                                      360
 tttttcttta gcctcgatat ttattataat tttgttgaag gtcagggggg atttaaagat
                                                                      420
 tatgeaattt caaaattott ttotttgaca ttaataaatg gottoagatt gtattgtgto
                                                                      480
 gttcaaaaac ttgatgtctt ttgggtagct gtttcatact ttttaactga cttccttacc
                                                                      540
 tttttcatgt attttatctt ttatgataag ttaaagcttt taggattccg ttttaattat
                                                                      600
 aaaaaatcgt tagttttatt aaagataaat tataaggtcg ctctgtcttc actacgaagg
                                                                       660
 tgccggagcc gcgatatcac atcc
                                                                       684
 <210> 4637
 <211> 594
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4637
 cccattgcca gactggtgca ggactatcct attaaatcct gttcggtgat cgcccatatc
                                                                       60
 cgccaggcca atcgcggcga agtggcgctg gaaaataccc atccgtttac ccgtgaactg
tggggccgta actggaccta tgcgcacaac gggcagctct cgggctataa atcactggaa
                                                                      180
                                                                      240
 accggcaatt ttcgtcctgt cggtgaaacg gacagcgaaa aagcattttg ctggctgctg
 cacaagetga eegagegeta eeceegtaeg eeeggeaaca tgacegeegt tittaaatae
 atagogtoac tggcgtotga gttacgcgag aagggcgtot ttaatatgct gctgtotgac
                                                                      360
 gggcgctacg tgatggcgtt ctgctcgaca aatctgttct ggatcacccg acgtgcgccg
                                                                      420
 tttggcgtcg ccacgctgct cgatcaggat gtggaaattg attttcagaa ggagaccaca
                                                                      480
 cogaacgatg tggtcactgt cattgcaacg cagccgctga cgggcaacga aacetggcaa
                                                                      540
 aagatcatgc caggogagtg ggogotattt tgtctcgggg accgcgtaat ttga
                                                                      594
 <210> 4638
 <211> 987
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4638
 acgttgatct tocagoogoo gtgcgtgaag atcttattto tggcttcact gctcttcatg
                                                                      120
 gcacctgccg ctttcgccgc aaccacctgg cccctcacga ttgaaaattg cggcgtaaag
                                                                      180
 caqacettta eqeaqqetee teaqeqeqte qtqaeeqtqq qteaqeatqa aacaqaatta
 ctgctcqcac tggggctgga gaaaaccatc gccgcqacgt cagtctggtt cggcacgctg
                                                                      240
 ccacccacge tggaggatge cgggaaaaac etccccgge ttgcggatta ttecccetee
                                                                      300
 tttqaqqccq tqqtaqqqca qaaacctqaa ctcqttctcq cqcaqtatca ctqqcacatt
                                                                      360
 qqtccqcaqq gaqaaqtqqq aacccqtqaa caqtttqcqt cqctqqqqat taatacqtqq
                                                                      420
 atotocootg cogactgoac ggataaaacg gtaacggaaa cotoaaacgo agacggagoa
                                                                      480
 egtagegege egtttteact ggeggaaatt acgegggaag tgacagatet ggegacgatt
                                                                      540
 tttqatqttt ccqcqcqaqq tqaqcaqctc aatcqtqcqc tqqcqqaqcq tattaaaaaq
                                                                      600
 acceagacge acactecae quascaactt accategtat tetagttete cageageegt
                                                                      660
 ctgaatggeg atcoctgggt ggeggggaat tacggegege ctggctggat tageegeacg
 ctqqqqttqa aqaacattat tgactctcac gacqaatqqc ccqctqtaac qtqqqaacat
                                                                      780
 attgcccgat cgcagccgga cgtgattgtt atcgccggga tgtcccgcag gctctatcct
                                                                      840
 gccqatqaqq ttqaqqtaaa aaaaqcqttc ttqcqcaqtq acccqqtqac aaaqaacatq
                                                                      900
 cctqcqqtca qqaacaacca catcatcqtq qtqccaqcqa tqtcqttaaa cccttcattq
                                                                      960
 cqtaacqtcg atgcggttga gcttatc
                                                                      987
```

```
<210> 4639
<211> 222
<212> DNA
<213> Enterobacter cloacae
<400> 4639
                                                                     60
qqctacacac qtqctacaat ggcgcataca aagagaagcg acctcgcgag agcaagcgga
                                                                     120
ceteataaag tgcgtcgtag teeggattgg agtctgcaac tegaetecat gaagteggaa
                                                                     180
togotagtaa togtggatca gaatgooacg gtgaatacgt toccgggcot tgtacacacc
                                                                     222
gecegteaca ccatgggagt gggttgcaaa agaagtaggt ag
<210> 4640
<211> 1035
<212> DNA
<213> Enterobacter cloacae
<220>
<221>unsure
<222>(105)
<400> 4640
ccaaagegee ggeegagegg egeeatggag etggacaatg ccaacaacgt gggeggttat
                                                                     60
cogggttaca gcattaccaa cotoqogoog ttootgcaag coagntatga cattgacgco
atcaccetga geggeggegt gegttateag tacaccgaaa acaaggtgga egattttgte
                                                                     180
gqttacgccc agcagcaggc aatcgccacg ggcaaagcca cctccgctga cgcggtgccg
                                                                     240
                                                                     300
ggcgggaaaa ccgactacaa caacttcctg tttaacgccg ggatccttgg acgtctgacc
qaacaqcaac aqctqtqqtt taacttctcc cagggcttcg agatcccgga cctggcgaag
                                                                     360
tactacgget coggoaccta toagotggto gatggtoact atogtotgca aaacagogto
                                                                     420
aatgtgaacg actcaacgct ggacgggatt aaggtcaatg cttacgagct cggctggcgc
                                                                     480
ttcaccggcg ataacctgcg tacccaggtg gcggcatact actcgctctc ggataaaacc
                                                                     540
atcaccatca acaagagega catgaccatc aacctggagg acgacaaacg tegtatetat
ggggttgaag geeaggtgga etatttette accgacageg actggageac eggggegaac
                                                                     660
tttaacqcca tcaaqtccga aacqcgtgaa aacqgggaaat gggagaagct gacggtcgac
                                                                     720
                                                                     780
agegecagee egtetaaage eagegeatgg gteaactggg egeegggega etggaegeta
egegtgeaga geacacaaac ctttgaegtg tetgaegeeg aeggtaagaa gattgatgge
                                                                     840
                                                                     900
tataacaceg ttgattteet gggtagetae geeetgeegg tgggeaaagt cagetteage
gtggagaacc tgctggacaa agactacacc accgcctggg gccagcgcgc accggggctg
                                                                     960
tatageccaa ectaeggege acegggtetg tetaettatg tettetecae gaggeggeea
                                                                     1035
aqaatacgca gaaag
<210> 4641
<211> 614
<212> DNA
<213> Enterobacter cloacae
<400> 4641
                                                                     60
cggaacaata aaatacaacg tatgaaaaaa cgtatcccca cccttctgga cacaatgatt
ggcaccqccc tgtatagcca acaggggctc gcagccgatc tcgcctcgca gtgtatgctt
                                                                     120
                                                                     180
ggegteceaa gttacaateg eccaetggtg aaaggegata egaatgaett accegteace
attaatgeeg acagegeaaa aggtaattat cetgacaatg caacetttae gggeaatgte
                                                                     240
                                                                     300
qatattaacc aqqqcaacag tcgcctgctt gctgacgaag tgcaattgca ccagaagcaa
                                                                     360
coggaaggtg ctcaggogcc tgtccgtacg gtggatgogc tgggtaatgt gcactatgac
gacaatcagg tcatcctgaa aggtccgaaa gcctggtcga atctgaatac caaaqacacc
                                                                     420
                                                                     480
aacqtctqqq aaqqtqatta ccaqatggtc ggtcgtcagg ggcgcggtac cgcggacctg
atgaageage geggegaaaa eegetacaee attetegaaa aeggeaegtt taceteetgt
                                                                     540
ttgccaaggt caaatacetg gagegttgtg ggcagtgaag tgatccacga cogtgaagaa
                                                                     600
                                                                     614
caggttgcag agat
```

<210> 4642 <211> 366 <212> DNA

(5

1.75

(1)

13

10

11

1 4

1,2

## <213> Enterobacter cloacae <400> 4642 gtggaaacaa caasattatg gatttcatta ggcactattg tcagccctat tactggaacg tttttcacca agataattac gcaatataac cataaatacc tgctctggta taatggagaa tatottatca aaccoggtga taacattaag gttaacaaca acggaattgt tatatcagaa 180 aaattacgga agattaatat aatacaaatt gacaagtata goocgacgot ctggogagto 240 300 atgcacaaca tgtccagctg ccctggcgat aaagaacctg aaaattcatt ttgtacatcc 360 tooqtoogot gtattttoaa aacctgooot tatggtaaga aacggagaaa cgcatgtaaa 366 <210> 4643 <211> 801 <212> DNA <213> Enterobacter cloacae <400> 4643 60 gactcgggcc actacaataa aagtttggga tggttgtcat tattcgcagg cactgtatta ctcagtgget gegattetge actactagac cccaaaggae agattggaet ggaacaacgt 120 tcattgatac tgacggettt tggcctgatg ttgattgtgg ttattcctgc catcttgatg 180 gctgttggtt tcgcctggaa gtatcgtgcg agcaataaag atgcgaagta tagccctaac 240 tqqtcacact ccaataaaqt qqaaqctqtq qtctggacgg tacctattct gatcatcctg ttccttgctg tactgacctg gaaaaccact cacgcacttg agccgagcaa accgctggtt 360 cacgatgasa sacctattac cattgasgtg gtctccatgg actggasatg gttcttcatc 420 tatocagaac agggcattgc taccgtgaat gaaatcgcct tcccggcgaa cactccggtt 540 caqttcaaaq tgacctccaa ctccgtaatg aactccttct tcatcccacg tctgggcagc cagatttacg cgatggccgg tatgcagact aacctgcacc tgatcgcgaa tgaagcaggc 600 acctacgacg gtatctccgc cagctatagt ggcccgggct tctcgggtat gaagttcaaa 660 gctatcgcta cgccagaccq cgcgactttc gaccagtggg ttgcaaaagc gaaacagtct accaacacca tgtctgacat ggcggcgttc gaaaaagtgg ctgcacctag cgaatacaac 780 aagggtggag tacttctcta a 801 <210> 4644 <211> 441 <212> DNA <213> Enterobacter cloacae <400> 4644 cetgcaaccg ggcttttccc tcagtggtct aggtgccctg gcacaggegg cgttgacctg cgacagagtg gtgcaatttt gatgaagcgc gtagcgtttg tttttacttc tgcgccgcat ggeagegett caggeoggga agggetggat geattgeteg cgacategge attaacegaa gatateggeg tettetttt aggegatgge gtattecage ttettgeagg ccaacaaceg 240 caggocatto ttgogogoga etacattgog acotttaaag ttotgoogot otatgacatt 300 gaaacettet atgtgtgege cgactegetg geogegegtg ggttaaacga gaaaacaceg 360 420 441 gataccqttc tgactttctg a <210> 4645 <211> 441 <212> DNA <213> Enterobacter cloacae <400> 4645 60 120 tgcgttaatg gtgacgggcc ccggcgtacg gtacccagcc gggccagcag cgcggtacag 180 tttqcccatq cqctqcttqa tqccqgtcat gaactggcaa gcgtcttctt ctatcgtgaa ggggtctata acgcgaacca gtttacgtcc ccggcgagcg atgagtttga ccttgtgcgc 240 300 geotogcaaa aattaaacga aacqcaqqqc qttqacctqc atatctqcqt cgcggcggca

ctqcqtcqcq qcqtqacqqa tgcqaccqaa gccqaacgcc ttggtctggc gggggctaac

ctgcaaccgg gcttttccct cagtggtcta ggtgccctgg cacaggcggc gttgacctgc

qacagagtgg tgcaattttg a

360 420

```
<210> 4646
<211> 615
<212> DNA
<213> Enterobacter cloacae
<400> 4646
cataagttgg ateggeagge cegtggtgaa gaattaagga ttattttcat ettactttce
                                                                     120
qacqtattta atttgtateg tgactegeat gtaaaatate ageagtetta teaaaattee
                                                                     180
atcogogace costcaccog totttataat egcagetatt totatgatte attaaatcac
                                                                     240
gegetaaaca eggeeacggt gacacateeg gtateggtgg tegtgagega tettgaeegt
                                                                     300
tttaaacgca ttaacgactg ctacggtcat ttgcaggggg atagggtttt acagtttgtc
teaaacetgt tgacegatte ggtgegaceg caggatateg eggegeggat eggegggaa
                                                                     360
gagtttgtgc tcatgctgac aaatacaccg tccgatgtcg cgcatcaggt tgccgaacgt
                                                                     420
attogectea agttgagegg gtttgacaag gecageageg gtgggcaget teeggaaceg
                                                                     480
attaccatta gtatgggagt attcaccgct acctcgccgg aaaccagcgc tgaaacctgt
                                                                     540
gtggaaagcg cggataaagc catgtacgag gcaaaagaga cgggccgcaa ccgggtqqtq
                                                                      600
                                                                      615
gtgttcagaa catga
<210> 4647
<211> 390
<212> DNA
<213> Enterobacter cloacae
<400> 4647
agacqtgctc tgattgacca tcgcctgaaa cctctggaac tcacacagac gcactgggtt
acgetgeaca acatecatea getteegeee gateagteae agatecaact ggeaaaageg
                                                                      180
attggtattg aacagootto cotggtgcgt accottgacc agctggaaga gaagggactc
atetecegae aaacetgege cagegacegt egegecaage ggateaaatt gaeggaaaaa
goggococga ttattactga gatggaaacc gtcatcagta aaacgcgagg ggagatcotg
                                                                     300
googgtattt caccegotga gotggagatg otgatoggac toatogcoog tottgagcaa
                                                                      360
                                                                      390
aacatccacg atttacagtc gcgcgactga
<210> 4648
<211> 468
<212> DNA
<213> Enterobacter cloacae
<400> 4648
eqectggaag gaagtaaaac gcacagggaa tggcgcgttc ccgttgtcag gcagctgcgt
ttgcggttgc agetteteet gtcacgggca acagaagetg gagccgggcc aaaagataac
cttttcqatq tcaqttttta cattgccgga agaaaggcaa agtttgaaag aaatgatgtg
                                                                      180
agtgtgatgc atcaaaagat cogototttc tttcgacgcc tgtcaaagga gtgcggtttt
geogttteac egeacegttt cagacacact ettgecaegg aactgatgaa agegeeegaa
                                                                      300
aggaatotto aactggttaa agatttactg ggtcatcgta gtgtcagtac aacaatggaa
                                                                      360
tacqtqqaqc tcaggatgga cattgtggga aaaacactgg aagaagaact gtctctgcac
                                                                     420
                                                                      468
acagatotot gtgtagaaag ggaattacaa ctattgacac aaaactga
<210> 4649
<211> 402
<212> DNA
<213> Enterobacter cloacae
<400> 4649
                                                                      60
tottggaacc ccaatgagtt gotgacgggc aaaacggaat gtaataagtg tgaggagget
tcaccgggaa acgtgacgtt gaagaccata gaaggggtcg tacggaatgt tcctttctat
                                                                      120
ggtgaaatcg ccgggagccg ggtaaaaaaa ggtccctggt ggctgattat attaaagcgt
                                                                      180
                                                                      240
tgqttacaaa aaaqootgac goggggatto agtoacttoa accocgacca gtataatggo
geotytetyt taggattgeg eggeategtg attaagagte atggegeege caatcagega
                                                                      300
                                                                      360
quatttaccq toqcqattqa acaggcagtq caggcggtqc agcgtcaagt ccctcagagg
                                                                      402
attgeogete geetgggate tgtattaget aaaagtgact ga
```

```
<210> 4650
 <211> 519
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4650
 gegtacatgt atacgaagat tttaggtacc ggcagctacc tgccaaaaca agtgcgtacc
 aacqccqatc ttqaaaaaat qqtaqatacq tctqacqagt ggattgtcac gcgcacaggt
                                                                      180
 atccqtqaac qtcqtatcqc cqcqccagac gaaactgtgt ccaccatggg ctacgaagcc
                                                                      240
 gctcagcgag cgcttgagat ggctggcatt gataaagaac agatcgggct tattgtggtg
 gcgaccacct ctgccacgca tgccttccca agcgcagcgt gccaggtgca gaacatgctc
 ggcatcaaaq gctgcccqgc atttgatgtt gcagcagcat gcgcgggttt cacctatgca
 ctgagcatcg ccgatcagta tgtaaaatcg ggcgccgtaa aatatgcgct ggtgatcggc
                                                                      420
                                                                      480
 getgacgtge tggegegtac etgegateca accgategeg geacgateat tatttitgge
 gatgtcttgc ccagecegtg gaaaateegt atttgegtt
                                                                      519
 <210> 4651
 <211> 789
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4651
 caggicaccg teaceaatga taacggeaag etggacatte gietgacegg eeegtggege
 gaggtgatca tgtgggaagt gccgcttctg gccgtgatca gcgagctggc ccaccgctat
                                                                      180
 egeteceetq aaaccqqtqt gacqcaqqcq qtcqccqctc tggagaataa actcgttgag
tittecaqae tqaceqaagg getggatatg tecegettee gtetgatgga etttggcaeg
                                                                      240
                                                                      300
 egeegeeget tttctcgcga ggttcaggaa gccattgtca gacgtctgca acaggageeg
tagtteqttq qcaccaqtaa ctacqatstq qcacqtcqcc ttgatttaac gccgatgggc
                                                                      360
acceaggege atgaatggtt ceaggegeae cageagatta geeetgaeet tgecaacage
                                                                      420
cagogogog coetogoogo gtggotagag gaatacoogg atoggotggg tattgooott
accqactqca ttaccatqqa cgcattcctg cgcgactttg gccctgagtt tgccgaacgc
                                                                      540
taccaggggt tacgccatga ttccggggac ccggttgaat ggggtgagaa agccatcgcc
                                                                      600
cattacqaaa aqctqqqtat cqacccaatq aqtaaqqtqc tqqtcttctc cqataacctt
                                                                      660
 gatotgteaa aageegtega cetttatege cattteteat egegggtgaa cetgagttte
                                                                      720
                                                                      780
 gggattggta cgcggttaac ctgtgatatc cctcaggtga aaccgctgaa catcgtcata
                                                                      789
 aaactggtg
 <210> 4652
 <211> 522
 <212> DNA
 <213> Enterobacter cloacae
 <221>unsure
 <222>(104)
 <400> 4652
                                                                      60
 acttetgace agacagttac cacceagaaa cagcagattg aagaagetgg etatcaggtt
                                                                      120
 totaaqtqtt toaccqatqa aqctqtatct ggtggcatta aggntacaga gcgtaaaggt
                                                                      180
 tteagtgace tgetgaacta tgtccgtgaa ggtgacacge tggttgttat cgggatagac
                                                                      240
 agattaggcc qtaataccat cqacqtatta tccacqqttq agactttaca ggctaaaggt
 gtgaaggtta tcagtetccg tgaagggttc gacctgtcta caccagttgg taaggctatg
                                                                      300
                                                                      360
 ctcactatga tggctggatt agccagtctt gaaaaagact tgatagcaga gcgcagaaca
                                                                      420
 geagggatta aacgtgetca gtetgaaggg gtteactgtg geagacegat taaagcaact
 actgaacagg ttcaggaact gattgcacaa ggttatttcc ctgctcaggt acaggaagag
                                                                      480
 ttaggaatca gtaaggcgac tttctatcgt ctgaataagt aa
 <210> 4653
```

## <213> Enterobacter cloacae

```
<400> 4653
tgcatgaatc ttatcagtat ttccgccttt caggacaatt acatctgggt tttagtcgac
qacqatcqca qatqcatcat tgttgatcca ggcgaatccg caccgatcct gcacgcgata
                                                                      120
aaagaaaacg gotggoagoo tgaagogato otacttacco atcaccatca ogatoatgto
                                                                      180
ggcggtgttc ccgatctcct tgcgcgctat cctcatcttc ccgtctacgg accggcagag
                                                                      240
acacaggata agggtacgac gcaagttgtc gaagaaggcg aaagtatcct catceteggg
tgggagtttt ccgtatttgc tacgccaggt cacacttccg gtcatctctg tttgtacagc
                                                                      360
                                                                      420
aaaccttatc tgttttgtgg cgacacgctg ttttctggcg gctgtggaag gctgtttgaa
                                                                      480
ggcacgccag aacagatgta tcaatcttta caaaaaatta atgcgcttcc agccgacacc
                                                                      540
qtaatttqtt qcqcacatqa qtatacatta qggaatatga agtttgctgc aagcgtgctg
                                                                      600
cctqagqatc gggcqattca ggattattac ctgaaagtga aggagttacg tgcaaaaaaac
                                                                      651
ctaaaaacac tgcccgtaat gtcttcacta caacgtgccc ggtcacatta g
<210> 4654
<211> 420
<212> DNA
<213> Enterobacter cloacae
<400> 4654
gattcatgca ttacctctta tagcgtggcg ggtgttttga tgaaaccggc aaggatacct
cagactgtog caccaccgga acgttgggca gagttgccct ggggtgaata ttatcgcgag
                                                                      120
gccttagaac ttcagcttaa accctggctc gcgaaaatga atggttttca cctgcttaag
                                                                      180
attggcaatc tgagcgcaga aatcaatacc gaaagctgcg ctatctcgca tcaggttagc
                                                                      300
qtatcqctta atggctcccc ggttcaggtg aaagcggatc cgatgcattt gccgtttgcg
                                                                      360
gaaaaatcca ttgatgcctg tctgctcgcc catacgctgc cctggtgcag cgatccccat
                                                                      420
cgtctgctgc gggaagccga ccgccctttg attgtagttg tcgaccagcc ggtagattgg
<210> 4655
<211> 849
<212> DNA
<213> Enterobacter cloacae
<400> 4655
toacaggett ttgtacgaaa ttatggetat gagettgeac ategggtaat etgegegett
cqcqcaqcqc tqqtggagaa aagcatgaac gacgaaatga aaaacaaaag cggcaaggtc
aaagtgatgt atgtccgcag tgatgatgac tctgataaac gcacccaaaa tccgcgtacc
                                                                      180
ggaaaaggtg gegggegtee ggegtettet egtgeagaeg gtggeegteg eccegeeege
                                                                      240
qatqacaqaa ataaccgcgg cgatgaccgc aaacgtgatg accgtaagcg tgacgatcgc
aaacgcgatg attttgtccg cgacggtgga tcgccatggc gtaccgtttc tcgcgcgccc
                                                                      360
                                                                     420
ggtgaagaga cgaccgaaaa agccgatcac ggcggtatca gcggaaaaaag ctttatcgat
coqqaaqtqc tqcqtcqtca qcqtqcqgaa gagacccqtq tctacqqtga gaacqcctqt
                                                                     480
caggecetgt tecagageeg eeeggagtgt ategttegtg catggtttat eeagagegtg
                                                                      540
accompaget ttaaagaage getgegetgg atggeggega accgcaaage ctaccacgtg
                                                                      600
gttgacgatg cogagetgae aaaagegtee ggtacagaac accaeggegg egtetgette
                                                                      660
                                                                      720
ctgatcaaaa aacgtaacgg cactaccgtg cagcagtggg ttagccaggc ggatgccgat
gactgcgtac tggcgctgga agatgtgggt aacccgcata acctgggcgc tatgatgcgt
                                                                     780
                                                                      840
agetgegege actttggegt gaaaggegtt etgttgeagg atgeegeget getggaatee
                                                                      849
ggtgcggcg
<210> 4656
<211> 429
<212> DNA
<213> Enterobacter cloacae
<400> 4656
atqaaaactt ttacaqctaa accaqaaacc gtacaqcqcq actggtatgt tgttgacgcg
                                                                      60
accggtaaaa ctctgggccg tctggctact gaactggctc gtcgcctgcg cggtaagcat
                                                                      120
                                                                      180
aaaqcqqaat acacteeqca eqttqatacc qqtqattaca teategttet gaacqetgac
```

aaagttgctg ttaccggcaa caagcgtact gacaaaatgt actaccacca caccggccac

			1840			
attgaaatcg	tcaaagaagc cggttaaagg tttacgcagg	catgctgcca	aaaggcccgc	tgggtcgtgc	tatgttccgt	300 360 420 429
<210> 4657 <211> 396 <212> DNA <213> Enter	robacter clo	pacae				
ttcatcaaac ggtcgcgaaa aaactggatc cgtcacggta aaagctggct	aaaatcaata cgggcagtgg ctgcccgcat tgtacatcac tcacccgcgc tcgttactcg gtcgtccaca	taaaategta ggtagttege egttaaaggt tetgatggag tgaegegegt	atcaaccage cagccgctgg ggtggtatct tacgacgaat caggttgaac	gttetetgga aaetggttga eeggteagge eeetgegtte	acagtacttc tatggtagaa aggtgcgatc tgaactgcgt	60 120 180 240 300 360 396
<210> 4658 <211> 609 <212> DNA <213> Ente	robacter clo	pacae				
gttategeeg gegggteagg gataaggegg tteetgeaag agegaagtte geegggggta tacetgatge gttgegetgg	ggcagttgcg tccatcagag tgctgaccat ccgaaaacgg cgatgcgtat agggcatgct tgatcgtggt cattcttcta gtgtgattgg tcgcgggtgc	tattggtgec tattgteegt caaceteace egcgatecet gaatgegate ggteggttat ecteggette tgeggtgatg	ggtategege actattaceg gegeteteet geagttateg ectgaagtgg gegatggtea gttacegetg gegattettt	tggccatece tggcetteca ggatecacgt tggcgatte tcaccagegg tcaacatgat egttcaccaa atatecaget	getgacegea geaegeggeg ttetteeetg tgteggtace tetgaatate gegegegge etteaacetg cagecegaaa	60 120 180 240 300 360 420 480 540 600 609
<210> 4659 <211> 474 <212> DNA <213> Ente	robacter cl	pacae				
gatattegtg atgeaggege aacaaegaag tatgttgegg getgaaateg ggegtgggeg	aaatggttga gegtgtteat teggettetg caegeegtee aegeeggttet aegatggtge aecegatttt tgageggeag	ccgttctaac cttctccatg ggcaattaag gggcgtgacg catcaacggt ctggggtacc	etgtttcagg gtgccggcca egtcatetgg etggcgatgg atcaaagttg gtgcgtccgg	gttcatggaa tcaaacgcct aattcttcaa aagagcatcg gtctgatggg tctttgcggc	ettegaaegt gtateeggaa eacceateet tgegaaeggg geegetggea getgggegee	60 120 180 240 300 360 420 474
<210> 4660 <211> 414 <212> DNA <213> Ente	robacter cl	oacae				
ttgtttgagc	tgegggteag aagtgegegt eggaeggeaa	eggeaegegg	gtgcagatta	tcaatgagcc	ggtgaagttc	60 120 180

```
240
qqoqaaaacc cacagacggt gccgttcacg cactcggcgg cgtttaccgc ttttgcagcg
                                                                    300
qagtcaggta gcgataaaac gcttatcgat aaagccctgg cgcgcagagc cgggatcccg
                                                                    360
aqtcqtqtct caqcqqcqqt qqcqqaaqac qaqqqaqaqa aaqcqcttca qtaq
                                                                    414
<210> 4661
<211> 648
<212> DNA
<213> Enterobacter cloacae
<400> 4661
                                                                    60
cttctcgctt tgactgctat ccggtacact ccactgtgtt atttcatcaa tactgaagga
ttatcctgca tgtaccaaga tcttattcgt aacgaactga acgaagegge ggaaacgctg
                                                                    180
gcgaactttc tgaaagatga tgccaatatt cacgctattc agcgcgcggc ggtcctgctt
                                                                    240
qccqacaqct tcaaaqccqq cggtaaagtg ctctcctgcg gtaacggcgg ttcccactgt
gacgecatge acttegeega ggagetgace ggacgetate gegaaaaceg teegggetae
                                                                    360
coggegattg cgatttccga cgtgagccac atctcctgtg taggcaacga ctttggttac
quecacatet ttteccqeta eqttquagee gtaggeegtg aaggegatgt getteteggt
                                                                    420
atotocacqt coggtaactc cgctaacgtg atcaaagcga tcgccgccgc gcgtgagaag
                                                                    480
ggcatgaaag tgatcaccct gaccgggaaa gatggcggta agatggacgg tacagcggac
                                                                    540
                                                                    600
attgaaatcc gcgttccaca cttcggttat gccgatcgcg ttcaggaaat tcacatcaaa
                                                                    648
gtgatccaca tcctgatcca attgatcgaa aaagagatgg ttaagtaa
<210> 4662
<211> 870
<212> DNA
<213> Enterobacter cloacae
<400> 4662
equoquettot coquitatoco quiqqitigao tattitutatg ggotggttgt tgttatutgg
                                                                    60
ggcacgacct ggatcgccat ttttttgcaa caggggccgg ttgcagcgcc ggtctccatt
                                                                    120
ttctggcgct tcgccgtggc cagcgccacg atgatgatcg tcctggtcgc ccttcgccgt
                                                                    180
ctgcgcaggc tggcgctgcg ggatcatctc tactgcatgc ttcagggctg ctgcgttttc
                                                                    240
tgtttcaact tctggtgctt ttacaccgcc gccgcccata tcaataccgg ccttgagtcg
gigattitet egatggeegt getgtataac gecateaaca getttatett etteggeeag
                                                                    360
                                                                    420
ogtocacceg caegettetg gaeggeggea gegetgggge ttategggat cattaccetg
ttetggaaeg atetgetege eageggetgg agegegtegt tgettaeggg categggett
                                                                    480
teegeceteg geacatacgg ettetegetg gggaatatga teageatgeg teateagega
                                                                    540
aacgggatgg aaaccatgac caccaacgcc tgggcgatgc tgtatggcac cgtcgtgatg
                                                                    600
ggacttateg coctetteag aggegataac tttatgeogg aatggacggt gagetatatg
                                                                    660
ggggegatge tetatettge getgtttgge teggtgattg cetteggege etaetttaeg
etggtaggee geattggtee eggtaaagee geetaeagea eeetgetgtt eeeegetggt
                                                                    780
ggegetgteg atttcaacgg tgttacaagg ttacettttg geatecteac eggattttee
                                                                    840
ggctgttttt tgataattgg ggggcatttt
                                                                    870
<210> 4663
<211> 270
<212> DNA
<213> Enterobacter cloacae
<400> 4663
                                                                    60
aagaaaaata caatgttcca gcaagaagtt accattaccg ctccgaacgg tctgcacacc
                                                                    120
egecetgetg etcagtttgt taaagaageg aaaggettea ettetgaaat caetgtgaet
tecaaeggca aaagcgctag cgcaaaaagc ctgttcaagc tgcaaactct gggcetgact
                                                                    180
                                                                    240
caqqqtaccq ttqttaccat ctccgctgaa ggtgaagacg agcagaaagc agttgagcat
ctggttaagc tgatggctga actcgagtaa
<210> 4664
<211> 845
<212> DNA
<213> Enterobacter cloacae
```

<400> 4664 ggtagggtta tgattt ctgctgaaag aagacg caggaagttg aacgtt aaaactaaag ctggcg atgatgctcg aacatg atgacggcg acgatg atgacggcg acgacg ctgagaagat aatacc ctgcgaaaa toctgg ctgattcatta ctgatg gagctgccag coattg ctgattcgcag cactgcgccc cactg cactgcgccc cactg cactgcgccc cactg cactgcgccc cactg cactgcgcc cactgc cactgcgcc cactg cactgcgcc cactgc cactgcgcc cactgcc cactgcgcc cactgcc cactgcgccc cactgcgccc cactgcgccc cactgcgccc cactgcgccc cactgcgccc cactgccc cactgcgccc cactgcgccc cactgcgccc cactgccc cactgcgccc cactgcgccc cactgccc cactgccc cactgcccc cactgccc cactgcccc cactgccccc	aaat ogtoattgac ttot gagogglogt aaac tttoggtgaa agga gotggagoag otgo goatgaaget tgaa agagogtogo gtot ggooatoato tgac cocgtotgaa cagg tggaogtact tggg ttaoggtago tada aaatgtggtt agga goaggtogt	cggaaaaaaa gccaaggcat gaaaagaag gaaatcatag atcgaaggtc gctgacgtac gatctgacgtac accgcacagc tcccacacct gtgacgtct tacgtcatc accgaaaaaa	tttetgocga ctgogcaact ccatettega ccetgattaa aggcatctgc gtgacatcgg cgattcagga tgaacctgaa ctatcatgga aggttaaaaa ccactaacga acgacactgga	caaggttgat ggaagcgatt agggcacatt aggtcacatt agataaaggc cctggaagag taagcgcctg cgaagtgatc caaggtgctg gcgttctctg caaccactat tgtgatcgac taaaaactgaa	60 120 180 240 300 360 420 480 540 600 720 780 840 845
<210> 4665 <211> 357 <212> DNA <213> Enterobacte	r cloacae				
<400> 4665 aatcataacc ctacct ttcagccatc agctta gatggtaaca acggta gctagcgctt ttgccg aacaaactga gcagca ctggaacatt gtattt	acca gatgotcaac coot gagtcaggoo ttgg aagtcacagt gggo gggtgtgoag	tgotttotgo cagagtttgo gatttoagaa accgttogga	tegtetteae agettgaaca gtgaageett geggtaatgg	cttcagcgga ggctttttgc tcgcttcttt taacttcttg	60 120 180 240 300 357
<210> 4666 <211> 192 <212> DNA <213> Enterobacte	er cloacae				
<400> 4666 cttagegegg atgeeg getaaattet teageg gtactgaaag cacaeg atgaatgget aa	gtca agggttatca	ctgatgggtg	ctgcactgat	ttatgaaatg	60 120 180 192
<210> 4667 <211> 231 <212> DNA <213> Enterobacte	er cloacae				
<400> 4667 gatgaacata tgcgcg agtgaattag cgtgga aatggtgttg aaatag ggcaattata atgcat	atga aaacaaaaaa cetat tgtcagetta	tggaagaaaa gattatgaaa	atcaagaatc ttgaaataaa	tcttttatta ccaagaaatt	60 120 180 231
<210> 4668 <211> 426 <212> DNA <213> Enterobacte	er cloacae				
<400> 4668 gggggaaccc taacgg gaatatatca atgaag					60 120

			1047			
ggtgaaatca acctgtttca gatactatta	gtataggttt ctgagagaga ctggtataaa tgattgaagg ctcacatacc	attttcagtt tcagggtgat gagagaacat	caaatcaagg gagttgatgg cctcttgact	tgtcgcctga tctccggtta acatgagagt	aatgtattca tattgttgtc ggtagcaaca	180 240 300 360 420 426
<210> 4669 <211> 198 <212> DNA <213> Enter	robacter clo	pacae				
attactactt	tgcgttattt attgcagtag gatttctccc ccttttag	ccctaaattt	ttgtttcatg	gggactccaa	aaggagaaat	60 120 180 198
<210> 4670 <211> 369 <212> DNA <213> Enter	robacter clo	oacae				
gacatettet gacagggaaa gagettgttt ccaatatteg	cgcttgaaga ttgatcagga ttatggatgt catgtgatct aaaatcattt ataatgtgcc	ttatttaatg ttacataaaa gttaactaaa tgaatggatc	tcagaaaaaa gcttttaaat cgaaacgctt atgtctgaag	aactggetgt ccacattaga ttggcaagtt cttttgaaat	taaatggact gttgtttgac agaaataaat agtgggaaat	60 120 180 240 300 360 369
<210> 4671 <211> 258 <212> DNA <213> Enter	robacter clo	pacae				
cgaaatcagt ctggtcattt	caatggtggc tctggtgtga ccgccattgc aagccgacca gggtatag	ggtgaatgtg aggegetttt	ggtatcgaaa ggcctgggcc	cgataatcgg atatccgcgg	getggeegea caccageaaa	60 120 180 240 258
<210> 4672 <211> 411 <212> DNA <213> Enter	robacter clo	pacae				
gacggaaaaa gctgcatttg tcattttaca ggggcattag accgcaattg tttgtcgttc	aagggaaagc atgggatcog ceggtggact tegaceetta ceggggttgg cagaacaaca agaceggaac	aggeaegett ttetteaett tteaeagget tgeageteaa gtggeeaate	atcagcegaa geeggtaget cagtateagt ggtggtetta gtagaaatta	atggtcacgc taagtcccag cccctaattt atcgactcgt gccctggccg	aattgcagga taaggtatet tggtgcactt cgattactac agctattaca	60 120 180 240 300 360 411
<210> 4673						

<211> 483 <212> DNA

<221>unsure <222>(128) <220> <221>unsure

<2200

15

TŲ.

ff.

La

145

1.4

fü

10

1.3

<220> <221>unsure <222>(171)					
<220> <221>unsure <222>(174)					
<220> <221>unsure <222>(176)					
<400> 4676 ggaggaggaa aggggga ttggggaagg gaagaga ggggcggnag tggggg tga	cgat ggagggcggt	gaggggggaa	gagaagggaa	ggtggagggg	60 120 180 183
<210> 4677 <211> 240 <212> DNA <213> Enterobacter	r cloacae				
<400> 4677 aaaagaagga agcgaaa aagagaacag ctaaggg accttcacca aagcgc cttcagcagg gtctggg	caac cacgaacccg cgga acgcgaagag	ctcacgaaag gccctggggc	aaaacagcgg agaaaaccgt	gaataaagaa cgagatccag	60 120 180 240
<210> 4678 <211> 189 <212> DNA <213> Enterobacte:	r cloacae				
<400> 4678 acggcacttg cgtctte gggttcaatc tgaacce ctacgtaaga acggtte cgtttataa	agag tageteaett	tgttactcaa	caatgctccc	aattggggag	60 120 180 189
<210> 4679 <211> 213 <212> DNA <213> Enterobacte	r cloacae				
<400> 4679 atacttaccc gggtca ataaaagcct tcttca gatggagggg tcggtc gcaggtactc tttcag	ttge eetgttteee agaa aatcatgeet	ctigtoctga gtcccttatt	aaaagttacc	gacccgtccg	60 120 180 213
<210> 4680 <211> 339 <212> DNA <213> Enterobacte:	r cloacae				
<400> 4680 ccgacccctc catccg aagaaggctt ttatca acccgggtaa gtattc	acgt agacaagact	aacccactgc	cagtcctgac	ggattcggtg	60 120 180

atcctcgacc cctgttcagg gcagaactgc <210> 4681	ctctggcgat	gctccgccgg	gttatgacag			240 300 339
<211> 345 <212> DNA <213> Enter	obacter clo	acae				
<400> 4681 aatggtgaaa eggetecaaa agegttetga egtattgetg ettgttetga tacetgegta	ggaacagggt acaaaaagac aagaagccaa ccaatgatga	tcataaacag cgtgaccgtc gcttaaagaa aatgaacgat	aacceggcag attgcegaca ggtgaatctg atcatcaatg	gtaaagcacc cegegatece teagcactga cteatgetga	atccatgtcc gatttttgaa tacttacacg	60 120 180 240 300 345
<210> 4682 <211> 339 <212> DNA <213> Enter	obacter clo	oacae				
<400> 4682						
acttacggag cgcgagatta tctgatcagg gctttctcct	ttgcatctgg aacgaggtaa actttatcag cgaaatggga	acttgeagtt agaggtteet tteteaaatt caacategte	ttttgcgcat gtttctatga gccgctttta tggaatgatg	aaacgtttaa ggtgcgtttt aaaaaataac ttatctcctt aaataagaca	gtgtcttttc ttcaaagtca gttgggttca	60 120 180 240 300 339
<210> 4683 <211> 192 <212> DNA <213> Enter	obacter clo	pacae				
<400> 4683						
tccccaaacg tgctccctca	ttgtgttttt atttcagcat	tgccgggtcg	ccccggcttt	gttcatcact ttttcgtttc aagatggcgt	gteteetgaa	60 120 180 192
<210> 4684 <211> 492 <212> DNA <213> Enter	obacter clo	pacae				
<220> <221>unsure <222>(30)						
tttaaatcac gagaattctg tatagtctgg aaacttgaag tggagtaatg accatgaagg	aggaacgtaa tatgggtaga ttcacttcaa agacatatcc cccgattatc aagttgctgc aaagggaact	aagtaaagaa acattacgaa ccagtaccag tgaatttgat aactcagacg tcgctggaac	gtgatatcaa tctcaaatca gaacctaact tttcatgttt attaaaaaat cgttcggaat	agcaaggatt ttctgtttga gcataaccca ggtctttta ccagaaagtc tattaaaaga catggatgag aagggctccc	gtatgttegt ggatgacega ttetaaagaa tettgaaaac aaaaaaetgg taaagttgtt	60 120 180 240 300 360 420 480 492

<210> 4685 <211> 294 <212> DNA <213> Enterobacter of	loacae				
<400> 4685 ggcagcataa tgtctaaag aaagaagta gcctgacta aaaactatac gcatgacac caggcactta cgcacaaga gctcagtcag caggaccag	a cattgegget e tgeggaaaag a cattaeggtt	aaaaagaaaa atgctggcgc tccacattac	atacgacagg aggaactggt ttcgtgcagg	cgaaacacca tgagcagatc gctgtacctt	60 120 180 240 294
<210> 4686 <211> 291 <212> DNA <213> Enterobacter of	loacae				
<400> 4686 aaaatggata aacagcttt aattactcac ttgaatgtt attgacgggt ttgaggcga aaatccagag gaatgagc tggacattgc ctcgcgatg	t tggcgattac t ctatttatat t ttcagatatc	etggecaaac ttacaacgta agaettgete	aaaacgatta aatattcatg tttcagtaga	tccttacgat gcctctggat gatgaaaggt	60 120 180 240 291
<210> 4687 <211> 189 <212> DNA <213> Enterobacter of	loacae				
<220> <221>unsure <222>(81)					
<400> 4687 agcacaaaca actgggaaa attccaaccg accectic cetttccccg gaggggaat tgggtggtt	a ntgcgttctg	cttggctggg	gcggcggaat	taagggaggg	60 120 180 189
<210> 4688 <211> 195 <212> DNA <213> Enterobacter of	cloacae				
<400> 4688 attcagaagg ttactttta cctaatctgt tagacatat tcagtagatg taccgttcg cgcttcgctc tttaa	c taatctacat	ctcatcgaca	atcacatgca	cagtgattac	60 120 180 195
<210> 4689 <211> 213 <212> DNA <213> Enterobacter	cloacae				
<pre>&lt;400&gt; 4689 aaatetggat ateeceet geeaagtta gagattet ateteattae teaataea aacettteat etetaetga</pre>	g gttaacagta a ccaggaaatt	aaactcatgg cttcaaaaat	ctgagaatag	tttgaaagaa	60 120 180 213

```
<210> 4690
<211> 432
<212> DNA
<213> Enterobacter cloacae
<400> 4690
aagggggccg gacccggtat gagtcggata atcgcgcgta ctgggatgat cagatccagc
                                                                      60
tcaatattga cgcaccgett tatcagggeg gegeggtete ggcgcgcgtc cgtcaggeeg
                                                                      180
agggegeaag ggcaatggca tegtegeagg tegateagge eegttttgat gteetgeaaa
                                                                      240
aaatoctoog togoacaggo ogactggaco ggggggggtg gactaatgga agcogggaaa
                                                                      300
cgtcagctgg aaaatgcgtt gcgcgcccgc gatgtctaca aaaatgaata taccctgagc
                                                                      360
aagggcagca ttaacgatct gctcagcgtg gagcaggatg tctggtctgc cacctccgcg
                                                                      420
aaaataatqq ctqaatacqa tqqctqqaqt qcqqcqatta attacqcctc tgcggtggat
aatctcatgc cg
                                                                      432
<210> 4691
<211> 195
<212> DNA
<213> Enterobacter cloacae
<400> 4691
ctcaccgagg ggtcgcgatc gagagcgaaa agaatacttt ctttcatcgt cattgccgca
                                                                      60
acgggagata toccogootg googstattt goattagoog cagtoaccac caacgaaatt
                                                                      120
aaggtcaggg aggcagataa totgagtaac ctgttattgc atttcatctt cataatatcc
                                                                      180
ecegacteca ggtga
                                                                      195
<210> 4692
<211> 297
<212> DNA
<213> Enterobacter cloacae
<400> 4692
atttegtteg etgteagaca tetgaggaac gatatagggt teacetgete tggcceagtt
                                                                      60
ttcacqaaca qatqqatqat tcatttcaqc tttatctatc tqqctcqttc taqatatttc
                                                                      120
atgtttgtaa ttaggttoca aaacgttact tttgtgatag tcaaaagcat tctcctcatt
                                                                      180
aatattgccc tctcctacaa atttatcaat aagagttgga tcgttcatta ttactgtctg
                                                                      240
                                                                      297
aacqqqaaaa qcqttactqc catettcqat actaatqqqt qcqtccqqaa cqattaa
<210> 4693
<211> 393
<212> DNA
<213> Enterobacter cloacae
<400> 4693
gcttttaata acaggtcaga atatatacca aaaaggagtg tattaatcgt tccggacgca
cocattagta togaagatgg cagtaacgct tttcccgttc agacagtaat aatgaacgat
                                                                      120
                                                                      180
ccaactotta ttgataaatt tgtaqqaqaq ggcaatatta atgaggagaa tgcttttgac
tatcacaaaa gtaacgtttt ggaacctaat tacaaacatg aaatatctag aacgagccag
                                                                      240
                                                                      300
atagataaag ctgaaatgaa tcatccatct gttcgtgaaa actgggccag agcaggtgaa
                                                                      360
contatatog thootcagat gtotgacago gaacgaaato taaaaattaa acgattocag
                                                                      393
aaacctacaa gtggagctaa tcatggacat taa
<210> 4694
<211> 696
<212> DNA
<213> Enterobacter cloacae
<400> 4694
aaattaaacq attocaqaaa ootacaagtq qagotaatca tggacattaa aaaggootgg
                                                                      60
gaaaataaga ccgtcagact ttctgttatt ggcgctctgc tggtagtgat tgtttatatt
                                                                      120
attaqccaqt ctattttttc cacaccagtt aagaaagaaa agaaaacaca gaaaaaagac
                                                                      180
```

			1043			
cagaaagtat gaccgcgaaa tctcaacttc cgtaacttgg tatcagctta cctacgcgta gatggtgtca	ataaagaaat aagcagaaaa agcagetgte atgctggtag atgctaatgc atagcccaat	ggttaagcaa agcccaacag tcagcaaatt ttcgcgtaaa gccgattaat gagaacaatc gcccgtgtct	aaccgacttg gaaactaaag aatgatatgc acgattaatg ggcgtaaacc acacaaagtt gaaaacagaa	aattgagtaa accaaaatgc cccaagttgc agacaaatcg agcaggcac ctaattacgc ccattaagac tcaaggaagg	ggcgaaagag aagtttaact aaacggcaat ggcagctcct ttctatcaca taatggtacc	240 300 360 420 480 540 600 660
<210> 4695 <211> 225 <212> DNA <213> Enter	robacter clo	pacae				
agatectece atacaggtgg	tgaaatgccc cggggattta	ctcgtgccct cgtggagtgt	acaatctgtc	gagcgtttga aacagaatgt aaacaaagat catga	gaaaacgtca	60 120 180 225
<210> 4696 <211> 255 <212> DNA <213> Ente	robacter clo	oacae				
gaacggcagc ctagcttttg	tacagcagaa ttaatcctga ggaaaaccag	gggtaaaggg tgcgaagcag	ctggcgttga ggcaggtgtc	taacggatcc gatttgttga agcctgttat ccgcttcaga	gccttggctg ggtttgttat	60 120 180 240 255
<210> 4697 <211> 228 <212> DNA <213> Ente	robacter cl	oacae				
tccagtttac cagecagtgg	ccggaagctg ggatttttgg	gcgttcagat ctgtaaccgc	ttagttgtca	agcetette aaaettatea agtttettee atceatag	cccaccggca	60 120 180 228
<210> 4698 <211> 270 <212> DNA <213> Ente	robacter cl	oacae				
<220> <221>unsur <222>(149)	е					
<220> <221>unsur <222>(198)	е					
<220> <221>unsur <222>(215)	e					

```
<220>
<221>unsure
<222>(217)
<220>
<221>unsure
<222>(264)
<221>unsure
<222>(267)
<400> 4698
aggaatcaat tgccagctac cgcaacgttg cccttttgct cctcaatccc aggggggaa
                                                                      60
qtgctcttta gctcagctca ggggggggca ctacgcccgg cagtgaattc agcagatttt
agegageaca geogegeacg ggatgtetnt etetggaegg tggaaggate tgeggggaeg
                                                                      180
attgataccg gggtcaanaa tgaatatgga acatnengga ttategeeet ettetgggte
                                                                      240
                                                                      270
aggecaatat ttetgggeaa acancantaa
<210> 4699
<211> 240
<212> DNA
<213> Enterobacter cloacae
<400> 4699
ggeggeggag tataccacaa getatggeaa aaaatgcagt ggttgttttt tatacttgte
                                                                      60
gegeegegat tattggtega egeggattat gaaggtaete tgteeaatat gttageggea
                                                                      120
                                                                      180
attaaatgtt tatccccggt togtcattcg ttaattgttg ttacaaaaaa tcgcgcgctc
tttttcqttt qqqttaacaa ctqttttagt aactttttga atatcgatgc tagaaaatag
                                                                      240
<210> 4700
<211> 246
<212> DNA
<213> Enterobacter cloacae
<400> 4700
gcgtcagcag cgacttcagg cagtttactt cctgtgccag ttcctggtta ttctcggcag
tggcaaattc aggtgtgctc atttattttc ctcattataa aacagcgcat gagcgcgacg
atgaaagtta aggcggcgga gtataccaca agctatggca aaaaatgcag tggttgtttt
                                                                      180
ttatacttgt ogogoogoga ttattggtog acgoggatta tgaaggtact ctgtccaata
                                                                      240
                                                                      246
tgttag
<210> 4701
<211> 318
<212> DNA
<213> Enterobacter cloacae
<400> 4701
cagagtgaga ttgaaggtat gcatagaact aaatttgaac gacttaagga tgaccttatc
ggtgaggccg tattatccat actgaaagag aacggaccta ttacctttgt gtctcttgct
                                                                      180
aategeetge gggegatgge taacgttgaa teaaatgatg aacgtaaaaa tgeattgatt
qeegetgaag atgaagtgeg eeagegtgta accggegtet egeacgaceg gggaagagtg
                                                                      300
atgggcaatt atgacatggg togcatgoga tototottta otcacaacac gottttgaco
                                                                      318
ccagacaaga aacactaa
<210> 4702
<211> 183
<212> DNA
<213> Enterobacter cloacae
<400> 4702
```

			1851			
cgtcatgtcg	tttttaaatt ctgtatatct actatatcgc	gtatcgcttt	aataatgcta	tagtcattgt	cgttagcaac	60 120 180 183
<210> 4703 <211> 246 <212> DNA <213> Enter	cobacter clc	acae				
tacaatcgtg atttttatat	catccactta taatgtacat atgatcataa acgaccactg	agctgtatta ggatatcttt	catttacgtc tatgtacctc	atcttcccca agaaggtaat	caggttgatt tacacatgaa	60 120 180 240 246
<210> 4704 <211> 555 <212> DNA <213> Enter	cobacter clo	pacae				
actaaaaaat tatttgaata ccatttggac atcgactgta gtcaagcttt gaagccatcc aatcttctcg	tcatatttgt catttetttt attatcaaaa tccagagaga actgcatctg ggcatttetc ggggaaaaaa ctggcgacga gaggtacagc attga	aattegtttt aeggggtgea ateaggaete eeeegettge acacagtaet tattgaagte tggtgggeeg	acagaaatcc gccatgcgta tttttagata aaaactgatc gctgtagccg atcaacgagc gtttcactga	tcctccgtta agagttacac ttacagaggt tgttagcaaa gtgactgtga accaggttct atgaggttag	tttcggatat atttggtatt cagccggggt gcagggggag tggtctgatg tggtttccca tggaagcggc	60 120 180 240 300 360 420 480 540 555
<210> 4705 <211> 183 <212> DNA <213> Ente:	robacter clo	oacae				
agccagatct	atcagattgc atcaatgctc ccagtcaaga	togcaaaatg	aaattgggct	actttccgag	attttccatc	60 120 180 183
<210> 4706 <211> 246 <212> DNA <213> Ente	robacter cl	pacae				
ttcacaattt atcctgaaga	cagacttaag caacttatca acatggctta cgaacgagtc	gaattttctg catgctgatc	ggattattat cataatgcta	tctgctatgt taaaagatgt	gaaatgccat acttgccctt	60 120 180 240 246
<210> 4707 <211> 309 <212> DNA <213> Ente	robacter cl	oacae				

caaaaagaag ggcaacaaca agcaaaacca	accgacgccg atcaacaaaa gaaccgacgg	teaeggeegg geaggagate gegaggeaaa	ggggtgcaga cagaccgcgc accgggcagc	agagagcagg aggggcaaaa aaaacgaacc cgcagaaaga gccggataaa	acccgcagag ggacaaacag aggagaggaa	60 120 180 240 300 309
<211> 213 <212> DNA <213> Enter	cobacter clo	oacae				
gacatggtgg gatgggtttg	aaacggtaaa	ggggtggaaa ccgcggtgat	ggaacgatgg gcatcactat	atggggcgaa ggaatatggg ttttgggaaa	atatttaggg	60 120 180 213
<210> 4709 <211> 195 <212> DNA <213> Enter	robacter clo	oacae				
ttctcacata	ctcttatggc ctacctatcc	acggtttccg	tgccttttt	ctttccctga ttgcctcgct aatctatctt	tacaagcgtc	60 120 180 195
<210> 4710 <211> 312 <212> DNA <213> Ente	robacter cl	pacae				
gagaacagta gatttcagca cagaaacctg	ccaaaagcaa tagaacgact gaagtgaagt cttcacactg	ctttcccccg actttcaacg aagaaaggat	gttgataatc gccgaggatc ttggttgagc	atgaactaaa agttttgctt tccagcttga gattcgaacg ttggttgtca	ttaccatgtt gtacatcttc tggagagcgc	60 120 180 240 300 312
<210> 4711 <211> 255 <212> DNA <213> Ente	robacter cl	pacae				
atttccgggc cagcagcttg	aggagatttt cagatttaac gggcgggctt	atcagggcgt acccttaatc	ggtgtgactg gccaaactgg	gggettttt ageageaact gattetgtte ccataatacg	ggggcactgt tgatgttgac	60 120 180 240 255
<210> 4712 <211> 183 <212> DNA <213> Ente	robacter c1	oacae				

			1853			
<400> 4712 tacagattaa co oggtcaaaac aa ggggcactgt ca tga	agacctggc	gagagattta	atcaagcgtg	gtgtgactga	gcagcagctg	60 120 180 183
<210> 4713 <211> 234 <212> DNA <213> Enterok	bacter clo	acae				
<400> 4713 gtaatgocaa te cgtgaaaaat te attaaaaaca ca agcgaggcag aa	taacggtaa acctgcgat	ggtgtttaaa tataactact	gttaacgaac gaccaagata	agatcatctc aattccggat	acgettteag caccetgttt	60 120 180 234
<210> 4714 <211> 417 <212> DNA <213> Entero	bacter clo	vacae				
<400> 4714 tttctaaggg ta atgattgcca a cotcgtattt a aatcctaacg c aatgcggatt c gaatccgcta a aaaaatgccg c	tactatgag tgeggeaga aaategeaa aggegagaa tettaatet	ttgggetttt egetatattt tgegaeaace tgteagtggg eggaaagtat	tatatetete gaccageteg agtgeteagg aagateaceg ggggeaggga	tcataaatat aaagtaactt acattgttga agaaatacgt actcaaatga	ggtaatgact taatettget gaagtacaag gggtaaagee aagtgteatg	60 120 180 240 300 360 417
<210> 4715 <211> 198 <212> DNA <213> Entero	bacter clc	o <b>a</b> cae				
<220> <221>unsure <222>(6)						
<220> <221>unsure <222>(7)						
<220> <221>unsure <222>(8)						
<220> <221>unsure <222>(9)						
<220> <221>unsure <222>(10)						
<220> <221>unsure <222>(11) <220>						
~~~~						

```
<221>unsure
 <222>(12)
 <220>
 <221>unsure
 <222>(13)
 <220>
 <221>unsure
 <222>(14)
 <220>
 <221>unsure
 <222>(15)
 <220>
 <221>unsure
 <222>(16)
<220>
 <221>unsure
 <222>(17)
<220>
 <221>unsure
 <222>(18)
<220>
 <221>unsure
 <222>(19)
 <220>
 <221>unsure
 <222>(20)
 <220>
 <221>unsure
 <222>(21)
 <220>
 <221>unsure
 <222>(22)
 <220>
 <221>unsure
 <222>(23)
 <220>
 <221>unsure
 <222>(24)
 <220>
 <221>unsure
 <222>(25)
 <220>
```

<221>unsure <222>(26) <220> <221>unsure

The same seen that the

1.3

34

15

10

10

1.7

100

ı

```
<222>(27)
 <220>
 <221>unsure
 <222>(28)
 <220>
 <221>unsure
 <222>(29)
 <220>
 <221>unsure
 <222>(30)
 <220>
 <221>unsure
 <222>(31)
<220>
 <221>unsure
 <222>(32)
 <220>
 <221>unsure
 <222>(33)
<220>
 <221>unsure
 <222>(34)
 <220>
 <221>unsure
 <222>(35)
 <220>
 <221>unsure
 <222>(36)
 <220>
 <221>unsure
 <222>(37)
 <220>
 <221>unsure
 <222>(38)
 <220>
 <221>unsure
 <222>(39)
 <220>
 <221>unsure
 <222>(40)
 <220>
 <221>unsure
 <222>(41)
```

<220> <221>unsure <222>(42)

100

Ü

1,73

111

119

13

11

117

(Q

14

<220> <221>unsure <222>(43)

<220> <221>unsure <222>(44)

<220> <221>unsure <222>(45)

<220> <221>unsure

<222>(46)

<220> <221>unsure <222>(47)

. 3 <220> 1,1% <221>unsure 14

I'U

£ħ. 13

14

1, 13 FU

1.4

10

1.00

<222>(48) <220> <221>unsure

<222>(49)

<221>unsure <222>(50)

<220> <221>unsure

<222>(51)

<220> <221>unsure <222>(52)

<220> <221>unsure <222>(53)

<220> <221>unsure <222>(54)

<220> <221>unsure <222>(55)

<220> <221>unsure <222>(56)

<220> <221>unsure <222>(57)

```
<221>unsure
<222>(58)
<221>unsure
<222>(59)
<220>
<221>unsure
<222>(60)
<220>
<221>unsure
<222>(61)
<220>
<221>unsure
<222>(62)
<220>
<221>unsure
<222>(63)
<220>
<221>unsure
<222>(165)
<400> 4715
120
nnntatecae egggacagge ateageetet taegeacetg ageeteatet caeagtttte
                                                                 180
atgactgact atttcatccc gattcgccct ggtcccacca tagtnagtat tgcgacacgc
                                                                  198
cqtqaaqaqt ccattggg
<210> 4716
<211> 198
<212> DNA
<213> Enterobacter cloacae
<400> 4716
agttatcatg tgacaatggt tttatctggt ttgcttaatc aaaaaatcaa ctggtcaaca
gggtcaagag gtattttgag aaagcaatgt aaaagggact cttcggagtc cttttttatt
                                                                  120
 tgtattgaaa aaggttcgat tatgaatgaa aacatattac aaggtaacag gaaaaacctg
                                                                  180
                                                                  198
 tcacactate cacqetga
 <210> 4717
 <211> 183
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4717
 atqaaaacat attacaaggt aacaggaaaa acctgtcaca ctatccacgc tgaattacga
 aagattggtg atttgattaa cccaatcccg aacaagaaat atcacatcaa aagaatgatg
                                                                  120
                                                                  180
 actaaaqcca ctcqcttatt actcatcaaa tcaatcagtg aaagaattaa aaataaccgt
                                                                  183
 tga
 <210> 4718
 <211> 921
 <212> DNA
 <213> Enterobacter cloacae
```

```
<220>
<221>unsure
<222>(180)
<400> 4718
atgaatgcga tacaaaagtt agttgaatct attottgtta aaatgggttt tgttggcgct
                                                                     60
qtaqtqqaaa atatatactt ggattcaaaa ccatttcggc atattcgatt tgtggctgat
                                                                     180
attocagtaa tatottttot acctoatttq qtqaaatato ttaagggcgc agaccatotn
tactgtggta acgatgattt gcatcctctt ttcatttatt tttccgaagc ggctacatta
                                                                     240
                                                                     300
aaaqcaqqcc ctqtaaatct cqcqaacttt cqttttqaag tttctatagc ttcaactcat
ttacgactgg totcagagca gootgatttg ottatcaaag gatttaaccg ggataatcta
                                                                     360
quatacgttt attaccgctc agatttggcc tctaaggatc ttatactagg ccttgttgaa
                                                                     420
                                                                     480
cacqqttctc ctttcataaa acatctacat qgacttatac aaaagcgaat tttaaacgag
ttotototga ttttttotgt tottgaaaag attttagaaa gogogaagoo acaaattott
                                                                     540
                                                                     600
gettgettee atagtgttga ttatgaaatg aacgtaaaaa taatageega agetatacet
gaaactgtat ctaatcagat agreacatet gattatatag ttaattetat atcagatgeg
                                                                     660
gacaagttta taaatcatgt tegtegetat ttageaggea gggtaatgaa gaggeggata
                                                                     720
                                                                     780
tacqctqaat tagatgtttg tgaagaaaca tcaaatattt cactagtgaa cttaggatgc
                                                                     840
tttacgtotc ctctgctcgt tacggaatat caaatgttta agccacactc ttcagggtta
                                                                     900
tatogaaaag ctataaacaa ctccttaaaa cagttcaaac cagaaatgca tgtaccttct
                                                                     921
gaagaactct tttataatta a
<210> 4719
<211> 531
<212> DNA
<213> Enterobacter cloacae
<400> 4719
atgtttaaag aatetgacca egtggaattt gttagtgeet ttetttatea aaatttagge
cttaatqttc ccqctgacga tataaccgtt caattatctg atacttcgtt cgacaaagta
                                                                      180
acctttgatt acgatgtaga tatcgataat ttaaattgta tgttggatct ctacatatct
gaactaataa agcacaacgc atettattee gattetatte ttttgaaaca aaaaataatt
                                                                      240
tattttcttq qagtatttaa gaatttcgga ttttttacgt tcgatattcg cggatatagt
                                                                     300
                                                                     360
aatactttaa goccagttaa agttattgat attgtttcaa tgattattaa tgactgtgaa
gagttateta aagetaatte ttetaetgat getataagaa atetttatet egataaaatg
                                                                     420
aaggtggatg ggaaagtgtt agttgcgaaa tttgcactta aacagttttt tcattccgac
                                                                     480
tttggtgact ttatctcatt tgtcgaagaa aagaattaca gattgtctta a
<210> 4720
<211> 669
<212> DNA
<213> Enterobacter cloacae
<400> 4720
                                                                      60
totttoattg ttaaccattt gaggtttoot atagttttaa gggaagggtg caaaatogaa
agaggagaag totaticaat thogaattgo acttataata aagaaagatt goagtatott
ttttctcagg atatttacgg taagttgtat aattccttag agaaagaatt aagctcgttt
                                                                      180
                                                                      240
ttotcattta toaatgttga ggtgcacgag ttgttaaaag atgctgtatg ctttgcatta
aaaatootga ataagatato tttggataca ootgaaagao ttattaaago ttttaattat
cgtgactggt attgtagtta cgatgttgag ctttttagga aaggcttacc tggtcatatt
                                                                      360
etggaagage teattgetee agatatetta ettteagace ttaaeggttg tagaaaaata
                                                                      420
cttagaaatg caaaacgatt tctaaatgga catacaaaaa ccaattgtgt ttatattaaa
                                                                      480
tatgaatggt ggttggggcc tgtggatacc tcacactcag ctaagttgat gtctgacaaa
                                                                      540
gaaattaata accgaagtga cttgaagaat ttttcaaaagg tctttttcaa agagtgttta
                                                                      600
agttetggta agteggaata tgaaaaccat ettagtgaaa aagaacatge gettegetae
                                                                      660
                                                                      669
aattattaa
<210> 4721
<211> 498
```

<212> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 4721 ttgcgaaatt tgcacttaaa cagttittte attccgactt tggtgacttt atctcatttg tcggaagaaa gaattacaga ttgtcttaat gaaactttaa ggattatcaa agctgttgaa catggctttg tacgtgttgg gcagcaataag attaatcgcc gattataatga tgacttaaag ttatgcattg atttcaatac tgatgattat ccggcaaata tgccagcatat atatattaaag tttaacgata catttgatgg gaacggggcg ttatattgtg acaatgatgc cctcatatcc ctctataccg atgttgcttc aattatcaat tgccggtga tgatggaagt aagagtgatc aataaaagag ggcgtgttgt ctgtgattct tcgcattcaa cttacgtatc tctcgaaagt aatgaccgat acaagggaaac tgatcgcaca ttactaataa ctgaagcttt tgacgattt cgtaaccggt ctcaatga	60 120 180 240 300 360 420 480 498
<210> 4722 <211> 270 <212> DNA <213> Enterobacter cloacae	
<220> <221>unsure <222>(70)	
<400> 4722 ccaaacttt atctaaccca grggggaagt cgcttccctt ctggggcact tcctctcaaa tttgaggtan tgtatatgac acattcatct gatgataaaa actatgtccg agcagttctg agctatcttg gcatagattt tgatgaggcg gatatagtat taagtgtttg ccattgtcaa agtgacgagc tttcttttac ctgtaatatc aaagctattg aactcaagaa tgctgtgat ttatatgtcg atagtatct tgaacaatga	60 120 180 240 270
<210> 4723 <211> 195 <212> DNA <213> Enterobacter cloacae	
<400> 4723 ataagatato titggataca cotgaaagao tiattaaago tittaattat ogtgactggt attgtagtta ogatgttgag ottittaaga aaggottaco tggtoatatt otggaagago toattgotoo agatatotta otticagaco tiaacggtig tagaaaaata ottagaaatg caaaacgatt totaa	60 120 180 195
<210> 4724 <211> 234 <212> DNA <213> Enterobacter cloacae	
<400> 4724 attoagoana ttgccgtama amacagtaca gcactgamatg acamamaman tcccttcamat accactamama tmaccetogo tmacamatgamatgatett mattaccgtca ttcagttctg matgtctgtt tmaccctamat tgamaccgamat gcttcgcamat cggtttttt tmaccttct ttmacgtcamac ctmacatttma tgtgctmaccg cttggtmatg mamacgactmattma	60 120 180 234
<210> 4725 <211> 186 <212> DNA <213> Enterobacter cloacae	
<400> 4725 gttaattttg attactttca tttatgggat attaaaagct tgattctttt tactagccgc ctgattccca cgaaaatatt tcagatgatt ttacgggctc ttcaacatat aaaccaaaat ttgaaggact gctctgaaga gcccgccttc ctgcttcctt attattagc cattttcttt ttctga	60 120 180 186

<210> 4726 <211> 231 <212> DNA <213> Enter	obacter clc	acae				
gctcgccttg attttagggg	aggcaaatcc tggagatitc	agaattatet tteaaaagea geteagttet tgatteaeeg	agttttgagc gcacctcttt	gtctatacaa caacttatac	agtgttacat aaagcctacg	60 120 180 231
<210> 4727 <211> 507 <212> DNA <213> Enter	cobacter clo	pacae				
<220> <221>unsure <222>(7)	è					
cagtotgtoa gaggotgaac gotcagtatg ottattgaat atocagaatg caacaagotc aagggggoga	ggattgtaga acctgaaaag aaaatttacc atcaatggca caatagataa tttctctgga	cattacagcc tatacagcag tgtcaggaag tgaagagaag gaatgagaga gtggcgtatt tgaaggctt tggagaacta tggctaa	gtaattatca acgetggeeg aaaaatgagg tteettgeea aaaacaata gatattacce	actcaggtct atggacttac cgaagcagaa gaaaggctgt tctccatcat cgctaatcgt	ggeegaacag gettgeteag egataataag aggeeaaace aattecaega aaaagagett	60 120 180 240 300 360 420 480 507
<210> 4728 <211> 204 <212> DNA <213> Enter	robacter clo	pacae				
ataaaaaatc gacagacagg	agteteteag	gogtoaggtt gotagtagat cotgaaaaaa atga	atacagcagg	taattataat	ttcaggtttg	60 120 180 204
<210> 4729 <211> 213 <212> DNA <213> Ente	robacter cl	pacae				
agtatgaaaa tacctggggc	tttacattaa gcaggtcagg	ggaaaagttc gagaagacaa aaagttagta cttaggcatc	atgaggcaat ctgttgtcaa	acgacaataa	gtttattgaa	60 120 180 213
<210> 4730 <211> 717 <212> DNA <213> Ente	robacter cl	oacae				
<400> 4730 atcgcttgtg aaaaggaagt	gtctaacttt	caaaaactca tatcaaagaa	tgtaaaggtg tegetcaatg	gtcagatgtt ataacgctga	aagcagtaaa ccgtttttat	60 120

```
aagatgtttc gcattcatac cacggcaaaa gttgctatgt cgctaattgc catgaccgct
                                                                     180
                                                                     240
gtagggtttt ctttctacaa tctttacgaa caatggcagg acgctgaagg gaagaaagac
                                                                     300
catatagetg taataeggat ttetggegag atgggtaeeg geteggaaae gggegatgga
acagtgateg caacagetet tgccaaaget tacaataate eccatgecaa agcagttatt
                                                                     360
atcgaggcag agtcaggtgg tggtggtccc tctgacgcca tcattattta ccgccagata
                                                                     420
aacgegetta aaaaccacca geeacagatt gaacgegtat cagatgeegg tggetetett
                                                                     480
tcatetgtag ccgctgacaa gagtaacaaa accgggagca cagaacgtgg cgatgaagca
cggtcgaagc aaaactccct cgaagtactc tccagcggta ccggtcgttt tttctctgat
                                                                     600
                                                                     660
atogoagact catataaacc aatoatogtt agtgtgaaag gcatatgcgc atocgcatgc
                                                                     717
tattacgcgg tatcgcccgc tgatgcaatt tatgccgaca gtaatgccct gatcggt
<210> 4731
<211> 585
<212> DNA
<213> Enterobacter cloacae
<400> 4731
acaagttaca ggcggggcat caaaccccag attcatccag aaacaacaca tagtcatata
                                                                     60
                                                                     120
gttactattg aggactotoc otttettet eggttaaaat ttaaaatcat tactgccata
gatcagotto otgaccotaa tggcottrat acaaacacot ttaacagoat tattgacogt
                                                                     180
gcactgotga otoatotoaa aacogaacag gaaaaaatag atagtocaag agtotgoaaa
                                                                     240
aatgtgattt eggettttge egacteaact etttetetge eggtgtttaa eateggeeta
aacgagcagt acagatactg gacgccgtgg ggcatcaact ttatagaatt ttcccgccag
                                                                     360
                                                                     420
gccgcaaaag caaggaccgc tgtatttgtt cctgatgtgg gacagatcga gtggaaaagc
gcagagcata aagaactggc ggagttaagc ctcatcgacc aaatcatacc taaacagtac
                                                                     480
cactggctcc tgggtatecc gacgatgtgg cgtaacaact attgcaatca cgatcagagg
                                                                     540
                                                                     585
ctagetettt ttegtgaatg gagggaaage aatggetgeg gataa
<210> 4732
<211> 690
<212> DNA
<213> Enterobacter cloacae
<400> 4732
ctctttttcg tgaatggagg gaaagcaatg gctgcggata atacaagcag ggcagcagtg
ctcagaacaa tgctttttt tggcatggtc atttattttg gttacagctt ggctttccag
                                                                      120
aatactgagg agctcaaata tcagattact caggaggtta atgcaagccg gtccatcata
                                                                      180
tcaaatgace gttggaagte tgteattgea aatagtgaag egaetttaaa ttggttggta
                                                                      240
                                                                      300
catgactata agttaattga ctatctgaat actattctga tccctgacac caaaaaacca
gccagaggta ttaacattgt tgctgaaaaa tttacctcta ttaattacac tatggccaaa
                                                                      360
aacatacccc tottacttta toagtocatt ttooggtgga acttaatcct ggggtggcta
                                                                      420
                                                                      480
atogttttte tgccctatct atttgccatg ctagcagatg gaatgtacca gtggaaattg
aagaggtacg tatttggtaa ggttacagtt cagttttatc gtatttggtt tcgagcattt
                                                                      540
tgggtgatca gtgctttaac gatggtctac ctggtcatgc caaatatgtc actatttaac
                                                                      660
aatategete aactttteee accagteget ttattgatae tgggaattge attgaatege
ttgtggtcta actttcaaaa actcatgtaa
<210> 4733
<211> 510
<212> DNA
<213> Enterobacter cloacae
<400> 4733
ggatcgatga acaacatatt crtacagttt cacatttatg ggcttgatgc aagcaaggat
                                                                      120
tatagtttaa gtataataac aaggaatggg agccaaccag caacagttat caatattgat
gatectaaga accgggacet egetettta aaagtagaaa aaaatactat tgtcaaagee
                                                                      180
ccacctaatt ggaagettee agtatgtgat aatgttetag etccaggtga gtetgtttgg
                                                                      240
gttctatcgg gaatgtataa tacgctttca aatacgtatg cttcccccga ctcaacctac
                                                                      300
                                                                      360
tattataaag gaatagttgg ttctgatggt ttgactgctt tttatcaaaa tggagttagt
ggaagegetg tgttaaacca atctaagagt tgcttatatg gtgttgtgag tcaacaagac
                                                                      420
attaaaaaga toaatgtota toagatatat attacgaaga ttactacaaa tgaaattata
                                                                      480
```

1862	
cgcggattca taggttataa aaataattaa	510
<210> 4734 <211> 258 <212> DNA <213> Enterobacter cloacae	
<400> 4734 atgagogtaa tottacaaca ggcaattoog acgttatotg ogttggtota octatotgaa cotttaaaaag gaacgtotat catgtataaa ottttacoog caatactagt otttotttog gtgttocttg gactaatogo totactoagt gotatcaaaa atggttotga tgaattggog gtattoctoa ttacactto ggcgtggtto gotgotttaa gtaagtttta ttoacttaaa otgtataaaa atagttag	60 120 180 240 258
<210> 4735 <211> 183 <212> DNA <213> Enterobacter cloacae	
<400> 4735 cggaaatcaa cgactgcact tictiatiat atctacggtg caaaggaaga cggtggcgaa gtggttttaa gaccatttat tgtaaatcct gatgaattaa tgcttactcc agcggatgtc gttgaattta attcgcaggt tatcaacgtt gatcggcagc gtcatcctga gtggttccgt taa	60 120 180 183
<210> 4736 <211> 183 <212> DNA <213> Enterobacter cloacae	
<400> 4736 ccccccccc cttttttggg ggggcttggg gcgtggggaa tggtctacat gactaagcag gggctcgagg gcagcacgca gcaacttaag gcaaactggc aggatttacc cgacagcgta cccgacgtga aaggctacac cggctgggat catatgcgct gtgatatgga tgcggggcga taa	60 120 180 183
<210> 4737 <211> 711 <212> DNA <213> Enterobacter cloacae	
<400> 4737  tqatqaaag gattatgtac ogttotogoa gotacgtoog ttgtgotgoc aacogggtgocaggoaag agccaccgac acaggttgtt taccggttog atgatcaccg tttttotogaa ttgataaggoc gotgotogoa aggtgaacto tegataacga atactottog gggtattoat accaggocog teagtocaat ttatogatt ttoaccaaaa aatttgttoa tecttotogaa ogatatattg coataccaca otgggatgac ocaggaacaa tgattogtaa agattatggt aaaacatggt otcoccaqtt tttttoggat gggcotaatg agccogatgg tactaaaccaa caacaccago tgtatatgta ttottoacc gtogotacac atcaaggoct tttaactaac aaacaccago tgtatatgta atcaaagcca tttgaaggaca tttgaaggaca tttgaaggaca cocgtttoc otggotagg octgggaatg gotaatga gotgaatga gotgaagga cocgtttoc otggotggo cotggggaatg gotatatga dagaggaga gattaagca aattaagc aactgoaa gattaccag aggggaacaccg gotgggataa tatgoogatg gatatgaga gotgggaaag ggggacaccg gotgggataa tatgoogatg gatatgaga gotggggaaag ggggacaac gotggggataa tatgoogat gatatgaag ogggggaaag agggaacaccg gotgggataa tatgoogatg gatatgaaga gotggaagaa gatgaagaa gatgaagaagaa gatgaagaa gatgaagaa gatgaagaagaagaagaagaagaagaagaagaagaagaag	60 120 180 240 300 360 420 480 540 600 711
<210> 4738 <211> 711 <212> DNA <213> Enterobacter cloacae	
<220>	

<220>

<221>unsure <222>(634) <400> 4738 ctgatgaaag gattatgtac cgttctcgca gcgacgtccg ttgtgctggc gaccggatgc caggotaaag aaccgcccac acaggttgtt taccggttcg atgatcaccg ttttctcgaa ttgaaagget ggggetgega aggtgaacte tggtataegg ataetttteg gggtatteat 180 240 accaggeceg teagteaatt ttateggatt tteaccaaaa aatttgttea teettetgaa cgatatattg ccatacccac ctgggatgac ccaggaacaa tgatttctaa agattatggt 300 aaaacatggt ctccccagtt tttttcggta gggcctaatg agcccgatgg tactaaccaa 360 420 coatcotatg aggatattat ttotttcacc gtogtcaacg accagggttt tttacagacc 480 aaacaccggc tgtatatgtc atcaaagcca tttgaagacc cgcgcattct gcccggcggg 540 coggggattg cctataccgt ggatgacgga atgggaaata aagtcagcgg gaagctggac 600 ccccgttccc ctggctgggc gtggggaatg gtctacatga ctaagcaggg gctcgagggc 660 agcacgcage aacttaagge taactggcaa gatntacceg acagegtace egacgtgaaa ggctataccg gctgggagca catgcaatgc aacatggatg cgggaaaata g <210> 4739 <211> 204 <212> DNA <213> Enterobacter cloacae <220> <221>unsure <400> 4739 qqaqataaaq cqatqaaagg cgtcattagg ttaaacgatc cgctgataag cggaagaaaa gtcactaagg cototgggge aaactntatg gggcageceg tggcottaaa agatgatett gegeagtgte egetecataa agggaagtte geaateactg attgteacea acetggaaca 180 204 tgcattggcc ttgggttgtg gtaa <210> 4740 <211> 198 <212> DNA <213> Enterobacter cloacae <400> 4740 atggctaaat taacagacat ttacagttac ccatcgttga tagaaattgc ctatcaagcc ttgtcatatc tgagttttaa cctatcaact gtttatattc gaaaaagaga taaaaagcag 180 tttttatata acctgttttt tgtctcaaaa ggagatagtt ttgatactgc tgaaaaaggt 198 ctaaaaaggt gtgtttag <210> 4741 <211> 186 <212> DNA <213> Enterobacter cloacae <400> 4741 actggcgacc aagatcgaga atggtttggg cacgaatgtt tccgtcgagg tggcggtgaa 60 tatcagttaa aggeaggegt gtatcaatca tggtegeact ctttgetggt taaagtgege 120 180 catattataa aaacaaaacg gggtaaaaag ctatttgcgc aagggaatat tccgttgcgc 186 aaataa <210> 4742 <211> 303 <212> DNA <213> Enterobacter cloacae <400> 4742 qcqcqggatt cagccaggcc tgtgcggcaa gacgaaggcg ccaaagcggg tgctctggtt

egcacaggca gagcacaacg	gccagataac aaaggcgccc cgaaagagag cagtaaaatt	agacgaccgg tgagcaacgt	caggtaaaat agggatatta	gccaggacga aatcgcatga	agaacggaat tgacggtaac	120 180 240 300 303
<210> 4743 <211> 222 <212> DNA <213> Enter	obacter clo	pacae				
ttacgagagt cataaagata	ttaccgacaa tcaatcactc atacatggat taagtctagg	aacgcctttt gatttcactt	acatctcatt tcgcaggagg	ttatttatat attttaatac	caccgactat	60 120 180 222
<210> 4744 <211> 516 <212> DNA <213> Enter	robacter clo	pacae				
gaagggttat cccgttacca aggattttt agaagtattg tctgatgaaa acctgcactg cctgacaaca	cacgttatca cgcgatccgg cggatgagcg atgctgcggt cagatgagaa aagaagtcgt agaagaatct ttagaaagct ttttattac	tttaagcccc ctggtggctc gcgggagttg tttcacgtcc gtttagtgat cgtcaaactg atccacggac	gttetgetae gcaaaggaaa gtcataaggt gaacatatgg tacetgegea acgcaagatt agggatgeae	tggcatcccc acgtgtcagg cggatatcat ggtacttcga ctctcgctga tatacccgat	gaccacagta acattacggc ctcagtagtg gcgacttacc aggcggtctt tgatgcaact	60 120 180 240 300 360 420 480 516
<210> 4745 <211> 501 <212> DNA <213> Ente	robacter cl	oacae				
tccatcggaa atggtaatac atccctgttg gctgtgcatt cgttggctgg cttagcgaat gattggtact	tgatagtaaa ggtatttaag gggaaaaacc ttacaatagt tcagtacaat atttatttga tacacgaaag ggaaagagaa aattcaagta	attttggcaa atatcaactt aattttatct tatcacgatg agaaaaatta catacgtgag gatgacatat	gcagtagcgt atggtcgctt ggtcagcaat gtgtttgttt gccatttata aaaaatgggc	cetetggttt tgattgettt egeataagtt tgegtegaaa aacetaatga tagaettgea	acccatggac atatacggcc ggaactaatt gatggggaaa taaactcgcg ggatttacaa	60 120 180 240 300 360 420 480 501
<210> 4746 <211> 186 <212> DNA <213> Ente	robacter cl	oacae				
aatottaaat	eccgtattac accttecgat	ggacttaaac	cttttcccgt	tttatgcat	tgettgecaa aaacetgttt ttacettaac	60 120 180 186

<211> 201 <212> DNA <213> Enterobacter cloacae	
<400> 4747 ataacgocta agototgoac atcatocatg titotggoct gitggotgto tattotgatg gotgocatog ogtitgoact gagoaaaago goagooaaaa iggogatigo gattotitio atgataigog otocacgact gogigotgig atacggggga atgototoot tototgitoa gggittotga tiaaagigta a	60 120 180 201
<210> 4748 <211> 189 <212> DNA <213> Enterobacter cloacae	
<400> 4748 cgtgatcege caggetttet gatecegeet tteagegeaa geceetgeeg eaagegggge aaaaggcaca aaacaacaac tattttacaa attggegace tggeaggetg etttategee cetttaaatg atataetgee tgtegttegt teaaaaatag ttgataatta caacatteee ttgaattga	60 120 180 189
<210> 4749 <211> 234 <212> DNA <213> Enterobacter cloacae	
<400> 4749 ggaagtggc acatggaaat tgatetegat aacttaetet ttaaeggget ggatgaagea gaagagegea acgeggaaeg tetegaegat geggataaaa aageceagge gattgtegee gatgaegaet geggggaatg eetgeaagat etgaagaaaa ageaeeggge teeeeggtge ttttttatg aatgeettt gttaeetgat ateagatete eggegtttg etaa	60 120 180 234
<210> 4750 <211> 231 <212> DNA <213> Enterobacter cloacae	
<400> 4750 cccggtaaaa aacaacgaca ccggtgtgaa cagataaagt tgcacgcgaa agttctggtt atcaccaaac gcgttaatca tcattttgaa aactttaaac agataccaca gtgtcaacag tacggcgaac caggaaaaat agataattta ccgaattcga ccatggttta tggttttacc gaaattcgca ccgttaaaga atcccaaatg aagcaccata ttcctaaaag t	60 120 180 231
<210> 4751 <211> 1110 <212> DNA <213> Enterobacter cloacae	
<400> 4751 gtggatcact tittacccgt tgttgacaag atggettaa attatatteg tgecgagegt gaggagagaag aacettaccg geagatgetg agecagget tggecgatgg aaatattgge cagectaate tgagacgagag ttgeatagat egatgattg tageetggeg agetgataac aggggggega egetggaage tgecatgatg acagetatat tgetecgtag ttgeagetag acagetatat tgetecgtag ttggaggte aacacatett eggggtteg taattitatt ageageaag getatgaget ggteaggtag tetagaggaa acetggttgea tatgeegeac cageaaatt tgaatgegac aaceggatgg agggaatge etggattgaatgtac ttgetacate eggaatggt ttaaacgta etcatcaacg ttttgegaaa atgaacact tettaccage tgaaacace etggttegaa gagacgte ttttagagaa atgaacgatge ttttagagaga gagacgte ttttagacatgetgeegeacgatgg agacgetta ttttgataca tgeteccgtg gegeteagg tettaagea ttttaaacge tgaacgate ggtgattac	60 120 180 240 300 360 420 480 540 660 720

gtacagcaag taagcotaat ggctoctgtt goggtoaaga gogaaaaag taaagcoago (780 sqattgotga) gotgttoott tagagaataa gactgotgot aaagaaaag gocgaacacc gagttoott tagagaataa cattootaaaagaaaag tacaagag aactootgot aaagaaacag cactgotto taagttotaa aagaaaga tacaagag aactootgot acaagaataa agagtoaat tacaagaag tacaagag aactootgot acaagaataa gacaagtgot gotgottooc 1080 acgggaagt tytoacaag aactootgot acaagaaga tacaagag tacaagag tacaagag aactootgot acaagaaga cacagagt googaaacag tattoagaag tattoacaag cattoocaacag tagtaaatgo caagaggt 1020 1080 acgggaagt tg DNA c213> Enterobacter cloacae cacaagagaga ttagtaaaa agaaagaga goagaatat taagtaga gacaaatti taatgaac cattagagag ttaagaggag ttaagaggaga ttagtaaaaagaga acgaagaaga cacaagaga cacaagagaga ttaagagaga cagtagaaacag gotgaaacag gotgaaacag gotgaaacag taagagga cagtagaaga cacaacag gotgaacaacag gotgaacaacag gotgaaaaagaga aacgagaga cacaagaga cacaagagaga cacaagagaga cacaagaga aacgagaga cacaagagaga cacaagagaga cacaagagaga cacaagagaga aacgagaga cacaagagaga cacaagagaga cacaagagaga cacaagagaga cacaagagaga cacaagagaga cacaagagaga aacgagaga cacaagagaga cacaagagaga cacaagagaga cacaagagaga cacaagagaga aacgagaga cacaagagaga aacgagaga cacaagagaga cacaagagaga cacaagagaga cacaagagaga cacaagagaga cacaagagaga cacaagagaga cacaagagaga cacaagagaga aacgagagaga				1866			
<pre>&lt;211&gt; 276 &lt;212&gt; DNA </pre> <pre>&lt;400&gt; 4752 aactggcaga tttgctacac agtaaacctt catogcogeg toatagtgeg otttcataga cgatacttgc tttcaaaggt gagcagattt gccacatttt toatgtactc cotttcagge ttagaagatt ttattgtgca gtcacccgaa ggcgctcotc acagactgce ggaacattgg tggtcgcage ttaaqtgcga cttagacca ccagaagcgc tcatcacagg ctacaagaga attggtggt gccagtgcga cagtacaaca gtttga  </pre> <pre>&lt;210     4753 &lt;211&gt; 459 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacae </pre> <pre>&lt;400     4753 cgaaggggca gagatatct catgtacaga accgactgtg ggatgtttga atatgatcgt ggtaagaga atgaacacgc tgattcaatc ttacagacgt tggcgttaa attgctcgt ggaagggct taaaacagta cgtceggatt aattcctgac gacgggttg tcagtacat attgcagatt gaagaggacagg tttcagtagg atttcaaccg agattgaga ggatatta ttcagacgt tggcgttaa attgcagatt gagaggctcg ttcgctatgg tattcatcc tacagacgt tggcgttaa aattacatcg ggatgttttgaa aggtgacagg sgattttaa attgcagact tcagattgag ggatgttttgaa aggtgacagg tattttctg tcacattaa </pre> <pre></pre>	ctcatctata gagttgcagg aaagaaaagc aacggggaag tattcaggaa	ttggcactaa cgctgttcct tactttcacg taccagatga tgttcacaag	agacctggcc tgaggaatac cagaaatacc aatcctcgtc catgccaacg	gactggttt ctgtccaaat gctctgtctc accaaatcag	atcagaaagc ttgaaaataa tcagttttta ttgataatgc	gccgacaccc agaggtcaat caccatggac cagacggtgg	840 900 960 1020 1080
aactggcaga tttgctacac agtaaacctt catcgccggg tcatagtgcg ctttcatga cogatatctg tttcaaaggt gagcagattt gcaccattt tcatgtactc cetttcagge 120 ttagagagtt ttattgtgca gteacccgaa ggcgctcct acagactgcc ggaacattgg 120 ttagagagt ttaatgcga ctgataccaaa ggcgctcct acagactgcc ggaacattgg 240 attggtggt gccagtgcga cagtacaaca gtttga 276	<211> 276 <212> DNA	cobacter clo	pacae				
<pre>&lt;211&gt; 459 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacae </pre> <pre>&lt;400&gt; 4753 cggagggca ggagatatct catgtacaga aacgacagaa acgtggattc cttcaacctg gttaatgctc ttcaqccggt ctttcgtaac accggctgtg ggatgtttga atatgatcgt aaaaagcaga atgaaacgc tgattcaatc ttacqacqgt tggcgttaaa tgccgatttc gcgagggcct taaaacagta cgtceggatt aattctgtaa gacgggttgt tcagttcgat gacggctogg ttcgctatgg tattcatgca gaatttgaag ggcataataa aattaattcc ttccgtattt ttaaagatga agatacagac ggatttgaac cctatttta ttcggttgc gataataaag ctgagctggt gtttaaa atggactct tcqatattca attgcaggcag gtttttgaaa aggtgacagg tatttttctg tcacattaa </pre> <pre>&lt;210</pre>	aactggcaga cgatatctgc ttagagagtt tggtcgcagc	tttcaaaggt ttattgtgca ttaagtgcga	gagcagattt gtcacccgaa ctgtagccac	gccacatttt ggcgctcctc ccgaaggcgc	tcatgtactc acagactgcc	cctttcaggc ggaacattgg	120 180 240
cggagggca ggagatatct catgtacaga aacgacagaa acgtggattc ottcaacctg gttaatgctc ttcaqccgt ctttcqtaac accgctgtg ggatgtttga atatgatcgt 220 aaaaagcaga atgaaaccgc tgattcaatc ttacgagcgt tggcgttaaa tgccgatttc gcgagggcct taaaaccqta octccggatt aattctqtac gacggcgggcgt ttcaaaccqta octccggatt aattctqtac gacggcgggcgt ttcaaaccqta cgaattgaag ggattaaaa aattaattcc ttccgtattt ttaaagatga agatacagac gcatttgaag tgcatttta ttcggtttgc gataataaa gatgacagg tattttaaa atgacactc tcqatatta ttcggtttgc ggtttttgaaa aggtgacagg tattttaaa atgacactc tcqatattaa attacaggcg gtttttgaaa aggtgacagg tatttttctg tcacattaa	<211> 459 <212> DNA	robacter clo	pacae				
<pre>&lt;211&gt; 369 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacae  &lt;400&gt; 4754 aagaaattac agtgtgggtt attagccagt aggtcggagt tttatataat acccaaaaac acaggaggta ttatgaaaac caatctggcc tatgcatcta attgctccqa ttctgtctac tcctatattt atcaggcact gcaaaaacgc tctggtgcg agaatgaaag ccttatacag cagtccattag aggtcgatatt caacgctgg tytaacaatc gcgtccataa cacaagcgtg ttgcgagaa cagagcagt tactcaga gtgcttatct cattccagt gcgaaaaag gaatgaaag gacggcagta</pre>	cggagggga gttaatgctc aaaaagcaga gcgagggcct gacggctcgg ttccgtattt gataataaag gttttgaaa	ttcagccggt atgaaaccgc taaaacagta ttcgctatgg ttaaagatga ctgagctggt	ctitegtaac tgatteaate egteeggatt tatteatgee agatacagae ggattttaaa	accggctgtg ttacgagcgt aattctgtac gaatttgaag gcatttgact atggactctc	ggatgtttga tggcgttaaa gacgggttgt ggcataataa cctattttta	atatgategt tgeegattte teagttegat aattaattee treggtttge	120 180 240 300 360 420
aagaaattac agtgtgggtt attagcaagt agtgtggagt tttatataat acccaaaaac 60 acaggaggt ttatgaaaac caatctggcc tatgcatca attgctccga ttctgtctc 120 tcctatattt atcaggcact gcaaaaacge tctggtgcg agaatgaaag cctttatagc 280 ggtccatagg agtgtatat caagcggtg ttaacaat gcgtccctaa cacaagcggt 300 gtggccatta tcaccaga gtgcttatct cattccagt gcgsaaaagt gatcgcagca 360 tggccgtaa 369 ctgscagtaa 369	<211> 369 <212> DNA	robacter cl	oacae				
<211> 555 <212> DNA  213> Enterobacter cloacae  <400> 4755 aatatagatg agatgaatat gaaaaacgta aatattttgg ataccgatat tggggccatt aattgctcttt ctggcgtaaa acgactgac tttctcactg ccgggtatca ggtaaactgg 120 ttaggagaaa gggaggttte getggtggge tttccgtgtt tagcaagcaa caagcagccg 180 gtagaagttg gtcccggcat tttcattaat cgcgtgtaca gcagagaca ccagtctctg 2acgagcaaat tgcqctataa cgctgtaca gcagagaca ccagtctctg 300	aagaaattac acaggaggta tootatattt caggocattt ggtocatgga ctggocottt	ttatgaaaac atcaggcact ccagctgctg agctgctatt	caatotggco gcaaaaacgc cacagataaa caacgcgtgg	tatgcatcta tctggtgccg caaaaaaaga tgtaacaatc	attgctccga agaatgaaag aactggccgg gcgtccctaa	ttotgtotac cotttatcag gtattatgco cacagoggtg	120 180 240 300 360
aatatagatg agatgaatat gaaaaacgta aatatttigg ataccgatat tgcggccatt 60 aatgctcttt ciggcgtaaa acigacigac tittotaacig cegggtata ggtaaacigg 120 ttaggaagaaa gggaggitte geiggtggge tittocgigtt tagcaagcaa caagcagecg 180 gtagaagitg gicceggcat titcattaat egcgitgiaca gcagagaag ccagitctig 240 agcgqdaaat tgcqctaida cetgitgiaaa gcagitgcatt titcattitt 300	<211> 555 <212> DNA	robacter cl	oacae				
	aatatagatg aatgotottt ttaggagaaa gtagaagttg agogggaaat	ctggcgtaaa gggaggtttc gtcccggcat tgcgctatga	actgactgac gctggtgggc tttcattaat cctgtctaat	tttctcactg tttccgtgtt cgcgtgtaca ggtctggcaa	ccgggtatca tagcaagcaa gcagagacag cgagtgcatt	ggtaaactgg caagcagccg ccagtctctg ttcatttttc	120 180 240 300

			1867			
gogttaatca cocogggoca atgttoattt aggotogoca	atgtgagcgt cagacactgc	aacccgtttt	cattgtggca	tgacgcttga	gcagatccga	420 480 540 555
<210> 4756 <211> 237 <212> DNA <213> Enter	obacter clo	pacae				
actatcattt	cagaatacta ttttttacgt	tgacttcttc acgcttgcag	ccgtatagaa cgcagtacct	actategtte ctaategete tgagagaagt ttaggegtaa	acgccattta aagtaagact	60 120 180 237
<210> 4757 <211> 243 <212> DNA <213> Enter	cobacter clo	pacae				
tattggcccc	gaatgtgcgc tctacatatt	tgacatctat agctgttaat	ggtcgctctg tttaacaaca	acgteeggge geggeagget gegeetttaa teggeattta	gtcccatgtt tatctgtcag	60 120 180 240 243
<210> 4758 <211> 186 <212> DNA <213> Ente	robacter cl	pacae				
attctattat	tcctqtcatt	aaccattgaa	gaagtgttaa	tttttgtccg catcaaacaa tatttattca	attcgatata	60 120 180 186
<210> 4759 <211> 630 <212> DNA <213> Ente	robacter cl	oacae				
<220> <221>unsur <222>(481)	е					
caattaggtg gatggcaaca cagcaagatg atatctctga ggtggcgta gactactacg agggattttc ntggaacatt ggattgcatc	ggtcaaatat ggtttatccc gattagggtt ttcttgctga ctgcattgcc tactgggaa acagaagtat aggtatggat	tgtttacgat tatgtttatc aatgttcaaa agacctgact cgataagcct gcataagcct ctcgctatcg ttcactttac cgatgcagaa	caattagcag tgtaatccat atggatttcc ttacagctta aaagcagatc ttaaaacctg attcctttac tctgaacttg aactggctct	ggactcacta cccctggagt ctacagatac gtgcttagtc tgcttaatgg atcatgatac agtttgcctt taagtaagtt	aaatogocat tttttgatat ttttgataat tgtctgtcaa agctgtgoga ttatcagttg ccttatgttg tcctaccgag aattacgatt taaggtcgta	60 120 180 240 300 360 420 480 540 600 630

```
<210> 4760
<211> 459
<212> DNA
<213> Enterobacter cloacae
<400> 4760
actttcccgt tggggtttat tatgaaaaca cctaatgaag ctgaatcaga gcttttacag
                                                                     120
acattagete aagtaegeag egtaaataaa aagegacate atgaegagge ggaagageeg
gataagecat eggtagtgaa gaggeaaege gttacacaag gettaaegeg gattagtaet
                                                                     180
ctogatogoc aggotgtact gcatgoagoc atacgggaca ttttgctggg gaaaatcaca
                                                                     240
cagggagagg cgctgaaaag gctcagggtc gaggtgttag ggctgaagca ggatgaatat
                                                                     300
qcaaagctgg tcagcgtatc ccggaaaaca ttgtcggatg tagaaaataa cagaggcaat
                                                                     360
                                                                     420
tattocgotg acgtcataaa taaaatottt aaaccotttg ggottcaaac oggactagtg
                                                                     459
cocgtttcaa aatogottat ogottcactt ttotcataa
<210> 4761
<211> 189
<212> DNA
<213> Enterobacter cloacae
<400> 4761
tactcccata actctaatca gootggotgg tttaaccott cggtacctgt ccatcaggtg
                                                                      60
                                                                      120
togttttttt cogtaagaat gtotatagat ggogotoogo agaaagaggt gggtgttacg
gttattctgc cagaaatccc gttgtgttca ggctgtgtcc tgtcgttccg gcaggacact
                                                                      180
                                                                      189
tggctgtga
<210> 4762
<211> 939
<212> DNA
<213> Enterobacter cloacae
<400> 4762
qttatgacga ttgaaagctt tttcatcggc actcgcatgt caggaaaacg ttatggacct
                                                                      120
cagagtaaag acatgeaggt ttetgaatte atageaetta tateteegaa aaatgaacea
gagaaatttg tootaecega ttteteeggt etggeaegte ggattgaege ceagateegg
                                                                      180
                                                                      240
aatcagttta ttcagcaaaa agaggatgac tattaccgtc gataccgaca gctttcggac
eggtggtate aggeoggete tateagtgae agaaacaate geageeageg tittgagaag
gtcatggatg agtcgcttga gtttttggtt tacagtcatg atgttatgcc caacatcaac
                                                                     360
ccatataato toaaatacga tgatogogtt caggttagca cgaaaggcaa aatgtactgo
                                                                     420
gtagegette tgttecatat tategetega geggeetatg agecagtete tgtaggtgca
                                                                     480
gatectacge tgcaaaggca ttgcaagtgg etgaaggact ggattaataa aacgttaggg
                                                                      540
gatcattttt tagagggaat gatgattact ttcgcccttt gttatcctga ccactttcct
                                                                      600
gccctgcagc gccttagcgg agagttagaa acacgtgatg ttgacacatt cctggctgac
                                                                      660
gaagttegta aggcaaggca acacacagag gaacaggtta attatcataa eggceggtae
                                                                      720
eggttgaaat tegagtacac teaettteac eaggageaat ttgattttt ageegaaatg
                                                                      780
egtgatetee attaceggat agategtatt gaacagetee tteagaaaet gatagataae
                                                                      840
                                                                      900
coggtagtag atttcagtga agctgctgtt gcagggcagt ggattgacga acaagtacag
ctgcttgaaa caaacgaaac gaagctaata ctcccataa
                                                                      939
<210> 4763
<211> 291
<212> DNA
<213> Enterobacter cloacae
<400> 4763
agtocattga gtaggacgoc ogogocotgo ggggotgaag agtgtttgac attgatagag
tocattaacq ttaataagag gactotatca togtcaatcg ttagtaatcg caacaggogg
cagtggettg acgettacac ccaateteeg gagatteaca tgeetttete tgattttetg
                                                                      180
                                                                      240
aaaatcatto agaagtttoa gtgtgcaact gtgctggaaa aagtactgat gctgctgttt
                                                                      291
qtaattetga teattgtgea acaggtgate gatacgttet geagtegata a
```

```
<210> 4764
<211> 597
<212> DNA
<213> Enterobacter cloacae
<400> 4764
tcaaggggca ttatggcacg cacatacgtt aagcaaacag tacagaacaa tgaacaactt
tttgattott tagtgataaa tgocatagat ttoottgagt catcaattga tgatttaaat
                                                                     120
attaggccca agaattcgat tgttgatttc tatacagcca ttgaactttt cttaaaagca
                                                                     180
aggttaatgc tcgaacactg gactitaata ttagatgacc ctagcaaagc taataaacaa
                                                                     240
aaatttageg ttggtgactt taattetgtg tattttaatg acgeagttea acgteteaaa
                                                                     300
acceptattg gcattaaact tgatgacaat atccttgatg agttcagaac gttaggtgcg
                                                                     360
                                                                     420
cataggaacc aaattgttca ctttgcacac actggatatt caagcactca agctaataaa
gcaggggttg tagetcaaca atggtettea tggcaccatt tatataattt acteactgtt
                                                                     480
                                                                     540
gaatggaaag atgaatttat taaatttaag gaagagtttg agcgtgtgca taagagaatg
ctgcaacaaa aagatttoot cagcaccega ttcaatgago tttcaaaggg agattga
<210> 4765
<211> 453
<212> DNA
<213> Enterobacter cloacae
<400> 4765
gtgaagacca atagattcat agtttetacc gttgattgta tcaatgaatt tgcaagtgac
                                                                      60
gttccgcaga gtgtttcctt acggatagat acaatgcttg aacagcgtat ccgcaaattg
                                                                      120
qeqqcatacq tgaaagaaaa egatetteat ttaactgagt tttactteta tgacgetaac
tggtcatttt gtggtgaaga tgaaattcaa gaaataaaag acatggatga atataagcat
                                                                     240
agogacagea taaagcagga agogatgotg ogggaagtaa tgccatcagc acgtacggaa
                                                                     300
tgcccggtta ttagggtgat gaaagattca tttcagcttt cagctctacc acgccattgt
                                                                     360
                                                                     420
ggtgatgaca tgactettaa cacteetttt atteegetgt etgagttgaa aacaaataat
aeggeattta ttaegeegee aacetataae taa
                                                                      453
<210> 4766
<211> 414
<212> DNA
<213> Enterobacter cloacae
<400> 4766
tgcagcatat accgtggttc aggaaaatat atgtttattg aaaaaagcga ctcattcctt
quattatect cagaagttat tttteetgag geggetaatg etgeeatttt gaaacatgat
aaatgggcgg atgtttggga gaecetgaca accgatgccg atetgaacta taccgatgaa
aaqqaqactq tqaqtctttc ttctctqqtc atgtcaqcca catctgctat ttatcaqgct
attacggacg getggacaat gtgegtggga tacagtggeg gcaaagactc ccattetett
                                                                     300
ctgcacctgt ttctgatggc attgatcagg gcagtacgta acggcacaaa tatcagcgaa
                                                                     360
catcatttca ttcagatgtc cgatacgaac tactaccaca ctgttacagc qtag
                                                                      414
<210> 4767
<211> 222
<212> DNA
<213> Enterobacter cloacae
<400> 4767
                                                                      60
gatatttqtq qtgatctcat aagcacattg tggacattta ttgatatctt aactgaaaaa
tttgaatggt actttacact ttgggcaaag caaactatcg gtgaattget ctaccgcata
goccttgega ttoccaaaca agaaattcat aaatcatoto coccatttat gagtatcatt
                                                                      180
aactttaacc ggctttccac ggccccattt gaccgcactt aa
<210> 4768
<211> 228
<212> DNA
 <213> Enterobacter cloacae
```

<400> 4768 gcaaaaccat atggctgtgg ctgattgctg gtgttcgcga <210> 4769 <211> 930 <212> DNA <213> Enter	gaaatetteg aaataagtea tettacatea	ggatgcgtat tccacttttt cctgatccag	gccattcgcc gctgatgatg	caaatagact ttctccttt	agagaaccat	60 120 180 228
<213> Enter	obacter cic	pacae				
ctactactaa cagtatagcc gaggtgtcag attaataacc atatttattg cagacctggg	ttgccaatcc aaaatagtag cattaatgat gtatcgcaac cttcgtatgc gcgaggaaaa gctttcgtgc tataatataa	gtatgtaaaa tttttatttt ttcctggtta cctcactttt agctaaggct tttttatcga agagaggtta agctttccag tattattatg tgggatacta cgctcacaat agaatattca taataatga tattataatg	atacaaaaaa gatagagttg tcgatcgtcg ataatacaac atagaaacaa gagcggctct ataacactca cagaagttat tataccacgc gtcataaata gagatgaaaa tattatttaa	aaagtgagca actttttatc ggattttttt tcctcacttg aaagattaga acattgatgg	agatagagaa taagtetate gaatteteat gtttgeaatg aatgetgaga gaatgeggaa tgeataetgg actaacaata tttagatttt tttattetea etteatagag egaaatagag ggaaatagag ggaaataaaa	60 120 180 240 300 360 420 480 540 660 720 780 840 900
gcgattacag	aatttacatt	agtacgcccg				930
<210> 4770 <211> 792 <212> DNA <213> Enter	obacter clo	oacae				
catcetteeg gaegaggtes aattatttee atttacttta etgettaaga tggeaggtga aactaeggtg gtttttageg gaageaettg tgeeggggg tttagegtgg	gtagtggcct tttcacgtta tgattaaagc ctgtagtgaa ccgtgaacct atccccttac tttcgattaa ctactattcc aaatgttcag gcaaagtctg tcgaggcgaa	ttttgcagat taccgtacag ggcctgtgcc ctgggattta cagtgctaaa agaaacgcgc ttgcttttt acggtttcac aaatgagtt cgcagaggaa gtgctatgca	gtgctaactc aaagattaca gctcgcgact ctgcatcgta aacagcagtg ctggtggtcg tcgcaggaga gatcgagaac aaccoatccc gaaatgcgg gaactgattg	aaaatcagcg tcaaaacgca atccgcacga accctgcgct gaattaaagt agcactcgtt tgttgtttac ctgcgaaaaac ctgtttacca gcagaacacg tcctgtcaac	ctctccggc aggaggcgga ggcgaatgat tctggctgaa accggaatcc tgatggcatt cgcgcaggat gcttaagact actgtggaca gtgctaatt taactatcat	60 120 180 240 300 360 420 480 540 660 720 780 792
<210> 4771 <211> 399 <212> DNA <213> Enter	cobacter cl	pacae				
actttagcac caaatgtacg	agaaaagata actctattgt	tgcagacgtc acaacaatta	aagaatcgtg ttatttctac	gttacgttga atccccaatc gggatttaat tgtatgcagg	cccgcttttg cgaaggcaag	60 120 180 240

			10/1			
gatcattctg a atccgccgag g aaacaaaacc t	gttaaaggt	taggetgeeg	catgaggtcg	cctggtttat ataccaacta	tgtggatcaa taataaaaag	300 360 399
<210> 4772 <211> 252 <212> DNA <213> Entero	bacter clo	acae				
<400> 4772 ttctctgagg t aagaatgatg c ggtttcatgt c catcaaatcc a acttcactgt a	etgtaacaa tgacacege igataaagaa	cagcaaaagt ttattccata	tataaacgac tatctgaaaa	ctgaaattag aatggcaatc	tcaggttata caaatattac	60 120 180 240 252
<210> 4773 <211> 405 <212> DNA <213> Entero	bacter clc	acae				
<400> 4773 tgtgtaaagc a aatacaacaa c gatctggata g cctgctcaat a taccaggtaa a ggagtgataa t accttgcagg a	egaccaceta gteggtatat gteggtgaggg aggaacteg gaeggaac	cogotoagaa geeteaggtg tgtactggee tgttgtttta agteetgtgg	gaaategtge tatgcaatgg teetacegee attetggtae eegteactat	cgttcagacg tgcggaactg aaccggcagt cagtagagtg cacttgtaga	gcccaaaggg ggcaagtaac aaaccttgcc cgagccacct	60 120 180 240 300 360 405
<210> 4774 <211> 306 <212> DNA <213> Entero	bbacter clo	oacae				
<400> 4774 tcacatacaa a gtgctttta t gtacagcgca a gctaacaaca c tactcccgcg a aaataa	cgccaacaa acgggaaagc gttctgttgc	actgetegca cgcagaggtt ggacagcgac	agacgtaagc gatgctgtag gcggtagata	ccaatacggt tggttcaggg gttattttga	taaaatcctg ttcaaagaga aatgaatcct	60 120 180 240 300 306
<210> 4775 <211> 309 <212> DNA <213> Enterd	obacter clo	)acae				
<400> 4775 ccattccggc t ttccagttct c aaacgggttc t cagagtaccg t ggctacgaga a actaagtag	ctagoottaa tgcaacttga tagagottgo	gagcagactg gggttcggga ctacgtagtt	aatagccctg ctgagtccat tttctgctct	atgtgcccct ttccgccagt atgacgtata	ggttttgett ggettteete taecatgtgg	60 120 180 240 300 309
<210> 4776 <211> 222 <212> DNA <213> Entero	obacter clo	pacae				

			1872			
atcaacattc gcaggcgcgt	cgctggacgt tatttgaact	gttacccgag tgtacagcct	gttgaggtgc cegetggttc geeagecaga gaacegeagt	cattaacgga gcgaaaccag	actgacgggc	60 120 180 222
<210> 4777 <211> 561 <212> DNA <213> Enter	cobacter clo	pacae				
cgettgetaa agaaagttte etcatgaaet atgtegegge gataacecae gaaggggage geaatgttta ggtgeteteg	aaaggttggc tccggtccat gcgtcctgat atgctggagg ttcagcggtt gagtaatcga aggagatcaa	gttacgcaag gcagtggcag ttgccgactc aatcatgaat ggtcatgctt tcatcaggta ggcccttgaa tgcagttcgt	aagcogtgta gagctgtctg tetoaaacgc ttttcectca cactetgact cgcattttaa ctgtacgaat cgagcaggct cttgagccag	gaagtgggtc agttaatgga cccgggcaat tcgtacgtaa tgggcggatc tctgttgctg tcctgaaagt	agggggatca gttgttaagc gaggtgtgat atattcattc tatggatgga ctcaaagcag gagaaaaatt	60 120 180 240 300 360 420 480 540 561
<210> 4778 <211> 210 <212> DNA <213> Enter	robacter clo	pacae				
gcaagcataa gtggagccta	taaataaatt	caactatcat agccaaacgc	ggaaacttac tcatattgtg ctgaatgaaa	aatggatacg	gagtaagagc	60 120 180 210
<210> 4779 <211> 201 <212> DNA <213> Enter	robacter cl	oacae				
cgtattaaac caaggcggat	cctccctgtc	actggctaac tgaaaggttc	ctatgtcctg gacgaaaact caggttacgc	tattttatca	ttcaaaaaat	60 120 180 201
<210> 4780 <211> 354 <212> DNA <213> Ente	robacter cl	oacae				
gaacacgttg ataaagattc catctcaaaa gaagatacct gaggacgatt	aggaaaaggt tcatagccaa ctttcgtaga gcacaggcga	gcaaccgacc tgatggcaat acccttaatc tggctttgtt	gttttacgct aagtatgata gcagatgctc aaccgtgttc gacgatgaat tatgatgcgg	gtgaagcaac tgagtgataa cttgctctgg ctctgttgat	ttttgcagta gcaaaaattc tatctatggt gagctatcaa	60 120 180 240 300 354
<210> 4781 <211> 399						

<211> 399 <212> DNA

## <213> Enterobacter cloacae

	TEXO DIEC	TODACTEL CI	Oacae				
	gccegcgttg gctgaaatcc gtcatccegc ggccgaaata gcagaattgg	gcatgagcag ccgcgctggg atcactgcag tttgcgccat cctgggtaca ggatagcagc ccagtttact	atgcatcgtc caaaggcacc tcaccacaga gaaatacggt atggcattcc	tgtaaaaaca ggcttagccg cagggtggcc acggaagcag atccaatcaa	teggacatga ttegtgcaga aeggegttge agetgetgge	agatacteeg taattteeat aatteaeget acaggtaaae	60 120 180 240 300 360 399
	<210> 4782 <211> 282 <212> DNA <213> Ente	robacter clo	Dacae				
	tggtttctaa catactggcc cagccagatg	attactctga cgggagatat ctgttttagt agttcgttac gctcttttag	catgcacatt ctatctagag ttcgctgqct	tcagacgatg tgtggtcgga gctcttgatg	tgatacccgg ttagcggcgg aagcgcgaca	cgcagcgggg atttgtttta	60 120 180 240 282
	<210> 4783 <211> 267 <212> DNA <213> Enter	cobacter clo	pacae				
	atgeteggat gatgteaatg ettatatttt	gctcattttg ggtactgtaa ctataaaatg gcctaataat aaaataaaca	gaaaagatet gggggatgee gattagaeag	gcaaaccgca ccccctttac	ctcgggttcg tttactgttt	tagagggggt	60 120 180 240 267
	<210> 4784 <211> 288 <212> DNA <213> Enter	obacter clo	acae				
	aaaaatattc caagagatct gctgacagga	cgaatggege gtacagteaa gteggttata gtaaattatg tetatgetea	aaaggtgttt cgtagaccgg ggaaattcaa	tcagagatgt aaaatggagc agccgcgaga	tagtcaggtt tttgttttac attgtagcta	egaaaaette taeggatagt	60 120 180 240 288
	<210> 4785 <211> 249 <212> DNA <213> Enter	obacter clo	acae				
2	cateegettg	ctgcgtgccg ( aggagatttt ( cagatttaac ( gggcagggtt (	atcaggacgt : Scocttaatc :	ggtgtgactg gccaaactgg	agcagcaget : cuttcautec :	ggggcactgt tgatagtgtc	60 120 180 240 249
<	210> 4786						

<210> 4786 <211> 576

```
<212> DNA
 <213> Enterobacter cloacae
 <400> 4786
 egggagtatt acceptategg tgatgetegt egttttacat eggagageat tttaatgaat
 tttcaaacta acgaagtttt taataaattt gctgctgtta taaaatcgcg catcgtcaat
 gaaccatcgt catgctattt gctgcatgat aatgagatag atataacgat tttgaaacat
                                                                       180
 ggcatattag aaaatgacag aaacctgttg tacgtagttc gtccttcagg aacgtgtttg
                                                                       240
 ttgcgttgtg acaaatattt ctatccgaaa tattatcttc gttgccgtgg agattataag
                                                                       300
 tcattcatat atgtccatct tgatctacat agtggtgaag ctaaagaaat cacatgggag
                                                                       360
 caagcagacg atatgctgtc tagtccagga aaacccccat taaaaggaaa tottggacga
                                                                       420
 tttgagtata taaaagttgt ggttgaggac cttcgtattc gaggttacgc tgattatctt
                                                                       480
 cotgogtata atottgatga cottogoogt tttgccttac aggacgaccg cocatcoctt
                                                                       540
 gtcagataca ttgacaatgt aatggcaacg gtctga
                                                                       576
 <210> 4787
 <211> 924
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4787
 tggccaacct gcatcaggga ggcctcaata acgactggag gctgtatgaa gttagctacg
                                                                       60
 gacctggtaa aagctatttt gattagaaat ggtgttgaac cagtaaatat aagcgaatca
 totaaattat otttgaaaca accactgaca gaacttaaat toagtttata tttgogaact
                                                                       180
 gagcatttat ctcacttcct accoggttat gtttattcta taaaagaatg tccactgtca
                                                                       240
 tatgacatcg ggatcgaaat tcagaaaatc ttcgaaagtt tacatttgtt aaacgaagaa
                                                                       300
tttgaatcee teggttttgt ttetgtatgg atagaaatge atcaaageat ttttgaacaa
                                                                      360
 agtoggttta agaaaagtaa otttaotttt ogggaggaag aggtogagot tgotaaaggg
                                                                      420
 cttgtttgtt ctcacaattc acaaataagt aatgoggett atttctggct tcagcacttt
                                                                      480
 gaggagttta tgatttatgt togtaataaa ottatogaco totttogaga ggootatgac
                                                                      540
 ctgatcettg gaatgeagea agtattttte attegggaaa aggaagaget gttgaaaaet
                                                                      600
 ataagttatg gggatgacet gtatgaggtg aaattaatgg cggctgagct ttactctatc
                                                                      660
 gaacagaact taaagtgttc tgaatcgata agtacaaaat ctcaagcttc ggcatatatt
                                                                      720
aaccgcatcc gtgagtttgt gcgttcgggg tggaggcagg gctatatagt ctgccatcat
                                                                      780
aagcgaagta atcaaatctc atcattgtca ttaccgatgt acttgaaaga tacgtcaggc
                                                                      840
cgaagtgctc gaaagcgagt aaaacgtctt atatcttcta cagtttgtgg tagaaataaa
                                                                      900
gatttaggtc ttacagattt ttaa
                                                                      924
 <210> 4788
 <211> 1353
 <212> DNA
 <213> Enterobacter cloacae
<400> 4788
agcataaatg ttgagggeec eegggeeete tttettaaat tetgegttgt gggtttetee
                                                                      60
etgtettetg cacegeagaa ggeattgaga aacteacaat geeagataag agagateate
atgacttatg catccccggc tcttcgtcgt aaaccacagg aagtatctga acactttatt
                                                                      180
aaactcgttc atgctcgaat tgctgaagtg tctggctgga agtatatatt cgaaagaata
                                                                      240
cotgetttea aagacgettg tgcaaaagee cogagecagg tteettgeee gtttactgge
                                                                      300
gcagggaaat cgaagttteg tttccgacaa aaagaccttt ataccggatg tgcgatccat
                                                                      360
aatgactttc cggtaaatga gttttgcgac ggaattgatg ttctggcgaa atattatgaa
                                                                      420
ttaagtaaaa cgcagacttg caaaaagatt ctcccagatt ttttcgggat ggatctgcat
                                                                      480
gctccgttaa ctgacgccga cattgaaaat gaacgacgct ataaatcagc agttcgtgcc
                                                                      540
acagaaactc ttgaccgaga ggaagtggca aagcgaatgc gaaaacttga tgtgatgtat
                                                                      600
cactataccg gtgaaatcaa gcctaatact cctgttgctt tgtacctccg taatcgtggg
                                                                      660
atotocogot tactgagtca cttaccaaag gatttaggct ttaataaccg gatctactat
                                                                      720
tgggataaag ataagcagaa atcgattatc tatccgggaa tgattgcaat ctatcgtgac
                                                                      780
accegaggte ggeetetgae tatecataga acatacgtag acaaaaacgg tgataaggea
                                                                      840
cotgtagaaa atccaaagct gatgatgaag cotcotgoog atatgacagg tggotcaatt
                                                                      900
cagitgittg accetcacta tgattcaggt agttcgacct ggacactggg agtggctgaa
                                                                      960
gggatcgaga acgcgctttc tgttgtagaa gcgacttcaa caccatgctg ggcagccagc
                                                                     1020
```

		1875			
tccgcatggt gccttgaaaa aaatatataa acttttatat gccggtatcg aagctgctca tatcccgcat caaagctgac aaaaagggta tcgactggaa cactgggcte ctgaatgtct	ctgggcggat gcgacttcaa aattgaagtc cgatgttctc	aaggatattg agccgcatgg ttcgaaccag cagttaacag	ctaactcaca ttgagttttt cacaagatat	aggcactcgt ggctaaacga tcctgatggg	1080 1140 1200 1260 1320 1353
<210> 4789 <211> 345 <212> DNA <213> Enterobacter clo	pacae				
<400> 4789 tcccttttt tattgagaga ttggttgtc aacataaaa ggcatgttc ctggtatgtc gcaaaagcat atagttcttg ctggaggaaa ttacgaaatt ccattgttgt cttcatcagg	aatacaggtt ttttgatgct cttctgtgat tcaattagat	aaaaacatta gatgtttcac attccctttc gctttgaagc	catttttaga tggagtttat caggttttga aaagaaagaa	caatgggcag gtatgaatca agatgcaaat	60 120 180 240 300 345
<210> 4790 <211> 327 <212> DNA <213> Enterobacter clo	pacae				
<400> 4790 gataaatgot cagttogoa gataatttag atgattogot tttaccaggt cogtagotaa caggttagoc atcagggaa acattgtcaa tgtatctgac tcatcaagat tatacgcagg	tatatttact cttcatacag atatgtaaat aagggatggg	ggttcaacac cctccagtcg caattagcaa	catttctaat ttattgaggc ccaatcagac	caaaataget ctccctgatg cgttgccatt	60 120 180 240 300 327
<210> 4791 <211> 564 <212> DNA <213> Enterobacter clo	acae				
<400> 4791 agaagtagca attccaggct gatgacgaac tccttgigat aaggaaatgt gggtcttaga gaaataaacc tacagaatac aacgccaga tattcattga attgctgagg agtttattaa attatgcatt atcaagaata agtastggat cgttaccta aggattttga tcgctaaagg	agttaagtat cagagtaaaa ccataaggaa tggtttaatt aaggctttcg agactttgat tgttcctgat agatgaaatg	gaaggaagat tgggtagagg agatatgaca aacgatggtt caaaaaacaa aataaaagat ggttggcaag	tttattggtt attttgtgaa taccagttgt attcatacga tttggtggga tatattcgga gtgaacttgt	cgttgcgttc aagtggggtg aaatgaagaa taaggatgac tatatatgaa atatgttgag tgatttttgc	60 120 180 240 300 360 420 480 540 564
<210> 4792 <211> 342 <212> DNA <213> Enterobacter clos	acae				
<400> 4792 gtggtatttg atcoattacc a aaggttttta aattagatca gataaaaata agatcagat a accggcaaga tttattcgct a tttactcttg tgcctgaaaa a	aaatgeacaa egeatetgeg ettttatgag	cgctgcattg acagagaaat gtttgtgaag	ttgttccatt ttgatgtaag gggacgagat	ttttattacg cattaacgta ttattataat	60 120 180 240 300

10/6	
ggagggaaaa aatacaatcc totaaaagag ggttttttt aa	342
<210> 4793 <211> 198 <212> DNA <213> Enterobacter cloacae	
<400> 4793	
accgctacct ctacagaacc tttaccgctt gaagactctg ctgagaaggt cacgcacaac Cgtctgacgc agctgaacgt cattcgctgg cactactgtt atgacggtga acatcacctg acggaggtca tcagccagct gcgggaccgt aacaggccgc ggacgcaggt cagcttccgt taccctcata cattgtga	60 120 180 198
<210> 4794 <211> 270 <212> DNA <213> Enterobacter cloacae	
<400> 4794	
caatatacta ttgatcaagg gaacgagttt cacgacaacc aaaaatacgc cgaggcttta gagcaaaacc aaaaagcctg gcaagcgctt cctgagccaa agctcgaatg ggaactcgcc aactggatcg ctgcctgcat gtacagcgca tgttttgatc ttgcggatta tgctgaggaa aacaaatggg gaaaaacgac attacggaca cgtggatcgg atataagacac tgcaccctta	60 120 180 240 270
<210> 4795 <211> 309 <212> DNA <213> Enterobacter cloacae	
<400> 4795	
caatttgtgt ttgtgttaag ogagacaaag cogttaccaa togttttgac catottcaac gotcagggtg aaaaactatt ttggtctaca tecectgaaa gtgctattt etattactta acattaaacc agtcaaagga agtggttgtt gtatgtaatt ttacagtaat acaaaatggc tggcataatt ggttttatte ttgggatatg aagcgtaacg ogttgtctag atcaggacct	60 120 180 240 300 309
<210> 4796 <211> 237 <212> DNA <212> Enterobacter cloacae	309
<400> 4796	
acgtgttact ataattoogg agtaaaagog atgacagatg aagagttacg aaagaatott g gttttttaa taaaaaaata tgttooggaa agtcaacaaa aagcatttta tgatgatata i teaaagtota oogtocagt gaaaggtatt ttagotgact ttaataaaat caaaaccaga	60 120 180 237
<210> 4797 <2211> 498 <212> DNA <213> Enterobacter cloacae	
<400> 4797	
acggatcqcc cgagcagcat cacgatctcc accgcgaaca gcggcgaggg gaaggagaac 1 aaagagaacg ccgaaaccgg cagcggcaaa gaaccggagc acaccgaggg gaacaaagac 1 acgaacaaaa cgaccaaagc gcagggaaag gggaaggga agaccaacag cgccgggtac 2 aatcaaagaa cggcaccgg ggaaacaga cgcgcgccgc agagagccga acggcacgga 3	60 120 180 240 300 360

			18//			
<pre>ccaaaaccg gcaggaaacg &lt;210&gt; 4798 &lt;211&gt; 201 &lt;212&gt; DNA</pre>	gcggcggage cgattccg	acadagcacc	gaacggccac gagatcacac	ggageggaee agattaaaae	: agcaaaaaca : cgccggactg	420 480 498
<213> Enter	obacter cl	Dacae				
<400> 4798						
tcaccaggca ( aagattcaga ( ccggtgaaac ( cccaaagggt (	ctgccgaagt tagccgacag	gctgcacgcc caacggcgta	aaatggccag	aactggtcct	aaggctttgc	60 120 180 201
<210> 4799 <211> 264 <212> DNA <213> Entero	obacter clo	Dacae				
<220> <221>unsure <222>(47)						
<400> 4799 atttgcccac of ttagccgaaa a cgtcagcccg of atgcgtttca t gggttaaagg a	aaaaagcccg catcgttacc cggatgttgt	cactgttcag tgtggtaatg gtactctgtc	gtgcgggctt atgatggttg	ttttctgttt	ttcctgtacg ggtgatgctg	60 120 180 240 264
<210> 4800 <211> 690 <212> DNA <213> Entero	bbacter clc	acae				
<400> 4800						
agggtgggac c cagaatgtteg a cagcagcaaa agcagcagca a agcagcagca a atgeggaaac a acggaaaaag g agctggcag a gaggtggcg g gacgattaca t cggggccgcg t	tatogatat cgctcatggc ccgggatgat cgcattcgt cgctctggta cgcaaagca cgcgcgcgcg tttcgtttgt cgttgaaga cttttgaaaa	gtctgcgctg atacaaccgc gatcgatgcg gaaacgtcgt cggcctgaac gaagcaaaaa tgcgacattc cgctaaaccg ggcgcgcgta tatcggctct	egtgaattac gegetgaaca ettgeagtea aattteggga gattttegeg egtgaecegg attecaaaga tacagegtga eeggtteatq	gtgaagetgt gaacggegaa aaaagegeaa aagagageae tteaegattt agaceggtea gegeaggget aaageatetg aagegetgga	gggagccaca gcatatgcac agtagcgaat cggcgagctg gcgcgggtcg gttatgaaa gcactcgatg gattcggcgt agacgctatc	60 120 180 240 300 360 420 480 540 600 660 690
<210> 4801 <211> 591 <212> DNA <213> Entero	bacter clo	acae				
<400> 4801 gcaggattta c atggacgctt t gtcaaaacgt t tttgaaattg a tcgctcaact g	tgatgagta tggtgtata aaactggga	tacgaaccgg tccggaaatc gccgagcagt	gttcgcgcag ccggaaggat	cagttetgea tecaaaegee	gatecettte ageegtettt	60 120 180 240 300

			19/8			
actetgecag eteggatege ectttegtta	ccacgttegg actccgtetg ccccggctga	cggttcagaa gtgcgtatca tgccccgctt	ccggcagact ttttcgcagg ctgaaagaag	gtoggggatt ggatcaaaaa tagtoggogt tgtttgtogg toccaagatg	cggtaaagcg cggcgttggg ccttgcgcca	360 420 480 540 591
<210> 4802 <211> 198 <212> DNA <213> Enter	cobacter cl	pacae				
<220> <221>unsure <222>(12)	>					
<220> <221>unsure <222>(13)	<b>&gt;</b>					
<220> <221>unsure <222>(16)	•					
<220> <221>unsure <222>(18)	:					
<400> 4802 ggaaggeggg etgatteett ttcaaaagga etegeggget	ttegtttttt actgtetegt	agcctgccgt	ctcgttgtcg	atatagtett	caacacgtct	60 120 180 198
<210> 4803 <211> 312 <212> DNA <213> Enter	obacter clc	acae				
<400> 4803						
aatacgctgc tgtcccctag gataatcgca ataattccct agccagaaga actgttgaat	etgacetgag acaaegaatt teeetgacea ageateagaa	acggagcaag ctgtcaggat taacttcaag	catteegage getgtttege eeggggaeee	cacgctacgg atcagggcaa aggtgaaacc	cgcccagaat cgctgcgatc ggtttgctgc	60 120 180 240 300 312
<210> 4804 <211> 372 <212> DNA <213> Enter	obacter clo	acae				
<220> <221>unsure <222>(47)						
<220> <221>unsure <222>(48)						
<220> <221>unsure						

<222>(49) <220> <221>unsure <222>(50) <220> <221>unsure <222>(51) <220> <221>unsure <222>(52) <220> <221>unsure <222>(53) <220> <221>unsure <222>(54) <220> <221>unsure <222>(55) <220> <221>unsure <222>(56) <220> <221>unsure <222>(57) <220> <221>unsure <222>(58) <220> <221>unsure <222>(59) <220> <221>unsure <222>(60) <220> <221>unsure <222>(61) <220> <221>unsure <222>(62) <220>

13

l.J

fu Lit

rij.

(1)

100

l.i.

12

14

1.6

10

5

<222>(63) <220> <221>unsure <222>(64)

<221>unsure

```
<220>
 <221>unsure
 <222>(65)
<220>
<221>unsure
 <222>(66)
<220>
<221>unsure
<222>(67)
<220>
<221>unsure
<222>(68)
<220>
<221>unsure
<222>(69)
<220>
<221>unsure
<222>(70)
<220>
<221>unsure
<222>(71)
<220>
<221>unsure
<222>(72)
<220>
<221>unsure
<222>(73)
<220>
<221>unsure
<222>(74)
<220>
<221>unsure
<222>(75)
<220>
<221>unsure
<222>(76)
<220>
<221>unsure
<222>(77)
<220>
<221>unsure
```

<222>(78) <220> <221>unsure <222>(79)

13

0

. 3

lid.

113

į.a.

D

1.3

```
<220>
  <221>unsure
  <222>(80)
  <220>
  <221>unsure
  <222>(81)
  <220>
  <221>unsure
  <222>(82)
 <220>
  <221>unsure
 <222>(83)
 <220>
 <221>unsure
 <222>(84)
 <220>
 <221>unsure
 <222>(85)
<220>
 <221>unsure
<222>(86)
<220>
<221>unsure
 <222>(87)
<220>
 <221>unsure
 <222>(88)
 <220>
 <221>unsure
 <222>(89)
 <220>
 <221>unsure
 <222>(90)
 <220>
 <221>unsure
 <222>(91)
 <220>
 <221>unsure
 <222>(92)
 <220>
 <221>unsure
 <222>(93)
```

65

(1)

1,5

CD

10

19.63

14

22

<220>

<220> <221>unsure <222>(94) <221>unsure <222>(95)

<220> <221>unsure <222>(96)

<220> <221>unsure <222>(97)

<220> <221>unsure <222>(98)

<220>

<221>unsure <222>(99)

<220> <221>unsure <222>(100)

17

1.7

Ħ

15

TU A

10

13

3

<220>

<221>unsure <222>(101)

<220> <221>unsure

<222>(102) <220>

<221>unsure <222>(103)

<220> <221>unsure <222>(104)

<220> <221>unsure <222>(170)

<220> <221>unsure <222>(171)

<220> <221>unsure <222>(172)

<220> <221>unsure <222>(173)

<220> <221>unsure <222>(174)

<220> <221>unsure

<222>(175) <220> <221>unsure <222>(176) <220> <221>unsure <220> <221>unsure <222>(178) <220> <221>unsure <222>(179) <220> <221>unsure <222>(180) <220> <221>unsure <222>(181) <220> <221>unsure <222>(182) <220> <221>unsure <222>(183) <221>unsure <222>(184) <220> <221>unsure <222>(185) <220> <221>unsure <222>(186) <220> <221>unsure <222>(187) <220> <221>unsure <222>(188) <220> <221>unsure

<222>(189) <220> <221>unsure <222>(190)

.3

1

13

14

1 4

10

100

<220> <221>unsure <222>(191) <220> <221>unsure <222>(192) <220> <221>unsure <222>(193) <220> <221>unsure <222>(194) <220> <221>unsure <222>(195) <220> <221>unsure <222>(196) <220> <221>unsure <222>(197) <220> <221>unsure <222>(198) <220> <221>unsure <222>(199) <220> <221>unsure <222>(200) <220> <221>unsure <222>(201) <2205 <221>unsure <222>(202) <220> <221>unsure <222>(203)

1.0

1.60

13

14

0

iñ

13

<222>(204) <220> <221>unsure <222>(205)

<220> <221>unsure <220> <221>unsure <222>(206)

<220> <221>unsure <222>(207)

<220> <221>unsure

<222>(208)

<220> <221>unsure <222>(209)

<220> <221>unsure <222>(210)

<220> <221>unsure

<222>(211) <220>

<221>unsure <222>(212)

<220> <221>unsure

<222>(213) <220>

<221>unsure <222>(214)

<220> <221>unsure

<222>(215) <220>

<221>unsure <222>(216)

<220> <221>unsure <222>(217)

<220> <221>unsure <222>(218)

<220> <221>unsure <222>(219)

<220> <221>unsure <222>(220)

<220>

<221>unsure <222>(221)

<220> <221>unsure

<220> <221>unsure <222>(223)

<220> <221>unsure <222>(224)

<220>

<221>unsure <222>(225)

<220> <221>unsure <222>(226)

I'li

(fit

14

F

00

1.3

10 l a

Uñ. 14

<220> <221>unsure <222>(227)

<220>

<221>unsure <222>(228)

<220> <221>unsure <222>(229)

<220> <221>unsure <222>(230)

<220> <221>unsure <222>(231)

<220> <221>unsure <222>(232)

<220> <221>unsure <222>(233)

<220> <221>unsure <222>(234)

<220> <221>unsure <222>(235)

<220> <221>unsure

<222>(236) <220> <221>unsure <222>(237) <220> <221>unsure <222>(238) <220> <221>unsure <222>(239) <220> <221>unsure <222>(240) <220> <221>unsure <222>(241) <220> <221>unsure <222>(242) <220> <221>unsure <222>(243) <220> <221>unsure <222>(244) <220> <221>unsure <222>(245) <220> <221>unsure <222>(246) <220> <221>unsure <222>(247) <220> <221>unsure <222>(248) <220> <221>unsure <222>(249) <220> <221>unsure

<222>(250) <220> <221>unsure <222>(251)

6.5

1.3

10

(h

13

1.5

36

17

5.4

10

5

<220> <221>unsure <222>(252) <220> <221>unsure <222>(253) <220> <221>unsure <222>(254) <220> <221>unsure <222>(255) <220> <221>unsure <222>(256) <220> <221>unsure <222>(257) <220> <221>unsure <222>(258) <220> <221>unsure <222>(259) <220> <221>unsure <222>(260) <220> <221>unsure <222>(261) <220> <221>unsure <222>(262) <220> <221>unsure <222>(263) <220> <221>unsure <222>(264) <220> <221>unsure <222>(265)

<220> <221>unsure <222>(266)

913

1,11

f.

14

24

1000

<220> <221>unsure <222>(267) <220> <221>unsure <222>(268) <220> <221>unsure <222>(269) <220> <221>unsure <222>(270) <220> <221>unsure <222>(271) <220> <221>unsure <222>(272) <220> <221>unsure <222>(273) <220> <221>unsure <222>(274) <220> <221>unsure <222>(275) <220> <221>unsure <222>(276) <220> <221>unsure <222>(277) <220> <221>unsure <222>(278) <220> <221>unsure <222>(279) <220> <221>unsure <222>(280) <220>

63 THE REAL PROPERTY. 13

177

1.6

80

13

1.4 10

13

111

<222>(281) <220>

<221>unsure

```
<221>unsure
 <222>(282)
 <220>
 <221>unsure
 <222>(283)
 <220>
 <221>unsure
 <222>(284)
 <220>
 <221>unsure
 <222>(285)
 <220>
 <221>unsure
 <222>(286)
<220>
<221>unsure
<222>(287)
<220>
<221>unsure
<222>(288)
<220>
<221>unsure
<222>(289)
<220>
<221>unsure
<222>(290)
<220>
 <221>unsure
 <222>(291)
 <220>
 <221>unsure
 <222>(292)
 <220>
 <221>unsure
 <222>(293)
 <220>
 <221>unsure
 <222>(294)
 <220>
 <221>unsure
 <222>(295)
 <220>
 <221>unsure
 <222>(296)
```

(1)

10

LN. 70

(17)

13

hab

8.

13

t ij 14

10

1 3

13

100

<400> 4804 gatgaggete aggtgegtaa gaggetgatg eetgteeegg tggatannnn nnnnnnnnn

			1991			
gacgtggcgg nnnnnnnnn nnnnnnnnn	ggaaatacgt nnnnnnnnn nnnnnnnnn gecttteggt	nnnnnnnnn gaatgcaaga nnnnnnnnn nnnnnnnnn ctacccgtgt	ggggaacaaa nnnnnnnnnn nnnnnnnnn	ggatgegeen nnnnnnnnn nnnnnnnnn	nnnnnnnnn nnnnnnnnn nnnnntccc	120 180 240 300 360 372
<210> 4805 <211> 257 <212> DNA <213> Enter	obacter clo	pacae				
aaattggggg ctgctggaag	attatgtgga cgcgtcgcaa tgaaaggtat	goggtettt atateatteg eggettgage tgeegaegae	caggaaattt gaagcgatge	tgctcgccaa tcgaccgtct	cgagcaggat ggcgctgacc	60 120 180 240 257
<210> 4806 <211> 378 <212> DNA <213> Enter	obacter clo	Dacae				
<220> <221>unsure <222>(295)	3					
agtaattacg cgagatttcc attaaatatc aaagagattg	attttattaa tttatcgtaa agcgtatatt atgagtttgt tacctcacct	gactcgaget taatttaact tgtaaatgag tggaggggat ccgtaaagta accatcagat	ctctctgaat gatgatttat cctcatcttg aacagcgaga	tcatcgttga tttttgatga atattccaaa ctccgtcttt	gcttgagtgg agaatacgaa tgaagaagaa gctanatatg	60 120 180 240 300 360 378
<210> 4807 <211> 183 <212> DNA <213> Enter	obacter clc	pacae				
<220> <221>unsure <222>(149)						
<400> 4807 ccgttacgga tcccgtgatt atggcggctt ggg	caattggtaa	ttaccagcta	gectttttca	agcctggtac	ttcaccgcgc	60 120 180 183
<210> 4808 <211> 321 <212> DNA <213> Enter	obacter clo	acae				
<400> 4808 aactcgttga tggcaggcga aaatgccgca	agaaagagtg	gctaagtcag	cagetggtga	ccagcatgtg	tttaagtgct	60 120 180

			1032			
ctttgcctgc to ggccatctgg tt tattataatt ac <210> 4809	ttgaattc	attgatagct				240 300 321
<211> 186 <212> DNA <213> Enterob	acter clo	acae				
<400> 4809 ctggcgtttg aa ctcgctcagg co gatttgcgcc at gattaa	ccgtaagtg	cagtcagttc	tgcctcaaca	acccattctc	tattaaatat	60 120 180 186
<210> 4810 <211> 747 <212> DNA <213> Enterob	pacter clo	acae				
<400> 4810 cgaaaacaaa ct aatggtaaag ag aaagataagg cg ttaaataaaa gc cacattgacg at gccctcgatg at	gettattat getgaaaaa attgetga :tattttaa :tteageea	gtctgttgaa acttcctgat agctgttatt agttaaaatt ggacttcttc	ttaaaaacat cttaagccac tttggcaagc tgggagcacc agcacggtcg	ttggcggtgc tggcaattgc tggcagccga gcgaagacct ccacctggaa	ttatttcccg tgttaacgcg gcatcctgaa gccgtgccct tgtgaacgct	60 120 180 240 300 360
ggggageceg te cageaageeg ga etggegett te etgattaaeg at eeggegetgt tg ecatgetggt tt etectceage ga	gagatgaa ggaccggt gatgacgg gcgctcag cgactcaa	gtetgtgegt tgageatate atgetteeag egeagaaege tggeeagaga	ctacttgatc accgcggcgc cgcgaaatgg caaaaagaat	agcattcccg agtatgggca cggaggcatt gctggcgtgg	cgctgcatgt ggtcgtcgat cacgagagag atccgtaaaa	420 480 540 600 660 720 747
<210> 4811 <211> 240 <212> DNA <213> Enterob	acter clo	acae				
<400> 4811 cttgatcaat ca gcactgcagc tt aatgaagaag tg aacggtttct gg	eggggteg : ategeage :	ggctggtgcg cctgctggat	cgggatattg ctggagaagc	cgtgtcgggc gaaaaaaggt	cggtatgagg cgaccagtcc	60 120 180 240
<210> 4812 <211> 243 <212> DNA <213> Enterob	acter clo	acae				
<400> 4812 cttagecact ct gaatattega cc ttggggttta cc cacctegace aa tga	tgcttcaa ( cttaacgt (	egagttetat eteteteaga	gttgagcagc gatggtgcaa	tacagetgtt ccatatttag	taacgagegg ggtttacccc	60 120 180 240 243
<210> 4813 <211> 663 <212> DNA						

## <213> Enterobacter cloacae

attgtactaa ctgtgtcttt gaaattatgc atgtacgatt attcgtgagc ctgattaccg cagctggcaa gtactggtct ggctatatgc	agagettttt gggttgatat aggaaaeggt ceatgegtta tggaegeget cttggetgge aatataeeea teteeegeet gtgtegtgaa	attettegtt geggtttgte attagegagt etgtaatatt ttttgatete gttaattege ateceetgg etttggaatg aaacgeegtg	ggcgcggcgg ggccatgata attgtctttc ctggtgggcg atttctcatg cccgttatgc tacggtattc caggtgctgt gaggaaggtt	acaaaatggt ccgcttgcgc ttccggaatt tccattttcg gatttttcct ggatttgcgt atttcgtgc tgttgagcg ggcacgccat cggaatcgtt ccgctcacgc	acttattgta atcactgacc tctggcgaaa gacaatgcta gtggttcgcg taccctggaa cctgctggct cctggagcat cggttatatg	60 120 180 240 300 360 420 480 540 600 660 663
<210> 4814 <211> 249 <212> DNA <213> Enter	robacter clo	oacae				
gataaaaatg tetgegeage	cacaatacgc agcagtttgg	tggcgataaa tgaattcgtt	gecaaaaaca gacteeecta	gaatgtetga aacttgatga aacaccaggt eegegeteag	attatcegge gaaaggtgca	60 120 180 240 249
<210> 4815 <211> 249 <212> DNA <213> Enter	robacter clo	oacae				
tcaacgccgc ctttttttgt	cggagctggt tacagaaaga	tggaaaaatt actgggtagc	gaccageteg egagttteag	accaccactt aacagaaaag gatgegggea tteeegetge	agagaaatct tegtataatq	60 120 180 240 249
<210> 4816 <211> 195 <212> DNA <213> Enter	robacter clo	pacae				
gagactgcca	gtgataaact tacacacgtg	ggaggaaggt	ggggatgacg	gtcaggccgg tcaagtcatc agaagcgacc	atggccctta	60 120 180 195
<210> 4817 <211> 363 <212> DNA <213> Enter	obacter clc	pacae				
tacgtacacg tcacggtact	gtttcaggtt ggttcactat	ctttttcact cggtcagtca	cccctcgccg ggagtattta	gaaggtgete gggttetttt geettggagg gagtteacag	cgcetttccc atggtccccc	60 120 180 240

ttcgtgtacg aagctgattc tga	ggactatcac agactccggg	cctgtaccgt ctgctccccg	cggactttcc ttcgctcgcc	agaccgttcc gctactgggg	actaacacac gaatcteggt	300 360 363
<210> 4818 <211> 195 <212> DNA <213> Ente	robacter cl	oacae				
gatattatgg	gtacagegae aegeegetge	eccgtggget egcgccagat egccaccgtg	cccgagacgc	tgacgctgga	tgtttattat	60 120 180 195
<210> 4819 <211> 432 <212> DNA <213> Ente	robacter cl	oacae				
<220> <221>unsur <222>(417)	e					
atcatggaac aaggcgcgaa gagaacaag gaaaacagcc aaaaacagga	tgctggtcaa aaggcgacaa ttcctgacaa ggaaaaccag tcaggcgggc atataaaaaa	tcaaacttot cgcaggegeg agacgaagec acgatecaga atcacegate gacaagaaag accegeegag	gegegeageg gagaaagega egeageaaat atteteagga ageaaaateg	cggctcagac aggaagagtc cggtcaagac ccaccagaag acgcatcccg	ggcgaagcag gcgagaaaaa gaagggacag aacgcgaagg caggaaaact	60 120 180 240 300 360 420 432
<210> 4820 <211> 225 <212> DNA <213> Enter	robacter cle	Dacae				
aaatataagg aaggatgagt	gtegeagget teeeegeegg	gcagetegtt gattgattta gegtetggge ggttcagece	ccggaagagt gagctgatgg	atctgctgtg ctatcacgtt	gtttgcccgt	60 120 180 225
<210> 4821 <211> 432 <212> DNA <213> Enter	robacter clo	)acae				
cctctatttt gcgatggaaa acccgtctga gatgccacag ttgcaggcac	atggcgaaaa teggcagegt ccaaacagat cagaagaaaa agetggegea aggcagtege	accgcttgtt ggatctcaat agataacagc aacgaaagtc gcaaaagcag attgcagcgt ggaaggcatc	atgacaactc tccggcggaa actcagcagc caagaattac cagcaggccg	ttaagcccgt acgacattgc tcaaagaagt tcgaatctca aagaggcgat	ttetetgteg tteteaaate ggeeatgggt getggetatg geeaaageag	60 120 180 240 300 360 420 432

<211> 210 <212> DNA <213> Ente	robacter cl	oacae				
<220> <221>unsur <222>(106)	е					
ccacaggcag ttttatctgc	ctcccagcca cgcgtcaggg atccgcacga gcctttggcg	gggggaatat gaaaaaagcg	ttggctcaca	cccttntcca	caccagegat	60 120 180 210
<210> 4823 <211> 201 <212> DNA <213> Ente	robacter cl	pacae				
atactcacat attgctgcgt	ttecatetgg tactggccgt ttgagaaaat cgccctctta	tttaaatacg aagcagacaa	gacgcactgt	caagtgaaca	cgtttcggcc	60 120 180 201
<210> 4824 <211> 315 <212> DNA <213> Ente	robacter cl	pacae				
gaggttgtta catcagegeg ctgcaacatg	tgtcgaaaat tattccccgc gggatcccgg gcctggggga ggcaggacgg tttaa	tgetatttte cateceagag tactgacate	gctgcgataa caccgggttt aaggcgctgt	ccattcacgt acgctgccgc ctgcccccgt	tataccccag gtgcgacatg taaatttcag	60 120 180 240 300 315
<210> 4825 <211> 438 <212> DNA <213> Ente	robacter clo	Dacae				
catggcgaac gcggtagcat aatacgacag gtgccccttt taccggcaga	attectetet ggcaagetag atgtgatgag tatgttttge tacceatac ccattaegee tgtacattat teccecca	tttatacaat atttttattc aacctgctct tatttcactg gtcaggaact	aagttattat agtttetget gcaacetate ggaaaggatg tatgatatga	taaagagtga tggggeteet tttataaccc cacetgttgg agtgtgacag	tattttgata cgtattatta ggtcccaaag aaccgtgctg taacacggac	60 120 180 240 300 360 420 438
<210> 4826 <211> 249 <212> DNA <213> Ente:	robacter clo	pacae				
	gtcgaatgac ttgggcatca					60 120

			1030			
acccaaaatt tttgcttaa	actccaatgg catgcagtta	cattcaaaga tatcaaagac	aatgootttg toattogoaa	ttttgttagt aaggactcag	acaccaaaca ccagaaagca	180 240 249
<210> 4827 <211> 450 <212> DNA <213> Ente	robacter cl	oacae				
<400> 4827						
acgttaaaaa cgcgtttacg cttagtgaaa ttgtttgttc gcactgggag ctggcagccg ctggcactgg	tgaactcaaa agaaatctaa tgctgaccgt atatttggtc cgatgttgat	atgogaacgg totacacgga cacggotgca getttittgo atacatgagt otcaagegta catgatgetg accgotgtaa	gtaattatgg ctttttaaaa ggtctggcat gaaagtatga tatttctctg	aactttettt caaaaagege atgegggtte etggagetee teettaagee	aaatattggc aaaagtgatt agatgatggg gggcaaaatt taacccgggc	60 120 180 240 300 360 420 450
<210> 4828 <211> 363 <212> DNA <213> Ente	robacter cl	pacae				
<400> 4828						
aaggtcgcga aaggttgaaa agtgctatgc agtaactttt	catacaattt gctatctggt ttagtgcttc caaacgaact	ettgaateta cagatettea atgeaetggt ttttaetaet cetgaetatt tgeegttgag	aaagaagccc tataacctgc ggtcttacat catctgtatg	taagetggee tgaaaaataa eteggettaa eetttetgae	cttgccaaac gttatttatc tgtgcaaaaa tcaagcgtac	60 120 180 240 300 360 363
<210> 4829 <211> 357 <212> DNA <213> Enter	robacter cl	oacae				
<220> <221>unsure <222>(202)	•					
cctcagcata gatgccaaaa ttcgggtttt tcaggaataa	cctatagatt aattagggct ctgttgtagc gaggattgct	cccctctct ccctttcagg tgcattcatt ancggttgtg aaaacacaaa tttcaacgat	atcaacatgc ctggttgcat tattggattg ctctggtggc	ctctactgat ttgggaatat cgtataacaa tcggtttttt	tttgttttgg cttcgaatgc agcagctgag gccaagtaaa	60 120 180 240 300 357
<210> 4830 <211> 537 <212> DNA <213> Enter	robacter clo	pacae				
aaacaggagg gttgaaattg caagaacctg	aagatatgaa aaaagggatt tcaaatcgat	agecetatit caacageaaa taateeeega gattgtgtea aaaaagaaaa	catacagtca gaggcggtaa atcaaacaag	ttgaagtgga tcggagattt cctttaagga	tactaatcta gtgttacgaa aggaaggcag	60 120 180 240 300

cgttttcatg gcttaaaatt agcaattt	ct gaaggtgota atattocaaa attatotgtt aa gaataccttg agaacctoga tggtaacaga	360
	ct catgcattag ctcatgctgt tagtctcggg ga ataagtgggg aaattcttct cggctga	420 480 537
<210> 4831 <211> 198 <212> DNA <213> Enterobacter cloacae		
tgctttttac gcatttacct aaatgcca	tt ggcaaactgt ttataacata ttottgcaaa ta agcattocag taaatgoott oottattoat oo ggatoottto ataaagttac tataatcaat	60 120 180 198
<210> 4832 <211> 216 <212> DNA <213> Enterobacter cloacae		
agagaaatog caggggctaa aaaactca	ag agattigooc tiaagogtat gagaaattia ag atattaaaat toaaagagti attaatgagt ut togtigotig tiagittaaa ggaacaaggt ca gaataa	60 120 180 216
<210> 4833 <211> 942 <212> DNA <213> Enterobacter cloacae		
cagataatgt ataacttatc caartgca. tacgatgcact ttectcyctt cqaaactgal atatatgaca ttectgcac tagaaatgal tettcttgtgt tttacgggta tettaacgal ataactaatt catatecatt ggtaaacal gttgaagata tacactctaa aggcattgal aaattgtgag ttectagtgac cagtttata gtgaaaggac ttagtgact aattataac gtggttgacg ttectagaacc ttecaaaca aaaattttaa aatggatttc ggacaataa ttcaaaatgta agtcgcattc aagtttata agatatatt ctgcggtgtt caagatgt tttattectg atatttttag gacgtaad gttaattgtg attttctcag gctaaggg aaatatttt gctcactta gctaaggg aaatatttt gctcactta caatgtaac	at gaattgtggc acagttitct tctgcgttca gg aacataatat caaagcatgg cgcactaagg tt gaatactaca acticcaata agtgcopta gt tatatactaa cottccaata agtgcopta gt tatatactaa cottccaata agtgcopta gt tatatactac cottccaata agtgcopta gt tatatgaagatg cctgcggaa aaatticac cotcaacater gttactgtca caaatgtatt gt tatctgcgtc atagatggtt gtttgaatct gt ggaataaatc cctactggta ttgtacctt gt ggaataaatc ctcatggta ttgttccctt gt ccagtgtata tattaccatg tgcacgtaat gaatatgctga tttacttct ctttgatctc gt aaggttatcg aagtcaagat aatgcatgat gaatgaagtta atttttgcaa ttcaaccca gt tatgcoctca tcggacttga tgattattct gcagattgta aattttgcca gttgaatggt gctctctcgct aa	60 120 180 240 300 360 420 480 540 660 720 780 840 900 942
<210> 4834 <211> 1671 <212> DNA <213> Enterobacter cloacae		
gaaatageet gtgaatttga tgacetgee accaegeteg eeteagaaca tetgetgaa tttaaageaa egaceteagg aaaacegga	t ticagoctaa qagaagggga oggoogtitt c gattitatoa tgatogacga cagggtgcag ii gaggaoggoa attitgaaat ogtoaaaacg g cagaoctgoa toogottgoat coacceggat g aaaattictg agotoaaggo ggtgggaaaa	60 120 180 240 300

```
gaagttgaaa aaaatgtggc ggataaacgc actgcatcgt tatggcgtca ggccatcagg
gaagccgcag ccccctatac ctgttcggaa attatgctgg atgtcgataa agagttcgga
                                                                      420
accgacacaa aatcattatg gggtaagato otogatttgo tgoccacgta tgogatttto
                                                                      480
aaagccgaca gggaaagcag cgacggggat tccgaagcta aaaacccctt acagcaggcc
                                                                      540
gtaaaagacg ctcaggctgc gctgcaggac aaaattacag cgctggaaaa tgagattcag
                                                                      600
gacagegtee tggatgtege acagagaacg etggataaat taegtgaaat ggeeeecgaa
                                                                      660
ctegecagtg aactgactee acgatttaag gagaaaccea agtggacett caattteace
                                                                      720
ctggacgggg aaaatggcat ccccatcaat aagcgcggca gcgggataag gaggcttatc
                                                                     780
ctgttgaatt tttttcgggc tgaggctgaa aagaatgtcg cggggacgcc cagaaatgtg
                                                                      840
atttatgcca tagaggagcc tgaaacgtca cagcatccga actatcagat gatgctgatg
                                                                      900
aaagcgttac tggcactggc aggccagccg caccgtcaga ttatcgtcac cacccatgtc
                                                                      960
coggogotgg coggattaat coctgtogaa ggogtacgtt atgttacocg aaatgaggog
                                                                     1020
ggtgaacccg tagtaaaaat gccggatgac gcagtgctga aggaagccac tgaaaqcctg
                                                                     1080
ggggtgctgc cagagaccgg tatggaaagg gcgcagggga ttgttctggt agagggaaag
                                                                     1140
toggatgtta ctttcctgag gcatgcggcc agttcattaa aacagtcagg tgcgctgcca
                                                                     1200
geotetetgg aggaegtgaa aatagtgeea gteeteatag gagggtgtgg tagegteaaa
                                                                     1260
cactgggtta cattgaatct ggccaaagat etggggette cetggtgegt atttetggae
                                                                     1320
tccgatattg ggggagaccc tgcacaggtt ctgtccatcc agaagegtaa aaaagaagta
                                                                     1380
gaggaggeeg gtaaggtatt tttegetacg egeaaacgtg agatagaaaa ctatetgtge
                                                                     1440
coggatotta togaggaaat tactggtgta googteacgt ttacggacac ctgtgaeget
                                                                     1500
aaaaaaataa toggoogggo tgtgggaatg aaacccgata atgtactaga taaattotgg
                                                                     1560
cctcagatga catcagaaag aatcatctca agatcaacct atcatgacgg aacgcaggag
agaagegage tggttgagat cetgagegae attgtateea tgaegagata a
                                                                      1671
<210> 4835
<211> 549
<212> DNA
<213> Enterobacter cloacae
<400> 4835
cagattattg atogocotto tgaacatttg tggatotoco tcaaccaggo agggcatoco
gttaaatttg agcgtgatat tgcgttette ggcccagget tegaaaaact egaagaettt
                                                                     120
catgactice getetgaggt caaacatgae cetgteaggt ateagetgat tattatetge
                                                                     180
ctgtgccagg aacagcatat cgctgaccat tttggtcatc cggttatact cttcaagact
                                                                     240
ggaatagagg acatecteaa gtteectetg tgttegatee tgaeteagtg cgatateagt
                                                                     300
ctgcgtcacc agattggtga tgggcgttct gatctcatgc gcgatatcgg cagagaaatt
                                                                     360
ggcctggcgg gtaaagacat cctcaatctt tccaatcata tgattgaacg agataaccag
                                                                     420
ttgctccagc tcaatgggaa cgcgtgtccg ttccagtcgc gcatcaagat tctcggaggt
                                                                     480
gatgtcttaa atggcatagt tgacattacc aaggggcagg tgccccttga cggacagcga
                                                                     540
ttcgaatga
                                                                     549
<210> 4836
<211> 183
<212> DNA
<213> Enterobacter cloacae
<400> 4836
acgcagaaga aaactgtgcc acaattcatt ttcgtaaacc atataactcc ctcttattta
                                                                     60
attagttcca tttttctgag aagtatcatt gtcattggta gtttatctct gtatttcaaa
agccagccat gccctcccag taaagcatct agacttgtaa gtgacatcga gtactgcccc
                                                                     180
tga
                                                                     183
<210> 4837
<211> 336
<212> DNA
<213> Enterobacter cloacae
<400> 4837
ttcccggcag tgatgttaac tcactatgga gatcgcgaat ggttgcgtcc tgtactggac
aaggtaaaca catcaaccgc agtacccggc geggaggete agacteegge agegatttet
                                                                     120
```

teaccaccaa atteteteet teaceteaac aacettttte taeegaegtg cataaeggtg

			1899			
cctctgatgt	tegtgegeat		atgctggcgc	tggcttacaa gtgtgatgaa		240 300 336
<211> 228 <212> DNA	robacter clo	pacae				
<400> 4838						
				gtacatcagg		60
				gcccctacat tctggaaaaa		120 180
		cgattatcag			aaacaacgcc	228
<210> 4839 <211> 786						
<212> DNA						
<213> Enter	robacter clo	pacae				
<400> 4839						
				ttttcgcaat		60
				taaaaagaat		120
				tcaaaggttc ctctcaatat		180 240
				aatgttataa		300
				gtgtaagatg		360
				atctgattga		420
				ccttctctat		480
				aattaacaaa aaaaatactc		540 600
				atacaaactc		660
atattgttct	tcgaagggac	aaaaatgccc	ctcgctaaca	gagtcaatca	tttatataaa	720
aaacaaaaag agttaa	gtattttcat	taacttegta	agaaataaac	tccaaaacat	taaattgege	780 786
<210> 4840 <211> 666 <212> DNA <213> Enter	robacter clo	pacae				
<400> 4840						
	ctttqaaaat	caaatactta	tatggcaaag	ccctccacct	caaccaagtg	60
				actattcaag		120
				ccaaaagaga		180
				ccaacgatcc		240
				agggggatga ttgataaatt		300 360
				ttggggatga		420
tacaatcaaa	caagcttgca	cggtttgggt	caaacgccag	aaaaacttgt	cttctataag	480
				ggttctaccc		540
				ttaaaaatga		600 660
aaatag	cccacaaaya	gogacoacci	accaccyatt	gcataataaa	rgraticagg	666
<210> 4841						
<211> 318						
<212> DNA						
<213> Enter	obacter clc	acae				

<221>unsure <222>(278) <400> 4841 egaqtqqaaa qaeeqatqat ceqetqeacq tttcatctca acaataqeca qetttcaacq 120 ctgagetgee ceggtgttgg gttettteee geetacteag gaaaegeegg tgagaaeege 180 aacaatccgg acaagatagc ggtagcagga ataggaccac tgccacccgg caagtattat 240 attgtgatgc gtcccggaag tagtgctgct catttcacca aaagctttac atcatcaatt ttatccggct caaatcattt caaqtcgttc qqatcgtntt tcaccacqaq qcctaqaacq accataagtc ccccatcc 318 <210> 4842 <211> 240 <212> DNA <213> Enterobacter cloacae <400> 4842 gagagcactt cattgattca gaactactat ccagatattg cagatgaaat caggaggata 60 gcagataata ttccccggcg ttctcgggca gcattacgtg aaaagttaaa ggatgcaaat gccaaaaaca aagttttaca ggatgagatc caacaacttc agcttcgaat atcaaaacag 180 gcaaccatca atgaaatgct gaattacaat ctaaaaaata aaccttctcg aaataaataa 240 <210> 4843 <211> 1188 <212> DNA <213> Enterobacter cloacae <220> <221>unsure <222>(140) <400> 4843 agccaattgg cgcatttttt ggccaagacg ggttgcccaa gggaaatttt cttccctcat ctctqtcatc agggaccaat tattccgaac aaaaatttgg acaagtatga aaaatgcact cattettata aaaagttegn tatacegaac ttggtggeeg acgaaaatga acatgacatg 180 togtooggot tggatagagt gaagacttot agtgaggatg agatgtcaac agaacatgto 240 qaccataaaa ctatagcgcg atttgccgaa gataaggtaa atcttccaaa agtaaaggct 300 gatgaattca gggaacaggc caagcgatta cagaacaaac tggaagggta tetttetgat 360 catccagact tttcattaaa gcgaatgatt ccatcaggta gtctggctaa aggaactgct 420 cttcgttcgt taaacgatat cgatgtggct gtgtatatca gtggatctga tgcaccacag 480 gatttacgtg agttacttga ctatcttgct gatagattgc gtaaagcatt teccaacttt 540 agtoctgatc aggttaagcc ccagacatac tcagtaacgg tttccttccg gggctctggc 600 ttagatgtcg atattgtccc tgtattgtat tcggggttac ctgactggcg aggtcatttg 660 ataagccagg aagatggctc actcettgaa accagcattc ctctqcacct tqatttcatc aaggcccgta agcgtgctgc cccgaagcat tttgctcagg ttgttcgttt agctaaatat 780 tgggctcgtt tgatgaagca agagcgaccg aattttcgct ttaaatcttt catgattgaa 840 ttgattcttg caaaattact tgataatggc gtggattttt cgaattatcc ggaagcttta 900 cagacatttt ttacctatct ggtgagcact gaattacgtg aacgtattgt cttcgaggat 960 aattatootq oqtoaaaaat aqqoaaqttq toaqaottaq tqcaaattat oqatooqtt 1020 aatcctgtta ataatgttgc tegtttatat acgcaqtcta atgtqqacqc cattattgac 1080 gctgcaatgg atgccggtga cgctatcgat gctgcattct atgcaccaac caagcaatta 1140 accataacct attggcagaa agttttcggt tcttcattcc aggggtga 1188 <210> 4844 <211> 567 <212> DNA <213> Enterobacter cloacae <400> 4844 cctattggca gaaagttttc ggttcttcat tccaggggtg aaatcattat gtcttcttat agttatacgg tagcagagac acaaactttc agcgtaaccc acgctcqtca catqqccqct

			1301			
attgaagcat tottatggtt gacttgcttg togggtgcat toggaaaaag gggattaatg	acgaagaaga ttcagaaaaa gttcaggaac ccttctacag atactgcttt	gcggatgcag attggttgtg taataactgg agatgacgat ttttatgact gaaagatcta aaatgataag tgtatga	attottaagg atcgagccga cccggaaaaa tatagctcga ccattcaaac	ctggatattt cccttcgata tccgccaagg aatatctgaa gggtaggtgc	gggtgaggtc taccgcaggc aaaagatgta tgctactcaa ccagtctcca	180 240 300 360 420 480 540 567
<210> 4845 <211> 597 <212> DNA <213> Enter	cobacter clo	Dacae				
ggtggaggca tatacccctg tctgtccctg gccaaagagc gatgttttac gtagggattg	gctccagtag cggaagtgcg atttacgaga ttcatgacca ttggtgcaac ttctggtgac	ttoctogoca caccagacca cactcacacg tg:ttttctg gcttgagatg attgctgcgc ccctgcgcta tctggcacga	cgttggtcac ccagcccgtg tgccatgcct aacggggtct gaaatcgatg ctaaaacggc	gggcgggatc aaaacgttga gggacgatcg cagtctggtt aaggattggc tcgcaggaga	atctgtgatt gaggcgggcc caaggacgca tagcgaaaaa aaaatcacgc agggattgcg	60 120 180 240 300 360 420 480
acatatgaag	atcttcgcga	agtcagtccg tattgccagc	ttacttggtt	cgcgcagcgg	tttgagcaca	540 597
<210> 4846 <211> 216 <212> DNA	cobacter clo				,	
gaaaagcatt gatttggcct	tccgacagag acaaccttcc	tatogagatt ttgtgtttgg tgccatcttg gaatactctc	cttcatttgt aagcctggca	ttctcagcaa	cagcaatagg	60 120 180 216
<210> 4847 <211> 222 <212> DNA <213> Enter	obacter clo	oacae				
ccagtgctga ggagataaaa	acatcccttc gctcatttaa	ggggtttgaa gcttgttaca aggtttttca ctctgggtcg	atttctcttg atgagcatat	atgatactga cgaaaacagg	gttcgggtta	60 120 180 222
<210> 4848 <211> 261 <212> DNA <213> Enter	obacter clc	pacae				
<400> 4848 atttctaagg agctctgcac ggtttaaagt gcgtttcacc atgggcaaat	taaaagtcag acgcagattc attttgggaa	caaatgtege tcaagaaatt aaatttgtee	tegetegtaa ecagategge	aaaggcgctt taactatgat	tcaatctttg agacaaaaac	60 120 180 240 261

```
<211> 651
<212> DNA
<213> Enterobacter cloacae
<400> 4849
aaaggtaaac gttatctctg ctctgccgtt gaacagccat cacttttcaa taatgagcaa
tttatgatca cctttttccg ccgggcaggt ctgggcacga agctatcgct gctaacaggt
                                                                      120
gocagtgtog coacgotttt tttgctgttc acttttctgt tgagccacaa cgccaqccaq
                                                                      180
cagcttgaag atcttgcggt tgaagacctg cataaccagt ctaccggcat ggtggatatg
                                                                      240
gtagagatgt tcaacaccag cctgagcgaa gaggtcgaga gctatacccg cctgttcacc
                                                                      300
acctttttgc cacagocatt gaacagogac agcagocaga googgaccat taaoggoott
                                                                      360
accepttecte tecteaagge eggteaaace gagttecate aaaacaatac gettteteat
                                                                     420
gactteetga geegaacggg ggeeateteg acgetgtttg teegcagegg taacgatttt
                                                                      480
atcogcqtqq ccacqtcqct qcqcaaaqaq aatqqcqacc qcqccatcqq aaccqttctt
                                                                     540
gataccacca gcccggcatt tgcggctgtc accaaagggg aggtctatcg cggcctcgcg
                                                                     600
cogotottog goaatogtta toagoagoog caggaaagag tatgoocaaa g
                                                                      651
<210> 4850
<211> 243
<212> DNA
<213> Enterobacter cloacae
<400> 4850
accgaggece aatcgccaga ccatgcgtca ggcgatgtca tttttatttt agtaatttca
                                                                      60
cgctatttca aatatcatct tttcaaatca attettateq qaatagetca tgacqgaage
qcaacqqcat caaattttac tqqaactcct qqcqcaaaca qqqtttatca ccqtcqaqaa
                                                                      180
agtgatcgaa cgtttaggga tctcccccgc taccgcgcga cgggatatca acaagctgga
                                                                      240
tga
                                                                      243
<210> 4851
<211> 588
<212> DNA
<213> Enterobacter cloacae
<400> 4851
ggaagtaaac ggagtatgcc aatgaagact cagcgcgtaa tcaaagtagc qacgtttctg
                                                                      60
gogttttgtt taccoggttt gacgettgee gaagattgte agateaeget tteteageee
                                                                      120
atagtagatt ataaacagot caagogtgac gatattgtta cgtctcagca aagotggcat
                                                                      180
aaattgeegg aacgggaagt tacegtgaat gtgttttgte cagacaaaca gaagetggea
                                                                      240
gtgcttttac agggtaatgc tggagagaaa ggtegettec gttttggtca gaatggeggt
                                                                      300
gtcgcagtta aaattgatga tatgaatgtt gatggcaaaa gctataccgt gggtaaaacg
                                                                      360
gttgatcagc ttaactttac gccggaaagc gggtcgcctt cgccattcta tttaaqaaat
                                                                      420
aatgaagoog togtogoggt tgaaaataac caggoogtta ogggocagca gatgacattt
                                                                      480
acagetacga tattecetgt gettaatgaa agtgeattea gtaataatge egateaaaca
                                                                      540
acgctggaaa gcgattttag ctggaaaata ttgcaaaata atccatag
                                                                      588
<210> 4852
<211> 222
<212> DNA
<213> Enterobacter cloacae
<2205
<221>unsure
<222>(81)
<400> 4852
attattaaat oqqqtattac gcaaggotac ocgottaaat tattoattqc qtttattatt
                                                                      60
gtaaccatto ttotogagat naaaaaaaac gaaaaatgca gtotoatatt ottattitto
                                                                      120
gatcaattta aaaaatatat aattttetee aaaaaaaaae ggecaggeat aaacetgace
                                                                      180
gttaagatta aaattgagtt agcgttattt tacaacgcgt aa
```

			1903			
<210> 4853 <211> 285 <212> DNA <213> Enter	robacter cl	pacae				
geccaegage etgttecagt egetegeece	goggtattga gtaagotgag togttoagog agogttocot otgaacagac	cccccagacg ttttggagag gttgagcgac	gccgcgatcg tgcaggctga ggccacaaaa	aacaggcggg ctgaggttaa gtatgcaaat	ttccggtaag gggtttcagc	60 120 180 240 285
<210> 4854 <211> 204 <212> DNA <213> Enter	robacter cl	Dacae				
ggcgcacgtc gctccagccg	cctcgctggt tgacggaagc ctgcaaacgc gggaaacgtt	cgttggcgcg agcgaaaccc	tttcgtctca	acggggcgcg	tgcaggacgg	60 120 180 204
<210> 4855 <211> 267 <212> DNA <213> Enter	cobacter clo	oacae				
cttcccccct ctgaaaaaaa aaccacatgt	tcgacgecgt tgatggatgc tcaaatetgg tgactgaatt taccaactet	cgttgtgacc gcagttgaaa tttagtggag	ccatcttgta aagcacgttc	agcaaccgca tgcccttatt	gtgtgtggac acaggtacac	60 120 180 240 267
<210> 4856 <211> 204 <212> DNA <213> Enter	cobacter clo	pacae				
gagaagaaag ggagaggaag	aagaagaaga ccgaaagaga cagcagatcc aatcccaagt	aaaagaaaaa agacaatcca	gaaaaagaca	cgcagaaaga	aaaatcagag	60 120 180 204
<210> 4857 <211> 282 <212> DNA <213> Enter	cobacter clo	oacae				
<220> <221>unsure <222>(253)	•					
gaagaagcag gaaaaagcaa ggaaagagga	atcatgaact tccctaacct acagagaaga aagaaaggga acnaggccgt	ctacaaagaa tootaaaato caaagacgat	accataaagg caacagacaa cagcgaaaaa	caaagcagcc tcagagaagg tccagatcgg	gggaaaagaa atctctcgaa	60 120 180 240 282

```
<210> 4858
<211> 627
<212> DNA
<213> Enterobacter cloacae
<400> 4858
ctgagtgttg tatctaatcg tgggggcagg tcaggcggtc taaaaggttt tgggatcatg
                                                                    60
                                                                    120
agcetcaget etttgtacag ttettetgac geegaataca tecaggteaa teaataceta
                                                                    180
gtgttcgtcc ccaatccaaa aaaattgcct tacaatgatg aaagtttggt acgtgaggga
                                                                    240
gctaagtatg tttttgagca tacaaaagca actcaggcct catttggata caaccctgaa
aaacagaaag cagctctggc cacatgtaaa attgatatgg cagtcgtcaa taaatggagt
acctgtgatc tgccctctaa gcctgatgct gatgttttcc ctacagattc aatgtacagc
tttcaggcga ttcgccccgc aacaggaacc gaaattcctg agctaaacct tcccgctggt
                                                                    420
480
ttttcgggta tcattttccg ttctgatagc ccaaatacaa caactccaqq qqgtgttgca
                                                                    540
geeteeatea aeggaaaaga ttattacete tttaceggtg aatacggtaa aaaaggette
                                                                    600
                                                                    627
ccaqaaaaaa cattgaaagc caagtaa
<210> 4859
<211> 450
<212> DNA
<213> Enterobacter cloacae
<400> 4859
tttcagctgg ctaatactgt ggaccctgac ggggatatet etecgtegga ggggatatee
                                                                    60
egttatttaa etgaggatag acceatgeac geagaegttt geacaettaa gacaeetetg
gacacgctca gctggctttg cctgcttgag agtgaacttc tgagcatcag ggcatttcag
                                                                    180
cgtctcgacc ttcatacgga gcgggatgaa ccgaatgaac tgacgtatct ggaagatgcc
                                                                    240
atcattaacg coggcacago ctatggctgg tttgtctgtt ttctcaggga cggtgatatt
                                                                    300
ccaccgttgc cagcgactgc ccgagaaatt ctctgcaccc ttgacagtct cggtaaagaa
                                                                    360
attaaccgtc ctttctggga gaaggctgtg gcccgcgggc aggatgaggc ctgtggcgac
                                                                    420
                                                                    450
aaagctatcg cagccctaga aatgatgtaa
<210> 4860
<211> 681
<212> DNA
<213> Enterobacter cloacae
<400> 4860
atococcttt ttttctttgc ggaggattta tcaatgaaag acctgtcttc ttccccggct
                                                                    60
tocatgtogg ttgtttatac cattgagcac gtcagcacgg ttccgttacg tcactggcat
gctttcgttc tggccgtaac agaaacgttc tggcaactgc cggtgcgtct gcgtccggga
                                                                    180
aatatgtatc tgccgtcgct taatcgcgcg gctgacctgt ttccggttgc tgatgtcatg
                                                                    240
                                                                    300
gcgttctgtg gcgattcagg cggcagtttc tggccggtca acatgaccat tgagcgcgag
cgcagcaaca atacgctgag tattcaggag ctggattttc agcatcagcc ctgcgatttc
                                                                    360
tttgcgcgtg ttgtgatggt cctgctgcac aacctgtgtc cgggcagett ccggatacat
                                                                    420
tettetgacg aagggegeag etgggeaata eegttaeget ggattgageg teatattgge
                                                                    480
ctgcctgagc agtcgtcact gaccacgcct cagccggtac tgcaaacgcc ggtgagtgag
                                                                    540
ggggcgtttg attocctgct gctgcaactg ctctccggtg gtgagcgggt gctgagcagt
                                                                    600
                                                                    660
gaggactgga atgccttcgt gctggcggaa tttcatctgt acgaactgaa gcgcgtcact
gaaagaactg acgcgccgta a
                                                                    681
<210> 4861
<211> 1008
<212> DNA
<213> Enterobacter cloacae
<400> 4861
ctgtcaccgt cccqtqagqa cacqgctcct cacqgggctq tgtcctcttt tttttatqaa
agaggagtat tcactatgtc cgaatggtgt cataaccgcc tggaaattac cggtaagccc
```

```
gtctgtatcg atgtcatgct gcagtggata aacgggactg acgccccgcg tcaccgccac
googtgoago agagcataca gotttttotg googgtgogg oggggatact taageoggtg
                                                                      240
cgcaccacgt cgtatccgcc ctttcagggg ctggtccgtg caggcacagg getttccact
                                                                      300
goggetaacc aggogtttga aaactggotg goattgttgo tgacggatgo cgttottgat
                                                                      360
goggaaacca toogggtoat tqacogqotq tatcaccaqt caqqootqqq qqoqotqaaa
                                                                      420
tgggaaaaca tccccgtctc atcccgtgac gttatggcag aactgattat ccggcaatac
                                                                      480
accgactggt ttggtctggt cagcgccggc gatgagtctg atgccgcggc tgcctgggaa
                                                                      540
                                                                      600
eggeteagee agtateetga gegetegeag eeetgegaca tgetggeegt gataceetee
eggetggetg cagagetgaa eggtgeeggt gggetgatgt eeggtgtgte gaecacaace
                                                                      660
agcetetact geoggeagta eggeatggag tggeeggeeg ggeacaatgt cagetggeag
                                                                      720
eggeatacge caaacagtet tacgetgeag atggatacge cetggettee geogteaggt
                                                                      780
gaggttgtcg gggaaatctc cgcggtgttt gactgcgagg tgcgtcacag ctacagcgag
                                                                      840
cccgtaagcg ggctcagcgg ttacgactgc tatgacggcg gtgaacatgt cgacgggcac
                                                                      900
amaggogogt coggogomoc tomgcocggt caggtgettt atetggtemag cgatgageec
                                                                      960
gattcaccgg ctcaggacgc tacatcatat cgtgaggtcc gggggtaa
                                                                      1008
<210> 4862
<211> 228
<212> DNA
<213> Enterobacter cloacae
<400> 4862
tggttgcaaa agcaacatat aagcctgctc attttcagag caaatggagc ttatgtcaac
                                                                      60
tgtggtatca aatgggtcac ccatagtatg ctcagggcag taaacaacat gatgetggac
atgocagoog caattgotog taaatattat caggatogoo ttatgaggoa gataaaaagg
aaaaaggaaa aagacaggga aaggetggca cacaaagaaa aaatataa
                                                                      228
<210> 4863
<211> 201
<212> DNA
<213> Enterobacter cloacae
<400> 4863
tttaaaatac tttcgagacg aaactaccta caaagcatga tcccccggcg cacacttaag
                                                                      60
gogcatttcc tgccctgggg tagtgcaatt gacgacaccc catccccggc tegttatecc
ttatecegtg eggegegeaa tggcatgatt aaatattgtg caaatttgat tteacetgge
                                                                      180
gtttatcccg atttttgtta a
                                                                      201
<210> 4864
<211> 1191
<212> DNA
<213> Enterobacter cloacae
<400> 4864
catgoottog ttoacgtgca gcagotcaaa cgttoccgcc ggatgtoccg gagaggtgaa
                                                                      60
egtitetece ggatgeatet cecaetgeea cageteaate atateeggge etgeggtgee
                                                                      120
tgccagcaat ctggcgtaac cgccctgtgc gccctgccac agaaccggga tegectettc
                                                                      180
cogaataatg tgtatotgog gotogotgga gacgttaacg atatotgoca cogagacgoo
                                                                      240
aagcgcggcg gccagtttac acagaatggc aatgctgggg ttggcagccc ctttttcgat
                                                                      300
ctctaccagc atgectttgc tgacgctggc gcggcgagaa agctcgtcca gcgacagtt:
                                                                      360
tttctctttc cgccagctgc ggatacggtt cgcgacggcc aggcttacct gggcaacatc
                                                                      420
ggcacccgca tcggtcatta tattgacttt atcagtcatt ggtcactacc atggtataaa
                                                                      480
acagtcaata caggattatt tatgtctctt gtaacaccgt caatagattc gcgacttgtc
                                                                      540
gggatcgcgc ccggctttcg ggcgctgagc attctggttg aagctgcccc gattacccaa
                                                                      600
coggaggttg cgcccgctgc gctggcgcag gcctgccagc agatgctcaa tgatgatgtg
                                                                      660
ccctgggcag aaaatcatet cgccgcctgg gatgaggtgt ttaaageett tggtgcaaaa
cccaaacgta cgccctgctc ggcctcggcc ctgcgcaagc gcgtgatgag agacggttcg
                                                                      780
etgeegeege tegaceeggt ggtggatate tataatgeea teagtateeg etacgetatt
                                                                      840
ccggtagggg gagaaaatct ggcggcttac tcgggagcgc cgcgcctgac gctggccgac
                                                                      900
ggcagtgagc cgtttgatac cgtcaaagag qgtgagccqq tagtcgaaaa tccqqagcca
                                                                      960
```

ggcgaagtta tetggegtga egatettgge atcacetgee geegetggaa etggegaeag

			1906			
ccgtcgatgc	cgctggcggc	cagccaggcg attacaggaa ggcgcgtatt	gctggcgatg	agctggtgag	caatctgcaa	1080 1140 1191
<210> 4865 <211> 219 <212> DNA <213> Ente	robacter cl	pacae				
gtttcaaacg ttcttcacct	teteetggea eteategeat	cgccatccct aattgccgtt tcttttacag aaccttaacg	cccaacaaca gtaaatcgct	gaacagcact	atctgctgtt	60 120 180 219
<210> 4866 <211> 399 <212> DNA <213> Ente	robacter clo	Dacae				
ttggagctgt gtaatcgttc atcgggactg ccgcaaattg ggttacaaag	ategetetea gggtgtteta tgateatgae geteagteaa ggattaagge	ccaaatcatg taaaacctcg ttggggcgga ttttgeggca attcagccac tgtcattttt gcgcaaagac	tttgatattt aaacttcgcg gctcacctcc aatgaaattg ttggtattaa	ttttgttgat aatgttgcgg caaatgtaat cgtttgtaat	cgtcctgggc tgatatcttg gatcgctatc cggtatgttg	60 120 180 240 300 360 399
<210> 4867 <211> 516 <212> DNA <213> Enter	robacter clo	pacae				
acagetegta etgeaaatgt geagegeteg gegegeteat gtattaaege gaeetgatga eagegegtga	agtacategg ggegegatat tegggtetgt atetegaetg gtgatggtgg teeteggtgg egagetateg	tatggagcaa agaagctgaa caagcgegge cctggaacaa gggaatcgae tggccatgtc caatcagtca ctggcegege aacatcagaa	gtgcatggtc gggattaaag aacggtattc ctgcaagagc ggatttgtcg gatgcagtca ggccagtcct	cgaaacataa atgatgaaac agtcaacccg ctacatacgg tcggacagaa atatcaaggc	ccccctcatt gccatggtgt ttttgaatcc ctgtgtggct caaagcaggg gttttcacgt	60 120 180 240 300 360 420 480 516
<210> 4868 <211> 383 <212> DNA <213> Enter	cobacter clo	oacae				
gacgacgatt ctgccgaacc ttacccagct gggagcgttg tgggatgaaa	tgaacgeegg gegetgaeee eggggggegg atggtatege	tcatcgctgc tgacgagcag gatcatcgcg gtttatcacc caggcgtgat ctggttctgg gtc	atgctcgaag atattcaacg ggcacagtaa gtcatccaag	cgtttggtcg aaccctacgc cgagtatcac gtaccaaaaa	tecagttege gegaactgat ggttaaateg agegegaaac	60 120 180 240 300 360 383
<210> 4869						

<210> 4869 <211> 972

```
<212> DNA
 <213> Enterobacter cloacae
 <400> 4869
 actgcaggaa ataatttctt gttccattta gggtacacac aaatgcaagt taaaagctta
 gggttttcaa taacaaatga taatgaaaac atcaaaacaa tagatgtaat gaatgaattt
                                                                      120
 attaaatcat cotcacgtca atataatcgc gcagattata cgcgcaggtt cottatgtcc
                                                                       180
 gatgtgaatg atttttatta tggtttggtg gtcacattca aaaaccaaaa gaagaactgc
                                                                       240
 atgtcacagt tcattqacqq caaatttaaq cttaaaqtqq aaqaacttca qqqtqacqaa
                                                                      300
 aaattagtca cattcaattt atttttgctg aacaaaacta atcttcgcgg tttgtatatg
                                                                      360
                                                                      420
 totoatcatg gttottgcag cotcaacaca ottttcagoo actttcaaac ogtaagtaat
 gaatttatca gaaaqcaaaa cqcaqcaqat attgaaaaqc tqqqaqacaa tccaaaqcaa
                                                                      480
 aaagaagtca ccgcagttaa caaaaaatat aagaagcgtt tttcatttag cataatgaca
                                                                      540
 accaaggagg atataaaatc cattcttggg cagttcaaag aaataaaaaa agcatcattt
                                                                      600
 aaattogatt acatagactt taagggggga gcattgactc cactegaage atttgccaat
 tcaacaacaa tagacatgag cattaatcca gacgacaaat ataaagttgg ggcactgtca
                                                                      720
 caaactatgt cggatacttt tgaagccatg aaaggtggaa tatctaaagc tagagttact
                                                                      780
 goggtagate acggtggaat agagaagatt atagatttea tggattgeec tgetttette
                                                                      840
gaatettatg attttgatgt aaragetgaa aaaattaatg geetgactaa egataattat
                                                                      900
 acttccaacc ctqtatttga tatgatcaaq qatqaqatat tqaacqqqac caacaaaaat
                                                                      960
 gcctttgtat ga
                                                                      972
 <210> 4870
 <211> 297
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4870
atgaatgctg atatttatat ttacctcttg aggagatcta aaatggcaga tgccgcattt
                                                                      60
accetaceca aaggegtata ecaaaageae aaagagttet ttgagaaaet caaaatggat
                                                                      120
 atcgaggttc ataccagtga taagaacgtg gatatggtat ccatgagttg ccataaggat
                                                                      180
 ggagataatc aggatttetg ggatetggtt gaagcaacac gacteactat ttqcaagcaa
                                                                      240
 gaaaacctaa ctgccgatac gggaggggct ggtgttgtct ggatattcca taagtga
                                                                      297
<210> 4871
 <211> 237
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4871
 gagatcaagc tttgccgcct ctactgcagc ctgcgctaca ttgacttggg caatacqgqc
                                                                      60
 atttttatca qaaqctqcat cqtcataatc tttacqqqaa acaqccccat tattqaccaq
                                                                      120
 toggotgaca ogttoaaaat tgcgatttgc otgaaacgco tgagootcag ottggogaag
                                                                      180
 ttgcgcctta gcgctatcaa gagctacctg aaatggtcgc ggatcaattt gaaatag
                                                                      237
 <210> 4872
 <211> 285
 <212> DNA
 <213> Enterobacter cloacae
 <220>
 <221>unsure
 <222>(38)
 <400> 4872
 togagotgca toaccaatag tgotcattot otocccanat gotattoggt gatactaaag
                                                                      60
 ttagtgttaa aagacatagt ttcaggcaag acttttgggg aatttgttaa gcctctgaac
 aagttggcac acaaattatt tooaaaaaat togggocaga agttacooto titaaagggt
                                                                      180
 aaaccctccc ctgataggaa ggccaagggc catattattt atttttttc aatcataacc
                                                                      240
 aagataattt actttatatt ttattcattc attaaagaat cctaa
                                                                      285
```

```
<210> 4873
<211> 201
<212> DNA
<213> Enterobacter cloacae
<400> 4873
cgccatctac gtggtgaaga cagggatacg cttcgacgga tggcggcaga gttaaacgtg
                                                                      60
                                                                      120
cogttgaact actttttttg tgatgatcag acgacagcag aacttgcatt actcatatcc
                                                                      180
cgaatgacag aggaagagcg aagtaaactt atcgaagcac tcaaaacgtc ttcaggtgac
aacactgctg acaaaaaatg a
<210> 4874
<211> 189
<212> DNA
<213> Enterobacter cloacae
<400> 4874
aggetegace caatgegtte gttegeeage eccettaaca ecaacatage gtatgeeaag
aaaataatot ggcaatoott tattoogcaa acgtttgotg aggtcagagt tatctatatg
                                                                      120
togtttgacc aaggeateet gtetgagatt gaatgeetea acagaacgga atccagtgac
                                                                      180
                                                                      189
gatcagtaa
<210> 4875
<211> 465
<212> DNA
<213> Enterobacter cloacae
<400> 4875
aaacaaagag gaagaaaact aatgogtggt aaagaattgg atactcagat agagcatgaa
ctccagttga tgttgattga agggtttgat aaatcgccta tttcagctat aaacttacat
gccagactta aatcaaaagg aatcattaat ggtggcttaa gtacattaag taacattgaa
                                                                      180
cgaaggogto ttattgcago ctatgtcgat caacaactat cgcctttgaa tottcgtccc
                                                                      240
aaagaaaaac agcagtatgt gaaccgtaag actcggcagg ccttgcttgg tcgtaatcag
cagttacagg aagagaataa agagcttcgc gaacaactag cacagaatac cttgtcattg
                                                                      360
attgaaattg tcaaagcggt aaaaatcaat acggttatac cggtagaaag cettettget
                                                                     420
ccgcatttga tcatggaatt acacaaaagg aaaaaagatc aatga
                                                                      465
<210> 4876
<211> 1242
<212> DNA
<213> Enterobacter cloacae
<400> 4876
gtcatcttaa atgactctga ggtgtctgtt aaacccgtgg cgattcagta tatagaggac
                                                                      60
gatattotog atgocagago tttotattot atattatttg ggttgaagat cotttgttgt
                                                                      120
gaagagttcc ctggatttac tttggaagac tatgaggatc ttgagtttat acctagacca
                                                                      180
aatgogttta actgggagat ttatcaggac attgacaata ttctcgaacc tttggaaaaa
                                                                      240
agcatgataa ctaaaggttt atttgagata gcaactggat tggccagagg taaaacttat
                                                                      300
gatattaaag agttaaagca taccgcagta ctggcgttaa gttatqccac tggagcgcgt
                                                                      360
cccgtgcagt tggcaaagtt atctgttcga gacttgagaa ttgatacgtg cgatacacat
                                                                      420
actgggctaa ttagatatag cattctacta cettacgtca aacagagacg cettacgace
                                                                      480
gagogtttgc tgcttgctat acctccggaa attggtgcgt taatcaagca ttatgtggac
                                                                      540
aaagctcagt tattatccca tgacagaatg ttcgaaatgg gagtgtctgc ccctgctttt
                                                                      600
qtctcccaat ctataaqcca agccattcta aacttcaqtc cccctqaata tcaaactqcc
gttggtcgcg gagaggccgc tcccccgtca atcacatcta ctgatctacg tcacaacgtt
ggacactcac ttgcaatgca gggcgctagt gcagaggaaa ttgctcacat tcttggccat
                                                                      780
tcatctctqq ttqtaqcaaa qcactacatc cqtqcqaccc caqccttqqc attqatccqc
gctaaagcac teggttetaa eeetgtgtgg caaaacatgg tggetatgat gettaetggg
                                                                      900
aaacttgtcc cttcaaaaga atgggaaggt cgacgcgtgg ttggtatggt tggtgatcga
                                                                      960
ttgcactatq agattggtgg ctgtgcgaga accqatqatq aatqcccctt ctgtgaagtc
                                                                      1020
cgttgctgct atggttgctt atattaccgc cctttccttg atggccatca ccagggcgta
                                                                      1080
```

			1303			
gctctcaatc gcccgttgtc <210> 4877 <211> 261 <212> DNA	tetetaaaga cactaattte atttgcataa robacter clo	tgtecaegag egteagaggt	acgacgcaaa	tagaaatcaa		1140 1200 1242
<220> <221>unsure <222>(15)	э					
caagtcagat ttacagggaa gagaaccagc	cgaanaaaca tacaactaag ggggggttga caattgatct gcgattttta	tegaagegtt tteggtetet ageeteaett	cataaaacgc attgaagatc	tggcatctgc ttgtgcgagc	taaagaaatt ctgtcttgaa	60 120 180 240 261
<210> 4878 <211> 453 <212> DNA <213> Ente	robacter clo	pacae				
ctgtggctaa attatggtgt gttgatttgc ttacgtgtaa ctcctgtata aatggcgtgt	ttttctgttt gcctcaactt gcatcgtgtt tcgaaagatt tgtgtgcagg cccttaaact acaaatataa ttaacccgtt	aaacagacta gttactotca ctatttcaag cttgttatta tgtcacgctt aaggacggga	aaagagaagg gtggcggcgg cgtccgctga gtttttattc attaatcttg attttgcctc	gagtgaaaat cgtggatcag gcatggagta aggttgctcc gaatccagac	ggaactgggc taataagaca cgcggcatgg ccaatttaca aatgaaatta	60 120 180 240 300 360 420 453
<210> 4879 <211> 540 <212> DNA <213> Enter	robacter clo	pacae				
gagetggegt aaagtettea gaaaaattet ggtettgace gaggaagagg eetgagttta tttaacaete	ctcaaaagca tatccttaat gtggtattga ttcgttttgt tatgttgtt ttatgagtaa ttgatatgcc gctgtggaga tctttccccg	ttgttgggtt agttccgtct cgttaatgaa ttcacttccg gttaaccgga agaagtgctc cgggatcttt	ttcaccagtc gaaggaccgt gaaggctacg ttgtgtttgt gaagttatcc gcttaccagg catggttgga	cttttaccaa catcattacg acgcaggaag teccggacgc atggaattet tcagggatga acacggette	etggaeegat gggtgagaea ggetgetatt tgeeetgtet tettteetta aattettget agaattgtgg	60 120 180 240 300 360 420 480 540
<210> 4880 <211> 915 <212> DNA <213> Enter	obacter clo	oacae				
gtctgcgtct gatctaagta	tgcaatggat gggtaaaaaa aagcccgaca ttttgcttcg	atatcacgct tgaccctgac	gatgcgatta gaggaccagg	accgcgttgt taagagcaga	gctaaccgtt actgctgtgc	60 120 180 240

```
tttgctttcc tgcctgacgg gcgcaatctg tgttggcaga ccgcaacccc ggtgcttcag
                                                                    300
catotoctac toaataaaaa ogttootgag togotgaggt tgottacgga otacatacat
                                                                    360
atgcgtctgg ccaggctgac aatggtacct atgtccggaa ccatcatgaa cgaggctctg
                                                                    420
                                                                    480
ctggacagca tcagctgggt taaggtggat ttgacctact tctggcagta cgaacagctc
ageteteate tgggacccat ccagataace cacaaggcac ttgtacgett cgggcacetg
                                                                    540
gcaaagaatg atgaaaactc cagtgccata agaattctgc gtcagcgtct gtcttcagaa
ttottacaag aatttoagat ggotgaggat gagotaaago goaaacagto gttgatgggo
                                                                    660
                                                                    720
accatggacg tgaaaatgct gtttcatgct cattacccca gccagaagat gctggtggct
cgatataaaa atggttgggt aatggtggat tgttttctgt ttcaccatac caaacctaag
                                                                    780
aaaaaaagcaa aaaacaaaac tactqtgqct aaqcctcaac ttaaacaqac taaaaqaqaa
                                                                    840
gggagtgaaa atggaactgg gcattatggt gtgcatcgtg ttgttactct cagtqqcqqc
                                                                    900
ggcgtggatc agtaa
                                                                    915
<210> 4881
<211> 564
<212> DNA
<213> Enterobacter cloacae
<400> 4881
tgtatctact ttatcgatgg ataccatctt ttatatatca cettaaacga taagaataga
                                                                    60
cogcatcaac goocatactg gogtcaatat gaggtaaata tgcaacatca ggatgcactc
caacgtaaat tgccggagcg gatcttccat gccgtctgtt ttgaaggcat tgctacqgcg
                                                                    180
atcotogoco cgacggccgc gtggctaatg cagcgctcgg tggttgaaat ggggggtctc
                                                                    240
accataatto tggogaccac ggcaatgoto tggaacatta totataaett tggottogac
                                                                    300
cgtttctggc ccgtccagcg ggtgaagcgc acggcgaaag tgcgcqccct qcatqcqctq
                                                                    360
ggttttgaat gcggttttat tgtgattggc gtaaccatcg ttgccgccgt gctgggcgtg
                                                                    420
acgetgetee aggeetttae getggaaatt ggtttettee tgttetteet geegtacaee
                                                                    480
atgototaca actgggogta cgacaccotg cgggagaaaa toatcaagog ccaccagcaa
                                                                    540
cgccgcgccc tggcaagcga ataa
                                                                    564
<210> 4882
<211> 303
<212> DNA
<213> Enterobacter cloacae
<400> 4882
ccacgcaaca cottootgto gotgetetgt gacccaateg aggacgegtg taateteete
                                                                    60
gtoctgatta tcaaagctgg ccagcgcggg atacttcccg gacaggccac ctgcggcagg
ctgctggtat ttgagagaag cttctatgtg attattgaga taattaaatg gtacqctqct
                                                                    180
ggcaaaatgg agtatttgcc gggtgttgcg ataattggta tccaaaatag ttgtacggcc
                                                                    240
ctgagccttt atatcgacgc tggacagggt aaaatcgaga gctttctttt tctgataaat
tga
                                                                    303
<210> 4883
<211> 1407
<212> DNA
<213> Enterobacter cloacae
<400> 4883
60
attattectg tgettategg ttgtgegete tetttetetg geetggetge geageetace
gctgagcgct atatcgtcag cttccctgac ggctcccatg tgaaatacag cggcgcgttt
                                                                    180
googatgogt tocogaacgg gotocoggtg gggatgggtt ctggtctgtt gttcacgggc
                                                                    240
aagcagggcg atgcgctgac gtttgcgacc gtgaccgatc gcggtcctaa cgcggattcg
                                                                    300
ccaaaaatgg ggaaaaacga tgccaaaatc tttgttaccc cggatttcgc tccgctgctg
                                                                    360
atgacgatcc gcgtgcaaaa cggtaaagcg gaggccgtgg acgcgcgacc gctgcatgac
                                                                    420
gataaaggcg agatcaacgg cctgccgctg caaagcggtg tgattggttc caccaatgaa
                                                                    480
gtcgcgctaa gcgacacctt aaaagtactg aaaggcgata accgcgggct ggatacqgaa
                                                                    540
ggcatcacgc cggacgggaa ggacggctac tggctgtgcg atgagtatgg cccgttcctg
                                                                    600
attaacgtcg acagtaaagg gaaaatcotc gcgatccacg gtccgcaggc gacgcaaggg
                                                                    660
```

gagaagtcca tcgcgggcgg tctgccaaac gttatcaaat ggcgtcaggc aaaccggggc

1911							
gatattgacg gcgaccggga agcgacgca caggtgagg gcgagcgatc acgttggcg ttagcgaacg aagcttaagg gaaaccacgc gtgacgctgc	ggaagagcaa aaaccgcgat aaatcggcga ataaaaatga tggccgcctt agcgcgcgta agcaggaaaa ataacgattt attaccgggt	gccggacgga aaaacaggcg gtacggctac catagtggcg cgcaatgcgt cgacaagccg tacacttgct ggccgaagga tggcgtgaag gaacgcgtgaag gaacgcggaa gccgctgaag	ctgtttacgc cctgtcgaca ctggataacc aactcatct ggcgaatacc gaaaaaacgc ctggcgctga gtagcgatgc ggcaagctga	gtetggtgag gegeggeeta acaccatect acagggtgga eggagtttga etggacateta atgacageaa aaaacceggt egetggatga	cttcgatccg cagcaaaaac gctgattgaa tctgagcaag tgatgagaaa tctgcgtgcg aacgctggcg cgagggcaag taaaccggtg	780 840 900 960 1020 1140 1200 1260 1320 1380 1407	
<210> 4884 <211> 219 <212> DNA <213> Enter	robacter clo	pacae					
aaactgtata ccatceggee	tttattgcaa aacttattta	aaatggagaa aaggaaaaag caacaccgcc ctgccaggta	aagaaacgca actttcgaac	ccccaggcaa	ggagcgacgc	60 120 180 219	
<210> 4885 <211> 216 <212> DNA <213> Enter	robacter cl«	oacae					
atgattttca aaaaaggccc	gcagatgtgc acgttacaag	attagaattg cagagcagaa taacgtgggc caggcaggta	attaaggaaa ctgaatattg	acatgagaaa	gaggaaaaac	60 120 180 216	
<210> 4886 <211> 186 <212> DNA <213> Enter	robacter clo	pacae					
atcgttagct	tcagattttg	taaatctgcg tggtgaaata gaaagcgggt	aagcctgtgt	tgcgttactc	ttctgacgat	60 120 180 186	
<210> 4887 <211> 261 <212> DNA <213> Enter	robacter clo	)acae					
<220> <221>unsure <222>(65)	•						
gatengegeg tttetggtgg ggggettgee	cccattgtgg cgaagtgcct	ctgccggaaa cgctgttete cgttggtaae taaatetetg a	cacaaatttt acacccttta	cgctgataaa ccttctctga	caagetgetg actectaact	60 120 180 240 261	

<210> 4888 <211> 321 <212> DNA <213> Ente	robacter cl	pacae				
gttcttttcg cttggaggat gttcacagca accgttccac	actgottgta cotttecete ggtececca agtgtgtttt taacacacaa atcteggttg	acggtactgg tattcagaca cgtgtacggg gctgattcag	ttcactatcg ggataccacg actatcaccc	gtcagtcagg tgtcccgccc tgtaccgtcg	agtatttage tactettega gaettteeag	60 120 180 240 300 321
<210> 4889 <211> 234 <212> DNA <213> Ente	robacter clo	oacae				
tggacgatat actaaattct agaaatacta	ctgcaatrtc ctrtaaccac acatttatct tttacgtaac	actateegea aaaaaaaaaa	tacgtttttg tataagttct	tgatcatatg tcatccatga	tccccttata agaactttct	60 120 180 234
<210> 4890 <211> 198 <212> DNA <213> Ente	robacter clo	pacae				
gttacacccc	ccgctatgtc ttatgctgat tgactatgtt cgatgtaa	gategecatg	actatgttct	tecteaceat	gatcatgttc	60 120 180 198
<210> 4891 <211> 201 <212> DNA <213> Ente	robacter clo	pacae				
tctttagtgt cacgagaacg	taaagttaat tacgccatca acgttgcacc atgaagaata	tggtcctaga gcaccttctc	aaaatagcta	atcttttgac	actctgtttc	60 120 180 201
<210> 4892 <211> 201 <212> DNA <213> Ente	robacter clo	oacae				
acttgttcct aatgtcatca	actttctcca tcacttacct aggactacat ttggcctgta	caccatcaac cattaattgg	aggeactege	teacetggte	gaacttcgat	60 120 180 201
<210> 4893 <211> 189 <212> DNA						

## <213> Enterobacter cloacae

```
<400> 4893
  ataaatcatt otgaatttat gtgtgataaa attgtotggt cotttttat ttattotgtg
                                                                      60
 aatagattca cttcccgtga attaattcaa cctgaagttg ggtattttaa tgggggagcg
                                                                      120
 atgggtgtat tgtttttaat gaacggaatg tttgttaaaa ggatagctaa taatgtcagg
                                                                      180
 ggaatctga
                                                                      189
 <210> 4894
 <211> 2130
  <212> DNA
  <213> Enterobacter cloacae
 <400> 4894
 aatggagata atggaatgac qgaggggaag acaaaaccct acgctccacg ggtggtatca
 gaaggcgata ttccggtaca caaaaccctg ggcgaagtcg cccagacgcg caacgtcggg
                                                                      120
 ataccqcqcc cqatqcccgg cattgtgatc ctcgtccatg gcgtgaacga cqtgggtgaa
                                                                      180
 gcctaccaga accaggagaa aggtatactt gccgggctgg gtaagcgact taaccggcag
                                                                      240
 gatttttacg cocacgaatg gaaagactac agaattatca ctccagggcg ttcccccatc
                                                                      300
 atcocgtttt actggggata taaaccggtt acgcatgetg attaccggge ggaccagaag
                                                                      3.60
 cqctaccqqq aqqaqqtcqq qaaqctqaqt qacaaaqcqc atcttcccta tqatqcqtac
                                                                     420
 caggaagata acqaqacqaa taaaaaqtcq ctqqqtaatq acqqaaaaqq qccqtttcaq
                                                                     480
 taccagaacg ataactttaa gaacgcactt gataagagtt ttgccaaggg gggcgggacc
                                                                      540
tttgccaacg cgacgacgac gatcccggat atgctggggc ccggcgccgg tggcttcggc
                                                                     600
qttqccqctg cgggatttgc ctcgctgcac ttcaatgatg gcgattttac ccatcccatt
                                                                      660
tatgaaaacc cgcaccgcat ttaccagttt tttgccgctc aacggctggc ggatttgatt
                                                                      720
attcagattc gtcagccgtt agtaactcaa aacgatgtta tcaatatcgt cgctcacagt
                                                                     780
 cagggcacga ttattactat gctggcaaat atgctggtga aacaggccgg atacgatccg
                                                                     840
gtaaattgtg tgattettaa teacteacea tattetettg agtegegegt ggetgaaaat
                                                                      900
 attcagcogg gttatcaaca gacogacgac gccagacagc agacatttaa aaatttctgt
                                                                     960
 cgcctgatgc atacgcaatg gaaaggtggc gggaaaatgg ccgaqaqcga attacttqct
                                                                     1020
 ctggaggcct cctgtaccct gcgtaaacct tccgataatc cgctgcgaac ggatggcaga
                                                                     1080
tattgccgaa gcaacgacgg taaagtgtat aactactttt gcccgaacga tggcgtcgtg
                                                                     1140
tegetggaga atgtgeaggg gtttggetgg egaggeatte etcaqaatat tgeeagtgat
                                                                     1200
 atacctaatc tgtttcagcg cgtgttttac cagcatggtg aagtaggaaa catccctgac
                                                                     1260
 gctaacccct ttgagctacc accgcgaaat gagggggatg caaaatatgc ctttctcacg
 aacgccagtt acagcgctcg cgatgtggtg ataaacggtg aggagttacc ggaacctttt
                                                                     1380
 attttcaaac ttcaggggga ggataatcac coggataacg atcctaaaac cagtgataat
                                                                     1440
 cogtatacet attatgtoga teeggacage ceggacgeet acattteeta tteegeeaaa
 gocagogoca ttaagogoac ggtaacgaca acetttgcag tgaaccgcta tcaaaatatt
                                                                     1560
 ggctggcagc cgggtcacgt tttatctgct tcagagctta aagaagagag ttttgaacgc
                                                                     1620
 aagcatgagg ttatttatgg tgaggtatca ggttcgcgtg attttcagtt agttaccctt
                                                                      1680
 acctggaaga aaacaccgga agaactgcaa gcggaatggc agaaaatcga cccqqtqqqc
                                                                     1740
 tacagocago actoctotat tgtgatgago gaatttgogo catogoacgo tatggogttt
                                                                     1800
 gatttggcta ttgggcagtg caaatcattc gattatcagg cggggaaatt ttgggaaggg
                                                                     1860
 ttgttacatc gtgcagactg gcgcgatcct cagaatgaaa atccctatgc aagggcatat
                                                                     1920
 taccggacgg gtaagctaga tgaacctaca accasatttt tcatgaataa gccatatgac
                                                                     1980
 gtgctgccga aaggtgagta tggggtggta aataagttca ataatgcaac gactgtcaag
                                                                      2040
 cogtocagtg atottgtogc agggaatcag gacgtogcaa atotgcaatg ggacatgcca
                                                                     2100
                                                                      2130
 aagcccataa gtgacagtca actggcttaa
 <210> 4895
 <211> 711
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4895
 agcatgaaaa tatcatttat gggtctgatg gccactgctq ttttactqqc qatcqqatqc
 caggogaaaa gaaccgcaac gcaggtggtg taccggttcg atgatcatcg ttatctcgaa
 ctgaaagget ggggccgcga aggcgaactc tggtacacqq atactqaget gggtatacat
                                                                      180
```

acccaacctg ttagccaatt ttacaagatc ttcaccaaaa aattcataca tccatcggag

1914						
aaaacctggt ccgccctacg aaacaccggc ccggggattg ccccgttccc agcacgcagc	cccctcagtt atgacattat tgtatatgtc cctataccgt ctggctgggc aacttaaggc	ttattcagcg ttcctttact gtcaaaaccg ggatgacgga gtggggaatg taactggcaa	ccaggaacaa ggttotaacg gttgttaagg tttgaagacc atgggaaata gtctacatga gatttacccg gatatggatg	aaccaaatgg accagggatt cgcgcattct aagtaagcgg ctaagcaggg acagcgtacc	agattettea tatgetgace geoeggeggg gaagetggac actegaggge egaggtgaag	300 360 420 480 540 600 660 711
<210> 4896 <211> 711 <212> DNA <213> Enter	robacter cl	pacae				
ctggtgaaag ctgaaagggt accgaacccg cgatatattg aaaacgtggc gcgccgtatg aaacaccagc ccggggattg cccggtgttcc agcacgcagc	aacegecgac gggattgtga taagtcagta cactgacggg gctctgtagc aggatattat tgtatatgtc cctataccgc ctgggctggg	gcaggtagtt aggcgaactc ttatcgactc atggggagtg gttttcacca ttctttcacc gtcaaaacca ggatgacgga ctggggaatg taactggcaa	gccacgtctg tatcgattcg tggtacacgg tttacccgta agtggattca aatcataatg gtcgtcaacg tttgaagacc attggaaata gtcttatatga gatttacccg gatatggatg	atgatcaccg atactaagcg aatttattca tagtatctaa aacccaatgg atcagggttt cgcgcattct aagtaagcga ctaagcaggg acagcgtacc	ttatetegaa aggeatteae teeateagag ggaetatggg tgatgaetae tttaeagaee geeeggeggg taegetggae gettaageae egaagtgaag	60 120 180 240 300 360 420 480 540 600 711
<210> 4897 <211> 204 <212> DNA <213> Enter	cobacter cle	pacae				
caggegaaag ctgaaagget	aaccaccaac	gcaggtggtg taggaaactc	gctacgteeg tacegatttg tggtteeegg	atgatcatcg	ttatctcgaa	60 120 180 204
<210> 4898 <211> 183 <212> DNA <213> Enter	obacter clo	pacae				
cgacaaaact	cttcagccct	ggtcatgatt	atecatetge ttecetecet acgtatecgg	tttatcactc	atgcagaaaa	60 120 180 183
<210> 4899 <211> 234 <212> DNA <213> Enter	cobacter clo	oacae				
aaaagttgct gtccagccac	caaaggttgg ggactattcc	ctaccagatt atcactcaca	tgeeettgeg attttgttae gttataaaaa ttaaccccta	tttatcgaag ataaggataa	tgatggaata tattggcccc	60 120 180 234

```
<210> 4900
<211> 213
<212> DNA
<213> Enterobacter cloacae
<400> 4900
aaaagcaacg ggccgttaag cccgttgttc gttacatcat cgcagttcta ttactctcgc
                                                                      60
                                                                     120
cogotoagoc tgotttoggt agtggtoata togotocogg aaccatgoot gotgtttatt
                                                                      180
actcatattg ccgqtcacgg catcgatatc aactggctgg ccctqqqcqt acatacgggc
                                                                      213
aaaactgcgt gccagaaaat caaaattctt taa
<210> 4901
<211> 765
<212> DNA
<213> Enterobacter cloacae
<400> 4901
tggcgctgct gcacgtgtgg ctgggcgcgc acctggatgt acgtatgcag ttatgcgttg
cocggcattt gotgooggat gogoggotgt cotgcaatgo ggaacaaatc gogoaggtog
                                                                     120
ggogcacggc agtgctgcgt ccccttaatc cgcaacagaa cagaaacgac attatcacca
                                                                      180
ttcaccctgg acgctttcag cgcgtccggg aaaacattca gcgaaggaaa aacgatgaag
                                                                      240
atggcgatta ccgctggtaa agcgctggca atcactctgg cgaccctgtt aaccggctgc
                                                                      300
ggtctgacgc agaaagtgac ggatggcacc gtcgccgtca cgaagtccat tttttacaga
                                                                     360
caggtgaaaa ccottcacct ggatattcag gcgcgcgaag gggtgaacaa caacgcgaag
                                                                     420
ggggcatcgc tggcaacggt ggtgcgaatt taccagctta aagagcgtaa ggcgtttgac
                                                                     480
agtactgatt atccgtcgct gttcgccagt gacactcagg ccattaaage cgatcttgtg
                                                                      540
goggaaaagg atatecgect gegeectgge gaateggtga egetggatat geegatggaa
                                                                     600
                                                                      660
gagagogogo aggttgtggc ggtggcgggg atgtttatgg caccggacca ggtaaatgat
acctggcgta ttaccctgac ccgtgacgac cttgacccgg ataaggcgcg ggttatcgaa
                                                                      765
gtcagtaata atcgtctgac gctgaaaccg ctggaggggg aatga
<210> 4902
<211> 213
<212> DNA
<213> Enterobacter cloacae
<400> 4902
atcoctqttq qqcctqaqcc qataatqqcq atttttttca tcqaaaqcqt tcctqcqttt
ctgaaccata caacaagcgt agcaggagaa aggctaagtc attcaatgaa gggagaaatt
aagacgttta gaagagggga tgttgcgccc cttcctgaat ttatgggaaa gtcaattcaa
                                                                      180
ttgaccctgc tgattagata taattctgcc tga
<210> 4903
<211> 429
<212> DNA
<213> Enterobacter cloacae
<400> 4903
gccagatgcc gaaagcgaaa gcgtaaggcg gtagcaggga tgaaaattta tcgtccgtta
                                                                      60
tgggaagacg gggccttcct ggccccgcag cagttccagc agcaggcccg ctgggatgca
catgtgqccq acaccqtgqc ccqqatqqcq ctqqcqaacc cqtqqqqtqt qctqtqtqcq
                                                                      180
                                                                      240
gagttegacg aaggegetet ggeeetttea eggetgaatg ceaecegget ttgeqtqeqe
tttgeggatg gtaegetggt ggacacagat etggeggata eeeggetgeg eteaggeage
                                                                      300
eggtacgeeg etgtegegat ttetggeget getgeeggtg atgatgetge egggaeggae
                                                                      360
ggcggaggga atggggggc tggtgcggct gctggcaccq gatacgcgca cgcaggttta
                                                                      420
tcaccatga
                                                                      429
<210> 4904
<211> 660
<212> DNA
<213> Enterobacter cloacae
```

atacccgct gtgatgatgc ccggatacgc gttgcgatga gccacggatgc ctgggctgc ctgggcgcgc gcgcgctgt ccccttaatc	gcgctcaggc tgccgggacg gcacgcaggt gtacatgcca tgcacggcca tgccgggcgg acctggatgt cctgcaatgc cgcaacagaa	cgctttgogg agccggtacg gacggcggag ttatcaccat gccggtcagc ggtgctgttg tgacctgcac acgtatgcag ggaacaaatc cagaaacgac gcgaaggaaa	ccgctgtcgc ggaatgggg gaccgctgcc ctgaagcacc ggctgacctga gctgacctga ttatgcgttg gcgcaggtcg attatcacca	gattetgge egetggtgeg gtateceget ggeeggtgat eggacaacee tggegetget eceggeattt ggegeaegge tteaceetgg	getgetgeeg getgetgeea gaageageeg gggeaegeat ggaagagate geaegtgtgg getgeeggat aegtetgeet aegettteag	60 120 180 240 300 360 420 480 540 600 660
<210> 4905 <211> 477 <212> DNA <213> Enter	cobacter clo	pacae				
ctgtacggta attttatcag cacctgccgg gcccaccagc cggattaatg gcggagctga	acttegeegg tactegataa actaeggtet tgattaceae tggtgatgea agggggtggg	tggagggga cgggcttgac catgcagcg gccggatatg actgtcggct ggacagatt gctggtgcgc acaacagcag	ctgcacagtg atcctcaact acaaaaatcc gtgttgctga cagcccggtg tacggcacgg	tcagtgagga gccgcgccgg tccagggaat aatacgagcc aactccgcta aatttatgcc	gaaccagetg taegetgget geoegggace gegeetgage egecattgat egagggeagg	60 120 180 240 300 360 420 477
<210> 4906 <211> 186 <212> DNA <213> Enter	robacter cle	oacae				
acattaaaga	gtaacttttc	tgaacgacca aatggtttat cgccgtgagt	tgtagaactt	gtgctgtagc	gggttctgaa	60 120 180 186
<210> 4907 <211> 255 <212> DNA <213> Enter	robacter clo	oacae				
tcaaggtggt gaaccaacga	getetaacea cececaceat tgacaacggg	ggtgcgtctg actgagctac gtcaaggtgg gacgaatatt	agacgcaaga tgctctaacc	tggtgcgttc aactgagcta	aattggactc tgaacgcatt	60 120 180 240 255
<210> 4908 <211> 705 <212> DNA <213> Enter	robacter clo	oacae				
tcgtctgcat	gccctatcaa	tteggeeege ccaaaatgaa gettageegt	tgttcaaatc	atatatcgca	attttctatc	60 120 180

```
ctaaqaaata cagataaaac cacattaata acagtggaac atcttgaagc tttacttact
gttatgtcaa ctactcttgt cgcttacgct ccatattcaa aaaagagact taactttagc
tttctaaatt catttacttt gtctaaaact tctcaaagtt acacattaac tttcccggta
                                                                      360
gttetcagte egettttaga tgetettgge ggttteatte aggaatgeat aacegaaaaa
                                                                      420
ttgttaaaac gacgaaattc gaatttcatg gtttacgagt atcttaaacg ttcaggccag
                                                                      480
                                                                      540
agototoata aagtggagga cattaataac gaottacago ttaaaactot aaatataaga
cttatgagcg tccttactgg gctttctcag caaggactca tttcatttat ttgcgatgga
                                                                      600
aagaggggcg accggagaat agaagagctt cagtttatac cttatgttca acgaactcac
                                                                      660
                                                                      705
cctgaggtat taacttttca ggaatggatt agccccgttg attag
<210> 4909
<211> 237
<212> DNA
<213> Enterobacter cloacae
<400> 4909
aaacacgacc gtttcggttc gcatcctgta cgccgaacgt attcaacaag aggaagtcct
atgagcaacc aacccaccag cctgccagaa gaagatattg agtttgttat ggataccttt
cagaggagca tgggtaaatc caaacctgtc agggatactc aaatagaggg cgagaaaccg
                                                                      180
                                                                      237
caaagtaaag agtccgcaaa ctcaactgaa aaccccggtt atgaagaatt cttttaa
<210> 4910
<211> 459
<212> DNA
<213> Enterobacter cloacae
<400> 4910
gggatggggg acattgtgat taaaaggcgt aacattcgac gatcagttta tggattgctt
                                                                      60
attgttctta tcgccggaaa tgtgtggtta ggccttagag ctgataaaat tcataaagtg
                                                                      120
cgttatcagg atttctggtc accggcaact gtgattaaag taactgtaat gccttcaacg
                                                                      180
aatgaaatcc agctcagtgg taaaatccct aaatcggtaa gagtttcaaa caattatgtt
                                                                      240
gagtactogt tacogggcac actotoggac aagaccattt acogaagogt gttagaagat
                                                                      360
gagatgetea etttgettaa tgetggaggt caacttgaag ttaaatacae tetggacaag
cagacaaatc gaactaaggt atgcactaag tgcttacggg tgattaaaga tattaaccat
                                                                      420
caatattcag ccactgaggt aaagcatggg cagtcctaa
                                                                      459
<210> 4911
<211> 330
<212> DNA
<213> Enterobacter cloacae
<400> 4911
cccacagecg gacgeagaat aatttacttt tggcaaagtg ttggttttgt cagagteatt
                                                                      60
aaggattcag gotttttgcc ogcotttttt aaacetecat gtategttot tgccccgttt
atgegggget tittititige tietitetat gagtigaeat etitaagtit tatteagaga
                                                                      180
cataaaaaac tttttcgtgt cactgaacct attaggttac agagcgacgt tgctatcctg
                                                                      240
gtaaaagttt tttctaaagg accggtaaaa tgtcatctct tgattctgaa gctaaacccg
                                                                      300
ataatgcagg tcacagcgta ctggctttaa
<210> 4912
<211> 1824
<212> DNA
<213> Enterobacter cloacae
<400> 4912
ggctataacc tattcccgga gcatcatatg cgtaaaactc taattggctg catggttgca
                                                                      60
actgcccttg ctactgtatc ttcggcacat gctcaggtat ttagctactc atttacagat
                                                                      120
accaataagg ctgttcggaa tattaagcct gcaacacaaa catatcttaa tcccgctggt
                                                                      180
gttttgactc tgaacttgat atcgggtctt gatcggtacg agcgagtgac ggtcacacga
                                                                      240
gacaqogata aaaaqgttat gtattootoo gtotogacca aaacgaqogt tgcaqatogt
                                                                      300
```

atcgttgctg ccgatggaac agaatactat ggaaaggata tggttctacc ggcgctcgga

```
qaaqqqacct ttactgtagt caatgaaact ctggatattc gccagactgt agtgagcaca
 totacttatc atttcatcgt tgatacaact cotocacgct ataagagtat ttatccgagt
caaaacgcag gttacgacat ggtactttct gggccacttt gggagttggg ccgaggcggt
                                                                      540
agtggccagt tttctatatt tgcagacggt attgaggatg ctagtggaat tgccaagatc
egtettgtca ttaaacgaag taatggttet gtggteteeg acaataacet gagttatgae
                                                                      660
acagccaata aacgtgcgtt ctatccgtgg attaaagata tgaacaccca ggctggcatg
ccctcaagtg atcttgatga agaattcacc ttcaatttca tcgttacgga cctggcagga
                                                                      780
aatacgctta acattcctcc ccagcggttt ttatatgacg atcaaatggg agaatttacg
                                                                      840
ccatttgcag ttcatgactc acgtgtaagc accagtgttg tacccggcat ttcttcggga
                                                                      900
tacgtcccgt ttaaacgagg ccttacagtg ctggaaaacc cctacaagtt ggttatacgt
                                                                      960
atcccaagaa ctaactggaa gccatatcga aatggtggca tgagcattac caataactat
ggcggagtac aggtcctttc cgaagatgcc acctatgtct acgtggaagt taagctqcca
                                                                     1080
cagggtgcct tagatggaaa ctactataga cctgtgaata catatcaatg gtctggagga
                                                                     1140
qatettqqtc aqtatqccaq etqqetcaac tqqqatectq eetetqtaaa qaqteeqqet
tggggaagtt cacccataga acgacaaaag gctgatggaa catggttcaa cagcgtaaac
                                                                      1260
tggaacctgt tcaaggcatc tgatatgcct ataaaactta ctaatatecg gttcaatgta
                                                                      1320
caqqctaqqc catatqatca aaaaatcact qqcqqaqcaa catqcaqtat tccaqctqqc
                                                                      1380
toaacaacct gtaccgtoto tttgccccag qatattataa atggcactac cqgctatott
                                                                     1440
catagtggct atgaagtaag gtcaaccacc gaagcaacct tetttgcccc tatatgggag
                                                                     1500
aatatageet ggeatacact gggteeetee gteactggat ttgattacat tgaaaccace
                                                                     1560
aacattotoo aqqtttacqt qaatcaacct qqaqatqqtt catattteqa ccatqtttat
                                                                     1620
gtaaatcqaq tttqqttgtc agataaaaac cqtaacaacq cagaaataaq cqtaaccqqc
                                                                     1680
aaacaaacag gtagaaatat ggcgtctggg aactacacgt atgagttcaa catgaaaqag
                                                                      1740
gtaccagaag gcagttataa cgtggtaatt aatgcccaag atacattcaa caataccggt
                                                                     1800
aacctccctt atcaaactgt totc
                                                                      1824
<210> 4913
<211> 213
<212> DNA
<213> Enterobacter cloacae
<400> 4913
gttgatcaag totggattgo tatotqoaag caatgoattt tqtqoaaaca tqttcagaaa
                                                                      60
aacggcacca cogcctataa agggttotac ccaccggcaa ctatgatogt gtgggtagtg
atggetgatg aaaggeatca gtttegtttt tecaccagee catttgatta teggeatgtg
                                                                      180
totgagatgt cgagtcaaag tgtotatacc tga
<210> 4914
<211> 309
<212> DNA
<213> Enterobacter cloacae
<400> 4914
gcacccaaag aaaaatotgt tactgtttta gatgtcatac tttcattaat agtaatcatt
                                                                      60
qcqacaatga atggtgatgc aattccaagt gttgctagga ctatcaccga tatttcagac
cggttttctt tagcggatcc tttacttatt gcagacattg ctctgaacat aacaaatgta
                                                                     180
ctgttgagca tcagaaaaca gcataagagc atgtataaca ttgggtttcc tcaacctata
                                                                      240
aqtqatqqtt accetgttat tttacataaa tttgactcaa cagatgcttt taaaatctcg
                                                                      300
cttccttga
                                                                      309
<210> 4915
<211> 195
<212> DNA
<213> Enterobacter cloacae
<400> 4915
acteatacgt gtagttecca gacgecatat ttetacetgt ttgtttgeeg gttacgetta
tttctqcqtt qttacqqttt ttatctqaca accaaactcq atttacataa acatqqtcqa
aatatgaacc atctccaggt tgattcacgt aaacctggag aatgttggtg gtttcaatgt
                                                                      180
aatcaaatcc agtga
                                                                      195
```

<210> 4916 <211> 186 <212> DNA <213> Enter	obacter clo	pacae				
tegatgatee	tcagacctga	ttccttctcc cgttcatcca tgcccttgaa	cgtgatctga	gcctgtggct	gtatatacca	60 120 180 186
<210> 4917 <211> 381 <212> DNA <213> Enter	cobacter cl	pacae				
agcatcatec ctcaccggga actggttaca cttaccacca gttatcagtc	tgttccagaa agcgtaacct atactgttgc tcaattccca	ttacggcgcc tgttcttctg gtacggtacc ttgcgacagt gtccaccgat gcattgcatt	cgtatccggt tttaccactg atctccggga atgctgggta	acaggoogga atatocagaa gtaacggtac ccatotocga	cattcaccac ggccgtcttc caaaaatcaa ctatggttgt	60 120 180 240 300 360 381
<210> 4918 <211> 555 <212> DNA <213> Enter	robacter cle	pacae				
accaccagtg aacagcgata atcggtaccc tataaaacca acccgtattt cacaatagcg coccccggta	gtgttattaa ctgttaccgg gctgtaaaat gtcgcattac tgacctgtga ccgtcaccta acgtacaggc actttgcttc	ccagtttgat cctgagaatt aattttcgaa cgatatttcc taagegeggt cggaaceatc caaggtttac ccttagcatt cttgaccegt	ggeccettt geggecatea gttattaacg ggttatatee gaggeegtat gctaacacec ateccceaga	atgtacagcg tccaccagga agcaaaccct gcctcgttag gcattaccat tgttcaagcg atctgaaaat	caacgccatt taccaatatt gattacgcgt taagaacaga caacctcagc ttgcttcagc cacttccaga	60 120 180 240 300 360 420 480 540 555
<210> 4919 <211> 225 <212> DNA <213> Enter	robacter cl	oacae				
tgtcaccatg gatttggttc	ctgatccggt aggttctggt	attccggcaa tcaggagcag gtcgtatcag taccagtcgc	gagttggagc gcccgggagt	tggagctggt cgtatctggt	tcaggtgtcg	60 120 180 225
<210> 4920 <211> 333 <212> DNA <213> Ente	robacter cl	oacae				
<220> <221>unsur	e					

<220> <221>unsure <222>(11) <220> <221>unsure <222>(13) <221>unsure <222>(19) <220> <221>unsure <222>(27) <220> <221>unsure <222>(40) <220> <221>unsure <222>(50) <220> <221>unsure <222>(140) <400> 4920 agatggtntg nanatgatna gggaaanact gacattgtan atttccatan aactaaaatg aatttattta totatottot ggagoatgoo ttocagagag aggtgaccag tgatgaatta ctcattatgt tctgggacan atatgggctt aaatottoca ggcgccagct ctggtatgtt ctggggcage taaagttaag cetttattet ttaggtatee ettacgattt tatecagaca 240 aaaaaaggaa gaggttacca tttggaaaag gtgaagatat atctgataat tgattctgga 300 actcaatgca gtcatctaga tcatagtcgg taa <210> 4921 <211> 186 <212> DNA <213> Enterobacter cloacae <400> 4921 togataaaac agcaggoggt acaattgatt ogtotootta taattotoot gtggggacto tggctgttct ttctgcaacc aatggaggta ccgttacact ctcttcttcg gggagactta 120 ctggtgtttt accagcgtat ggctatggtg caggcgttgt ggccagttct ggtggtactg 180 186 gtataa <210> 4922 <211> 186 <212> DNA <213> Enterobacter cloacae <400> 4922 60 agegegette teggeaateg ettettigeg eagggegtag gagatateea geceggagte acquatqttc aggccctggt teagaccctg agcgccacag ccgacaaaga ccacttttta 180 acccagaagg aagetegege cateageaaa ateategege gecaagaage ggcaaaagee 186 cagtag <210> 4923

<211> 198

<212> DNA <213> Enterd	obacter clo	acae				
<400> 4923 tttcacgtca t ggcccatttt t ttatgcgggt t ggtcataagc t	teegeatgaa ttaategeat	atatcagcat	ctgctaaatc	ctgttagatc	attgttaatt	60 120 180 198
<210> 4924 <211> 228 <212> DNA <213> Entero	obacter clc	, pacae				
<400> 4924 gtaatcgtgg of gcegatggcc of gcaggttccc of cggcgcaacc	gtegegeagt tgggeeageg	ecgetatege egatggegeg	ctgccagatc ggcatcgaag	ccaatgcgcg ccgggatgat	caagctgctg	60 120 180 228
<210> 4925 <211> 207 <212> DNA <213> Enter	obacter clo	pacae				
<400> 4925 ategeetggt aegegtttee etgggeeatt gageaaaace	tgaaaccatt acgcccgtct	agcgcttaac gatgacgcaa	gtcgcgtgcg	atacggtgat	ttttcgtcgc	60 120 180 207
<210> 4926 <211> 249 <212> DNA <213> Enter	obacter clo	pacae				
<400> 4926 egegeateag attagegtgg etggetgeag ggtgaatggg ettatttga	attctaaaac acgctgccct	tggaagcaag agcggcaatc	cctgtgatgg aacgaacatt	aaagcaacag tcagtgatga	coggataatt atttgtgaaa	60 120 180 240 249
<210> 4927 <211> 192 <212> DNA <213> Enter	obacter clo	pacae				
<400> 4927 atgccagacg gtaggcgatc cctcttaaat acgtttttt	tggacacagt tgtttcattt	cattgtgtct	aatccaataa	tatecetett	tcataattca	60 120 180 192
<210> 4928 <211> 273 <212> DNA <213> Enter	obacter cl	pacae				
<400> 4928	taatcaaaat	gatacaatca	cagttaacac	aagttatatt	ttggctgggg	60

			1922			
cacaaatatt attgaaaaca	tecetgtaaa	gaaaattgag ccttgataag	tttgtgtacg atacagttgg caggatgcca tga	ttaacgaaga	taaggcattg	120 180 240 273
<210> 4929 <211> 900 <212> DNA <213> Enter	robacter clo	pacae				
gaactteta aaccttatat tttetgete ccagatgeca cacgettetg ggtcaacacag tgetcagete gttgtgeaa ggtaaggaa ggcactttac aacttecaca acttacagact gaccttete	aacatgcaat ccaaagccga ctgttgaaaa ttgacgttct cactgtccct gtaaaaagaa ctgttgcggc aacctcttga ttgtccgact tagaaaaaga gcgagaaagg atgaattttt cagtatcttt	cgatgcggaa tgacttaatt aaggtetgtt aaaactatt aatacgacat agggtaagec tctggtcaca aggtaaagac tgaggcgat cgttgaaatt ctggagaatt agctaaagta agagattaacg	ttcaaagttt actttaggaa aacgaaggtg ggcatagtcg cttggtagta accttagaat gaccetgcca teccetgtct gaaactgaag aagaggtta aggtataaaa aggggtgcag aaaaccacct cgagttgctc	actctattct gaaaatcagt acactgttgt gtgctgtagg agaaagtaat tagatggcga ttcgcaatgc tcaaataaattgt acataaaacc acgtgaaatt acgaagcca agggaacca cagctagagc	ttccatggct acaacttctt acatgctgtg ttctgtgacg agatattgacg acttatcgca tgatagtaaa cgtccctaaa tacccaagtt ctctgtacta aacaagtgaa ttccgaagag	60 120 180 240 300 360 420 480 540 600 720 780 840 900
<210> 4930 <211> 198 <212> DNA	robacter clo					
cccctegeca ctggcgggtt gtcgtactgt <210> 4931 <211> 219 <212> DNA	acctccccac gegegattca	coggtgottt gtttgaccag	atcagcccgg ggcaaaatac atggcataca	tggtagcact	tgccgttatg	60 120 180 198
<400> 4931 tcaaatcctc ggcctagtgc acaataactg	acactgagga aggtagctta	gatagcaatg ctacaccgac tctgacacga	aaagaaggtt ggtatcactg ggtgatgata ctgaaatga	aggaccttga	aacgggccag	60 120 180 219
<210> 4932 <211> 417 <212> DNA <213> Enter	robacter clo	pacae				
gccggtttag gtagtttttg gtgttacgtc ctgttgggtt	ctttgaccgg gtgcatttgc gcctggcata caaaactcac	agecagtgte gggegeegta ettettegtg atectggaeg	atgtccgatc tacggtctat ttttacatag tcgtatatcg gggtacaccg caaatcctta	tgaccggaac cgacagcggc tcggcattct agaagcctct	tgactacggt tgacctgagt ttgttcgggg ggatgctatc	60 120 180 240 300 360

			1923			
ateggetege	tggtggcgct	gataacgcgc	cggggaggtt	caggtggtac	taaatga	417
<210> 4933 <211> 288 <212> DNA						
<213> Enter	obacter clo	acae				
<400> 4933 cgcgccgggg tgcgccggag tggatttcgc ctgtgcggga tcagtgctgg	ttgtgattac gtttagcctg tttacccgca	totgatgttt gotgattaco ttcatcatgg	tategeegtg gteacttaca gccaccattg	gtgattcgcg gcgctgtacc cggccaatat	gcateggeca getggegtae	60 120 180 240 288
<210> 4934 <211> 342 <212> DNA <213> Enter	obacter clc	acae				
<400> 4934 cgcatgaaca gggaaagatt taccagcctg gaatggctga gatgggagcc tcagccctct	ccccgttcgg tgaacgcgat agttgatcgg cgagacccga	ctatgtggag ggtagaggca cgattcagag cgcgttatat	agattaaaca tttgcactga accacagagg accttcgcga	accaggcgga tgaacgagaa catcaccgtc agggtacgat	tgagaacaac ggggcgtgag cacgtcatca	60 120 180 240 300 342
<210> 4935 <211> 732 <212> DNA <213> Enter	obacter clo	pacae				
<400> 4935						
cgtacggaga gtoaggaaac ctgcagcgtg acatotgtgc tggatggtaa tggcgtcaga cctgagatag tottatotoa cagttccgtg agcgaggagc acccgtgaac ggacaaaatg cgtcaggatt	tgetgaaget cecagaaget gegaggegte cecttgteeg cetetgeegg cageetatge aaacecagag acggetggg ageaggtgat tgaaageetg	gggccgcagc gatggccaga ttcccgcacg gggcgtctgt gtatcgccgt ctttgatgtg taagcggctg atgtggggtg gagccactgg ccgcggtgcg	aacagtaatg tacggtatca gcccttcgg catgcctttg tcggtaacct ctgacgegc aactggcca cgtgaggtga ctggaaagcc gatacagcac	cccatgaggc gcgagcttga atgctgaaaa gctgccgcgc tttacggatt agctgaaaga cacgccgggg tatcggcaac gcagtatgaa gttatcaggg	aggactggcc cgccggtctt agttccggaa ttattactca cagtgaaaaa tgccacaaat gagagcggag tgacatcagc aacagtcaca gtatgaagcc	60 120 180 240 300 360 420 480 540 600 660 720 732
<210> 4936 <211> 597 <212> DNA <213> Enter	obacter clo	oacae				
<400> 4936 gggggaatga gatctgagaa cagatgctgc atcatcagtg gaacagaaac atggccaatt atcgatgtcc cgacagtggc	gtggctatet aggggetete tgggeateaa gaeteeageg aetteggget geeeggggeg	gegeegetge getegaagag teaeggeaat tategategg eteeagtaeg eggtaaegea	gaatcgctgg cttcactacc ctggtgcgca gcgctggcgc gacgtggcgg ctgggtgatg	gactgaaccg tttccggcag tgctgcagca tgggcggctc cccgccgtcg aggaaaacgc	cgaggaaatg tgaggtgtcg ggcccggacg cattgaactg tattgccggt cgccctgtgg	60 120 180 240 300 360 420 480

			1924			
	cagaacagat cccggcagcc					540 597
<210> 4937 <211> 378 <212> DNA <213> Enter	robacter clo	pacae				
gcatgcggtc gaagacggca ccgcaatgct tacacccggc	gtgatgatge egtggetgge tgaaatacag gtcagaaagge tcgatgagaa gtcgcaacga ggaaatag	acaagacccg gatggttgcg gttacgtcag aggttgcggt	gcagcettet cegggeetge gttegeegtt tactacaaaa	ccggcacgaa gggctcccca tccggcaggg tcgatctcgg	cgccggtaag tggtacgccg ggcgcgtaat cccgttctgg	60 120 180 240 300 360 378
<210> 4938 <211> 219 <212> DNA <213> Ente:	robacter clo	Dacae				
caggccgtta tttatccagc	togagcaaca ogtatoctgo gtataagcaa oggeogttot	catcatcccg tcaggettte	ccggggactg tgcaggcaga	geegeaagge	gggcattcat	60 120 180 219
<210> 4939 <211> 255 <212> DNA <213> Ente	robacter cl	pacae				
ggtcagtcat tcaaatatgg	gegetgttte tetegeteea ggatgegegt agagagaege egtag	ggccttagaa cgggttttac	aaacatgcag gagggggctt	cacaagatag cagaaaaaag	cactitetea eegatgeggg	60 120 180 240 255
<210> 4940 <211> 432 <212> DNA <213> Ente	robacter cl	pacae				
tgcaaaagct gctggctatg tgccggtgta ttcagaatta aaggttatcg	cgtttgtcat ttgtccgtta accgtgtcgt tccggctcaa atgagcttaa caaaagtcaa tgcgtggcca ga	ctctgtaccg gttctccatc gcagaacggg cccaggcgct ctatctgacg	geatteatet tteeggaget atagagaege tttgtegtee ggtatgetea	ccgaaacatt ggcacaaaga ggagaattaa ggatccttaa tccgtgactg	ctttaacaac tttcaaattg gcaaagcgca gctgctgtcc cacagatcag	60 120 180 240 300 360 420 432
<210> 4941 <211> 267 <212> DNA <213> Ente	robacter cl	pacae				
<400> 4941						

tettag

```
atccqcttat ttcaqagaaq ctctgattta gtagttaggg aaaacgatgc ggtgaaaagt
 aacttttaca ccgcaattca gaaaaaagtt tcaattagtc acattacgaa taacccggct
                                                                      120
 tactitegea tgtgegttee eetggatgtt aaagtaaage eeeteaggea gactegtege
                                                                      180
ccacttaact cctcgctcag ccatacgctt cggtgtttcc agccaaccac gaggaatatt
                                                                      240
gocogtaacg tcaccgataa cccgtga
                                                                      267
<210> 4942
 <211> 228
 <212> DNA
 <213> Enterobacter cloacae
<400> 4942
tcaqqaqaac aacccatqaa aatcaaacta gccttqgtta ttgcatttgc aggtttcagc
                                                                      60
geaggagttt cegetgaaat egeagaatte agetttaaag ataccetgaa egttaaaaag
accgtatogo ctgcatocgt atggattaat ccggtaacga gctttgacgt tgccggttta
                                                                      180
tttttccqqt ctqqaccqtt atattacqct caqtctqctq aaaagtqa
                                                                      228
<210> 4943
 <211> 525
 <212> DNA
 <213> Enterobacter cloacae
<400> 4943
ccagtagatt cattetgtca tgattactcc agaactaacc ggaggaatca cattatgacc
aaatattatg atcgcagtgg aattgaaatc tccagcgcaa aaatccgctg tgttgattct
                                                                      120
qtaaaaqqta ctqcqqaata tacttttcqt attqtttqcq ataaatqcaa tqqqcqgqqa
                                                                      180
gagegtaage attittatag aagtegetgt atggettgta aageeaeggg ttacageete
                                                                      240
gaaacgaccc gtactgctta cacgctgaat gcgctgtacc gcattaatgc gcaagctgcc
egeaaaqtgt cagcatecet geaagaegag egtttaagga etgaaagege ceacagttet
                                                                      360
gogttcacag catggtgcag gtctcatcaa aaaatggttg atgcaatcac ccaacaatcc
                                                                      420
agtagtaata attttctgga aagccttaag tcttctttaa cccaccagcg tcagttaagt
                                                                      480
gataagcagc tggcagttgc cgcccgcatt ttaggtattc attaa
<210> 4944
<211> 1206
<212> DNA
<213> Enterobacter cloacae
<400> 4944
atogotoato cattaaggtt aaaaatgaag ctattttoaa tttcatocog ggatacaago
                                                                      60
atggacgcga tgttttatat ccaggccagt actaaacaac aggcaagtta catatttagt
                                                                      120
accetttece egaageetat tgegaactge eagettacag atttgeagaa tgagaeggte
                                                                      180
                                                                      240
gtocottoca taagooctat ttogotttoa ottaacooct ggtogatoaa ttoccagtoo
cgaaccoggg aactgcgtat ggccacgcat ggtcttaacc tgatctgtgc agtcacggat
                                                                      300
gagcataccc gtcagatagt tgacttttgc gataaccttg gacagcagct taaggatccg
                                                                      360
gacgacaaaa gcgcctgggt taagctcatt aattctgaat gcgctttgct taattctccg
                                                                      420
cgtctctatc ccgttctgct tgagccggat acaccggcac aatttgaaat ctttgtgcca
                                                                      480
                                                                      540
gctccggaag atggagaaca cgacacggtc atagccagcg ttgttaaaga atgtttcgga
                                                                      600
gatgaatgcc ggtacagagt aacggacaaa gcttttgcaa tgtcggaaaa gccagtcatc
aggetggaag eteattteaa tgacaaacge gaaaaggttt tagaactgae etttteetgt
                                                                      660
 ttcaatcttt cactctcagc gtccgtgcat gaaaaccagc tacgtcagat tttgttactt
                                                                      780
 tgcgaaqact ttggcgtaaq gcttcagggt agaqcagggg catcctgcca cgttaatatq
cgcagtgctt accgtcgtct tgctcatgtt ggcaccggct ctcgcccagg tgatgacagt
                                                                      840
                                                                      900
gatgtgcggg tctatacctc gttaaaagaa gaaaaagatg ttaagaggct gcttgataag
                                                                      960
tcaaccaggg gaagtgagct tgtaccggcg aggcacgggc agcagtttaa cggggtctta
gtgaatgeca caccegeate ggccactact ggtttcattt acctttegea tgatttteeg
                                                                      1020
gaaggccagt ttatgatgac agecgaggtg ttgcatgttg gaattacacc aggcggtatt
tactacattq aaacactqqa cqqttaccqq tttatcqtqa caqcqtttqa qaaqqqatta
                                                                      1140
atgaacggtt tgagggagtt tatagctgca aatgaggaat attttaagta ttaccgctgg
                                                                      1200
```

```
<210> 4945
<211> 282
<212> DNA
<213> Enterobacter cloacae
<400> 4945
ceteaaactg tgctggagge acaaatgtet gaaaaacact ttategttaa aatecagaac
cgaaacggcg accatgagaa tagctatgtt cggttactcg tcagcgattg tgagaaaaat
gettgecaga eggeacteat tteagagtge catggegage ttgaacaget gagttttgaa
                                                                     180
                                                                     240
gacggtgggg tttacgacta caacggcgaa aatcactaca gtgtcaggag ctgcgtggag
                                                                     282
gttgctccag aagacgttgc aactttgcaa cgcttccttt aa
<210> 4946
<211> 441
<212> DNA
<213> Enterobacter cloacae
<400> 4946
toattateet acaetteaaa aatatteatt attitteett etgacetatt agecagaatt
                                                                     60
ctcgattcgg tatcatttac ttacggtaaa tcttttgaaa acgaggtaaa tggcatgcat
                                                                     120
                                                                     180
totcaggato ctatcacqaa attaacccag acgttgcaac gcgacgatgg ttotcaggtt
cgtattgtag cgcagcgggg atatggaagt gggettacag cctcgcttga tgtgtacgtt
                                                                     240
                                                                     300
ctecgtegtg attectetga aageaactgg teactgtgeg gaaaagatee teacceagag
tggagaaaga tgtcagtaga tgagtatcag aaatttggac gctctgaaat gctgcgttat
                                                                     360
gccacaccag gtgaaattot cagggtggca toogctattg gccagccaat gagettooto
                                                                     420
                                                                     441
gatggcaacc ctgcgtttta g
<210> 4947
<211> 714
<212> DNA
<213> Enterobacter cloacae
<400> 4947
ataatcaagg agtcaactgt ggcagataat tatactcagg cgtcgtttat tattccctgc
actcaggage aggeaaaaat ggeacaagaa geaatcacat tegttacega ageagaaatt
gcagaaggtg agcgtttget tgataagcca ctgacagatt gttctctgac tgagaagctg
atcctcagta ttatcgagaa ccaccctgag tatgaccctt ctgagccgag ctttgggcaa
                                                                     240
ccatcetgee cagactgcaa ttatgaactg ttgttegcaa cagaagttac cagcagtggg
                                                                     300
ctqqcaqttt ttcatqqaqa gaccattgat cttgaccatg caatttgcct cacaactgcc
                                                                     360
                                                                     420
gtgctgtcgg tattcgacct ctcggaaatg gtaacaatta ctgctgcatt tacatgcagt
aaaagccgga cagatgaatt tgggggtatg actattctgg tcacaaagga tacccactat
                                                                     480
taccaggatg gctgtcagtt ttctcgtctc atgaatgagg ctcacaaagc cggtatccag
                                                                     540
                                                                     600
tatgetetgt gtaaagtgae geattaceae ggtgagagea getatgtgge aagetatgte
etgagetgeg acgtagegga ttcageccag gaggtegtta acaaacgact gaaggeatgt
                                                                     660
                                                                     714
qccqqaaaaq aqccaqaaga gtcttcacca cggggctgga aggaaccgcg ctac
<210> 4948
<211> 1635
<212> DNA
<213> Enterobacter cloacae
<400> 4948
egagetttga egttgeeggt ttatttttee ggtetggaee gttatattae geteagtetg
                                                                      60
ctgaaaagtg acgggagcot catctggagc acgaaaagca gcctggttac cgttgatgac
                                                                      180
eqtaccacat ettegacagg etttgattat taeggcaaga etetgacegt accagegatg
ggagaagata getteaccet cagagaggtg attacegact tgcaagggaa ggaggtetee
                                                                      240
eggeaggatt accegettge aattgacega acgeeteegg caacgggtac cataagttat
                                                                     300
                                                                     360
acgagaaatg ggtggaactt tggcagcgaa gcgatcttca cttcagtacc agccggtatg
cagtacgcca gcgtccaggc actggtcttt aatggactga gtgataaagg ttccgggctt
                                                                     420
                                                                     480
gctaatgctg aatatttcat aaccgatgcc gctggagtgg agcgtaaaaa gccagcggaa
attaatacag tggaaggtag cgtaaccgtt caagtcgccg acgcaagcag caatgccctg
                                                                      540
```

```
gcaccggaaa accgctctga atataaagtg gggatctacc tttatgacaa agcgggaaac
aggagegaac taageegeeg aagegtaatt gategggtta ageetgaega tateateeag
                                                                     660
gtgcaggacg ccactacegg atcatgggtc tectateagt etggcatgac egtettecag
aaccctattt cogtacgggt attaaggaag aaaagtgact ttactgctgt taacggttcc
                                                                     780
aaatatgget gggeggaete gaattteeag aegteegata geaettataa tatetataet
                                                                     840
ttcaaataca tatatccaaa tgtgggggat acttatcatg aatttcagac tctggcggga
                                                                     900
ggagtaagac gaatteatea taacteeete aaetteaete eageeeegge gatggaaata
                                                                     960
gocccgaaga tagtggctaa agagatgtac cggagtgata ccagtgagtg gttaactcag
                                                                     1080
gootcaatca gogttaaaac cgccaccatt agccgcataa aggtaaccgc agaaccccga
                                                                     1140
ccatacgtgc aaaagttcag aacggtaaaa aatgcagcct ggttctgcac tattcctgtc
                                                                     1200
qqacaaaqtt catqcqagat gacggttaac ttcaactaca ccagtgacaa aggatttgag
tatctgcatc tttactcggg aaaagatggt gacagcatat tcgatgcgct tgctggtaat
tttacggtta tctgggataa caacccaccg gtggttaatg tcgctcaggt aaacaaggcc
tocaagacaa toactatgac ggocaccgat aatgategeg toaacgcotg gaacatcage
                                                                     1380
tactgggata ccaaagtttt cgaagccacc cttaaaaatg cccgggggga aactttcacc
                                                                     1440
ctgaagcetg tgactgtcag tgaaagcgat tataaaacca aaaacgccac tttctcatac
getggtetac eggacgggga ttataeggtt gttagegtgt etgecaegga tettggtggg
aaactcagga accaaaccgc ttatggcccc gctgaaaatt cactcaacgc ttccggttat
                                                                     1620
                                                                     1635
tgcgttcacc tttaa
<210> 4949
<211> 291
<212> DNA
<213> Enterobacter cloacae
<220>
<221>unsure
<222>(69)
<400> 4949
aacgcttcag tgctgcaccc agcctttaac gaagggcatt ggttgttcat tgcagagcag
gataaccgnt acattgaagt ggtctgtatt ctctctttag cttcagaaag cggagagcag
catattgatg tttttattaa tatgttogaa gaccogattg atgatgttat ttcacgaaac
                                                                     180
attgaaacca aaacctttgc gacgctttat aaatacattg aacgtatacc ttttactccg
                                                                     240
                                                                     291
ggtgtaaaga aagaattott gagcagtatt gagaacatca attttagtta a
<210> 4950
<211> 333
<212> DNA
<213> Enterobacter cloacae
<400> 4950
aggtggacag atatgaagtc agatacagaa atggtttctc ctatcgagtt gcacattggc
                                                                     60
gatcatgtcc ageggeatgg tgctttattt gaggttatgc atattgttga atccgaatgc
                                                                     120
gatatteceg geggeateeg ggtageagea tgeattteae gggttategg tgaegttaeg
                                                                     180
ggcaatatte etegtggttg getggaaaca eegaagegta tggetgageg aggagttaag
                                                                     240
tgggcgacga gtctgcctga ggggctttac tttaacatcc aggggaacgc acatgcgaaa
                                                                     333
gtaagccggg ttattcgtaa tgtgactaat tga
<210> 4951
<211> 801
<212> DNA
<213> Enterobacter cloacae
<400> 4951
ctqtcagtga aagcgattat aaaaccaaaa acgccacttt ctcatacgct ggtctaccgg
acggggatta tacggttgtt agcgtgtctg ccacggatct tggtgggaaa ctcaggaacc
aaaccgctta tggccccgct gaaaattcac tcaacgcttc cggttattgc gttcaccttt
aatggcgcag acgcagaacg aaaactggtt aaagggcttg agaacctacg cataagcgtt
actgatgcct ctggggatgc ttccctgata tcgcttcagc tcgctggtgg acctaactct
                                                                      300
```

gaaaaggtea ceettgeatt caegeegeta tecaaggatg tetttattee tgaataceee

			1928			
gacgaatcag attatgctgg acgccgctgg ggacagttaa ggagttacgg	gtaaccggac ataatctcaa ccatcatccg acggaaccct tccagcctgg atcccgttac	cgaatcggga cactaaaacg gacgetggec aaccagtgtg gactgttcag tgaaactaaa teeegetgta a	cttaattta acagccgtag ttgcgtcgtc aaaaacgccc tcgctgtcac	cctaccagcc cactgaaagc aggacggttc agttcggcgt tggatcttgg	agctaacctg aacggacaac tatcattacc tacggttgcc taatggtgaa	420 480 540 600 660 720 780 801
<210> 4952 <211> 453 <212> DNA <213> Enter	obacter clo	pacae				
ttttcaactc aactttcgaa actgatattt gtaattggca caataccggg gccctgaaaa	tatcttcact agggagettt ccattcaatt ggcacgaagg aaaaccgtta aaacctgcaa	ggttatgtot taattttage ottacatgea actoacggat actoetgcaa ttetcgcoat ggtaatgaaa cattaagggt	accgaggata aaaatttctg cgtgtttcag agcgaagcaa tttatctcag acatatatca	ttacaggttt ctagecaggc gtgaaatgaa ttgacccaaa taaccgatgc	gacteeggee caegegageg ctaegtaata egetgataag caataccaaa	60 120 180 240 300 360 420 453
<210> 4953 <211> 648 <212> DNA <213> Enter	robacter cl	pacae				
ttacccgtta gataaggcga ccgcccggta atggagatca ggtcttggtc acagtaattg cctcgcgttg tacaacgcat gataagctgg	aagacggcac tgagcctcgc gatatcggcg gaacctgcca tggggatggt aaaaagaaca aaattatcca gctggcacga aaattaagta	tggaattttg gtccggaacc ccttcgtgcc tttgtccaac ggattttta gctcacgcc ggacgttatt tgctgatgca catatggcca ccgggacatc tgagttcaa	tggaaactgg gagtatacag ggctgggatg gagcgagcca attettcaaa aacctegttg atgatgtatt gacttegcaa tgtgaatgge	acacattcga gtaatacaga tggtgatgtc ccgggcgcgt aagaagatgt cggcctcgtt gccaccagc cagctaacct agggctcgtg	aattaccgca cgagtttatc caataccccg gctcattaat aacccatgta tgcaaacgat aggcgtcacg ctcacagatg	60 120 180 240 300 360 420 480 540 600 648
<210> 4954 <211> 390 <212> DNA <213> Enter	robacter cl	pacae				
gttttagece gaeggagaaa egaetttate gaageegaet gaegaettag	gaaccetgge aaatgaatet teattteegg eeeetggtga	ctattggcca gacgcctttt gaacgaacga gcgcattatg tgcagaggag tatagtttcc cgtgaagtaa	aaaccggcgt agcacgagcg tttgatgatg gctttccggc	cattetttt cageaaegee atgateagge atcatattge	acgagcaaca agatttgagc ctacctggtc tgacagtgcc	60 120 180 240 300 360 390

<sup>&</sup>lt;212> DNA <213> Enterobacter cloacae

			1929			
<400> 4955 aacatgagat acatcattet etgtgtatac ttactcgatg	gtttaataaa ctgaaaacaa	ccatcagatg ggtatacatg	attaatgaga gcttattata	gaatgaacac ctgatttatc	catgtacacc tataaattat	60 120 180 240
<210> 4956 <211> 222 <212> DNA <213> Enter	obacter clo	acae				
<400> 4956 tgtgtcatca gagagacgag gaacgagcgc cgcaaggaac	gcaateetee aacagcaaga	attccaattt tggtgatgag	aggettgate tetetageeg	cagagetteg catggettaa	agagatgatg	60 120 180 222
<210> 4957 <211> 288 <212> DNA <213> Enter	obacter clc	pacae				
<400> 4957 aatggaaagc ggtgaaagtc ggcaaaaccg ttacagtcga cgctttctga	agggaggtca tattcagttt tgcgccccct	ggccatgacc tccggccggc tatggacaac	gctatttata ggccgctatc gagatacttt	atctggtgcg tggtggacac tcacagtgga	ctgtagcgat gtcgaacggg	60 120 180 240 288
<210> 4958 <211> 297 <212> DNA <213> Enter	obacter clo	pacae				
<400> 4958 cccggcaatc cctcgctatg acgaccagcg tggatagata agcctggtca	gaggtaaacg caggccaggc cactggcgcc	catgaaaaag gctggaatac ggatgatgaa	ccaactcaaa agccgtcagg atggaaagct	acgaatccat cgcttgccgt	tgccatgctg tctcgatatg ggcggttcac	60 120 180 240 297
<210> 4959 <211> 240 <212> DNA <213> Enter	obacter clo	pacae				
ggcatcatga ctgaaaacca	ccaaggttaa ttcaggagag	cgttaagccc ggagcgccag	gttctgctga aagtcgggca	taacgattgc acagggagca tggggatcgc aaatggaggc	gattcagget geegtcaate	60 120 180 240
<210> 4960 <211> 1434 <212> DNA <213> Enter	obacter clo	pacae				
atgettaate	agccctttgg	ctcgatacca	cgctgctgga	atttttaccc gttccttgcg gcgctcgttc	aataattctc	60 120 180

```
240
cgaagetetg gateaageet aaattggaat ggaggattge etegtetete gtttttgtgt
qttqacacqt caattacacc cgatgtaatg tgtttatgtg tgatgacaca ttacacacag
                                                                      300
                                                                      360
gaaatgaaaa agacaacgcc ccgaagtgcg ggaacacttt cagggcgtct aaccaaaacg
                                                                      420
ttagttgagg taacattatg gottgoacta agtotaccca aacacgcoot gaatttacat
ggcgttttct caccttgggt gaattcacaa atcagatcgt caatgttact gcttccaccg
                                                                      480
                                                                      540
agegegaage eegegaaaaa aegecagaag gatgtgtetg tattetggeg tgtegattte
                                                                      600
gtgttgagga ggtgcagcat gtttaacctc cagaccctga cagcaaaagc acgcgagctg
                                                                      660
egeggeaatg tggtaaaage cactaceacg aagggeaeee geaecatgae eeeegtttae
gaacgggaag agcagegeaa actgegegag egeateeage agacceagee ggactgggtt
ttactctggt gggatattgc gaccgttacc ggctggcgta ccagcgacgt gtgcaatttc
                                                                      780
egttactegt geatcaactg ggaaacegge attgecacaa teategtage gaageagaee
                                                                      840
aaageggegg aagecagage aaceeggaag gggategaga ttgttegeea geagegeaag
                                                                      900
gatgctgccc ggcttgctgg cgatcacatt gggtacatgc actgggatag cgtgagctgc
                                                                      960
gacgagetgg cegeeggeat gaeggaagaa gaacaggega tegtgtttga getggtggea
                                                                      1080
aaggetgaag tgaageacga caccaaacag etgecaecgg geateateaa acgaetgege
                                                                      1140
gaacgtatgg agcgcaatct tatcggtgac gacctggtat tttcccgcag ccagattgaa
aqtaatcqtt gccagtetet ggaaggtage gtgageegee agaegatetg gaagaaactt
cacaacgtaa tggtgtggtt tacccgcgta gtaaacaaac gtctgcgcct gagcgcctac
                                                                      1260
                                                                      1320
tocageegea aaattgeege gtttaatete atgteegeeg geggegaaca gggtttgetg
gtegeetetg aaatgetegg geacagtaac ceggeaatea ceegaactta tetecagetg
                                                                      1380
                                                                      1434
qqqaqcaagg ccqcqqctat ccagacacgc ctcqctatqq aggtaaacgc atga
<210> 4961
<211> 372
<212> DNA
 <213> Enterobacter cloacae
<400> 4961
acgcaaaacg aaaaaaaagc cgcaatcagc aagaagctga gtgcggcttt cgtcgatgaa
                                                                      120
ttttacttat ggcaggeggg aaatetetet tgegatagea geegaeteet gtgcccatee
ctgcgcaagt actttcacca tttcgtcata gccatctttc tgctgcttga gttcaagatg
                                                                      180
aaaaggacgo ttaatcagot gaccotggtg attoagcago cactoocogo tgataacaac
                                                                      240
ggeaccatea tageggeeat ggaateeegt caegttaaca tteagagtgt cetgateget
                                                                      360
teccagagge tgegaggeaa egacecaace ggggagetgg etgeteagat tegecaecag
                                                                      372
eqtattqcqt ag
 <210> 4962
 <211> 297
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4962
 aatcgaaggg acgcagctcg ctgcgttcgg tactgtacag gtatattaat gagcagacga
                                                                       60
 aagtttttaa tattgtggca tatttatgcg ttttcatatc tgtgcatatt tattgcgttt
 tttgccgtcg tgccagaagt aaagctgttc gattacctgt caattaaata cggatttatt
                                                                      180
 gatattgaac ggtgggatat ctattactcg atttttgcga tgtcaacaac agtaataata
                                                                      240
                                                                      297
 aacttottgt ttattttatt aactttoogt tttacttota aaaccaaaaa gasatga
 <210> 4963
 <211> 213
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4963
 agcataaacg agccggaatt tatgggggtt gccgaccacc atgaatcttc gtttgaacca
                                                                       60
 cogtotocog taaaagaaco ogatatacac gttattottg atggaaagga gogagotaat
                                                                      120
 gtgactgtga catcagggtt agaagtcgaa ttactggaaa ttccggtcgc cgtaatatca
                                                                      180
 atgattqttq agccactcat agttgcccat tga
```

<210> 4964 <211> 234

```
<212> DNA
<213> Enterobacter cloacae
<400> 4964
cccaccgtaa togtcaagog agatattgat aaggooottt otcacttttt cagtaatato
                                                                     60
egtategeet accgatataa aaaaattggg gagecaegge tgeteteetg tgtttatgeg
ogaateatte actoccataa ttgegtagee teaactattg geteggaega tatttetgge
                                                                     180
aaaacaattt otttacotgo ggggaagact gogcacatat ogactactoo gtaa
                                                                     234
<210> 4965
<211> 192
<212> DNA
<213> Enterobacter cloacae
<400> 4965
catcaggatg atcctggtgt cagtgaaaat acgaaatcaa cacgttggta tcattaccgc
                                                                      60
cttgccgcag gaaagctata tataaacgtc gaattcgcgc ctaaatcacc atgtcagagt
gttattatca ettatogtat taataacgat tacaccgttg aacaattcgc ggaattactt
                                                                     180
                                                                      192
caggeggeat aa
<210> 4966
<211> 495
<212> DNA
<213> Enterobacter cloacae
<400> 4966
agetggcctg ccgactgcac ctggcggttc gggcgctatg tacgatattc cggggtaaaa
                                                                      60
atggetgaaa gtgaaacaga tggcagcage gatgtgatga tgggeetegg egaatcatte
atcttttgca tatcaacggt cgcgtataac tctctgcagc gttctgatga atggcgatgg
                                                                      180
gttgagcaga caaggttogg aaaeaatgac togotacagt gcacoggcag accgaaaccg
acgatcacac ttgctggcaa aacccatgcg ttatttcttg acggtgcagg cgtcgggcag
                                                                      300
attgagetae tgegeeaget ggggaacaca tacgageege ageagetegt catgggtacg
                                                                      360
ggtgaagtga tgggctactg gacgataacg gcgctctctg agaaccagac atcgtttctc
                                                                     420
gcgaagggag cgccaaaagt gcaggagttt tcgttgtcgc ttaaatacta cggagaaacg
                                                                     480
                                                                      495
ctgacagcat cataa
<210> 4967
<211> 312
<212> DNA
<213> Enterobacter cloacae
<400> 4967
ttattattga ggtttaaaat gacagattca ttacttgaaa caatcgaaat ccctttatct
                                                                      60
ogtocatatg aaattgacgg ogtggogcat gataaattaa ctatgttoga gocaaaactg
cgcgataaaa ttctctacag taaagataaa gggacggagg atgaaaaaag cgctcgcatg
                                                                      180
attgcacgct tattaaacgt aaaggatacg gacctaatga atttgccatc ctgtgatttt
                                                                      240
                                                                      300
gcgcgcctgg aggacgcgtt taatgaaatg gtaaaggacc cagtcgatcg gaacatgaaa
ttgttctcat aa
<210> 4968
<211> 1068
<212> DNA
<213> Enterobacter cloacae
<400> 4968
ggetacgcaa ttatgggagt gaatgatteg egeataaaca caggagagea geegtggete
                                                                      60
cccaattttt ttatateggt aggegatacg gatattactg aaaaagtgag aaagggcett
atcaatatet egettgaega ttaeggtggg teaaacaage aaacggatea gattaaagte
                                                                      180
gcgatagtgt cagaatcgct gcgtataccg gccaggggcg tcaaagtgac cctcgggctt
                                                                      240
                                                                     300
gggtteggta eteagategt taataaggge gtgtaegteg ttgaeggegg eteaageggg
ggegageege gcatagtega atteactgeg aaageegeee caatgaacag egcaaaggge
                                                                      360
```

			1932			
cttgcaaaag aaagtcattg gctgaccgct ggcgcaggtg aactcgcagt ggcagcaaag aaagagctgc ctcgcagctg acqatgtcgc atcacgacaa	tagcaaacga agcaattaga tcgatgctgt agtctgcgag ggaactattc atacgtcgac gttcgggcag cgcaggaact actcgatgcc aagggtttgg	caacggett tcaggtagge cagtaaagtc cgggaagceg gagaacggt gtttgtgatc tggtgageeg gctgecggge agccactcag cccgacgaa	agctggaccg acggcgcgtg gagtctgatg cttaaacagt cgcagcggtg aagtatcacg gtgatcagg gcgagcagtt gactggcct gaccggagct cgactacagc	tgtctgcgca cgaacctggt actggatgtt atacgcttgt acagcggtga accaatcaac cccgtttgt cgagcaaaaa cgctcactgc ggacgatcaa	gttogogggg ttocogactt tttgococgc coggactgga caatagogac tggcacgata ogaaccctog gaaagagatc tgaatgoaaa	420 480 540 600 660 720 780 840 900 960 1020 1068
<210> 4969 <211> 198 <212> DNA <213> Enter	obacter clo	pacae				
tacgggagac ctcgtttatg ctgagtgttt <210> 4970	ggtggttcaa cttcatacgc	acgaagattc	atcaagaata atggtggtcg cgggacattt	gcaaccccca	taaattccgg	60 120 180 198
<211> 282 <212> DNA <213> Enter	obacter clc	acae				
aatgcatctt tcacaaaaaa tttaaaggtg	taagtggata agcatgcttt gagaaacagt	ctataaccct taactigctg aaacaacccg	ctcatcatca ttagaggcaa attgaatgca ccgcgcgtgc ttaaacgtat	gggtgaaaac gaaaagggct cgatagatac	gagaaaggga ttcgaaagtt	60 120 180 240 282
<210> 4971 <211> 207 <212> DNA <213> Enter	obacter clo	acae				
<400> 4971 agaaacagca gaccttttta acgcagattt actgctcacc	ogggagttet tttoggaaca	gatgtegtta aatetegeaa	cctgccttaa	ttgcaaaaaa	atgtgacaga	60 120 180 207
<210> 4972 <211> 243 <212> DNA <213> Enters	obacter clo	acae				
<400> 4972 cgaagagett ( ggeggetaeg ( ggeaaaaaaa ( tettgegeat ( tga	tottacooga : aagooggaga :	cctaaatacc catcgcctcc	ccgcaggccc ggcttttttg	gogtaagoga taccogotat	agogocatog toagacaato	60 120 180 240 243
<210> 4973						

<211> 213

1933	
<212> DNA <213> Enterobacter cloacae	
<400> 4973 toatggaaca aaaaagtogg gogogogga gagtoagaca coagtaatot catootgtta aaagttgacg tototatggt aaacgattgg ggtgagcagt cogaacaaaa agcacogtoa ggcaagaaat ttogoagatt ggtocqaaa aaatcotgogt totgtoacat titittgcaa ttaaggcagg taacgacato agaactocog taa	60 120 180 213
<210> 4974 <211> 225 <212> DNA <213> Enterobacter cloacae	
<400> 4974 gcatttataa tgcaaaaatt cccgttcaaa ggcattaatc tttgcctgaa tgaggggatt aatggcacat tagcaacacc ccgtcgtcgt aaaaaatctcg tattaagaca gtttgttgag gacagatatg aaaaaactgg tgttgtcact ttctctggta ctggcttttt ccagcgccac cgcggcattc gcagcaattc cgcagaaaat tcgtattgga actga	60 120 180 225
<210> 4975 <211> 204 <212> DNA <213> Enterobacter cloacae	
<400> 4975 gacaatatgg agogcaacgo coatogottg acgttgoatt cacetgoggg agtaatattg cacetaacat ggtoggagtt tattgactto geteaattaa aatgtogttt tgaagocgac totgoctoag aaaagogtaa atttacaagoo atttactacg atgcaaccac catgcaacac coccaatcaa aaccactaac atga	60 120 180 204
<210> 4976 <211> 339 <212> DNA <213> Enterobacter cloacae	
<400> 4976 tttaatggat taacogggaa tatgotgatg totgtgaata otgaaacogo otoogogag ggogagacca cogtactgga aaaagagggo gtttaogoot ocotgtttga aaaaatcaac otgacocogg octocagoot ggoggatato aatgoogtto tggatgacgo ocqoottot gacgotoogg oggsgaacg octgacggog gcgatgcagg tgtttatgga otgocatcog aaatcoggt accagtgtt occagtgtg atgocagatg atgocatogo cagattoggo gcaaatgcag otggoogot occtggooo tataoctga	60 120 180 240 300 339
<210> 4977 <211> 654 <212> DNA <213> Enterobacter cloacae	
<400> 4977 cggcggcgat gcaggtgttt atggactgca tccgcaaatc cggttaccag tgttgtcgca gtgggatggc agatgatgca tgcgccagat tcggcgcaaa tgcaggtggc cgcgtccctg gctcctatac ctgaaggact ctctacagca cagttgcagg cgctgcaca acqctaccg ccacctgaac cggggatcag taagacacag cagatgttag cqcagcttt acatctgaaa ccagactggc cagtaaggaca cgcgaccgt ctggtqcac agcgctgac gttgtggcct gaagaggcca aatcactggc gcaacagtgg acacagcaga ttagcgttg cgggcttgca gagtcagart tgaatggctg gcatcaggg atgacggcag tacagcaggt tacagcaggt ctgaacgcc tggatgaaca gaaggggaag tacatgacgg tgagtgaact gaaatcagcc ftgtttycca tycgcagtc ctcagccat accgttccgc ttgaggagca gcttcgtctg ctttccattt tacctgccg gcaacccctt tcagcagcag accaaaaaga ataa catcttcagc agttgattgc cagctatgct ctgctgaacg accaaaaaaga ataa	60 120 180 240 300 360 420 480 540 600 654

```
<210> 4978
 <211> 324
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4978
 atgcaacgtc aagcgatggg cgttgcgctc catattgtct tacttccttt ttttgaatta
                                                                       60
 ctgcatagca caattgattc gtacgacgcc gacttcatag tcggcttttt tttgcctcct
 gattatetge gtetaccett taggggteag caccetaate tggaggaaaa gatgagtatt
                                                                       180
 ctacttgccc tgcaacgcct gaacacctgg cagtccgatc cggtgcccac cgatccgacg
                                                                       240
 cogataccog atcotgtocc acgtecgcag cogatgcogg atcogcogcc cgatgaagaa
                                                                       300
 cogattaaat tgtcgcatcg ttag
                                                                       324
 <210> 4979
 <211> 534
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4979
 agcaccaaaa agaataatga gactggcgaa aaacacggag ttgacatgtc agcaagagag
                                                                       60
 ogttttttta agaaagtgca acagagtato ggggacaaac cgatctatgt taatacggct
                                                                       120
 gaggccgaag tcagggcgtt ttgtgagcgg atggaggatc ttgcgcagca aatcattaca
                                                                       180
 tggtttgaag gttctggtat tgaaatattt ttatctaaaa aacatatcac cgatttaagt
                                                                       240
 acggttggct acagccttag tagcggtata tgtcgttatg ctattacgac gatcattttg
                                                                      300
caaaatgggg atcgcagcgt caccattatg ccagaacagg tgatcagggg gtcggagaag
                                                                      360
gggtgtgtga cgatgagtat taatgtcccc gatagtctgt cgggggcgag gatattccat
                                                                      420
ttaagcatgg cgcctgaaac aggctggtat attcgtcgcg ggcatcaaag tgcaaaagag
                                                                      480
aatattetea tgaetgagga etgttttte caggetateg actgtetgge etga
                                                                      534
<210> 4980
<211> 309
<212> DNA
<213> Enterobacter cloacae
<400> 4980
agtaaatato ogtttaaato otggaagatt tttgacotga actgtgtaaa aatgagcaag
                                                                      60
ctcacttttc gtagggtgaa taaaaggaga aaaattgatg agtaccgatc tgaagttttc
gctgtttacc accattgttg ttcttgctct gattgttgcc ggtggtttaa ccgctgcact
                                                                      180
gcactgattc aggcggaggg agaaccttct ccctctcttg ccgctattgt tacctctccg
                                                                      240
gcaaaaatot tttgccaaaa tgttaacttc tcattttttg tgattgatgt catgcttttg
                                                                      300
acttcttag
                                                                      309
<210> 4981
<211> 231
<212> DNA
<213> Enterobacter cloacae
<400> 4981
catcatgcta aagatccatc actacaggag ataaaaatga aagcgatttc attcgtagaa
                                                                      60
gcgaaagaca ttattggcgg cgcgttaaac ccgttcgctg gtctggttaa aggtgcacag
                                                                      120
ctgggttacg acactggcgc cagcatcatg ggcatggttg gcggtgtggt tggcggagtt
                                                                     180
ctgggtggcg caatgggctt cctgggcgcg ctggttggta gctacaacta a
                                                                      231
<210> 4982
<211> 489
<212> DNA
<213> Enterobacter cloacae
<400> 4982
aatatgtcaa ggactaaaat gagtgtactg ttcagtatcg tactggcgct gtctgtcatc
```

			1935			
accatttcct ttcctgttta ggcaaaagct aatatctttt ggcgttgtaa	ggaaaaccta acaacaaaga acctgattga atattaagga acgaaatgtt	ttctacgggt tgttgtgacg ccgaaattac taaaaagctg acttgataat	gagtcaaccg gttattcata acgctcatcg aataaatctg atcaacttct	ggtttggctg atatgtcgct aaaggcgtgct tggaagaagt aagatgatgc tctatattac tgatgtgtgt	aaccacgett caagaaagaa egatggaage ggegeeggat cagegtaaaa	120 180 240 300 360 420 480 489
<210> 4983 <211> 219 <212> DNA <213> Ente	robacter clo	Dacae				
caggccatca tataacgcgg	toggtggttg	ggatccgttt gttaggcgcg	gctgccgcta ctgggcggca	ttatcgattt ttcagggcgc ccatcggcgg	aagcgcgggc	60 120 180 219
<210> 4984 <211> 234 <212> DNA <213> Enter	robacter clo	Dacae				
aaggtcccca tgtgtggaag	tggttttccc agtcacacgc	ttccagcacc ggtcaggagt	gtcgcggcgg aaaaaagtcg	ccatcacget gtgegtegat ccagaacget caagagtaca	ttttgcgggc ggcgcgtaaa	60 120 180 234
<210> 4985 <211> 273 <212> DNA <213> Enter	obacter clc	pacae				
gaaagcagca aaagcagaag gcgggaggaa	aaacgcagaa	agogoaacgo aggaaagtoa aggtagogoo	attattgtga tgccccttct gggaaacgcg	tgtcaacgga getgeegcaa etgggggaga ttttgeeagt	agaaagcaga aagggettat	60 120 180 240 273
<210> 4986 <211> 249 <212> DNA <213> Enter	obacter clo	acae				
tgccaacttt tattctcacc	ttatcttatt tggtgaatat	gattttactc . cactaaggag :	aatgtgattg	aacagataat atatttatcc catcatggct tgaacaggtt	atccagcggc	60 120 180 240 249
<210> 4987 <211> 342 <212> DNA <213> Enter	obacter clo	acae				
<400> 4987						

			1936			
ccacccactg ccgattgtgt acagagatga ccgccaatgg	acageceetg catateeggg gcatggatgt gacgcateag	gaacagacgt caagcaggca cttgcgccct	gccagcaaca atcaccagco ttcctgtcco gcaaaaacgo	gcaacgccgg agccgacgca cgatcctgcc ctgcggtttg	gccgtatteg tgcccatgtt catcatgcac gaacagccat cagaagctgc	60 120 180 240 300 342
<210> 4988 <211> 477 <212> DNA <213> Enter	cobacter cl	oacae				
aatattaatt ttgatggteg gtegeagege gattttgtag egataegeea gatcaegate egtgeegatg <210> 4989	ttegegaaca ageettataa gtteggeaga gtatggatat ateataaagg cagtaaaage	tcccgaacgg aagcgaaatc agagatctac ggcgcgtaaa cggaaaaaaag agaggccgct	tatcaggtgg cttccacact gccctctttg ttcatacaga tatgatgaga gcggtattca	attatcaaca gccggggtga ggcgttataa aagagtaccg tgggatacac agcgccaggt aaacgtgctg agcaagcgtg	gcagggcgta aaatgctgaa caggaataac ccgtgcccgg caaacccctc	60 120 180 240 300 360 420 477
<211> 461 <212> DNA <213> Enter	obacter clo	pacae				
cttgaggagt gttgtaaagg catgaaatac tggaacaata	acticitege ggtteetgaa tgagatggeg aaattgeaca gtagaaatee eeegetetea	ccgaaacctg attcatgggt gcgacatgta tctcagggcc tttcaacaat gctaacccgc	cgtgctgcaa gcaggcaaaa ctcagagaaa ctctataact tgcaccgtac ctttatctga	atacgacatg cagaatggag ctccattaat agcaacaat atgcgatgga agcgggacag taatgcagca c	ctatacgaag ggttactcat ggcgcagacc aagtggttta aaagaaaaag	60 120 180 240 300 360 420 461
<210> 4990 <211> 243 <212> DNA <213> Enter	obacter clo	acae				
<400> 4990 gagttttttt aaggggtatg acagttcgtt agaggaccgg tag	gctgttcgcc ccatatctgc	atttaaagtg cgtgggcgct	gtacgegage ggagaattga	tgggtttaga ggggggttge	acgtcgtgag tcctagtacg	60 120 180 240 243
<210> 4991 <211> 198 <212> DNA <213> Entero	obacter clo	acae				
<220> <221>unsure <222>(133)						
<400> 4991 ggaataaaag o gtgetggeag a	egatgecatt agaaactgge	aagegeacaa geagetgate	cagctggcag ttagcgggta	ctcaaaaaaa aatatgctcc	cctgtcctat aggtagcatc	60 120

```
etggccccaa agnccgggaa aagatggage tgggagatca gtttggcgtt agccgtacag
                                                                       180
 ccgttcgcga agcggtaa
                                                                       198
 <210> 4992
 <211> 342
 <212> DNA
 <213> Enterobacter cloacae
 <400> 4992
 aaaaactcaa ataatgtaat cgccaacgga ggaataatga atgtacatct gaaatatgat
 acgataaage actatcaett tgattggeta acgeetgetg gegaetatee taatteageg
                                                                       120
 gttatgeteg taggtttccg tgatgggege tggattattg ttcaagagtt eggaaatgat
                                                                       180
 tatagctgct tcgagggcgt tctgaagaat ggtgatgatc ttaatacgga gcctaaattc
 tatteegaet tagaaagegt ageggttget gettttggca tgatgaagea gatatateee
                                                                      300
cagtaccaag atagcacgtt agaagaatte etegetggat aa
                                                                       342
<210> 4993
 <211> 408
 <212> DNA
<213> Enterobacter cloacae
<400> 4993
gaagacaata ccaggtcaga caacaaggtc gttagcatga tcgttggaag caacggaagc
                                                                      60
acctttgaaa aaggtcggca gcactataaa atccatcagc aatgcacaca aataaactac
                                                                      120
tggtatetta aaatgaaagt gaaagagttg ategecatge tgaaegaaag agaceetgag
                                                                      180
gcaattgttc tgatttccgg ctatgaaacg atcggcggca cggaagtcgc agaagctgat
                                                                      240
ttgctcattg atatgcagtc aatatgctta gaacaggctg ataatctcac aggaaaccgt
aaagttgttt cttccggtgg tgaagattca gtttggttag gctggaaaga tgattaccgt
                                                                      360
acaaaggtgt ttttagaaga tgcccaaatt cotgatcaag atgaatga
                                                                      408
<210> 4994
<211> 357
<212> DNA
<213> Enterobacter cloacae
<400> 4994
gttaaaatca cctataatca atacctactg gagcagetca tggctgacac ctacctcccc
                                                                      60
cegggettta aaaaatgcaa atcatgteag caagttaaac eetttgaaca gtttggaaaa
                                                                      120
gageteaagg geaagtttgg ceteaagagt aaatgeegag egtgtattag egagaaaaac
                                                                      180
aaaacgtacg cagcaggccc aggggccgaa gtaaagacgc aaaataatag gacctaccag
                                                                      240
gcagaaaaca agactgaget cgcggagaaa atgcgcgtta agcgtgcgaa agaaaaattt
ggtgateget ataatteeta eetegettet ttagagteea tgaaaaaact caaataa
                                                                      357
<210> 4995
<211> 1461
<212> DNA
<213> Enterobacter cloacae
<400> 4995
aacatgaagg tcactattga tggtgteteg tacgeacetg tetgtaatge aggggetegt
                                                                      60
attggcattg ccataacaac gcataatcgc gctgacgcat tgaagcgagc tctggcgcag
catcagcagt ttttaccgca aggggcgctg gtggtcgtca tagatgatgg ttcaaaacct
                                                                      180
ccagcggaag tittcgaaga cgtgcagctg cttcgccatg aaacatcact cggcattgtt
                                                                      240
gettegaaga aegeeagttt aacegegetg atggaegeeg ggtgtgagea tetatteett
                                                                      300
tgggacgatg acgcetggcc catcgctgat aactggcact tgccatacat cgaatcaccc
                                                                      360
gaaccgcacc ttgcttacca gtttctcgat ctggcaggaa cgaataagct gaaggatatg
                                                                      420
gcgatcctgt accgggatga taagcacatc gcttacaccg ggcagcgcgg cgtgatgctg
                                                                      480
tattaccacc geagegetat egagaaggtt ggeggttteg atecegttta eegtegeege
                                                                      540
atgtacgaac acagcgacct cgccctgcgc atccataatg ctggcctgac gacatgggct
                                                                      600
tacggtgatg tggtcggttc agaaaagctg atccattctc tcgatgagca tgaagccgta
                                                                      660
gagegttegg tacegegtee egacegacag gegetggtgg aacgtaacgt gaagatecae
```

```
aacgaacgge gtgatgccgg gtttactggt tacgctgaat accgccagca gcgcgatgta
                                                                       780
 gttatcacaa egetgeteac cagteageet gaecegeage geggeacgaa aatggeggee
                                                                       840
 tequetgaca tgctgageaa atgggeggee tegettegee agtgtgggeg tatagegetg
                                                                       900
 gtggatgaat tactgacggc cccggccgat gttgagctgt atctcgtacc tgacgtgaag
                                                                       960
 atgaatgtet actteegteg etggetgeac atetggeage acetgegaga teaceetgaa
                                                                       1020
 taccggttcg tctggtgtac tgatggcacc gatgtcgaaa tgctccgcgc accgtgggaa
                                                                       1080
 gaaatgcagc cogggactgt ttacgtcggt totgaaccga agacctacgc cgacacctgg
                                                                      1140
 gegaaacaga atcateetga gegtatetat eaggaattea ttgaategea eegeggegat
                                                                      1200
 gtgatgetta aegetggaet getgggeggt acaegegetg atgteatgge gtttgeteae
                                                                      1260
 ggcateatee gtetttaeta eeggategag agetategtt tetggaagaa agaacagget
                                                                      1320
 ggcgccgcgg tgggggacat gctggcgttc ggtattgtcg ctcattcatt cgcaggaaaa
                                                                      1380
 gtgattaccg gacctcaggt gcacaccgtt tttaaaactg atgggatcgg aaaagataat
                                                                      1440
gcctggtgga aacataaata g
                                                                      1461
<210> 4996
<211> 813
 <212> DNA
<213> Enterobacter cloacae
<400> 4996
gegtegatee aacteaatea attiteetat caataegaca acgaatteet tittitaace
                                                                      60
teactegata etecataceg titgaagagt gtagactetg gaegttgtge attgactaat
                                                                      120
ccattttcaa tttctttaaa tgtatggagt agagtaatgg gaattctcac tttcgatatc
                                                                      180
acttgcccac attgcctgag ggaaaatgca gtcctggaag gatgggccga actgcgaata
                                                                      240
aacgccggtc ctttagttaa tgttgcgttt agttgtcgaa gctgctttca agctggtata
                                                                      300
gctatggtga aaatgaataa tcctgttggt ttttcgccct tgtcaaaatc caagcagaat
                                                                      360
aaagatgtaa atgtaatcat tootggaaac otggaatato agttgattga ogttttooog
                                                                      420
aaacetatea egetaagtge acetgaceae acaceatece gtgetgetat ggetttegta
                                                                      480
gaagegaaag acaacettgg acgaggacgt tregacacat ergttatget trgeegeaaa
                                                                      540
gtgctggaca ttgcaacaag ggaattatta ggaaatgact caaaagatga aaaattggtc
                                                                      600
aagcgaattt ctatgttgca tggcaagggg ctaattacag accaaatgaa ggaatgggeg
                                                                      660
catatagttc gaattgattc caatggtgct gttcattccg atgaagaatt ctcaaaagaa
                                                                      720
gatgeteagg agatgattgg ttttaccgaa gtatttette tatatgeatt cacattgeet
                                                                      780
gatatggtag acaacaagaa acaaaatcaa taa
                                                                      813
<210> 4997
<211> 204
<212> DNA
<213> Enterobacter cloacae
<400> 4997
aaaageegea caatggegge taetgtetgt atateagggt gtaaettege tttaaecegg
                                                                     60
gttaatgtaa gcattcagcc cgtcagtggt gggacactga cgcactctgg cacggaggaa
tggctgatta cetetgataa ggaaatgaaa tgtetttttt gcacaaaaga atgeatetta
                                                                     180
atcaaggtga taccqttgtt gtag
                                                                      204
<210> 4998
<211> 192
<212> DNA
<213> Enterobacter cloacae
<400> 4998
acaatgcgat tttacgcata ctactggttc cttgataaaa caatgaccaa cttgccagaa
                                                                     60
cggcaaaaga cacecgaaat cagactaatc tggacaggag cgctcacatt agcaccgatg
                                                                     120
gagattttcg caagagccaa cctttgcgtt tacaaattag ttttacttta taacccattc
                                                                     180
acattqtcct ga
                                                                     192
<210> 4999
<211> 204
<212> DNA
<213> Enterobacter cloacae
```

<400> 4999 ggcaggcatt gccccggat taaaccgacg caccagcgtc gacgtttcag gg acggggtttg aagagagttt oggtgagatt ogcctgcgtc attgcgttgc ct acgtcatatg aagaccattg taacgcgtgg cagggtaaaa agaacaacgc cc cggcgtgta aagttacgta ctga	tocatogat 120
<210> 5000 <211> 279 <212> DNA <213> Enterobacter cloacae	
<400> 5000	
togoggicat cogcatgggc ggatgoggcg cacagoaata ogcoagogot ga gogcaaagca gaggtotgac tgataacoga agoggottoa tgacccatgt ga atogocttto coctoatggg gagogattat tocacgatga acagoggott go tottoaggga tittocataco catcagogac aacatggtig gogcgatgto gg cogcottoca otgotttoac tgatttatoa cocacataa	sttgaaaaa 120 ccagtcatc 180
<210> 5001 <211> 201 <212> DNA <213> Enterobacter cloacae	
<400> 5001 aaaaaccagg acaggagtat acctgtgege tgtggeaaat acagecageg acaactatttt etgeggeatg ocaegtaaa aaagecteaa aatggeetga gageccegege tttetttgtg ettetggge tattitateg atteagetgt agegeaaaattt ttgtetettg a	acageett 120
<210> 5002 <211> 642 <212> DNA <213> Enterobacter cloacae	
<400> 5002	
gtaatattt acacattgte gegttatgga ggtgagatgg agacgttaac eg tatetgaaeg aaacatggae ggatateget etcateaaat acetggaag tg gactggaata ceaegcagtt agactatett actgagtatg egatatatt tet gatgatttte acgeagtete agteaateae ectgtateae tettttttg tg caaeceggget ggettggatt tategagta teateceg eeggagaag ee tggattaatg egetegat eagtgagta ecettggagta ageaaaatt ett aaatttggee eaattgeeee ttggggaat ttgegeataa aggaateeg ee aataaatteg eegacataa aaegttteeg gtgeggagg etgetegatg tttetggatt atgeeagga agaggege geggegggt gtgeaeceg tg gaaggegeta aacttttget gegettgatg gaaetgatg eeateegga caaaaegage eggataaeeg gggaeegeta ttatttggt aa	aaaaaaaat         120           tcgactat         180           accatggc         240           gccgttac         300           tattgctg         360           cagaatgg         420           cggccgat         480           ctggcggt         540
<210> 5003 <211> 183 <212> DNA <213> Enterobacter cloacae	
<400> 5003	
aggogoaact tacgottact gacgttccgt titttagtaa cgcgtggcaa tcc gttatacatt ticatatccg gaaatttatt ccccaagaca atgagttaat ttc catgotaatt atgaattgac tgctacactt acttcgacag acatacgcag gac tga	catgtatt 120
<210> 5004	

<210> 5004 <211> 207

1940		
<212> DNA <213> Enterobacter cloacae		
<400> 5004 cctgatagog gottcaatca gotgotggog ggtottttga goototto cgccattaco tgotactogt tacttacaag attgatacgt tatcaaag gtogtgtcag acaaagtatt aaccaaaato cgtgttagtt ttgcacaa cgtttaattt ataaacotog tgaataa	ga tattqccqtq	60 120 180 207
<210> 5005 <211> 186 <212> DNA <213> Enterobacter cloacae		
<400> 5005 gcgaagcgcc atccggcaaa aaagcctggc cctcaccgcg agggcttt ttgctgaaa tagcggcgat cgcagacaaa arcataaccc tggattca actctcgaac tattttcgct atggttaggg ttaagcgttg ctgctggc atataa	ca tocatettae	60 120 180 186
<210> 5006 <211> 222 <212> DNA <213> Enterobacter cloacae		
<400> 5006 tetgetacca gteccattag aaageatggt ateagggttg taaggetg tegegeeatt taecagegge titateegget attaeeggtga atageaaa gtgaagatte etattateat tigtgaagata gtgaagagae titgttage acagageege taeagteeee caaaaagaga gacaaaagat ga	tc aatcaacqct	60 120 180 222
<210> 5007 <211> 537 <212> DNA <213> Enterobacter cloacae		
<400> 5007 caaaaagcct tacggcaacc tggttgccgt aagctgcaag aatgcatta tagaacaac ttacttcaa cgacctacgc aagcaaagcg cacaagcci cgcttacgtg ccatcataa tttccacct gaattgaagcg accggtg; attgctatgg aaccggdaac ttagttgcg cotcatacgcc accggcati cagcagctgg tgttaggtga ggactgaac ttgaacttg atgacctg; cagcagctgg tgttaggtga ggactgaaa gggcggaa tggatgca; accgtattgt cactggatg aggcggcgt atttttgagg taaaacacc cctgttgctg atcaagatgc cgccccatgg gccccgccg aaaacagag gagctgatga aatggtacaa acagagcaa gtaggtgatg gagtatg gagctgatga aatggtacaa acagagcaa gtaggtgatg gggatatg	ge aaatteeeee ca gegtetgget ac ttttgaactg gg taacetgace gg cacetggeat gg taggtaceag ce gggaactdoa	60 120 180 240 300 360 420 480 537
<210> 5008 <211> 393 <212> DNA <213> Enterobacter cloacae		
<400> 5008 gacgaggett caatgacaag tacacttgac ccatcacaca agcaaattg agagetacog gttecgaagg tggactoaac gaataccgca actgggtte atgagettta cagcatacag tatcactacc gttategteg aaggtgagg acagcgottg atgatgttac cctctgtaac gagtgggcga agcttaaaa aggetttacg cagcaaatga aaaaatttge tetggetgge gtggtttg ttaggaataa cactgccatg cagaaaacg gtcatcttae tgggggtag caaaatgat ccgtgaaagg ggetgattg taa	et ggaaaatagt ge gaageatata ag agaaaacaat gt gttgegtttg	60 120 180 240 300 360 393

```
<210> 5009
 <211> 366
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5009
 ttttcaggcg agcccaccgt tcttagaaag ctgttctatg ggtatgtaag gaagataatg
 ttctctgaac gctcagtaca cttaatcace tcttgtacaa agggcaagaa tcatcagggc
 cacgtotgge cgacattgga catagatoca aaacaaacoc cggacgacge ageatatgco
                                                                      180
 tggagtaaca ttgtagacga cgccagaagt aatcaggcgg taccggcatt gtccttgtat
                                                                      240
 tcaggtaatc actggtctac ggcaaaggaa attttaaact caaccagaaa tctggagttg
                                                                      300
 tggataatct ctgccgggat ggggttttta aatagtcgag atcgggccct tcttatgagg
                                                                      360
 ttttga
                                                                      366
 <210> 5010
 <211> 234
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5010
 gtatgtcacg ccactaataa tggttattta acatttattt attcaccgac tatgctcata
 gtcaggcatg caatacgttc attctcttta tcccgcgcca ccttcaacct catggaggaa
 tgcatgtacg gtttaageet gattegeett ggtttgttta ttgegetege cattategee
                                                                      180
agcacagcaa toggtttatt tacctatgtg gtogtotogg cootggcaga atag
                                                                      234
<210> 5011
<211> 972
<212> DNA
<213> Enterobacter cloacae
<400> 5011
acaacaatga atgcgacagg getgaatate atcaagaege tgggetgtat gaeggeggtt
                                                                      60
acctttttca ccatctacaa cacctgggat cattacgatt atgactatca ctggatcctc
ggttttttaa cetteattte gaccategee aegeegttgt tttttgtggt tgeagggtat
                                                                      180
ctggacgggc aatcccgaca cggcacgcgc tggcagctgg ataagatcaa acgcctggtg
                                                                      240
atogtottto tgttotgggt aacgatttac tacotgtggg aaccotacca gogoggatat
                                                                      300
ctgatccage cetggttegt gttegegttt ategtgattt acaegtttea eeeggtggtg
                                                                      360
gageggeteg gecagegaeg aatgetettt tgeggggtga ttacegeeet getgetttte
                                                                      420
teataegggt acgatttget gteggeeete tateetgatg eecaegteet tteattgteg
                                                                      480
cogcagtate geetgtggae gtggetgetg ttttatetga caggecaget ettttgegat
                                                                      540
cogcagatog eggegtggat eggecgcaaa aacgtggtca gggeegeggt gattgegata
                                                                      600
cogttoatot atotottoac atggttttac gaacggcact tottttttgc gctatttaaa
gcagacagaa acgcctttat cctcaccgga tcgcaaattt acattctgat tattgccctg
                                                                      720
gtgattgcgg caaatggcgt goggtttcgc cgcaatgcgg agtttaaaga gtccgtgctg
                                                                      780
gccgccatta gcaaaacgat gaccggggtc tatatcatgc actactcggt gtttcacctg
                                                                      840
etgaccgcgc teatteeggt gaegteeetg ageaccaaac ttgetetgat tgtgettaeg
                                                                      900
tttgttacgt cggtcctgtt ttcgctgctg atcctgtcca acacagtggc caaaaaagtg
                                                                      960
atcaccctct aa
                                                                      972
<210> 5012
<211> 225
<212> DNA
<213> Enterobacter cloacae
<400> 5012
gacacgetae ageggeaata teegtgeete ggtategtet etaeggtaaa etatgeaaga
                                                                      60
ttacggttca aaactgatgg ttacgggttt tgcaccttta gattaatgac tgagaggatt
aaaggtatet eatggetgaa tggageggeg aatatateag eecataeget gageaeggta
                                                                     180
agaagagtga gcaagtcaag aaaatcacgg tgtccattcc tctga
```

```
<211> 354
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5013
 tcaatggcgg ccgcaacggg ctggataagc gccgcgagct gtttaacctg gcgaaatcag
 ttctggtatg aggtgaatgt gggtatcgag acaataatcg ggctggccgc actggtcatt
                                                                       120
 tecgetateg ceggegettt tggeetagge catattegeg geaccageaa ageagaagee
                                                                       180
aaagccgacc agcagcgaac cgaagataac gcagcggcaa tggtcgcagc agccgaacgc
                                                                       240
agggtagaaa caacgaaaga ggccagcaat gtacagcaga ctgttaatca tatgcctggc
                                                                      300
gacgatgttg atcgcgagct gcgtgacgaa tggaagcgtc ccggcggtgg ttga
                                                                      354
<210> 5014
<211> 507
<212> DNA
<213> Enterobacter cloacae
<400> 5014
tggacgcgag ggcggaagat ggggatcagc ccgacactta acattcctca ggcgcgcttc
ctegegatge agcacaaatt caaagcetat gttgeegggt teggtteegg taagacgtgg
                                                                      120
gtgggttgtg gcggcatctg taaggggatg tgggagcacc ctaaaatcaa ccagggttat
                                                                      180
ttegeacega egtaceegea gattegtgae atettetace egaegattga agaggtggee
                                                                      240
tttgactggg gettgaacgt caaaatcaac gaggggaaca aagaggttca cttctacgag
                                                                      300
gggagacgat accgcgggac aaccatctgc cgttcgatgg aaaaacccgg ctcgatagtc
                                                                      360
ggcttcaaaa tcggtaacgc gatggtggat gagctggatg tcatggcggc tgctaaaqcq
                                                                      420
cagcaggcct ggcgaaaaat catcgcccgt atgcgttaca agatcgacgg gttgcgtaac
                                                                      480
ggtatccctt taactggacc tgggtga
                                                                      507
<210> 5015
<211> 930
<212> DNA
<213> Enterobacter cloacae
<400> 5015
acgatgaaag aatgtaaaaa agataggett eetgagtata aategettag tgttttatta
                                                                      60
tttattatct ccatttttat tgtaatattt attccggttg cttcactatt aatcttggtt
                                                                      120
attottgttg ttactataaa gaaacaaaaa gcgagaacta aaccacaaga aaatatctat
                                                                      180
cactttgtaa aggatatgaa egettttggt agtattettg agteacgttg tttaatgteg
                                                                      240
ttaacaggag ggcgatgtta tgccacttca atatttaacc cttaccttgg gctaagettg
                                                                      300
tttgacactg acaatattaa atatgtttta gttatgaagg ggaaggcaac tgatgtcttc
                                                                      360
aagootataa ttagoagota togggaagtt tttotooott ggaagtggtg gaagttttt
                                                                      420
agaggtgagt atgtcagtaa ggctctgaaa gatttagagt ttaattgcga tgtcaagtct
                                                                      480
gtgcgtaatg agtacaaaga atacaataga tttgtatgcg gcagtcgaaa gagagtgctc
                                                                      540
ttttgttact tgtacataga caatctgacg gagttagaaa atgatttgag catatataga
                                                                      600
attcaaaaat tootttttg gattggtgat atatttottt cagtottagg ttggattgga
                                                                      660
attgtatgcg gcaatctgat ttttctcggg ttgtgtggtt gcgaatttgt aaactcttta
atgaactaca taagcaaaaa taatgattot ttogotacgo atttttcaat ttattgggtg
                                                                      780
atatacatat caggigitti tittgctgta titttaattg catgcttata titcatcctg
                                                                      840
agaaaaaaat caattacctc gcgtgttgca aggcaaaaga aaaaatacaa atctaactat
                                                                      900
aaatttatgc tttcaatcag tgagaaatga
                                                                      930
<210> 5016
<211> 396
<212> DNA
<213> Enterobacter cloacae
<400> 5016
ggggggggga tgtccgatcc attttccggc acgggctgg ccggtttagc tttgaccgga
                                                                      60
gccagtgtct acggtttatt gaccgggaca gactacggtg ttgtttttgg tgcatttgca
ggcgccgtat tttacatcgc gacagcaact gacctgagta tgttgcgccg gctggcctat
                                                                      180
ttogtogtgt cttatatagt cggcattott ggatatggtc tggttggttc taaactcgcq
                                                                     240
```

			1943			
<pre>ctggccgttc ataacgcgcc &lt;210&gt; 5017 &lt;211&gt; 234 &lt;212&gt; DNA</pre>	: aaatoottad : ggggaggttd	gttootgaac aggtggtact	: aagcaggaca	g gtgeegtgat k teggeteget	tgtetetgeg ggtggegetg	300 360 396
ttgatcgcga tgggtgaagc	agaggccagc gctgcgtgac caatcttcct	: aatgtacage : gaatggaage : gacggatcaa : caaagcatgg	gteceggegg gacategaeg	tggttgatac ttctggaccg	cggttgtgat ccagacgaag	60 120 180 234
<210> 5018 <211> 456 <212> DNA <213> Ente	robacter cl	oacae				
<400> 5018						
caaccgatga tacgcagcgt gacattaccc gagtcagcta cggcttaatg gacaggattg ctcaagtcag	ttcaggaaag agacctcaga atatgctcgt ctaacgggaa aacactttgc atttcacttt	tattacaatc agaatacaat gggattgcct atcctatatg ggatgtgcct agtgaatgat gttgcttcag agcaccaaaa	acttggtatc gtcatgataa tccgatggtg gcaacttata gcaagcaagg aacgatatca	aaaaagatgo gcatototoa gctgtggaga cttgtgtato tcaatgagat	tgtactctac accggggagg tgagaaggtg agtcggagca ggttaaccac	60 120 180 240 300 360 420 456
<210> 5019 <211> 1407 <212> DNA <213> Ente	robacter cl	oacae				
<400> 5019						
tcaaaacaaa acaggacaca coggocagcc tttcagatca gogttagacg gogcagaca ttogcacaa attccgcacaa gogtggacca gogtaaacta ttttagtggtg gotaacaa gotataacaa gottaacaa gtttacagtg ttttcatggt ttttcatggt ctcgatytg ttttcatggt ctcgatytg ttccgatytg ttactgccg goggagaaca gogggaacac gogggaacac gogggaacac gogggaacac gogggaacac gogggaacac gogggaacac gogggaacac gogttccctag	cccgctccg togccattaa agattcggtt ccgccatcaa gccagaagta tgtctcaact cctcagcaaa tcggcaaact gagcaacgaa acttcgggg gttgtgggtgggtgcggtgc	acacattcac geggggtttt Cggaaataca tggccagacg cagtgcgacg cggcattctt ggtccagaac ggccattctg ggtccagaacatc ggtccagaacatc ggtccagaacatc ggtcaccaggg caataatgtt atcqtcttgtg cggtgacggt tcgagggga cacaaaggcga tgctgattaca cacggcgaat gttgactggt tggggacatg tatccegtg aggggacatg tatccegtg aggggacatg tatccegtg aggggacatg tatccegtg aggggaccg tgattcttgtc ttctctga	thattgectg gocaccaggaa ttgtttgtte teactgacgg gttactgata tacqacqaga accgtacaca ggaacactg gettgcacaa aatgtcatgg gattgcacaa aatgtcatgg aatgtcatga acgtgtgacaa accgaaggetta accgaaggt tcqtcaggg tttaaggat ttgtaaggatttaaggaatgg	gagaaatat coggeacgaa tttotaacc ttacgectge gtottotaagt acatcgecge ggeegstigg acctegett aagttggage acgacataac atcaatatge ttegegaacttae cctggatet ccctgaaate cagatattge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatge aagaatatage tegegaacgaagaagaagaagaagaagaagaagaagaagaagaa	getttataac etgaggga ggtacagatg eggtacagatg eggtacagatg etgaggagag tegttaact agtttetgac gggaacatc gttggtgtt tttcaacggt ttggattget etagattget etagattgag agcateceg agagatgga agtteceg agagatgga agatteceg agagatgga agagatgga agagatggaa agagatggaa agagatggaa etaceg eggagagatgaa etacecag eggagatgaa eatteceg eggagatgaa eatteceg eggagatgaa eattecega	60 120 180 240 300 360 420 540 660 720 780 840 900 960 1020 1020 1140 1200 1320 1380 1407

```
<210> 5020
 <211> 192
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5020
 coggtgogog totggogtto gogotgottt accggagoat gtoccottat ttaccctcac
 aacqgtctgc tatacctgct cgccattacg cgactcgggg cagcatcatt gctgctgcat
                                                                       120
 ggccttatgg ctgcagtcaa cccgcttact gtttcaaggt ctttagccca tccaccagtg
                                                                       180
 aaaacaatct ga
                                                                       192
 <210> 5021
 <211> 237
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5021
tateceaege ttaegettgt tgttatetge etggetgeea ggetatacat gaetetgatg
eggagaatge caacteeggg gaacateaat aaaaagagea aegaaactga gaeteetgta
 goodtogotg agagggottt titttcaaaa aaaagccago toggacagaa otggotgggt
                                                                      180
ctagcagtaa gtaggtatta cttcgcactc atttcgacgt gtaccctatt cctttag
                                                                      237
<210> 5022
<211> 276
<212> DNA
<213> Enterobacter cloacae
<400> 5022
ggaatgttaa gtgtcggget gatccccate ttccgcccte gcgtccacta cattgatatt
gatetgaact ggggteggtt egteateate accateaceg gecagetett tgeggagttt
ttccacctcc agcagccggc ggtcgatttc gatctgctgg agacgctgag cgaactcgct
                                                                      180
atcogocagg cogagocgot toattacogo ttcaaaacatt cgotcacggo tgatggotgt
                                                                      240
gatttegaca ceattettge caacetteae geetga
                                                                      276
<210> 5023
<211> 228
<212> DNA
<213> Enterobacter cloacae
<400> 5023
gtaaaagcta actccatggt aacgaaaaaa atttgcaatc acctctcaat acattatcag
cattetacag cateaacett atttttggtg agettttteg aatggegaae tggetgetat
gtttcgtcca tgatgtctaa taacaaagag tcacttatta aacaaataag cgagtatgcc
                                                                      180
aggettaacg agcaggaaga aatccagttg egcaagataa teagetga
                                                                      228
<210> 5024
<211> 270
<212> DNA
<213> Enterobacter cloacae
<400> 5024
atgccaaacg cototgatta tttttcctgt aaccatatct tcagttttac cgtgcgaaaa
                                                                      60
gtaggcgatc tggacacagt cattgtgtct aatccaataa tatccctctt tcataattca
                                                                      120
cotottaaat tgtttcattt agaagtgtat atgacgattc agaacctggt ggtcgacaaa
                                                                      180
acgttttttt taaggatgtg gegeegggtg ceteceggtg acttatetet ggtegteaaa
                                                                      240
gtcgcgtgca tacctgcaca tagcagttaa
                                                                      270
<210> 5025
<211> 186
<212> DNA
<213> Enterobacter cloacae
```

```
<400> 5025
 aaaaaaaatct tttttgagca tcggtttcaa aatggttttc cttttatgcc cggtgccgcc
                                                                      60
 ggggcggtgg cgttaaatat acgccatgta agtaaattaa tttataccca tttgattgtc
                                                                      120
 aatacaaaca aaaaaacaaa ccatgtttat tattttatca acgatgctat tttaaagtco
                                                                      180
 gtctaa
                                                                      186
 <210> 5026
 <211> 270
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5026
 acagaaatga cgcatactge cgtttctcag gctaatagtg ctttgcagct acccacggtg
                                                                      60
 gagcatgtct acgctcttct gaaagcaaat tgtaaacctg accgctttga cgggcgtgac
                                                                      120
 ggaccegtgt ggggccagga atactegtgg aatetggcaa aagategett acaggatetg
                                                                      180
 gagaaatacg gtaaggcata tgtctcccgt catgaagacc gtatggggga aggatttagt
                                                                      240
 tttggtcctg acctgttaat tattcgctaa
<210> 5027
 <211> 2433
<212> DNA
<213> Enterobacter cloacae
<400> 5027
aggggaataa gaatgaaaca totogottit attactgotg tagcoggact oggtatgtot
                                                                      60
gttcaggccc cagctcagat atatgaatcg gcctttaaag acacgaacgg tattgagatc
                                                                     120
cacgeccegt ettetegtet tatgettaat eeggeateae eggtaacttt gaeacttatt
                                                                     180
toaggtottg atogtttogt taatgtcaaa gtoacgaaag acactggaac tgtcattott
                                                                     240
aatactacga ctacacggac gggtgtatca gaccgactaa cagctgctga cggtagtgag
ttctacggca aaaaagtaac tttgcctgct ttgggtgaag gcaaatttgt cgttcagata
                                                                     360
aacgtgttag atctcaatca gaagcctgta gcgacctata actataactg gctaattgat
                                                                     420
gtcacccctc cageggcaaa tgctcttacc gctaatactg gttctggctc taccgctggt
                                                                     480
gacgtgtgga agcttggatt agaggcaacg gggcagtatg acttcacctc ttcgggcgta
                                                                     540
agtgatgcaa atggtattga taagggccta atatatattt acaggcagga cggtagcctc
                                                                     600
tacagcacta cacagatgca gtatgacgta teeggeeaaa agatgtacca cacttactet
                                                                     660
aagaattcag ttaagggaac eggaatacca gacagcaacc tggatgaaga etttactgca
aaagttgtta tettegataa egeaggtaat ageegaaege tgeeaaetea aaaatttege
                                                                     780
tacgacaaca cgctgggtga gatgacactg tgggccgttc atgatccaaa tacgtcttcc
                                                                     840
agogtogtac coggggtttc taattatccg gcttacaaag coggtatggt cgttaacgaa
                                                                     900
aaccetatte gattagteta eeggateeca aaatetaaet aeegtgetta ticagaaggt
                                                                     960
gggetteagt teateaatea atatteegee eecaaagaga tagetgtaga cageacttat
                                                                     1020
gottatgttg aaatgactct tooctatgge teaattaatg gggatatgge togtatggeg
                                                                     1080
aactttggcc agtggggagg gtattatccg tcatacagcc tcgttctaaa cccatctgca
                                                                     1140
aaccaaacgc ctgcatttgc gggtacctgg gtagatttcc tcgatgataa ggggaactgg
gttaagtgga aggattttga gagtgtgget teateacgae tgccaattaa aattteecga
                                                                     1260
ettegitta aegitgaage eeggeeetti geacaagaga teggeggtaa ggegaeetge
                                                                     1320
accattocgg caggaaaaac etcgtgtgaa gegeetgaga egtttgatat ggeettgggt
                                                                     1380
acccaggget acaataggat cetttactte gttegeagea teageaatee cattttgegg
                                                                     1440
totgagoaat ggattatgac acgotggaac aataaacaac tgooggtaat aaactogata
                                                                     1500
tcatatgacg agactaacaa gcagctggat gtactggcgt cacttgaagg cgatggtaac
                                                                     1560
tggttcgact cggtctcatt gagggaattt tatctttccg ataagaacac cggtacccgg
                                                                    1620
atgtcaccca caggogtaat caaatctcgt atctcaggta actacacgat tgcttatgat
                                                                     1680
ttatcccgtc agtctgaagg aaaatacaac gttgaggtca acatcaggga cttcttccag
                                                                     1740
aaccagacca ataaaacttt cggagaaatt getetggata acacteetee gacagtggee
                                                                    1800
ataacattcg acggaaagcc ggtaaaagac gatacggtag tgtacggcct ggagaacctc
                                                                     1860
aggategete tggeagataa tetgacaace eegaggataa eeegtettea getegtaggt
                                                                     1920
ggccccacag ctgataacgt tgagettacg tggtcaccgg caggcaaaga tacatacatg
                                                                     1980
cctgagtatc cgaggctgtt cccaaatttc gaaccatctg aaaattattc aattagcgta
                                                                     2040
acagttgccg atagtcagtc gaataccaaa acctatactc agaagttcag ttatctaccg
                                                                     2100
aataacettg tgcagttaca taatctaege acattategg teagttegee teteaaaaeg
```

```
acagatggcg taccccttgc gtacctgtcc actaacgttc tgcgtaagac aaatggagaa
        attgctaaag gggtccagaa cgcaacgctg actgtgcgga aggatgcagc cttcggtatt
        aaatttaacg gggcacaggc ggctccaggt gagtcagttg aggtgcaaat agatatgggc
                                                                             2340
        cagggggata atcttctgtt acccgtttat ccttccgaaa atgggaaagt tggcacctca
                                                                             2400
        gaattcatga ttcagatcga cgagttgaag taa
                                                                             2433
        <210> 5028
        <211> 795
        <212> DNA
        <213> Enterobacter cloacae
        <220>
        <221>unsure
        <222>(635)
       <400> 5028
        tataaagcca acacagaaaa ggaaaacaaa atgtataaat tagtatctcc tcgtgaactg
                                                                             60
       actgagatta ttaccggttt actgcttaaa cctgaactcc ttggtgagct ggactcacca
       gaaaagcatc ggatgtttat ggcagattta ggccgcgtgg tggccgaaca ttgtggaggt
                                                                             180
       ctggtaaaca gcgtcgtctt gccaggaaca gaagttacag tgtcggatgg gttaccgctt
                                                                             240
       aatggccagc cggtacgtta totcggaatc aaagagaaca tocctcacct cottgtagag
                                                                             300
       cetgatgett cettacette getegetaaa aacgtetgga tgtatgeaga teetgaagge
                                                                             360
       tggaaagaac attttggage tgaggaagac tgeettacte etgaaatgat geagetgtte
                                                                             420
       cqtaaaggta tocaggetet teagaaagag catgacaeee etgaaattag ceteacaett
                                                                             480
       caggactggc gcctggagga ggaaacactg ccagaagagg acagtcaggc ctatcaggtc
                                                                             540
13
       agegttaceg gecaacataa eatecaetgt gaagttgtta acaaggaagg taacceetgt
                                                                             600
      ttaggtgtca tgttcgaaat cgatcagggt gtgcntgcct tacacatcaa caccggcggg
his.
                                                                             660
       gatatgttgc tccacattca ttgcgcccat aacggactcg ttctgacccc tgatgcaagc
                                                                             720
       ggtcagcgat ttgataaggc tcccgttgac cgcttctctt ataacagccc atccctqctq
                                                                             780
       ttgtctgccg actaa
14
                                                                             795
       <210> 5029
       <211> 612
       <212> DNA
       <213> Enterobacter cloacae
       <400> 5029
       tatggtaagc acaactggaa aaatatgtti tcaaagccta tgaccactti cacaccagaa
                                                                             60
       cgtattgaac aaattttgga atttgccgag ggtagtaacc caagcgaagc aatgagtotc
                                                                             120
       agagetgacg aagttgetgt aetggeaegt attggaaagg cagttatgte gattgegeet
                                                                             180
       gtttatcagt gcgagttttg ccaccatgac gcaaccgggc aacttcagtg gcactgggaa
                                                                             240
       gatgtgaaca aagettttta tgataaatac gatccagaca gacgcggaag acgtcgaatc
                                                                             300
       ctotataceg cocegecgat gcotttagtt teggetgace tgcttaacat ggetteatet
                                                                             360
       gctattgaag acttgctcac taacaaagac agaagtggtg cgggaatgtg gaatgacatt
                                                                             420
       ccagaacage tacgacgege ageagaactg gtaatggata atageeggge egetgaaaca
                                                                             480
       gaagegatge tgatgegtet ttatgtagaa tgtgacacag gtgagegeag gggcaaegge
                                                                             540
       actcaatctg gcgtagcaat gccttcttgg caaaccgttg aagaggcacg tgtgttgcta
                                                                             600
       ggggtgaaat ga
                                                                             612
       <210> 5030
       <211> 198
       <21.2> DNA
       <213> Enterobacter cloacae
       <400> 5030
       getttteeta aaggteacta tgttegtaaa agtataaaaa actteteeat atggtgeteg
                                                                             60
       aaattacaaa totataatti goottiogac aaacottatt gigogitcag gacggaaatc
       tttcttttttg gaattacatc tgacatttct gtggtgtcca aactggcaac gattgcaaaa
                                                                            180
      cttataacat tagcctga
                                                                            198
```

<210> 5031

13

1.3

113

15

TU

Ēń. 43

100

10

(1)

<212> DNA

```
<211> 237
<212> DNA
<213> Enterobacter cloacae
<400> 5031
gcgacctcgc ttagcgagca ttgcgatggc atgcatgaca tgtttaacgt cagagcgttt
aaggaatggt ggattcataa cgataacatc aaaagtttca tcgggctggt acccaagaaa
                                                                      120
gtoggtatgo accagotoga otootgtgot aaggacacta togttottoa otgcaaggaa
                                                                      180
togotoatog ticaattoga tocoggiaat caatgoatoo ggagoogooa gittiaa
<210> 5032
<211> 567
<212> DNA
<213> Enterobacter cloacae
<400> 5032
cgecaccgcc ccggcgcac cgggcatasa aggaaaacca ttttgaaacc gatgctcaaa
                                                                      60
aaagattttt tttcagctat tqaaaacctt ctcaaagetg getttcaacc tegettttac
actgttaaca gtggccgaat cggtctcatt acattcactg ataaaaatgg aacaaaacag
                                                                      180
gtcgaacagg tttattcctg cacttcttta gccgccaata cttttggaaa gcqcttcacc
acttggttag aagaaatttt tcaaaagcat aatgaagaaa aagtagctga ttccgggttc
                                                                     300
gaggttggta gccgtgtctg ggataaattg atgtatacgt tgcgcaccat ttcagaaatt
                                                                     360
cgtgccgggg gggtgctggt gctggataac ggtgcacage gtacactgga tgaagtgcaa
                                                                     420
aaaacqqcac ctgaaacaaa ccaggtggag ccaaaqqaaa totottcact tcaggagctg
                                                                     480
ctgaacgctt ccaaaaatct ggagccgact tcgcctgagc taattgcggc tcttaatgag
                                                                     540
getetgteaa cegecataaa aeggtga
                                                                      567
<210> 5033
<211> 216
<212> DNA
<213> Enterobacter cloacae
<400> 5033
ccatgtacaa agatgatgga gaaacaagtg gccaaaaata acaacagtot caaacagcat
                                                                     60
qtottcaata tgotqtoggo tggcagogaa cttaaagaag tgaagogttt tctcaecago
                                                                     120
aagcgagtta aagcccgcct ggcagtgtca atgatccacg agcaggcgat tgctgtgcag
                                                                     180
aacactgaat accagaatta tooggottat agotaa
                                                                     216
<210> 5034
<211> 726
<212> DNA
<213> Enterobacter cloacae
<400> 5034
tgtgtacctt actggcattg tcattgtcct ccgagtgtgc gttcagcttt gggaggacac
oggaacttaa tgoggogagt cacggocatt gtgaatotog attggattgg cgaatacggo
                                                                     120
ttccggttgg gccagatgtc aatggttatg cttcatccag ctcattactg tagtcattgc
                                                                     180
cgttcagctg agctgatgct cctctcattc tatgtggcga caacggtagt gagcccagaa
                                                                     240
agtgactacc gttgtcatgg ccgtccagta gagcgggtca acctcttaaa tcacagggtg
                                                                     300
acaacggtat tgagcccaga aagtcactac cgttgtcatg gacgtctggt taagcggatc
                                                                     360
taccteteaa tteacagggt gacaatggta gtgageecag caagteacta cegttgteat
                                                                     420
agtogtocog ttgagcagat caacototta acttacagga tgacaacggt agtgagcota
                                                                     480
ttaagtoatt accgttgtoa ttgccatcca gaagagcgga tgatcctctc aattcatacg
                                                                     540
gogacaatgg cactgagooc agcaagtcac ttccgttgtc atagccttcc agaagagcag
                                                                     600
atgageetet taattaacag ggtgacaacg gtagtgaget cattaagtea ttactattgt
                                                                     660
catggeogta cagotgagot gateatoote teaatteaca egeogacaat ggtagtgage
                                                                     720
tattaa
                                                                     726
<210> 5035
<211> 432
```

## <213> Enterobacter cloacae <400> 5035 atggcgatga ataaaaaaga acaagccgcg tatgatgagc tggtggcaca ggccagaata 60 aaccgcgctt tacgctggtc tgactatggc gttgaacgcg atatgcccgt accagaggtc tegggggaat accassacgg etggagette aacacegeea etggeactgt ttateeqaca 180 tggageggaa ctacggttca eggcacacgg gaagagggag aggttgtega tgcaacetee 240 cgccgcatgc gaggcatgaa tggtagccag aacggcatac cacaatacag caccaaagaa 300 egegecetga aggeattaeg etgttegett gaaateaagt ttgecatgea getggatgee 360 atagataaag ctatcgcaaa agaaatagag ctgtccaccg ctcgccggga gagcgataca 420 teagatgeet ag 432 <210> 5036 <211> 633 <212> DNA <213> Enterobacter cloacae <400> 5036 cttttgetgg atctgccgcc gtctggtgaa gacgtaacag tagatggget ggagaacgtc egtatacage teacegatge tetaactasa ceateettaa geegtatgae tettegeggt 120 ggccctgttt ctgatgcggt ggaattgtct tgggtgaatc tgggaaacaa cctgtatqca cctaattatc ccaagatett teegtetett aatgaaggeg aaacatacae tetcacagtt 240 caggccaaag atgagatgaa caacgttaaa gaaagctcag tcgaatttaa ctaccttcca 300 aacaateteg teaggetaga gaatetgaaa acettagetg teaatgette teteaaaaca 360 totgacaata otoototggo tgttotgtat gooagocago tgcgtaaaaa ggatggttoa 420 atogotacag ggottcagga ogcagtgott actgtccgta aggacgctgc attcggcgtg 480 actgtaaatg gtgtttctgc gatgccaggt gaaagcaaag agcttcaact ggatttgggg 540 ctcggggaca gccgtagett tectattttc cctgctgtat ccggccttac aggcagatct 600 gagttcatga ttaacattga agaattaaaa taa 633 <210> 5037 <211> 294 <212> DNA <213> Enterobacter cloacae <400> 5037 agetgteeac egetegeegg gagagegata cateagatge etageggtaa accateaatt 60 caggecegtg atcagagggg cettaacgce etgaaagagg eggttecage gaeggeacaa 120 ctacagatgc gggttacccc tgaacgtaaa ctgcgttacg tcaatcaggc aaaggccgaa 180 ggtctgggtc taacagactg ggtccaaaag catatggata acgtgtgtga tctggcagge 240 cagcotgaaa taaccatgta caaagatgat ggagaaacaa gtggccaaaa ataa 294 <210> 5038 <211> 228 <212> DNA <213> Enterobacter cloacae <400> 5038 cogttacgaa ctgttacctc attacaattt attaagtgga totatattta taagcccgca 60 acgctgaaga gcatcgtagg tatttttctt ttcagctgtt ctgttgataa caagatcgtg 120 gtcaagagac agtattttet egtegaaatt gegeaaaace tegtetattt tteetaegaa 180 ttccttgtgc tgtggcctgt ctatatcccc agggatcaaa gactttag 228 <210> 5039 <211> 327 <212> DNA <213> Enterobacter cloacae <400> 5039 atccacttaa taaattgtaa tgaggtaaca gttcgtaacg gtcaaagaga ggtgtgggaa 60 atgagaatgt tgcctgtttt gcctgatgaa tccttgttca gccggttttg tcggacaact

acogtgtacg gtatgtococ atottototg ttaacgatoa ttttcaacaa acotgatatg aacgtocato caattotoaa ttoaggatta aaggotattt otottoatac atocgaaagt goagatoago totggoatga acagacetta otocotottt ttgcotgggo actaccaato agtogtaatg agatoctgga ottoaac	180 240 300 327
<pre>&lt;210&gt; 5040 &lt;211&gt; 279 &lt;122&gt; DNA &lt;213&gt; Enterobacter cloacae</pre>	
<400> 5040 tegetgeteat eggggataac geegeggetg accaecaegg acageceget thegteateg egaatgatgt teatgetgtt gteetgecag geggeaggaa aaagggtaaa ggaacettee tggagggtgt attreataag tgaaceeggg atgatttatt egaaaaataa aattaaaage getaaaattt ataecegecaa tattaattae tgettagega eteagagaaa tatgateatt agaacegttag eactteett titteegeaa aaacettag	60 120 180 240 279
<210> 5041 <211> 195 <212> DNA <213> Enterobacter cloacae	
<400> 5041 ctcctggttt attggcttgt ggatatgttc tcgtccaacc tttggatgtc aaaatattat gaacatcagc gggtttttc cctgttaatc tatccacca tctttgtgtt atacgatctt tttgagaaaa accacatttt aacccccacg gatccaccca ccccagcgca ttcggcgcat actggtaaag gttaa	60 120 180 195
<210> 5042 <211> 549 <212> DNA <213> Enterobacter cloacae	
<400> 5042 cttctggcac tgagattogt coatagtgga ataaagatta tgctcaaccg aattaccgtc cagctcccgg ttgagagtcg ctttctcgg aactctccg gccgcagagc gatgtccgag tcgttcgcgc tgacgtgac cgtgctcggc acagacgcg gcatcgaccg cagcaggttg ctcggccagc cggtcacggt gaccatcaccg accagaatt tgctgacctc ccgctatgtt aacggcaaga ttacccgcg ggcggtgag gccggactg tgacgggcac ccgctatgcg gtgtaccagc tgacggtgag gccggactg tgccgatgag tgacgggcac cagctacgcg tatcttccaac gcccaaacga accagacacg tacgcagata gcaaaaccc tgctgggtga gcatcaagtt aaacctccaa aacaactca ccggcagta ccgggtgtg gactactgcg tgcagtaca ggagtcaga ctggactta tcagccgcct gatggagctg gaggggattg cgtactactt ccgccatga	60 120 180 240 300 360 420 480 540 549
<210> 5043 <211> 459 <212> DNA <213> Enterobacter cloacae	
<400> 5043 atcatccega gttcacttat gaaatacac otcaggaag gttcctttac octtitteet geogeotigge aggacaacag eatgaacate attegegatig acgaaagegg getgtcegtig gtggtcagec geggettat occcgatgac agcgactacg aacaagagti toacogacag tgggacqige tecefoctca gatggggdaa attgcacaga gcgattica gcacgtaaaa gccgggccag acggaacact tagcgactig gadttgaga ocaccttiga cegtaacggcagcagcoctig ggcaaaacac gctgccotig gcaaacacgg actgattat tttaccctot oggocttaaa agcctitaac gaagagacg agcgcctig gaacgcactig aacgaaacacgg actgatata	60 120 180 240 300 360 420 459

```
<211> 528
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5044
ccgattcacc tgtttatgtt gacggagttt tacttaatgg gggggtataa aatgattgat
tttaatgotg atattttatc aggaagagca ctaggtaacg tttttttggg ggataatatc
agtaagtaca taagcgagtt atatgctggc tataaggtaa cttactttga ttatttcttg
                                                                      180
cctgatgata agaaaaggct tgcatatatt gtagatgaca caatgacaat cgctaccctt
                                                                      240
gaagatggaa cgatcattto tattggttgt aacgtaaact ataaggggag gtataataaa
                                                                      300
atattacaaa caggccaaac gatgggggaa ataatagggt tgacttacaa acagcgtata
                                                                      360
tttaatggct gtattattat aaatgacgac tttggttttt cattcgagtt gccagcgcca
                                                                      420
tatgatgaaa ttgcagatag cattgcacat gttccactag atcttgttct taatgaaatc
                                                                      480
cqtqttqctq attactctqa ttqqaaccca caaaaaataa aacgctga
                                                                      528
<210> 5045
<211> 546
<212> DNA
<213> Enterobacter cloacae
<400> 5045
attataatga ttactatgga ggattctatg gaaagtagga tgattaaagc tacattcctc
                                                                      60
attgttcttc cactattttc aatatttacc tatgcagggc ataataaaat gaatcaagat
togttgtggc aaatgattaa agaaatgaaa toagtgtggg gtaaacaagt tgaggatgto
                                                                      180
agtaaactgt ttaaccaacc gctgattaat aatacacagg agaaagaaga ccgttatact
                                                                      240
tcagctccct ttacgttaac tgatggcaca cggatcagta atgtggatgt tcgtttatgg
                                                                      300
ggaaatggtg ataacagcgt atctttggtt totttcgtag ttaatcaacc atgtattact
                                                                      360
cttgatcaag tcaaatctca ttttccggat ctaaaattgt ctaatatccc tcgcggaaac
                                                                      420
acgccgggac aatcagttgg atategcace cetacegatg aacgeggget ggcatgggca
                                                                      480
tttagettte cagttetgaa teaggaatge etgggeaggg tagttatgte acgetaegaa
                                                                      540
caataa
                                                                      546
<210> 5046
<211> 186
<212> DNA
<213> Enterobacter cloacae
<400> 5046
aatacccagc gcccgtcgca gcgccgctgg gattactact accgcaataa cttqqtqcqc
                                                                      60
gaagageggg acgataaccc gttcaaatqg taccqctqqc agtacqacag acagtgccqg
                                                                      120
gegteteetg gttcaggacg geaegetgge eggagaggag cagggggtet gggatgeage
                                                                      180
cactaa
                                                                      186
<210> 5047
<211> 315
<212> DNA
<213> Enterobacter cloacae
<400> 5047
eggecaaace egaggaaceg caaaaaaceg caqacqcaqq teaqetteeq etacqateeq
                                                                      60
ctoggtogco gcatcagtaa aacgogacgo cagaagotgg goggacagoo aaccqqcaaq
ccatcaccac ccggtgtgtc tgggaatgac tgcctactgg gggaagcgca cggggatgtg
                                                                      180
ctgttcacct acgtcgacga aagtqgtcaq qacaactacq atttgctgqc gcgtgtagat
                                                                      240
agtgttgatg cttcatatat cttctgggtc cattgccaat ccaacqqcac qqcacaactt
                                                                      300
ataactgata tctaa
                                                                      315
<210> 5048
<211> 246
<212> DNA
<213> Enterobacter cloacae
```

1951	
<400> 5048 tgtttttcca taacaatcat atggaacaag aataaaagtc tagggaatat aatgaqtgat aagatcatgc aacagtaga tctgctaatt tcacatagtc aaatattgtt acgatccaga gactatgacg aaaagctgag tcagtgggga aaaggtaatg tttctcaagg cgctgtttta cacaaggatt atgctgtatt cgttcttcta ccacaaggga cgggcatccg cgcaatgcaa tgcgaa	60 120 180 240 246
<210> 5049 <211> 249 <212> DNA <213> Enterobacter cloacae	
<400> 5049 ttaccettt gggtaaatag cettggtgga eeggtaaace ggggaggaaae ggggttgttt egggaaattt teatgaagge gegtgaatea gttatteegt ttecaatagg aataaagggg ttattattte agtggaaat gaggeetgta tttgeeetge eggataagtt agggggeatt eagaatteat ttattgaget galgaatgte taegeeggaaa aaactgggte tgaceaatae eacetttaa	60 120 180 240 249
<210> 5050 <211> 189 <212> DNA <213> Enterobacter cloacae	
<400> 5050 acactgatgg gctttttaag acgctggtte aaatoteagg ctcagtttt cttctggace tatgtcccga tcatccteae gttcatttt ggctatgtee ttgacgttta cttccctgag gttagccagg gattcatcct cctgttttae ctggtaacae tgggactgge ttactggata tggcattga	60 120 180 189
<210> 5051 <211> 345 <212> DNA <213> Enterobacter cloacae	
geteagtege caccaccetg gegacceggg etteeggegg aaaategeeg ettegeggtg	60 120 180 240 300 345
<210> 5052 <211> 756 <212> DNA <213> Enterobacter cloacae	
aagttaccga caaataagac aaaacgctt taccgtitgc ctgcccgctt tfatggtat cagctttteg tgctgategt cettegegtg cttttacet ggettegeg cgatgaatcg cttgaccgat cttttacet ggettegeg cgatgaatcg cttgaccgat ggatcaccg cttetggtat gacgcggcga cgcatcattt cccgctacag caaaatccge tgctgatcg gctcaccat cggctggtgg acattgccctg gccgtcatcg cgctgtatta cgggacttac agacgccaaa acacgatggt gacagcccgc cttctgatgg gtctgagcgg cacgttgta gaagccctga aaagcatgag ccaccacagc tgtccgtgg attoggcgg catgcggc aaagctgtc cgtatcccct gttcagcgg attcggga gtatgggg gtatgggg gtatgggg gacgctca cacgcctcagc ctggaccttt atgggatgg ggctgttt taccttctgg ctggaccttt gtcgatgg gccgtttat ggggctgct gaggacgcc gacagcac gacgagcac	60 120 180 240 300 360 420 480 540 660 720

```
tacqqqctqq tttccqcctq qtttqctaaa qaqtaa
                                                                       756
  <210> 5053
  <211> 726
  <212> DNA
  <213> Enterobacter cloacae
 <400> 5053
 agtgcgaggt cagtaagcat gtaccattct gaagagatca tccgccagct tcagagccaa
  aagatactgg caatgaagct ggaccgggcg gtacgtgatg taggtgaaga ggtaaagagc
 cacctgaata atataggtgc cggtgcccaa cgcctgctgt actacacctc ctgctttact
                                                                      180
 gatgaatatt acgatgtatg caccegacaa aacctggagg acgctcgatt ccgaaagggc
                                                                      240
 atattccatc tcatttctcg ctggaacatc gtctttgacc taatcaacac gtacgtagag
 gagotggtta aggattatto cooggoagaa ttatcagoga tacagoatgo totaatgogo
                                                                      360
 getaacgttt atatateeac cagcacgeta acctegtatt cattetetge aggegtegea
                                                                      420
 togactgttt gcctctatgt gacccttcca ccttcagggt taaaggtcgt ttcaggatta
                                                                      480
 acgggcgcgg ctattggagg gctggggata tacggggttg tgcaaaaaagc tgctgacagc
                                                                      540
 gctcatcgcc tgcaagtgat gcatcccgcc tactatcaag cgttatacct gcaagaactg
                                                                      600
 gagatgatgt atttcctggt ggagcctgct tttatgcgcg cgggcgtgct aacccagcaa
                                                                      660
 tggactgaca gtcaaagccc ttatgatgct gctgacacga tcctgaagct aatgggtaga
                                                                      720
 cactga
                                                                      726
 <210> 5054
 <211> 1917
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5054
ageattactg ataaggatet tacccegatg aaaaaaatge teactetete getgetgget
                                                                      60
ctctgcgttt ctcatggcgc ggcggcagca aactacgcgc tcagtaacga caatattgcc
                                                                      120
 ctttcgtttg atgatgcaaa tgcaacggta gtagtaacgg acagcaaatc taaccatccg
                                                                      180
ctcacgcccc aggagctgtt ctttctgacg ctgccggatg aaacaaaaat ccacaccgct
                                                                      240
gatttcaaaa tcaagcacgt cgaaaagcag gacaatgcga tagtcatcga ctttacgcat
                                                                      300
ccggatttta acgtaacggt gaaactgaac ctggtgaagg gaaaatacgc cagcatcggc
                                                                      360
tacaccateg cogoogtogg gcageogogg gacgtagega aaattacett ettecegacg
                                                                      420
 aagaagcagt ctcaggcacc ttacgttgac ggggcgatta acagetegee aatcgtggce
                                                                      480
 gactegttet teateetgee agacaaaceg attgtgaata ettaegetta tgaagecace
                                                                      540
 acgaacctca acgtggaget gaaaacgcca attetgeetg agacaccggt tagttttacc
                                                                      600
 acctggttcg gcactttccc ggaaactaat cagctgcgcc gcagcgtaaa ccagtttatc
                                                                      660
 gatgoogtgo gtcogoggoo ttataagcot tatotgoact acaacagctg gatggacate
                                                                      720
 ggtttcttta ccccttactc cgagcaggat gtcattgggc ggatggacga atggaataaa
                                                                      780
 gaatttattg coggacgogg ggtggcgctg gacgcgttcc tgctggacga tggctgggac
                                                                      840
 gategeaceg gaegetgget ttttggeeeg geatteagea aeggttttgg caaagteagg
                                                                     900
 gaaaaagoog acagootgca cagotoggtt gggctgtggc tttctccgtg gggcggatac
                                                                      960
 aacaagccgc gcgatattcg cgtctcgcat gcaaaagagt atggttttga aaccgtagac
 ggcaagetgg egetgteggg geogaactat tttaaaaact ttaaegatca gateattaag
                                                                      1080
 ctgatcaaaa acgagcacat tacctcgttc aagctcgacg gaatgggtaa cgccaattcg
                                                                      1140
 catatcaagg gcageccatt tgcateggat tttgacgcat ccattgeeet gctgcacaac
                                                                      1200
 atgegeageg caaaccegaa cetgtttate aacctgacca ceggeacega egecageeeg
                                                                      1260
 teetggetgt tetatgetga tteaatetgg egteagggeg atgatateaa eetgtaegge
 cocggcacge cagtgcagca gtggatgace taccgcgatg ccgaaacctg gcgatccatc
 gtgcgcaaag gtcctctgtt cccgctgaac tcactgatgt accacgggat cgtcagcgca
                                                                      1440
 gagaacgett actatggact egagaaagtg caaacagaca gegattttge egateaggte
 tggagetact tegeaacegg aacteagett caggagetgt acateacgee gtecatgetg
                                                                      1560
 aataaggcga agtgggatac cctggcgcag gcggcgaaat ggtcgcgtga gaatgccage
                                                                      1620
 gtgctggtgg atactcactg gattggcggt gacccaactt cgcttcaggt ttacggctgg
                                                                      1680
 gcctcatgga gtaaagacaa agcgattttt ggcctacgca acccgtcgga taagccqcaa
                                                                      1740
 egttactacc tggatttaac caaagatttt gagateeegg caggagageg ttegeagttt
                                                                      1800
 accetgaaag cegtgtaegg cagtaatteg accgtaceag aggagtataa aaacgetgtg
                                                                      1860
 gtaattacgc tgcaaccgct ggaaacgctg gtgtttgagg cgatgccggg gaaatag
```

```
<210> 5055
<211> 296
<212> DNA
<213> Enterobacter cloacae
<400> 5055
cotocacatg catagogogg ctcottcogc cocotgtggt gaaaatatat cotggoogta
                                                                      60
ctggtgctgg gggccgcacg cgtctggctg ttcccgcatg cggatggcgc tatcgacaac
acgctgatgt gggtgattgc gatggcggtg gccggttgcc tgttcgtgat cccaaccqcq
goggagatoc cgattattca gaccatgatq atqqccqqta tqqqqaccqc accaqcqctq
gegetgetea teaegetgee ggeggtgage etgeegtege ttateatget gegtaa
                                                                      296
<210> 5056
<211> 372
<212> DNA
<213> Enterobacter cloacae
<400> 5056
qcttqqqcgc tcggtttcaa agcgattaat catgctggca gcaaaatgct gtgcgttggc
ggoggacgtg ccattgccac aacagaggat tttgttgccg ttgagcagcg actgaaccag
                                                                      120
tgtcatcgct gcacgcqaqa tcgcqtccqq aagqqcttcc qccqcqqcaa tctgcqtttq
                                                                      180
aatgotttet qtqaagcaca otttaatteg ttegagcacg qtatccettt aaaatettat
                                                                      240
ttatgcgtct tcgccaaacg cgtttttaag ccagtcgatc gcatttccgg tgaaggctac
                                                                      300
cacatogaaa oggoaatooa cagtatoaaa actoocatta tggogggoaa gocacaagtg
                                                                      360
ggcagtctgt aa
                                                                      372
<210> 5057
<211> 405
<212> DNA
<213> Enterobacter cloacae
<400> 5057
gtggataacg tactgcatca gcatagctgg aaacgcgcag eggcattgac egegetgttt
                                                                      60
gcgatcctgc tgatcgtcgt ggcgccgctg atctccgtct cgctgcaaaa agatcccatg
                                                                      120
agogocatgo oggocatgoa coacgacatg agoatgatgt oggtggacga goatcatggt
                                                                      180
gatatgccgc attotatgcc agttgaccat gctgaagcat gcggctactg cgtgctgtta
                                                                      240
gegeatgtac egggegtgat getggegett ategttetge teagegtggt gttgeagegg
                                                                      300
ctgcgcgtga agccgcctcg tcaggcggtc agccactggc actttttccc ctggctttac
                                                                     360
cocgatacco gogogocgoo gogtoggtot gotttetoco tttaa
                                                                      405
<210> 5058
<211> 279
<212> DNA
<213> Enterobacter cloacae
<400> 5058
agaggttcga taaattggtt gtcgtgcccc agtgcaaggg actgggcatc ggcgagagca
                                                                      60
agetggaatt tattagtaag acgatccaga cgcataactc ctcccataac aggtcaaatt
                                                                      120
tgctactgga gattaaatga ggtcatccct caattattca aggttaataa cctgaattat
gtgaaaagaa aacggcgcgt accggatcgt cttgattctt taggttatat caqccaaatg
                                                                      240
aaacttgcca tacggcctgt cgtcttgtcg cggcgatag
                                                                     279
<210> 5059
<211> 291
<212> DNA
<213> Enterobacter cloacae
<400> 5059
ctgctgaaat gtaaattcat gagcgcgctc aggatcgagc tggaaaaggg ctttacqaac
                                                                     60
gaaggggtag tacatgaact ctcctggatt cccggtgtgc aaaccgggag gggattatgt
gcgatcccgc ccggaaaggg aattgacctg tggcaaaaaa agccacqtaa aacqcaatcq
                                                                     180
```

1994						
		ttatgcattt tcacactcct				240 291
<210> 5060 <211> 183 <212> DNA <213> Ente	robacter cl	oacae				
<400> 5060						
teggggttea teeegtgaga	ggatgctaca	aaacagggta gegcacctat acaagctgca	gactcaattc	gcttctccgg	ttctgcatac	60 120 180 183
<210> 5061 <211> 381 <212> DNA <213> Enter	robacter cl	Dacae				
<400> 5061						
gtggttgage acgategeee caggetatee egetattte attgtgetgg	tggcccggga tctccacgct cgcgcggaca gcattcagat	gagtactgta aggeggegte caaegaggeg gecaeeggge aatetggaee ggaagegeeg a	gcetttatte cagegteage caggegtegt eggeacaate	ctaagctgag gcgtggtgaa ctccgggcag aggcgcagta	cggtcagcgc tattctggaa cggcgatcag taccgatatt	60 120 180 240 300 360 381
<210> 5062 <211> 315 <212> DNA <213> Enter	robacter cl	pacae				
<400> 5062						
cggttcatca ggtgtggcgg aacattacat ggcaaaccct	acctgctggc acacactatg ttcagataca tgctctataa	cogggtegat cgatacegaa tgegggeaat geeetteegg attgtacate	tttgctggca atttctcttt gtaggtagcg	atcatagtca tcaagttaca atcaccgggt	cctcccggga tgacgcgaca gatcggcggc	60 120 180 240 300 315
<210> 5063 <211> 852 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5063						
tttccccttc ccatctagcg gtggtcaccg cttcccgtta cacgacgagt gcgtgctact ccgcgctacc catttcagcg acgctggtgg aaagccgcat ctgtgggttg attcatgtca accgattctc	taatactatc ccgcgtatgg ttgccggcgt taatggccct ccgccccggc ttagcgaagc acaaacacc tggaaaaccga gccgggtaat gcgactccc aggccgcagt gctggcggga	tcataaattc gattacgctc tgeggatcag aggggctgat gcctgcgctg ccocctgttt cagcgcactg gcttgaagc ccagaccgac ggagctgccg ggaagaggct cccgcataag tctgcttaat	tggagtcagg gtgcgacagg ggcgttgaaa ggcgagtcca atgcccgatg aacgcgctgt ctgcggcac tgcggcac gcacactga gcacgtcagc gcacgtcagc cagctgat cacactga	aaatgagcag caggcggtca tccgccgaga ttgaactgct gaaccctcaa ggcttaaagt tgctggatga tcgcgccgat cgttcgatat tggctcccg gcgccgtcgc	gaaaattatg acggcaatg gctcttcagc gggtttactg cccggatctt ttcgctggt aagcgcatg gcagcgcttc gggcaactgg cgtgagctat gccggatcag gcggtatcag gcgggtatc	60 120 180 240 300 360 420 480 540 600 660 720 780
gaatttccgc	tegaagggae	ggateteace	gccgtcaccc	gccattacgt	caacctgctg	840

```
egegaggagt aa
                                                                       852
 <210> 5064
 <211> 288
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5064
 atgacaagcg ttattttcat caagcataaa aaaaccccgc cgaagcgggg gtttttctta
 ttccgtagca gcgaccgctg cgctccaggc ctggctaaag gcctgatgct gggacgcgag
                                                                       120
 eggacegate agegegttat actggetege etgetgggag gtegggaact ggatacegtt
                                                                       180
 agagacaaag ctcacctqcq taccttgttc actaataaag tcacccacct qqaccaactq
                                                                       240
 ctgagtaaag acctgcgccg ccgggatcag cggttgcaaa gcgtttga
                                                                       288
 <210> 5065
 <211> 747
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5065
 ggtggcacaa tgaacgacgc aattatcacg gacaatgagc gtattaacat tgaaccaaaa
                                                                       60
 gatgtaatgg taaaaggttc aaataaaaag caaggogtaa acgotcaaac ttotactcaa
                                                                       120
 cqtaqaccag agcaccaggg tatggccaaa gttattatta accccggcac cccagacttt
                                                                       180
 aacoggtttt taactgccag aaatggagca gtcatcagag gttttgatga tgtgagtatc
                                                                       240
gctatttcct ctctctttaa aacqqttqat qcaqttaaac atcctqacct tgttcaqqct
                                                                       300
attcaggatt ggttcaacga gctgcatgaa gaaaacaata agatgaaaga aaatcttgtt
                                                                       360
gettatatta agteaattga gttegacaag aatgaeteat teatgteate aacteagttt
                                                                      420
 gtacetttea gttttgaace agtacaacte aactteaata accacaacae catgaggttt
                                                                      480
tacaaqtaca tottogagat gaaccagoto atgaacacaa tgtatgagta caacteattg
                                                                       540
 ggtttactgg ctgtaagcga ctatccggtt atgtctcaca acattataaa gagtattaat
                                                                       600
 ttatatgttg agaatgtgaa aaagactotg aatgtttoto googtaagga tgggccatac
                                                                       660
 agtocagoag agttoatoac caaagtaatg caatataaaa gtgtgcagge atacattgca
                                                                       720
 gccgaactgt caggcaaacg tcgataa
                                                                       747
 <210> 5066
 <211> 924
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5066
 ggtatgatga tgaatttcag ggcgctgtat ttatgtatta aacggatttt ggggatattc
 toatotoagg agaatgatgo aacototgta atgattgagg atatatcaag cotototoot
 tttgcgcaga ttctaggaga tcagaagtac actgttcctg atcatccaaa tccagaagtc
                                                                       180
 ctgaaattca tcgagtatcc aactcgtccg acgggcatac agacatttaa tgaacagtca
                                                                       240
 atcctgtctc tgtatcggga aaagctgcac tcaatttcaa tgatgttagc tatcaqcgat
                                                                       300
 agogacatca gggacgatgo atatacattt actaatttag tittaaagoc citggitgaa
                                                                       360
 tatgtteget ggatacatet tttgecaget teegaaaate ateateataa tqqtattqqt
                                                                       420
 gggttacttt ctcacagcct ggaagtggcc atactctctt taaaaaaatgc gcatcactca
                                                                      480
 gaactgagac caatcggata tcaagatgaa gaagtagtee gtagaaaagt atatetetat
                                                                      540
 getgegttta tetgtggttt agtecatgat geeggaaagg tttacgatet egacattgta
                                                                       600
 agootgaatt tagotagtoo gatoatttgg acgocaaget cacaaagtot tottgactgg
                                                                       660
 gcacgtgaaa atgacgtggt tgaatacgaa atccactggc gaaagcgtat tcataatcaa
                                                                      720
 cataatatet ggtecagegt ttteettgag egaateetaa acceggtatg tettgeattt
                                                                      780
 ttggatcggg taaataaaga acgtgtttat tcaaaaatga tcaccgccct aaacgtttat
                                                                      840
 actgatggga atgacttttt gtctaaatgc gtgaggaccg ctgatttcta ttctactggt
                                                                      900
 acagacctta atgttttacg ttga
                                                                      924
 <210> 5067
 <211> 624
 <212> DNA
 <213> Enterobacter cloacae
```

agagcattca ttcacatcag aaaaatttac tactggatca gttccaaaga agaaaagtaa atgtcaaaac catgccagct gaaatgcttg	cgaatggggg aaaatcttct gaggcgtcat gtgctcagat agtggaagga gggagtacct cgatcacttg gggtgcaacc gggaatacga agctctatca aggtggcaca	gttegtgaaa gagtaattea tgaaggtttg acgaaaccac gggttettac geateagtte aatgaaaagt aatgatttet tteageatat	aaaacggaa aatcttataa cgtgttgagg caagagatta gcaccaaaag agcccttata ggaaaatatt gaaacggaag	atttoctccg gttctataga ctgaagatct accttacccg ttgagctaat aaacaagagc ctaagaactg cattgctgga	gtatagtaat gctaacacgt cattacaaaa acatagcaaa tggtaatgcc gcctagccac ttttgtaaac gccttacaga	60 120 180 240 300 360 420 480 540 600 624
<210> 5068 <211> 183 <212> DNA <213> Ente:	robacter cl	Dacae				
ccaatcetga agaggaaata taa	gcaacaagat atagcctgaa gcgatactca	caaggtcagg	atgtttaact	gcatcaaccg	ttttaaagag	60 120 180 183
	robacter clo	oacae				
gatactcgtt	totcaatogo gtgaagaggt aaagtaaatt ga	aatgaaaccc	cctgcaattt	ttaacaaatc	tttcttcgat	60 120 180 192
<210> 5070 <211> 336 <212> DNA <213> Enter	robacter clo	oacae				
tgccgcgtca gatgatcaat gcggaaggga gaagaggaag	ttcaaagagt ataagteget ggtaegaegt gatatetggt aaatetteae cacegtetga	ctggggggaa ggtcagaagg ttatcgagta tcttaacggg	atagtgtgta gccgataatg aatggaatag tttatgcaat	gtgcagatgc cagttatcta tttcattacg	ctttaatgca tagcttcccg acccttactc	60 120 180 240 300 336
<210> 5071 <211> 621 <212> DNA <213> Enter	sobacter clo	pacae				
ctgatcccgg gttcttgttg cttcttaatc cgtaagctga	agagaaccat caacccccga ccgaattcag tcggatttga ttactggcta ctgctgagca	gaccagegat gegggttege atactgggag egecaagttg	atcctgcaat aagccggcat ccaaccggcg ctggcttcgt	ccaaaacccg tccatcgacg gggcgatctc atggtggtaa	gctcggcgat ctttttcgcg aagtaacgag tgaggggcg	60 120 180 240 300 360

			1957			
tttgatgcca gccaacatgg cgctgggtcc	ttcagctgcc acgaattcga	agacggaaca gtttcagcaa attccgcagt	egeteetggg eteaagaage etetataaag egtgatgagg	atcctcgtag ctgcgctcga	catctcgttt tgtcctctgg	420 480 540 600 621
<210> 5072 <211> 198 <212> DNA <213> Ente	robacter cl	pacae				
tgctgtgatc	atttccaccg cctgcttttc	ggaggcaccc	cagagtgtcc ggcaccactc ttttttcat	cctcagttat	tgccaactta	60 120 180 198
<210> 5073 <211> 189 <212> DNA <213> Enter	robacter clo	pacae				
gtggatttta	tcaacactca	gggtttgctt	gtctgttatg ttaaaaattg tcatttattg	ttatccagtt	ttactgcatg	60 120 180 189
<210> 5074 <211> 297 <212> DNA <213> Enter	cobacter clo	oacae				
tgttctggcg tgggcggaag gcgctttctg	agaaccttcc aagttacccg tattcggtga	tattttattc tgttagtgaa aaaagatttg	gcatgteegt teeggatata acacatgett gttgaactta egaatgaage	gagcaagctt ccgatgaagc ccattgttat	gcccttttca atattccgca tgccaccatg	60 120 180 240 297
<210> 5075 <211> 261 <212> DNA <213> Enter	cobacter clo	pacae				
agagcaateg actaaaaaeg	geeteageaa atattgageg ageaagteaa	gttetegeca eteceteaae ageattaagg	aagaggcatc cgttgggtta gctcttctgg gaatgcattg	aggttatctg ccacaatcga	tttacggttg tgaatctgaa	60 120 180 240 261
<210> 5076 <211> 822 <212> DNA <213> Enter	obacter clo	pacae				
aaacttttcc	gcagtgagat	ttcgcttatt	tctgataatt agtagttacc gggactcctc	gtgcatgttt	aatgttattg	60 120 180

```
gggaaaggat ttagtacagc cgctgattta gcttttgaag tggaaacacg tccaggtagt
                                                                      240
tttttggttc cgcgtacact cggaaaggaa attacatqqq aqaqqttttt ttctqcqqtc
                                                                      300
ttggacggtg attccaatgt aattcgtgaa tatgatacaa atgatattga ctatggtatt
                                                                      360
tacgatgccg gtgaaaaagt gacttttctg aatggtacag tggatatcta taatcccaag
                                                                      420
aagattcatg agttgcgttc taaatgtgtt gatatacaga atgactactt tatgcaggtg
                                                                      480
ttetttatet caatgetege accagagttt gtaagtattt tetttggttt aaaaccaact
                                                                      540
acagetgatg etattaaaga cattggttat teategttaa aaacaattaa egatgtegtt
                                                                      600
cttttcccac gtacaattgc tttctcacaa gggcatattg aagagagtgt ttcacttaaa
                                                                      660
acgaaagttt ttgcctgggc ttatgaattg tctgctgaca tccqqttaqq aaaagttaqt
                                                                      720
gatgatttga tggaactatt acgttatgac actatgttca ccagtcaccg tcaggatgtg
                                                                      780
ttcaacactt taacaaataa agttatgtta aaggattatt ga
                                                                      822
<210> 5077
<211> 453
<212> DNA
<213> Enterobacter cloacae
<400> 5077
ggcaataaaa tgaaaaaatt aatgatgtta gtcataagtg gtaccgtgct tgcaggttgt
                                                                      60
gtctcgcctg cgcacgccat aaacgcccat tatcgcgctc aattagagcg ttcgggatge
                                                                      120
acgcaaatta gcgctggcaa tggctcttgc gatgtcagca aaaccaaagc ggaaaacacg
gcacaacacg aaccaacggc atccgttcac gatcccctgc gtgaagcctc gttctcgtcg
gatacggtta acgccacgct ttctaacggc ttttttagcg ctaccgtgaa cggcaaaaaa
                                                                      300
gocagogtta aacgtotgaa tgogaattto tatgagatoo atggtaacgg ttttgtgata
                                                                      360
togataagoo tggatgaaaa oggtattacg gacgogtoat ggaataaaac gaagggacgo
                                                                      420
gaacacggcg ttttacgcgt tagtcagaaa taa
                                                                      453
<210> 5078
<211> 225
<212> DNA
<213> Enterobacter cloacae
<400> 5078
ggggttgttt tagaatggaa agaatcattt cggtacgtat tcgataatca atactataaa
aagatatttt tactcaatga aaaacacaac agtcttttcg atattgtttt taattattac
                                                                      120
gocattatet ggetgegtat tttcaceggg teageatetg gatettgetg gaaaacaggt
                                                                      180
gatgaccaca gaaaatgcaa acgatcgtct ggagaagcgg attga
                                                                      225
<210> 5079
<211> 276
<212> DNA
<213> Enterobacter cloacae
<400> 5079
aaagttaaaa aacagatggg gootgaaaaa aacgoogoca atatagagoo ttttgtcaco
                                                                      60
gggctcaatg gtttatttgt ttactgtttt gtgacacagg gcacagggca gggaagaacg
cogtttgtat ggggaagatt gcactttatg ctaaataaaa acagcagctt acgtatgatt
                                                                      180
tgtcagcatt gtaaaatcag acaaaagagt gtgacaaatc gtgcgattgg caggcgaaaa
                                                                      240
ggaggcagag agcetectta egetgtttat ttetga
                                                                      276
<210> 5080
<211> 291
<212> DNA
<213> Enterobacter cloacae
<400> 5080
atttatcact tccatttatg gactttggtt attgcatttt ataccttctc ttttgaatca
                                                                     60
attttctgca tcattgataa tattaactt: tcgcttcagg gtgagcttat gtctaacatt
gatgcaacag ccgtggcgca gcgtattgat actgtgctgg atattettgt cgcaggcgat
                                                                     180
tateactetg etateegtaa tettgagate eteaagtetg aactgetgge tgagaacgge
                                                                     240
gctgataacg ctccagaatc cactcaacct aaagccccgt gggaagtgta a
                                                                     291
```

```
<210> 5081
<211> 222
<212> DNA
<213> Enterobacter cloacae
<400> 5081
cagetggteg ccaaacatat geceatagge ategtteact tttttaaaat tateeagate
                                                                      60
gaggtaaact acgccaacct gcgtgtcacc ccgagcggtg atggcatcag agatcagetc
atggatggca tttcggttag gcaaaccggt aatcgtatcc gtattggcga gaacgcgcag
                                                                      180
gcgctcctgg gcccgacgct cctcggttat gtcggtacct ga
<210> 5082
<211> 336
<212> DNA
<213> Enterobacter cloacae
<400> 5082
agagaactga ttatgtcaca agaattagaa ttttcgcttc atccacccgt ttggcctgcc
                                                                      60
atogtotatt ttgttgtatc tgttgcaatt tttttcttgc tttatctcgg gaaactaaaa
                                                                      120
gttaacaggc tgcataaata cccgctattt atcgcatatc tggtgtttgt aatcgctgtt
                                                                      180
gcagccgttc agataaacat ctttgctaat ggctacgagt ttgtccgcag ctttttgcat
                                                                      240
atogattitg accordateg atatgaeteg gtatattggg gateattgtt titeteeata
                                                                      300
atttacttgc tggcgttgcc ccggaacaag ttttag
                                                                      336
<210> 5083
<211> 192
<212> DNA
<213> Enterobacter cloacae
<400> 5083
aaageggeet getggeeett geegtteagg gaagetattg egacagggga tggetactae
                                                                      60
                                                                      120
ctcgtctggc caaaaaattc actcaaaaga gagagcattc agcatcttct ggcctggctq
                                                                      180
caaaaccata ccccggtcgt tccggcgctg gatatcgatt atctggaata cgatgacagt
cgggtttatt aa
                                                                      192
<210> 5084
<211> 720
<212> DNA
<213> Enterobacter cloacae
<400> 5084
aagtgtgttt gtttgatagt aaggttaagt ggaaaaagta tccacagegg gategecege
catgcattca ggagagacaa gatgaaaatt qcactgatga tggaaaacag ccaggccgct
aaaaatccca tcatccttaa tgagctgaaa gccgttgctg atgagaaagg tttcccggtc
                                                                      180
tataacqtcq qtatqaqtqa tqaqaacqat catcatctca cctatattca cctqqqcatc
atggcgagca ttctgcttaa cgctaaagct qtcgattttq ttqtcaccqg ctqcqqtacc
                                                                      300
gggcagggcg cgttgatgtc cctgaacatc catccgggtg tgatttgcgg tractqcatc
                                                                      360
gatectgegg atgeetteet gtttgegeaa ateaacaacg gtaacgeget ttetetgeet
                                                                      420
                                                                      480
tttgcaaagg gcttcggctg gggggcagaa ctgaacgtac gctttatctt tgagaaagcg
tttaccggac gcaatggcga aggttatcca ccaqaqcgta aaqaqccgca ggtgcgtaac
                                                                      540
                                                                     600
gccgggatcc tgaaccaggt gaaagcggcg gtggtgaaag aaaactatet ggataccetg
egageaateg atcetgaget ggttaaaace geegteteag geeagegett eeageagtge
                                                                     660
ttottogaga actgocagga caaaqaqato qaaqoottog tgoqqqqtat tqttqqotqa
<210> 5085
<211> 501
<212> DNA
<213> Enterobacter cloacae
<400> 5085
```

```
atagtcataa tgagaggaac cggggcaaac atgacacttg atgctttatt tcagttaatg
aaaattatat oqooatotga aactocatca qatqqcaatt taqoqaattt tatqaccatq
cttatctcca ctaaaaatca ttctgacgcc cttttaccgt tttcgcagcg cgcgtatatg
                                                                      180
ctttcagttg cctatagcga tccccaaaaa gcagctgcgt tgctttcatc ctgtcagccc
                                                                      240
ggagcaggta acccactccc gctactcaac ttctccggct ggccggacgt gcgttacgcc
acgtcgggtg aattacagac gcccgagtct gaggactatt ttcacaagat ttcgtctgcc
                                                                      360
gecaegetat tacgegegge aatcattgat getgageaac agaaaaacae gecageattt
                                                                      420
tatattctgg ataaggtact cagcctgaac agcgctttgc cagaacgtta taaaaagatg
                                                                      480
gcaaacatat cttattcatg a
<210> 5086
<211> 810
<212> DNA
<213> Enterobacter cloacae
<400> 5086
gaaacaattq caqttatqqa aaatgttaaa caqtctqcac cacctcctqa ttttqttqtc
gaggcaatgg gtgaatatgt tgaaaaatat attacggcta tacattttat tccacggqat
gatgacaggg atoctcotgg cgaccactgg ggcactggtt ggttagttga agaatgcaat
                                                                      180
agaccccttc ttgcgacttg tgagcatgta gcaagtaagc aattacaagg aatacttggc
                                                                      240
tactcctgtc acggcagtga atccggaata tcagtaggtg gaaaatttac tgtttatcct
                                                                      300
tttgaattag attttgctcg tgctgatata tcgaaaacct ttaatatggt ggaccataaa
                                                                      360
ggtgaatgea cgaacaaaga acattacgec gatagtcact eccetgttge ggatgaatac
                                                                      420
ctctatgttt acggatttcc tggcgttgat gcccaggcag gtttcggaca acacgaaatc
                                                                      480
agggggatgg gcgtattttt gcgtgaagtt gaatttgacc caagtgcttt taccgaggca
                                                                      540
ccagtgccag ttttaggcga acatatttct tgtgcctgga gtacaaatct tgcttcacca
                                                                      600
ttaatgggaa cgaccggaaa cttatetett ccagatggga tgagtggete accettgtgg
                                                                      660
                                                                      720
aataccagat ataccgaggt aaccaatgca ggcggtatat ggaccccttg tgactctcgc
attacaggaa tagtatgggg gcattcagca aaaatgactc gactcttcgc cacgccagta
                                                                      780
gaatcattta aagatttact ttttaagtaa
                                                                      810
<210> 5087
<211> 183
<212> DNA
<213> Enterobacter cloacae
<400> 5087
tocattoatg tggtttatcc ccggcaaaaa cacagaggga gactttacct acagtctccc
                                                                      60
tgtgacagta agtetaaagg tggccatcac cgtttaactt ttatcaaact gactttcggt
                                                                      120
aaacggatct gegegacege cetgeaatgg gateetggea agegetgeat egatttegeg
                                                                      180
taa
                                                                      183
<210> 5088
<211> 2016
<212> DNA
<213> Enterobacter cloacae
<400> 5088
ggaacaaaaa tgaggggaag caaagaaaaa tctatgccgg atgttctgga ctctgcccag
                                                                      60
ttggtacgta ttgaagcogt acaccgggga ttcctttatc agcacttgta tgccgttggc
tgcttgctgc tggcacagaa agccagcgtg gagacagtaa ccgttgagct ggatgaggat
                                                                      180
attgaactca actocaggoa ggagogoatt tacgttcagg ttaaaacccg cctgaaaccc
                                                                      240
                                                                      300
atcattctca gcgatgtgtc tggcgcgctc gcgcggtttg cggagctgcg taacgagcac
actgatgggc gccgccaggg aagcgcttct ttcgttatcg tcqccaacca qqcgccaqqt
                                                                      360
ccacatotgc agaagatgat tgaggataag acgetteetg eggatgteeg ttttatetgg
                                                                      420
                                                                      480
coccagticaa cogotigagog ctatocogta ottococctig cotigggacae ogtiggotigat
gcggccgcgt ggtgcatcgc gcaagcagag caactgaatt tttcqttatt qtcgccaqaa
                                                                      540
tocctgatot ggaagotgge oggtotggto cagotogoog coacoggagg tgatgoogac
                                                                      600
ggacagcatg cgttttatac ccgggatctt cctgccctgt tcgaacagct catcgttcag
                                                                      660
ttacaggact tecetgeace geogacacte taceggeeac aaagagagga accetettt
                                                                      720
                                                                      780
```

gtgtctgatg agcggatacg catcatttgc ggcttgtctg gtgcaggtaa aacagcatgg

14

1 3

17

179

13

1.4

14 1.4

10

31 1,3

```
gcageacagg ccgcccagca cagtacccag gtgtgtgcgt attacgacgc tggcgacctt
                                                                       840
 cogggtcctg cacttqccaq tacqctqqtt cqtqaqctqq caqcccqqtt tqcqactcaq
                                                                       900
 gagcaaggtg gcctgcgaag aatactgctc cctggtgcca gtggcgttga agcgctgaga
                                                                      960
 acgttcgaca ccttcttgca gcaacggaac gacaatctgc tgctggttct ggataacgcg
 categtatee etgtggagaa ettgegggat gttetacaeg eeacaaeeeg tateeatttt
                                                                       1080
 gtgctgctgt gccagcccca tgacaatgtc cgtcaactgg aggcgatgac tggacttcag
                                                                      1140
 cgtgaatcgt tacagggatg ggatatcgac acagtggctg ccgcagtggc cgacctcggt
 gggcacgcca gtgcgctggg atatgagcag ctacgaagct acaceggagg gttgccgctg
                                                                      1260
 tatgtcgaaa gcgcggcgag agttgccgca gaggaataca aaggggatat agacacgctg
 tgtgctgaac tgcgacaaca ggaaaacagc acggaaaccg cgcaggaagt cattctcagc
                                                                      1380
 cgtgtctatc aggggtttga gccactggtc cagaacgctc tggcgttgtt cagtetgtcc
                                                                      1440
 gatgtggggc taagccgtga tgaagtttca gggtaccttg cccgctcatt gaatatccct
                                                                      1500
 ccaaacgggg cagccacatt aattaaaaaa atgcgggcca ccggaaccat tgaaaactat
                                                                      1560
 ggaaaccaga cgttaaaggt acacgatgct gtcagggcgc tggggctgca acacctgacc
 atgatggacg tggatategt aaataacgeg ttactggegt taaaagatet tttgattgag
                                                                      1680
 ageotteage aagaaegega caettegega ttttetette tgacacaaat atacatcaag
                                                                      1740
 cttaacgatg tcatgacgct catcggtcta tctggtgaag agctgtttta tgagatgggc
                                                                      1800
 attactgtcg acattatgga aagcctgaaa caggcgacag cttcggactc tctqqcqccc
                                                                      1860
 ttacaaaaat totgggcact cgatggactg gttttttccg agottaaaga cggtgtttct
                                                                      1920
 gagcaaattg cacaatggot ggaagcgatg ggagccttgc ttacagaaca tgagtttggc
                                                                      1980
 tgcccggaca gttatctgtg caagagcgaa gattaa
 <210> 5089
 <211> 324
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5089
gttcaggaga ctatgatgcg aattttatgt ctggatatcc ccgcacctgg agcatcgctg
gaaaaatatg ctccacacct taacgctgaa gcgctacacg cctggggatt gtataaatcc
                                                                      120
ggottcatcc gogacatota ottoogtoag gacagacotg gogtogotat tittettgaa
                                                                      180
tgtgactctg tcgatgaagc gatgaacgta atggccgaat tcccgctggc aaaagcaggc
                                                                      240
ttattaaget ttgagtgeat teegettgge teetttatta aetgggaaaa tetetttgee
                                                                      300
 gctgaattta aaaataaaga gtga
                                                                      324
 <210> 5090
 <211> 555
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5090
 aacttgcaca gctgggaatg gcatgacttt gatcaagaga gcactgaagt agaggctgat
                                                                      60
 gaattogacc aatacaattt tgatgttgaa aaaaatgatg tagtgaccag agaattttgg
                                                                      120
 gcaggotcag ttgccactgg tcatcgctat gctatcggtt ttgtaaagtc cgaaaaccat
                                                                      180
 agcatgetta atagettttt agggaatgee caacacaaeg geaagtegtt gaecataeca
                                                                      240
 gaaagtggtg cttgggtggt ctcgtttgac ctggctgatg gagaaaatag ctatgagcat
                                                                      300
 gttgagettg accetaggge tetaaggaat ttagtggatg gtgttgeteg tgeaetttat
                                                                      360
 gaccattaca atgittetaa agegggtett tattietgga tigeageeag agaagaacta
                                                                      420
 gtcagcatct atgataaagc tttgggcctg gtcccggaaa agacgttaaa gttgaagcct
                                                                      480
 ttacetttaa cagaaaacet caateagtta ggegagaaeg ggaggggtta tgecateate
                                                                      540
 acquautact actqu
 <210> 5091
 <211> 606
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5091
 gogagaacgg gaggggttat gocatcatca cgaaatacta ctgaaaaccc tacageegat
 cagetgtacg aagaagttac cogtaagett aagacageet ettecaatat tgetaagega
```

aagctegagt ceggtgagta tgtgatgeac aacggeagaa taatacegge aagegttetg

			2002			
ccatcattca gatgaacagg caaacatcac cagacggtgg gcgtatgatg	cccggaagtc ataatggaga ttcgtcctcc atgtacatct caaaatccgg	tgaggaagca atggaagggc catgcgtgta tgaccattca acagtttatc	aagcgaagga aggccactgg agccggaaaa agagctgctg gggattgctc ccggtcattt cacgctggac	ttcccgtctg gtattgctgc cacattttcg cgaagcacgg ctggtagcgg	gatagggggg ggcctcagta tggaaaaact ccagattttt aacgatggct	240 300 360 420 480 540 600 606
<210> 5092 <211> 270 <212> DNA <213> Enter	robacter clo	Dacae				
gacctgctgg gaaataatga gaaatcgata	agtcagcgcc agtcgcgacc	gcagcaccgg tgttttctca atgtaagaag	aatcttgagg gataatgtag ctggagccct caggtgctct	tcgcaattct caatcctgct	cgcgcagata ggcccgtaaa	60 120 180 240 270
<210> 5093 <211> 210 <212> DNA <213> Enter	cobacter clo	pacae				
aatttaagga aaccaggtca	agaagctact	cactatcaca aagtttatat	gtgtatgggc gacacacaga ggcattgaat	acagaacgaa	tgaccttttt	60 120 180 210
<210> 5094 <211> 825 <212> DNA <213> Enter	obacter clo	oacae				
agtgcacaat gcctcccggt ggcaaggtac attaatgcgc cagtcggcgc ctcaatgagc atgggtgtat tttttactg tggctctttg agccagcatc acagcctgcc	atgtaagaag atccgactga ccgaggagta tatttgaaaa aagtccgttt tgaaaaagac acggcctcta cggagctgaa tttcaataaa gcagcccgct ttctggctgg acgctatat	caggtgetet ttecgageet tetgacagtte egacaaggtt ttetggeegg catecttagt tgeettgeta gaacgtacce aactaaaaac tatgaggeeg attetttgag tgegtggeg	attaaaattg gccgggatat	gccagaaacg ggttttcgcc tggagcacgt aagcctacga ttgttccggc tctttgtcag tcttgggcat tcggaacctg atgaaatcta gtacgctgtc ttttggtct	ctatttigtg tgttggtgat tattcagacc acaggtattt aagccaggcc acacggata gacgcagtac tacaggctcc Cgagaacatg atcggctgtt aacaggctgt	60 120 180 240 300 360 420 480 540 660 720 780 825
<210> 3093 <211> 363 <212> DNA <213> Enter	obacter clo	acae				
<400> 5095 cgccattcgc aacatcatat						60 120

			1903			
cgtgctgctg tatagagagg	atagcgcaga ggttagaaat	taatctaaaa gatgtatttc	ggaggactga aatttetgee ttgategaac gaaattgtea	caatatttta ccatgatcat	taacgcctta gaagtcttgc	180 240 300 360 363
<210> 5096 <211> 507 <212> DNA <213> Enter	robacter clo	pacae				
atcactttgc atgtattaca ttagataaag gatgccacaa tgtaaaaaac catagaaatg agcgatgtag	ttggcaagga gcgaagaaat cgttaatagg cacgcttact ttggttctga ttatatttcg	catgttegat tattaageaa egttaaagaa ttattataea agatgteaga aatgttgaat aateettgaa	tttatggata gatcgaatga cctggaactg ggtgtacaat tcctgtctta tttatttgcg atatatatag aacttaacgc	acatagcaag acaaagagct attatgtaaa cagaaaatta ctctatatga aaaccctctt	ggagcacgtt agctgtgcgg tggtcttggc tcaagatgtt actagtcaaa aaaaaataaa	60 120 180 240 300 360 420 480 507
<210> 5097 <211> 183 <212> DNA <213> Enter	cobacter clo	pacae				
catctaaatg	ctttttcacc	cgccagttcg	tgcaaatggc ctgcttattc tgtttactat	cgcagaatta	taagaaattc	60 120 180 183
<210> 5098 <211> 204 <212> DNA <213> Enter	robacter clo	)acae				
gcgaacctgg caggttaagg	taggtcagtt	cggcgaagcc cgacgggttg	cagggcatgg aattccgctc ccaggcgtta	gcgagcgagg	agagetteat	60 120 180 204
<210> 5099 <211> 237 <212> DNA <213> Enter	robacter clo	pacae				
gagaagttgt gegeattata	acgttgtttt cgctgattta	ttgtattcca cagtaaaaag	gtgcctgagt agcgctgaaa gaaaatggaa gcgttaaggc	ccattcacca acagcgtttc	gggatttggc aaaaacaatc	60 120 180 237
<210> 5100 <211> 186 <212> DNA <213> Enter	robacter clo	pacae				
<400> 5100						

cgaccagtga	atgcggagaa	cagogogoaa	cgtgttcttg	tacggcggtt agtcaatact ggttccatga	gcctgtcgcc	60 120 180 186
<210> 5101 <211> 1319 <212> DNA <213> Enter	robacter cl	oacae				
ttaacoccog coacagoac ttcageatge tatteageat tatteageat get tattaaaaaa geggggett ttttatgeg aaggegaag gtcaacctga cogteogeet aggaaggaagg ggaageagaag ggaacacacg ggagacgaa ggtgaaccaca ggtggacgaa cottgeeggac	ogotttottgo catgutgtatg ccaacgagg gtgaatogot cctattatta agotgotag ccaatggcaa atgccgtgca acceggtgaa ctctggatag atgcagcgca tccggtgaa ctctggatag atgcagcggt atgcagcggt ttcacagcc cgaaaaacag aggatcctgc	caccgoactt cagttattoc tatgctgcac gcgtaccag gtcgctaaaa agcatcgaac gggtacacc gggtacacc ggttacacc ggttacacc ggttacacc ggctacacc gaccagac cagcagac cagtaaagtc cagtaaagtc cttatacaca cggtaccc cttatcaaaa cgacccag ccagacactt ccagtttaaa	ctgttacca cacactcg gattttttg gaaaagacca ttgccggacg gttgacgcct cacggcaccg gcattcagt aacgcacct gtgaacatga cagctttccc tatacggcac gactttccc tatacggcac gactttccc gtgaacatga cagctttcc tatacggcac gactggcac gcagaggcac gcagaggcac gcagaggcac tcatcggcac taccggcgtaa	tgataatgaa tgaaggagg ggatyatgc gtaacgtgca cdcagataa gacggtggt gccaaatcc gccaaatcc tccagaactg acgataacgaa atattgcgta tcgaacccat tdgacgcccat tdgaacccat tdgacaccagat atgctgact tdgaacacgag acgatagata acgttagct tgcaggataa agttcacaat gatttttgg	acacqctgqt cattatgatg tacqgatgct caaaqcagac caaaccgcc ccgttccag gcattatacc ctgggacgg aggacaqtgt cgtgctcccg catgaacggc atgaatgc catgaacggc	60 120 180 240 300 360 420 480 540 660 720 780 840 960 1020 1080 1140
accgtaagct	ggcattcacg	accgtcctgc	aactaccgct	cggatgcggt aggatccgcg	gctttacctg	1260 1319
<210> 5102 <211> 573 <212> DNA <213> Enter	robacter clo	pacae				
cttacaaata aaggaaacat cagcaccaag gcggtgatgg tttgtcatgt gccggcgcaa tgggcaatct gggtatgtgg	gtcaactcat categacacg caggtgegaa ttgegtggct cgatactegc cgatgtgegg tcaactggaa gggtggattc	tggcccgcca cctacttgtt catgaagaaa tgtaaaccac tacctcgcgc gatcctatgc ttttccccct	tcaaaagegg aaategteee accactatge aaaaacgaag ggegegaaat ttettegete gagetttget tatgegegee	taggtettac getttttta gagggeetga aagacagace etggetatte caaagtggaa agcetacact ggeecatete gtegeettgg	tttcaggete cctaatcaat agatacctgg ggtactgget agaccggate cacggetata ggctggegte	60 120 180 240 300 360 420 480 540 573
<210> 5103 <211> 474 <212> DNA <213> Enter	obacter clo	acae				
acgaagatcc ctcgatctga	ttatttcctc gttgcaccat	cetgecagee caaagaaatt	accaaagaaa cagttcaccg	tttatgaaaa cgatggattc gtggtcagaa acggcctgcc	cgcaacette gcaggatate	60 120 180 240

			1303			
tatgacaacg ttcctggctg	tgteeggeaa ataegaeeta aaateegeea tgegeetgaa	cgctttccag gcacacctgg	gttatcttcc tcttcaggta	cgtccggcaa ccaacggcgt	gggctttaag agtggcggca	300 360 420 474
<210> 5104 <211> 441 <212> DNA <213> Ente	robacter cl	oacae				
aaaacgttgt tgctccagag ctgatgccgc ataaagcatc ctgccagaca gtcggtcagt	tgacgatctg catgtctgaa cgagattaag tgttgagcgg cagccctgaa atccctcata gcaacatcga cagtgcagtg	gtcgcagaac cgctacctgg ttgcgcgcag ccttccggcg cggtgacagt ccgggaagca	aacgggetga eggeagataa eageagaage gagetgaegt gtttegatga	gteggeeaag gtgegetget egeeegtgga egegeettga acgegacact	cagaaccgaa geteetgtte atacegggtg tgtgeeggat ttaegggate	60 120 180 240 300 360 420 441
<210> 5105 <211> 702 <212> DNA <213> Ente	robacter clo	pacae				
tcgaaatatg ttatcggtac catggaacga tatctgctgg caccggaaag aaaacgttg gagctgaca atgagaaaga tgtcttaacg aaggcaggct	gcacgcgaac gttcagggct gatcccgtaa cagagaaqct tgtatgcgcc tctattacga gctgggacac atcttgtgcc caatgcgaga aatggcgga agggacatcag tggcgaaaat	teegeaegee cagecaetae cageaeaaga cgateateet caaacatggg cetteacate aagttgeeet gaacteegae ttacetgggt tatggtgtte	catgotgoct tgtgaaaage aaggatggoa ttggcatgtg gotggacogt gaccacotog gtgtgoaatc ogcagatata atttogagaa agcotogoa	gcattgtgga attacatgcg agctggagca ggagtcetcg tccgttgtca atgactgtaa agaagcgagg ccgtcaccgg actccattga ttggtaacag	tggatgcgaa cgtceggcgt cactggcgga tgtttacgag ctggtgtgca gaccaataac cgtagacaag caagacgatg gtatcgactg	60 120 180 240 300 360 420 480 540 600 660 702
<210> 5106 <211> 465 <212> DNA <213> Enter	robacter clo	pacae				
aaggatetgg geeggtgegg etgaaaaaa ggegteeata aataaceega geacateegt	gaaaatgat aggegettag aggtgettaa aegtgggtggt ttegtggegt gaaaegeett ttgtgegaee tgaateagge	ccgcgctgaa ggacgaagtg tgttacccaa taacctgcgc ttactggcga cgcttacgat	aacaataagg atcgcacgtg aaaagccgcc accggaaaca ttcgttgagc actcgcgagg	ttettegtga caecggtacg geogegggga gegataacae tgggcaecge aagaggeege	tgccacgcgc caccggaaaa gatttcttcc gatgaaggcg gaacatgcct	60 120 180 240 300 360 420 465
<210> 5107 <211> 288 <212> DNA <213> Enter	obacter clo	acae				
<400> 5107 aaacatcgag	tetggeteet	gagaggtege	atgaagaata	ttaaaaatct	cgccctggct	60

			2,700			
aagatgtegg ( gtteteegtg a getgatgatg a tgetetteat (	ageegtetgg aaaatgtgte	agaagcctgg ggtatcggaa	etgegetgge aaggcacace	aggaggtggt gtaatctttg	gaaagcgggt	120 180 240 288
<210> 5108 <211> 231 <212> DNA <213> Entero	obacter clo	pacae				
<400> 5108 gttgaaaagg q ccggaaaatc q cgtaataaca a gagggatccg q	cgtttacgtt atgacaaagg	tcagttaaac ccacctgcgg	gagtttattt gtggctttat	acgattgcgt ttaatggcgt	attattgatc taaccagcga	60 120 180 231
<210> 5109 <211> 183 <212> DNA <213> Entero	obacter clo	pacae				
<400> 5109 accttcaatg g aaagtgatgg g cgtgtgtccc a taa	gegaggeega	tgcgacggcc	tgcgccagtg	atcaatattg	ggcgttgctg	60 120 180 183
<210> 5110 <211> 189 <212> DNA <213> Enterd	obacter clo	•acae				
<400> 5110 cttttacaag t accgettege t agtaaccceg a aacgaacga	tgcgcgatt	tateggteet	gaaggcgaat	ttaaggtaaa	tatctctgtc	60 120 180 189
<210> 5111 <211> 282 <212> DNA <213> Entero	obacter clo	acae				
<400> 5111 ggtattcata t aaaattcaga d tacagcaggt d ccgtccgcca g tcggtgatgc g	cagaggeggg egeegateat gtttatetae	ggaaagacge ttttttccagt ggccattgga	gtgaccggga ttttcctggt tcctggttgt	acceggteae egatageaaa getgeeaeag	gcagaatgat cttacggata	60 120 180 240 282
<210> 5112 <211> 198 <212> DNA <213> Entero	bbacter clo	acae				
<400> 5112 cctgtgctat a ggaggtctta t gtgcgcctga t gacaactctt c	gaatgaatt gctgttgaa	caagaggtgt	atgaacgtgt	ttacccactc	tccttttaaa	60 120 180 198

```
<210> 5113
 <211> 525
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5113
 aatttacagg atgcattgat gaaaaggata tttttatcag tcgctatgtt gctggtggga
                                                                       60
 tgtagttctg ctgccagtca agagcagagt gcgaaagata ctaccgtatc attttataaa
 toctatottt gtgcattogg cagtaatgaa gocaggooot atootgooga cgaactgogt
                                                                       180
 aaatatgttt ctgctgatac tattgctcgc attggtgcta ttcaggaaat cccggaacaa
                                                                       240
                                                                       300
 gaattaatag agtotgacta ttttacgtat acccaggatt acgcccgcga atggatacct
 gcgttacggg tggaaaacgc aaggccattt ttaaacgggg aagtagtcca ggtgatggaa
                                                                       360
 ggggcaggtg gcgggaggag cattcacctt gaagtatttc ttcgtcgtga agatgatgca
                                                                      420
 tggaaaatct accgcgttcg tgacttaacg aacaatcacg agcatcccat attcaatgcc
                                                                      480
 ggagcaattg cocaggcaaa aattgcagcc gaaageggge tttaa
                                                                       525
 <210> 5114
 <211> 441
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5114
gcattattta accaacatca ggttaatgac tggcacaata attccgttct tacttactta
agggaactaa gaatgagttg gaataaagat gttgctgttt cgtatctccg ttcacacgcg
                                                                       120
ctggggcact ctcatagtga atgtgctaag tttacccqtc tgqcqattct ggctggagqt
                                                                       180
gttaaggtgc ctaatacaga ttatgcaaaa gattatgggg cggaattatt acgtgctgga
                                                                       240
ttccgtgagc tgccgcccgg ttcgacttta atagctggcg atgtggctgt gatacagcct
                                                                       300
tatcccggag gaaacggcat aggtcacatg actatgtatg acggcacgca gtggatttct
                                                                      360
gattttgttc aaaaaagcat gtatccgggg cctgggtacc gcaaaatgca accatcattt
                                                                      420
aaaatttaca ggatgcattg a
                                                                       441
<210> 5115
<211> 192
<212> DNA
 <213> Enterobacter cloacae
 <400> 5115
 aaacgggggc gagctaccgg ctggtattac gcgacgcacc cggccctgaa aacgggctgg
                                                                       60
 atgcgtttcg cgcctgtctg ctcagtcgag gctgacgtgg tgtttcatca cccgtttgaa
 gaggotoata ogggoacgca tgaagoggtt ttcaagooga aaacetgcat gtttattcac
                                                                      180
                                                                      192
 accaatacqt aa
 <210> 5116
 <211> 210
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5116
 ggattgaaat tttccggcga tccttcggag caatacacca gcgtttttgc cgcgacggtg
                                                                      60
 quactgaccq tcaqtqcaqc aagcgccagc qttatcattq tqaatqtqct tttcatcatt
 tattcctgtc tttttaattc gacggctaat tacttctttt gccatttcat aaataacatt
                                                                      180
 aaagtgatgg cgcaaacaca tgaaaaataa
 <210> 5117
 <211> 522
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5117
 ggatgttete actatgtetg cetttgteta egettatttt atggtgegaa attagatttg
                                                                      60
 cataagatgt gccagaaaag cagcattttt acacgacaaa acagcaatat agcgagtaaa
```

			1968			
ttttgcaaag tacgttcgta cgccgtagag aaacagaaaa accccgtgcc	ttgaaacaca caggtgaaat tatggatagc acgcgtgtcc agttcaaact	gtatggcctg catcaccacc gcaggcaatg aggcaaccgg gtgcccgttc	actattgcga aattatatcc tcaaaccagg ccctttacat caagagatgg ggcttaaaac ggcaggcttt	tgtggttaaa ggatcctgat ccataggctg atcgtccgtg ggtatattcc	gggagattat aaacgatcga gatggggttc cacggctgaa	180 240 300 360 420 480 522
<210> 5118 <211> 183 <212> DNA <213> Enter	cobacter clo	Dacae				
cttgcccact	ttttagtggg	ctttttttt	acgacattgc tgcctcaacc cttctgaata	caccaaaatc	tggcgttttt	60 120 180 183
<210> 5119 <211> 843 <212> DNA <213> Enter	cobacter clo	pacae				
cgcaccgata aaacgtggatg gatggtt gttgaaggcc gaccgtatcc accagtaaca cataatgcet actgtcgaaa tccgggaacg ggtgaggttc cgcagcgtta agcctggcgg gtcgtggaga tga	ccgggatgtt atgatgagcg ttgttectcc accgtcggcg acatcatgcc accagetccc tcaaccagac agcttctgct tgtctgtaga ttcagaagga tagcgccaga gtataagcga	catcagcett taccegceag actggaagtt tegetgetat gtteaacggt getatecgat caccageag tettagcaca tgtggeegtt taaagettet aattagcgtt cacaggtgtt	aagcaaatga gaccaaatcc gcagatgatg atcgcccgcg gcgcgctgtg aacgatgttc atggaacagg atagcaaagc gccaatcacg gaccgagtaa gctgctgcca aagaaagcgc atctatctcg atcgccgttc	atgtgcggga acctcttcaa atgaaggtgg cagaagcagg agcgcctggc ctgctgttat tggttaataa acgttcagaa aagagtttgg aaggtaagaa gtcgccttgt aaggattggt	aggitteaac ctacctgatg agtitgggtt taagccagta gcgcatcatg tcaggagctt gtctgtccct agaagttaag cgaaaaggcc gaaagtcacc aaggctgatc ccatgcagaa	60 120 180 240 300 360 420 480 540 660 720 780 840 843
<210> 5120 <211> 282 <212> DNA <213> Enter	obacter clo	oacae				
agtettegea getgaagaag agttttgeea	ctgaggttcg aggcatctga gagcgataga	ccacgagetg ttgggaatca gaaageettg	cttgaagaag gaatatgaat cgggcagaca cttgcaccaa gaatattttt	acgatgaccg gttacgaatg ccttggatga	tatttcttct cgatgcgatt	60 120 180 240 282
<210> 5121 <211> 462 <212> DNA <213> Enter	obacter clc	pacae				
<400> 5121 tacttaatga ttcagcgctg	atatttacga tgcagagcgc	atttggcagc tcataacacg	attcaagtgc gagaaactat	cgggattcgt ccatgacgaa	gcaaccaaaa cacacagaac	60 120

			1969			
geceetetee tataceageg getactetge cacacgaaga	tacaaccacg ttccgccagc tcgcgctttg gtgaagatgt gcagaaccaa tcatttccca	ttatcgcggc tgaggcgatg cgcaagctgg tatgcattta	attatgaccg gctcagcgta gccaaagagt ctggaagccc	aactggctaa aggaactggc gtgaccgcat agcgagaatt	ccgcctggac tgttcagaac tgttgaacgc	180 240 300 360 420 462
<210> 5122 <211> 339 <212> DNA <213> Enter	robacter clo	Dacae				
gcgatgatcg ctgtttggcc caattacctg gataaccagc	gcagtacgtt tgggtgcgcg tttgtcagcc atacatcagc acggttttgc acaacgtgga	tacggcggca gggccagcgt acgtgcgctg gtttgttcgc	ggccgtcgaa tttgtaaacc tggctggtca ccggaacatt	atatcggtaa cggttaacgg ccggtgatgt	atcegtggag egtcatgacg ttaegeettt	60 120 180 240 300 339
<210> 5123 <211> 219 <212> DNA <213> Enter	cobacter clo	pacae				
ogcogtgata gaaagagago	catatgccat actacaactt tgatcgcctt cctgcgattt	tgactggagg tggcttaaaa	cattattcgt tcatcgccag	cctcctctcg	accaaggtat	60 120 180 219
<210> 5124 <211> 198 <212> DNA <213> Enter	cobacter clo	oacae				
aaacatcttg	aagcggatga attacggaat gcaggtttaa caccctga	gatgttctct	ggtcagtgtg	agaacaggta	tcactataag	60 120 180 198
<210> 5125 <211> 282 <212> DNA <213> Enter	cobacter clo	pacae				
ctgctccatg tttaaggcgg gatatgagct	ggcateggca actetggegt egeaggegee ggcagatage etectetega	acaggtccga gctgtttaag gaacatcacc	ggetteacet tttteteace geegtgataa	ttocaccagg atatgccata ctacaacttt	caacgtcggc cccggtcatg	60 120 180 240 282
<210> 5126 <211> 186 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5126 tgggtcgtcg	tcccggtcac	gtcatcagac	ataacgattt	cacctgtgat	ttgccaatac	60

						120 180 186
<210> 5127 <211> 210 <212> DNA <213> Enter	cobacter clo	pacae				
-1005 F107						
ccttcatctt aggatctgct gagcggggga	tcatgggtaa agagttcaca	gocttcaatc ttttgttgaa	atttgttatg	tegtaagett	acctgatttc	60 120 180 210
<210> 5128 <211> 399 <212> DNA <213> Enter	obacter clo	pacae				
gcctgtatca gaggagttga gtacaatgtt gggcagaagt ataagaattg gatgctctaa	agcagacttt teteeteeaa ttgegeeata aagtegeage agttgattea	tgtagaagaa tccaggcata ccttcttaag cgatagaaaa agctgctgat	tgcagtattg cgtgaatatc gtactgaact atcatagact gccattcggg	toggcattga tgagcatttt tgttgcagtc tacaaggtgt	cgccaaaaga agttgaacgt aaaatccaaa aagtgttgat	60 120 180 240 300 360 399
<210> 5129 <211> 315 <212> DNA <213> Enter	cobacter clo	pacae				
<400> 5129						
aacgataata ctgatttcac tggggaaaag ccattaccag ttagatgaaa	atagtcaaat gcaatgtttc aggacgcatt ctgctcaacg	gttgttacga tcaaggtgct tggagccaac	tecagagaet gttetteaea gteaatatea	atgacgaaaa aagattatgt aaatagataa	gctgaattac tatattcgac ttcttttata	60 120 180 240 300 315
<210> 5130 <211> 687 <212> DNA <213> Enter	obacter clo	acae				
<400> 5130						
actttacaga caaatcttag cctgatttt gaatcagaaa acggcattta cttgagaaaa gctgecctgg tatgaggata ttgtctcgac ggaatgctga acgcaggcga	ceggegeaga acaaggtgea ceegetttte cagggetgaa actgtatgge egeceatet ctcagtgget acaceggeaa agaacatete tettaaaate	aatetetgat ggaccagtat actgegtage agagttttat ggtaatteag gaaaacteeg ggcagaagteg aacetgtate agteaeteeg aaagetgggt	agtgaaattt tacggtggaa aaatccaaag caggatgetc gcagcacgca ttaggttatt ctttctcatt gcgttgtggt ttaatccagt	tcaaagaatt atggtattta gtgtattgta cgcttgttga caatcaagat tgatgggctc atgctgatgg ctgacaccgt tcagtctcaa	aactattgaa tttcaactct tctggccacc aactgaggat tattgattta taaagctgtc tattgaatat tgatggaaac cggacaaagt	60 120 180 240 300 360 420 480 540 600 660 687
	tgggctgttgg aactga actga actga actga actga c210> 5127 <221> 210 <212> DNA c213> Entei <ul> <li>&lt;400&gt; 5127 cettcatctt aggatctggggttcatcatctt aggatctgggggattcgcttac</li> <li>&lt;210&gt; 5128 </li> <li>&lt;210&gt; 5129 </li> <li>&lt;210&gt; 5120 </li> <li>&lt;210&gt; 5129 </li> <li>&lt;210&gt; 5130 </li> <li>&lt;211&gt; 687 </li> <li>&lt;212&gt; DNA </li> <li>&lt;213&gt; Entei </li> <li>&lt;210&gt; 5130 </li> <li>&lt;211&gt; 687 </li> <li>&lt;212&gt; DNA </li> <li>&lt;213&gt; Entei </li> <li>&lt;210&gt; 5130 </li> <li>&lt;211&gt; 687 </li> <li>&lt;212&gt; DNA </li> <li>&lt;213&gt; Entei </li> <li>&lt;400&gt; 5130 </li> <li>&lt;211&gt; 687 </li> <li>&lt;212&gt; DNA </li> <li>&lt;213&gt; Entei </li> <li>&lt;400</li> <li>&lt;130 </li> <li>&lt;211</li> <li>&lt;687 </li> <li>&lt;212</li> <li>&lt;100</li> <l< td=""><td>tggctgtigg gtcatgggt aactga  &lt;210&gt; 5127 &lt;211&gt; 210 &lt;212&gt; DNA &lt;213&gt; Enterobacter clc &lt;400&gt; 5127 cettcatctt caggttaag aggatctgct tatagggtaa gagatctgct cataggtaa gagatctgct cataggtaa stagecgggga agagttcaca ttcgcettac ceggcctacg  &lt;210&gt; 5128 &lt;212&gt; DNA &lt;213&gt; Enterobacter clc &lt;400&gt; 5128 gcctgtatca tgtcatcaaa gagagttga agagsttcaaa gagagttga agagsttta ttcctctcaa ggacagaatt totcctcaa ggacagaatt totcctcaa ggacagaatt totcctcaa ggacagaatt totcctcaa ggacagaatta totcctcaa ggacagaatta totcctcaa ggacagaatta caatagaaattg &lt;210&gt; 5128 &lt;221&gt; DNA &lt;213&gt; Enterobacter clc &lt;400&gt; 5129 aacagataaa aagtgattca catagaaaaaaaaaaaa</td><td>tgggtgttigg gteatgegtt getggtggåt aactga  &lt;210&gt; 5127 &lt;211&gt; 210 &lt;212&gt; DNA  &lt;213&gt; Enterobacter cloacae  &lt;400&gt; 5127 cetteatett ceaggttaag acgeaggagt taggatetget teatgggtaa gectteaate gagegggga agagtteaca tittgttgaa ttegeettae cegectaeg etittgttaa  &lt;210&gt; 5128 &lt;221&gt; SNA  &lt;211&gt; 399 &lt;212&gt; DNA  &lt;213&gt; Enterobacter cloacae  &lt;400&gt; 5128 gectgtatea tgteateaa aaateaatee gaggagttga ageagettt tgtagagaa ttegeettae ageaggatt ttgagagaa gtacaatgt tetectecaa tecaggeata ggagagatgt teteceaa tecaggeata ggagagaagt teteceaa cettettaag ggagagaagt tetececaa tecaggeata ggagagaagt tetececaa tecaggeata ggagagaagt tetececaa tecaggeata ggagagaagt tetececaa tecaggeata ggagagaagt etitggeeaa eeticttaag ggagagaagt etitgeagaa geagatett tecaggeata gagagatata acagtgatte egeaaaacac  &lt;210&gt; 5129 &lt;211&gt; 315 &lt;212&gt; DNA  &lt;213&gt; Enterobacter cloacae  &lt;400&gt; 5129 aacgataata aaaacegagg taatgtaatg tggggaaaag geaatgtte teaaggtget tgggggaaag etitgateaag tgggggaaag etitgateaag tgggggaaag etitgateaag tetgattea aggaegeat tggagecaac ttagatgaaa cetgeteaag etgattgta cetagttgta cettacaga aggaateate catgaacea cattacaga aggaateate catgaacea catgatett acagggeggaa aatetega cetgatttt acaaggtge gggagatttat cetgatttt acaaggtgea ggagatttat cetgatttt acaaggtga ggagagtttat cetgatttt acaaggtga ggagagtttat cetgatttt acaggtga ggagagtttat cetgatgagaa actgatage ggacagata gatgaegeata cacaggaat acaceg tagaggata cacacegeaa aacetgtae tgaatteaa aaceacegaa aacetgate gaatteagaa accacegeaa aacetgate tgaatteaagaa acacaggaa aacetgate tgaatgaa acacaggaa aacetgatea</td><td>tggctgtigg gtcatgcgtt gciggtggat gactgttet acactga  &lt;210&gt; 5127 &lt;211&gt; 210 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacae  &lt;400&gt; 5127 cettcatctt ccaggttaag acgcaggagt gccgcgatat aggatctgct tcatgggtaa gccttcaatc atttgttag gacgcgggag agagttcaca ttttgttaa cattgtgtgg ttcgccttac ccggcctacg ctttggttaa  &lt;210&gt; 5128 &lt;221&gt; SNA &lt;213&gt; Enterobacter cloacae  &lt;400&gt; 5128 gcctgtatca tgtcatcaa aaatcaatcc cagtatttt gagagtgtga acagacttt tgtagaagaat tcgagtata agagttcaca tttggtaa ctcgagtata agagttcaca cttcttaag gtacgagttg acagacttt tgtagaagaa tgaagattta tccccaca tccaggcaagaagt ttgcgccaca ccttcttaag gtacfataa agagagtagaacaagattgaagaa cctgattagagaa acagacttt tgtagaagaa atcataagac gatgctcaa agtggtacaagat cgaagaacaa acaatcgg gaagaatatg acaggtgta agaggtagaaaa acaatcga  &lt;210&gt; 5128 gcctgtatca tgtcatcaa agatgatgaagaa atcatagaca gatgctctaa agtgcgaga cgatagaaaa acaatcgg gaagaatatga acagtgattc cgcaaaacaa acaatcga  &lt;210&gt; 5129 acagatata agtgcaaga gatagaagaa acaatcga  &lt;210&gt; 5129 aacagatata acagtgagg taatgtaatg aatggaaaa ctgatttcaa atagtcaaag gtgtgttacga tccagagaaca cattaccaa agagaactgtt tcaagaggaa gcaatttc caagaacaa gcaatttc caagaacaa ttgagacaaa gcaatttc tcaagaagaa ctgattaca cattaccaa agagacqcat tgagaccaa gtcattacaa agagaacatca cattaccaa agaacatcaa cattacaa agagaacatca cattacaa agagaacatca cattacaa agagaacatcaa cattacaa agagaacatca cattacaa agagaacatca cattacaa agagaacatcaa cattacaa agagaacatca cattacaa agagaacatca cattacaa agagaacatcaa cattacaa agagaacatca cattacaaa agagaacatca cattacaaa agagaacatca cattacaaa acagaacatca acaagaacaca acaacaca ttagaagaa accaacaca acaagaacaca acaacaca ttagaagaa accaacaca tacaagaacacaca ttagaagaa accaacaca acaacacacacacacacacaca</td><td>tagottytag gteatgogtt getggtggat gaetgittet ggageaatte aactga  &lt;210 &gt; 5127 &lt;211 &gt; 210 &lt;212 &gt; NNA &lt;213 &gt; Enterobacter cloacae  &lt;400 &gt; 5127 cetteatett coaggitaag acgeaggagt geeggatat eggggteate aggatetget teatgetgaa geetteaate attigitatig ggttatgeettegetteae ceggeetae tettigitaa eattigitagg ggttatgeettegettae ceggeetaee tittigitaga eattigitagg ggttatgeettegettae ceggeetaee tettigitaa eattigitagg ggttatgeettegettae eeggeetaee tettigitaa eattigitagg ggttatgeettegeetae eeggeetaee ettigitaa eattigitagg ggttatgeettegeetae eeggeetaee ettigitaa eattigitagg ggttatgeettegeetae eeggeetaee ettigitaa eattigitaggagatga eggagitag agaagatett tigtagaagaa tegagtatig teggeataggagaagategaagaatga eggagatag eggaatate tigtigeagteggagaagatgagaagaatgagaagaatgagaagaagaatgagaaga</td><td><pre> 210&gt; 5127</pre></td></l<></ul>	tggctgtigg gtcatgggt aactga  <210> 5127 <211> 210 <212> DNA <213> Enterobacter clc <400> 5127 cettcatctt caggttaag aggatctgct tatagggtaa gagatctgct cataggtaa gagatctgct cataggtaa stagecgggga agagttcaca ttcgcettac ceggcctacg  <210> 5128 <212> DNA <213> Enterobacter clc <400> 5128 gcctgtatca tgtcatcaaa gagagttga agagsttcaaa gagagttga agagsttta ttcctctcaa ggacagaatt totcctcaa ggacagaatt totcctcaa ggacagaatt totcctcaa ggacagaatt totcctcaa ggacagaatta totcctcaa ggacagaatta totcctcaa ggacagaatta caatagaaattg <210> 5128 <221> DNA <213> Enterobacter clc <400> 5129 aacagataaa aagtgattca catagaaaaaaaaaaaa	tgggtgttigg gteatgegtt getggtggåt aactga  <210> 5127 <211> 210 <212> DNA  <213> Enterobacter cloacae  <400> 5127 cetteatett ceaggttaag acgeaggagt taggatetget teatgggtaa gectteaate gagegggga agagtteaca tittgttgaa ttegeettae cegectaeg etittgttaa  <210> 5128 <221> SNA  <211> 399 <212> DNA  <213> Enterobacter cloacae  <400> 5128 gectgtatea tgteateaa aaateaatee gaggagttga ageagettt tgtagagaa ttegeettae ageaggatt ttgagagaa gtacaatgt tetectecaa tecaggeata ggagagatgt teteceaa tecaggeata ggagagaagt teteceaa cettettaag ggagagaagt tetececaa tecaggeata ggagagaagt tetececaa tecaggeata ggagagaagt tetececaa tecaggeata ggagagaagt tetececaa tecaggeata ggagagaagt etitggeeaa eeticttaag ggagagaagt etitgeagaa geagatett tecaggeata gagagatata acagtgatte egeaaaacac  <210> 5129 <211> 315 <212> DNA  <213> Enterobacter cloacae  <400> 5129 aacgataata aaaacegagg taatgtaatg tggggaaaag geaatgtte teaaggtget tgggggaaag etitgateaag tgggggaaag etitgateaag tgggggaaag etitgateaag tetgattea aggaegeat tggagecaac ttagatgaaa cetgeteaag etgattgta cetagttgta cettacaga aggaateate catgaacea cattacaga aggaateate catgaacea catgatett acagggeggaa aatetega cetgatttt acaaggtge gggagatttat cetgatttt acaaggtgea ggagatttat cetgatttt acaaggtga ggagagtttat cetgatttt acaaggtga ggagagtttat cetgatttt acaggtga ggagagtttat cetgatgagaa actgatage ggacagata gatgaegeata cacaggaat acaceg tagaggata cacacegeaa aacetgtae tgaatteaa aaceacegaa aacetgate gaatteagaa accacegeaa aacetgate tgaatteaagaa acacaggaa aacetgate tgaatgaa acacaggaa aacetgatea	tggctgtigg gtcatgcgtt gciggtggat gactgttet acactga  <210> 5127 <211> 210 <212> DNA <213> Enterobacter cloacae  <400> 5127 cettcatctt ccaggttaag acgcaggagt gccgcgatat aggatctgct tcatgggtaa gccttcaatc atttgttag gacgcgggag agagttcaca ttttgttaa cattgtgtgg ttcgccttac ccggcctacg ctttggttaa  <210> 5128 <221> SNA <213> Enterobacter cloacae  <400> 5128 gcctgtatca tgtcatcaa aaatcaatcc cagtatttt gagagtgtga acagacttt tgtagaagaat tcgagtata agagttcaca tttggtaa ctcgagtata agagttcaca cttcttaag gtacgagttg acagacttt tgtagaagaa tgaagattta tccccaca tccaggcaagaagt ttgcgccaca ccttcttaag gtacfataa agagagtagaacaagattgaagaa cctgattagagaa acagacttt tgtagaagaa atcataagac gatgctcaa agtggtacaagat cgaagaacaa acaatcgg gaagaatatg acaggtgta agaggtagaaaa acaatcga  <210> 5128 gcctgtatca tgtcatcaa agatgatgaagaa atcatagaca gatgctctaa agtgcgaga cgatagaaaa acaatcgg gaagaatatga acagtgattc cgcaaaacaa acaatcga  <210> 5129 acagatata agtgcaaga gatagaagaa acaatcga  <210> 5129 aacagatata acagtgagg taatgtaatg aatggaaaa ctgatttcaa atagtcaaag gtgtgttacga tccagagaaca cattaccaa agagaactgtt tcaagaggaa gcaatttc caagaacaa gcaatttc caagaacaa ttgagacaaa gcaatttc tcaagaagaa ctgattaca cattaccaa agagacqcat tgagaccaa gtcattacaa agagaacatca cattaccaa agaacatcaa cattacaa agagaacatca cattacaa agagaacatca cattacaa agagaacatcaa cattacaa agagaacatca cattacaa agagaacatca cattacaa agagaacatcaa cattacaa agagaacatca cattacaa agagaacatca cattacaa agagaacatcaa cattacaa agagaacatca cattacaaa agagaacatca cattacaaa agagaacatca cattacaaa acagaacatca acaagaacaca acaacaca ttagaagaa accaacaca acaagaacaca acaacaca ttagaagaa accaacaca tacaagaacacaca ttagaagaa accaacaca acaacacacacacacacacaca	tagottytag gteatgogtt getggtggat gaetgittet ggageaatte aactga  <210 > 5127 <211 > 210 <212 > NNA <213 > Enterobacter cloacae  <400 > 5127 cetteatett coaggitaag acgeaggagt geeggatat eggggteate aggatetget teatgetgaa geetteaate attigitatig ggttatgeettegetteae ceggeetae tettigitaa eattigitagg ggttatgeettegettae ceggeetaee tittigitaga eattigitagg ggttatgeettegettae ceggeetaee tettigitaa eattigitagg ggttatgeettegettae eeggeetaee tettigitaa eattigitagg ggttatgeettegeetae eeggeetaee ettigitaa eattigitagg ggttatgeettegeetae eeggeetaee ettigitaa eattigitagg ggttatgeettegeetae eeggeetaee ettigitaa eattigitaggagatga eggagitag agaagatett tigtagaagaa tegagtatig teggeataggagaagategaagaatga eggagatag eggaatate tigtigeagteggagaagatgagaagaatgagaagaatgagaagaagaatgagaaga	<pre> 210&gt; 5127</pre>

<pre>&lt;210&gt; 5131 &lt;211&gt; 186 &lt;2112 DNA &lt;2135 Enterobacter cloacae </pre> <pre>&lt;400&gt; 5131 actocaattg aagcaattaa gggtaccgaa atatatcctg gcggtttata tgcqctggtg ttcagaagcc agggcttta catggatgat tttccqtcct tgtcqgqccg gaattcaqcc ccgggcttta tgcccgttaa ccgggacctg gttcaagt gctcaatatt tcctcattt lagaatga </pre> <pre>&lt;210</pre>							
actocaattg aagcaattaa gggtaccgaa atatatcctg geggtttata tgcgctggtg ttoaggacco agggcttta catggatgat ttreegteec tgtegggeeg gaattagae 120 cegggcttta tgcecgttaa eegggacctg gttecaggt getaatatt teetteattt 186 cegggtta 211 306 cegggtta acggacctg gttecaggt getaatatt teetteattt 186 cegggtta 306 cegles billion 186 cegggtta 221 306 cegles billion 212 billion 213 b	<211> 186 <212> DNA	robacter clo	oacae				
<pre>&lt;211&gt; DNA &lt;213&gt; Enterobacter cloacae </pre> <pre>&lt;400&gt; 5132 ggaccaaaaa tgaaaaggac gctttgtaca gtgctgaegg cactcacgct ggcgactgcc ttgcctgcta taggcgctac caccgaaqca ggtaqcacca gcgcaqcaac aaccggaaca cacaccggag caacggtggg aactaccgct ggcactacgg ggggactggc ggcaggggc dattgggacaa cgcgtgttg caccaccgct ggcactacgg ggggactggc ggcaggggc dtgccgcdaa </pre> <pre>&lt;210&gt; 5133 </pre> <pre>&lt;211&gt; 186 </pre> <pre>&lt;212&gt; DNA </pre> <pre>&lt;213&gt; Enterobacter cloacae</pre> <pre>&lt;400&gt; 5133 tgtgcgcaa agaaaatagc gcgcactc agcctattac caggccagac cgaaacgtct atactcgctt caattagccg cacagcagc gaaaggatga gcgattac gcgtag cgctaa </pre> <pre>&lt;210&gt; 5133 tgtgcgcgaa agaaaatag cacagcagga gaaaggatga aacacttata tggctcactc atactcgctt caattagccg cacagcagg gaaaggatga gcgttacacacg gcgtag cgtag </pre> <pre>&lt;210&gt; 5134</pre>	actccaattg ttcagagccc ccgggcttta	agggctttta	catggatgat	tttccgtccc	tgtcgggccg	gaattcagcc	120 180
ggaccaaaaa tgaaaaggac gctttgtaca gtgctgacgg cactacaggt ggcgattgcc ttgcctgcta taggcgctac caccgaagca ggtagcaca gcgacgacaa aaccggaac 120 acaaccggag caacggtgg aactaccgct gcgattgccg gggagcgac acagggggg attggacaca gcgcaaggggg gattgggaca cogctata 240 acaaccggac gcacaagggg cgatgacca gggagactgc gggagactgac ggcagagggg gttggaccaca ggctaagac ggcaaggggg ggagactaa agcaatggta cttccacgac gacagttacc gcctaa 300 306 210 5133 211 186 212 DNA 213 Enterobacter cloacae 400 5133 tgtagcgaa agaaaatagc gccgcactc agcctatac caggccagac cgaaacgtct atactcgct caattagcg cacagacgg gaaaggatg aaaatatta tggctcactc atactcgct caattagcg cacagacgg gaaaggatg cagaaagatg ggtag ggtag 210 5134 cattatat gcagaagaag attcccgcct cagcagtgg ctggaaaaag gccttacaa 186 212 DNA 213 Enterobacter cloacae 400 5134 cacaggatga gaagatga gaagatga gaagatga gaagatga gacactat gtaaaggct tacaggtt tacaggtt tacaggtt tacaggtt gcggaacaa aacattat tggctcattaa taggtagaagaagaagaagaagaagaagaagaagaagaag	<211> 306 <212> DNA	robacter clo	pacae				
<pre>&lt;211&gt; 186 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacae </pre> <pre>&lt;400&gt; 5133</pre>	ggaccaaaaa ttgcctgcta acaaccggag attgggacaa gtcgcggcaa	taggcgctac caacggtggg ccgctgttgt	caccgaagca aactaccgct caccaccgct	ggtagcacca ggcactacgg gcgattgccg	gegeageaac ggggaetgge gegtagegae	aaccggaaca ggcaggggcg gttagccgtt	120 180 240 300
tgtagcqcaa agaaataqc gccgcacttc agcctattac caggccaqac cgaaacgtct 60 atactcgctt caattagccg ccaogacggc gaaaggatgc aaaactatta tggctcactc 120 acacttratta gccagaaagaa tttcccgct cagcagtgcg ctggaaaaag gcctttacga 186 c210> 5134	<211> 186 <212> DNA	robacter cl	pacae				
<pre>&lt;211&gt; 255 &lt;211&gt; DNA &lt;213&gt; Enterobacter cloacae </pre> <400> 5134 tgaaacctat gtaaagcctg tgaaggtage gcagactteg cgataccacg tgccattaag accgtaggac gaggtcatgg ttgcaaggtte taccgttctt tacgacgttg cotggccatt 120 gctgacttgg gtgggcgca taatgtagca ccgttataca ttatgagcta tcactcgtt ttgtttaaaa aagcggcaat tgcggagtgg tttgatttg ctattgttaa atctgcgtt 225 <210> 5135 <211> 339 <212> DNA <213> Enterobacter cloacae <4400> 5135 aaagcaaaat tcaaggctga caaagccagt aatagcaaca aagaggaaag agaacttt ttcaggtttt tttacagtcc ggccttaaag gccgcatcgg atttctaaa tacagtttta cataaggaaa atcgtatgac tgtatttcta atcctcaccg ccatcgcata tggcatctc aaagccgct gcttcatcct attagtggte aagggtate aagggtagaa catggttctgg 240 aaaaaacttag accgtctccc tcatacatc cgtccccct gccgatatca gagacgatc 300	tgtagcgcaa atactcgctt acatttatta	caattagccg	ccacgacggc	gaaaggatgc	aaaactatta	tggctcactc	120 180
tggaacctat gtaaagcctg tgaaggtagc gcagacttg cgataccacg tgocattaag doctgacgac gaggtcatgg ttgcaggtt taccgttctt tacgacgttg cctggccatt 120 gctgacttg gtgggcggca taatgtagca ccgttataca ttatgagcta toactcgtt 220 ccgcatgcct cctga 255 ccgcatgct cctgatgctgct cctgatgctgct cctgatgctgctgctgctgctgctgctgctgctgctgctgctgct	<211> 255 <212> DNA	robacter cl	pacae				
<pre>&lt;211&gt; 339 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacae &lt;4400&gt; 5135 aaagcaaaat tcaaggctga caaagccagt aatagcaaca aagaggaaag agaactttt 60 tcaaggttt tttacagtcc ggccttaaag gccgcatcgg attttctaaa tacagtttta 120 cataaggaaa atcgtatgac tgtatttcta atcctcaccg ccatcgcata tggcatctc 180 aaagaccgct gcttcatcct attagtggtc aagggtatc agggctggac attgttcttgg 240 aaaaacattg accgtctccc tcatatcatc cgttcccgct gccgatatc gagacgatc 300</pre>	tggaacctat accgtaggac gctgacttgg ttgtttaaaa	gaggtcatgg gtgggcggca aagcggcaat	ttgcaggctt taatgtagca	taccgttctt ccgttataca	tacgacgttg ttatgagcta	cctggccatt tcactcgttt	120 180 240
aaagcaaaat toaaggetga caaagccagt aatagcaaca aagaggaaaa agaaactttt 60 toaggitti titacagtoc ggcottaaaag gcogcatega attitotaaa tacagtitia 120 cataaggaaa atcgtatgaa tgtatticta atcetcaccg coatcgcata tggcatctic 180 aaagccagct geticatcci attagtiggte aaggggtate agggctggac attgtictigg 240 aaaaactatg accgtotcc toatatcatc cgticcogci gcogtatica gagacgatto 300	<211> 339 <212> DNA	robacter cl	pacae				
	aaagcaaaat ttcaggtttt cataaggaaa aaagccggct aaaaactatg	tttacagtcc atcgtatgac gcttcatcct accgtctccc	ggccttaaag tgtatttcta attagtggtc tcatatcatc	geogeategg atceteaceg aaggggtate egtteeeget	attttctaaa ccatcgcata agggctggac	tacagtttta tggcatcttc attgttctgg	120 180 240 300

```
<211> 324
<212> DNA
<213> Enterobacter cloacae
<400> 5136
ctgtttctgg acattatcaa tcttgttatg gatcgccaga ttcagcgtga gcatatagaa
                                                                      60
caacagattg atatgageet eggtgaegge attaaagetg egtteagaeg etegateatg
                                                                      120
actaceteca acgeacattt etgeegtaag aegggtteee tgatgtteea geaeegcata
                                                                      180
                                                                      240
aagatotata coacqtoqtt toacctoacc aagtacatcc acggaaggcg tttcgaaaca
                                                                      300
cgcatcatac tggtctataa actgctgata ggctatgccg gcattttcaa atcgctcatc
                                                                      324
cctgatggcg tccagtatct gtga
<210> 5137
<211> 282
<212> DNA
<213> Enterobacter cloacae
<400> 5137
gtgtcatttc gtgtctttaa ccataaccct tcgagcacgg ccaggaaact ggccagacca
                                                                      60
atggttattg ctgggaaaat aatgtggaag gaaacagtaa atgcaaactg taccetggce
aaatggaagg catctaatcc gaacatagtt caccttaacc ccgataatac actgataatt
                                                                      180
aattatttet tateaaatea gageettgat gagaaattte gaetattgaa aacaateatt
                                                                      240
                                                                      282
tttttgtatg agataaaaac tcacttgcaa gtacattgtt aa
<210> 5138
<211> 570
<212> DNA
<213> Enterobacter cloacae
<400> 5138
gcaatgacac aggogogacg cocgtoaccg ctgcagogge gggtgotgat tgtgctggcc
                                                                      60
gccctggatt cgaaacgtcc ggggccggtg gccacgeggg atattgageg ggtgctggaa
                                                                     120
cagggegggg aegeeeeggt gtacgggeeg aacetgegeg ceteetgeeg gegeatggaa
                                                                     180
gcagcqqqct qqctqcqcac cctqcqcqcq cctaaccaqc aqctqqccqt qqaqctqacc
                                                                      240
ggggccggac gcgatgtggc ggaaccgctt tatcaggcag cccgtgatga cgaaatctcc
                                                                      300
egecagegee agttgaaggt geacagtetg ceettgegeg agtegaeaac eggtgaggeg
                                                                     360
qtqqaggttt ttctcggtga caqccttcac cgtatctgtc aggcagccta cqtqatccgg
                                                                     420
ctogacgget ccacctgtet gcaagtgacg aatgcaggtg gaatacgtca gataatggaa
                                                                     480
ggogatcocc tgcaggtggc tgacttgtat cagacctgtt atgacgcggg tcttccggta
                                                                      540
                                                                      570
catatccaga ttaacgagag ccaggattag
<210> 5139
<211> 306
<212> DNA
<213> Enterobacter cloacae
<400> 5139
tgcgcttgca aaggcgattt catccctgac ctcggtctgc tgaccaacaa tcacaaactg
                                                                      60
                                                                      120
ttccqqcqtc agacqqtqaa caaqaacccq atattqtaca ccqqtqatqq tqqcqttctq
aaaaccttcc ctcacgggcg cgggcaaatg aaaggtgatg cctgtgtcat cgttttgcgt
                                                                      180
accogagacg gtgagatatt ccaccagtat tttgccatcg ctgtcctcgt cggccctctt
                                                                      240
ttqccccttt atttcqqqca qcqcqttatq tccqqqqqac ttcqtqacqt aaqctatctq
                                                                      300
ttttaa
                                                                      306
<210> 5140
<211> 297
<212> DNA
<213> Enterobacter cloacae
<400> 5140
ctaaaccgga cattatcaga cggagcgtgc aggatggatg agaaagaagt gaatttttca
```

			1973			
agtcagggcg tatgaactgg	ctaaatacat cgattactgg	cagegaateg tgegeeaatg	gaagaacgta agtatggcca aaaaattacg atctggccgg	gcaccettet aacaaaccaa	gcaattotgg agcgctcatt	120 180 240 297
<210> 5141 <211> 417 <212> DNA <213> Enter	cobacter clo	pacae				
gatgttttga caggactcca aaggtacctt gcaaggtacc gctgatgttc	ctctgatcga tgcccaaatt tgttacatga ttgcaggtga tggaacaccc	caacggactt ttcgattgtc gcactggagt tttccagtcg tcttcctaaa	gagagtgatg gtgtttctgg agtttctgga ctggtgtgct gtgacatacg gaaccatcg cattccgatt	ataaggegeg cageggtega ceggeaggaa atgaaacatg aegtatteaa	tgaagaattg gatcctgctg aatagagcga tcagcgatta aaaagtcaaa	60 120 180 240 300 360 417
<210> 5142 <211> 582 <212> DNA <213> Enter	cobacter clo	pacae				
gacatagate gacgecagaa aeggeaaagg atgggtttt ccatteagge tgegeaacta tegeetgtt catectetta	caaaacaaac gtaatcaggc aaattttaaa taaattgtag atgatctctg taagccagtt atattgctgc cgcaactaac	cccggacgac ggtaccggca ctcaaccaga agatcgggtg gtggaaagcc aatgcagtcc tgtccagaat gatcgtgaca	tgcctcatcg gcagcatatg ttgtccttgt aatctggagt ccctcttacg atcacaaaat agtccgaatg gacatcctga tcaggggcat ccaacttatt	cctggagtaa attcaggtaa tgtggataat aggcgacatt cactaggaaa atgaatattt agggcattga atgctggccc	cattgtagac tcactggtct ctctgccggg tcatcaagta gcataaccgt gattgcgct gagtttgact	60 120 180 240 300 360 420 480 540 582
<210> 5143 <211> 213 <212> DNA <213> Enter	cobacter clo	oacae				
ttaaaaaatg agaaagatat tgccggatat	atacggtgga atctgaagcc	aaccgtgtca	aaggaggaca tttotggtga gtatgtoogo taa	aggctctgtt	tttcgttgta	60 120 180 213
<210> 5144 <211> 1068 <212> DNA <213> Enter	obacter clo	pacae				
attgagaaaa gacactatca ctgatagcga cgggaagtcc aatgccggca tccgtggatg	aggttgcggc ccgggaaaat tgcagtcgaa gtcagcaggt tagcctatca tacttggtga	cggagaggct catttctaac tacgcttgtc atcacagata gcagtttata ggtgaaacga	atgagccagc gttaaggaac gagcgggtgc tacaacgatg ctggacgcca gaccagtatg cgtggtatag tgcgttggag	agcegegtea ctgaaacget tagatgtgga tcagggatga atgegtgttt atetttatge	gctaatcagg cccggcctgc ggcctttcag gcgatttgaa cgaaacgcct ggtgctggaa	60 120 180 240 300 360 420 480

			1974			
etgaatetgg ggttttetgg ggeeggateg gaaaaaaatg gaaatgaagt tetgaaaege agagcacaat tatategatg	cgatccataa aagagcggct ttctggacgg acctggatgc ttgccgagct ctgaagatct tcgcttttaa agctgacgct	caagattgat cagaacgttg gttacatgca tgcccggttg tcatgcagag tcggaataga gctgtgttat gggtgctgat	catatcaatc aatgtccaga cttaacgagt agcgagacca attataaga gtgatgagca gcttctcaa tacettcacc aacaacgaca gggctcgcaa	aacagctacg acatctatgc tttatggctg atgatttaaa tctaccaaaa ggtgtgggtt agacaggaca cgagtgacgc	tactaaactc aaatcaactt gattttgctt gctgaataac gagatacaca atccgaagac gattaggaag	540 600 660 720 780 840 900 960 1020 1068
<210> 5145 <211> 186 <212> DNA <213> Enter	robacter cl«	bacae				
gggtcatttg	cctgtagggc	ctggaactca	gggtccggat tcaatgcagc attatttatt	tgatcctgaa	cacctcccgc	60 120 180 186
<210> 5146 <211> 375 <212> DNA <213> Enter	robacter cle	pacae				
agetetgtat getaatgeea egggataata egttgegagg	acgccagtac gctactgtaa ttgcaaaacc ccctttttc gtaaccctaa	cgaacacacc tccaggttca agacgggtca tactggccgg	ctttctacat ggtatgtctg catcgttgcg gataaaaact gataatattg tgtaatgcac	acttacgggt aggeceettt actgtaatee ccaagecaga	tcagaaaacc tactattggc gggatcacat cggaacagac	60 120 180 240 300 360 375
<210> 5147 <211> 183 <212> DNA <213> Enter	robacter cl	Dacae				
attaccctta	cgttctggat	agtcaaaata	ttacaggcat gcagtaacca tacgccggca	ctttgggtga	gaccggtggg	60 120 180 183
<210> 5148 <211> 237 <212> DNA <213> Enter	robacter cle	Dacae				
cactatttgt ctgcattttt	atcgtgcagt gtaatcgacc	atcaggaatg tcatctatca	accccccca atcgtggttg ctacattatt gagtttttat	ctgacacaat gcaacttatt	aacgaaaatc ggacacattt	60 120 180 237
<210> 5149						

<210> 514 <211> 837 <212> DNA

## <213> Enterobacter cloacae

VZ13> Enter	opacter cro	Jacae				
<400> 5149 tctgoggtgg atgcgaccac ctotttttct ctgaatatgg gccqtggtac actgtactat ggagtgccgc ctctggtacg acgtattact gcagcggaaa gcgctgaccg gcgtatattt accagcggta accagtgta accagtta	aacaaaatac ggctgataaa atctcaactg tgacctttca taatcagcgt tegegetgte cgaaggaaaa ggategecat gtctggggct cggtcagtcg taacceggcc gtctggggct	gteccegget aatgatgtee ggggetgact gttacgtgeg gtteggaacg aacateggta aacategtat tttgtteace tggttatetg ctatetgtte tetgggagec tggcacaaca	ttcccgatga actacctgtgg aatacctctc aatcgctata ctgatcactg tttggcggat atcccgctgg aatgcagcca aaagcgaacca tcttgtggtg ggaaccagca	ataaagttcc gtgaaacagc tgcttaccgg ttccggctct acaacatgac tgctggttct tcaacagcct gaactgecgc ttgtgtttgg gcgtactgtg atttgttatc ttttgttcct	tgaagtcaca ggcagacttc catattgttt ttactggtca cgaccacttt gacattcgga gaagcgggaa aggagactgg tgcgctgatt tttctggatt tcaacccctt gctgaccatc	60 120 180 240 300 360 420 480 540 600 660 720 780 837
<210> 5150 <211> 219 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5150 aaaagaaacc ttcagtaaaa tttactatct gacgagccgg	accagactco ttatatcgaa	ctgtatacaa agcaggtcac	aatcattcat tccctttcat	atcattttt	aaaaaacgat	60 120 180 219
<210> 5151 <211> 324 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5151 cogecagga gcctgcccg ggtaatgcct cgcctgtggg tggaatcgcc cgttttcacg	cttcttgccc tcatcccaca atgctgatcg ctgagatcgg	ggetgtttge tateeggegg ceaggegetg egeattetee	cccgctcagg aacgtaacct ggcgccaaac	ctgtagttga ctcgctggca tggaaatccg	gcatggccgc ggtctatggc cgctggcctg	60 120 180 240 300 324
<210> 5152 <211> 486 <212> DNA <213> Enter	obacter clc	)acae				
<400> 5152 agccagcata cttctgcca cagtttaata gaagcgctga ctggatccag gaagatgact gtttatatct gatggcgtgt	ctctcgcatc agtggtacat ggccatatgt atgaatatga gggacatcgt cattcggcaa	cgctgcacag ctcgcaaatt aacccgcgaa cgtgcctgac cagtgcgcgg aaagcgggat	aagttccccc attatcggga actatcagca gtcgatatgt gcgctggatt cacaccgtga	ctgaggtatc aagagcccct aactcaaagc tcatcaaggc acgatgccgc ttgactgcat	cgctgccctt gaaaaactat catggataag tcagggatat ctgtatgcag ggtcaaggaa	60 120 180 240 300 360 420 480 486
<210> 5153						

<210> 5153 <211> 246 <212> DNA

## <213> Enterobacter cloacae <400> 5153 aaagcattat ttatcaatgc attgaacaaa tctaaccatc ccatccgcat cccgtcacag ggtetatget taatgaaagt agccaaaaag ggeggtttag cccaaagtec etgetegeag ggggttgaag tgataatcgt tatcactaac atggtgttat gccctggtgg cttatcagat 180 gaggtggacc tatggaactg cattcagaaa ccttcaatcc ggccgatttt gcctggcgtg 240 246 gcttaa <210> 5154 <211> 480 <212> DNA <213> Enterobacter cloacae <400> 5154 actatgttaa atattotgat toaggaaacg gatotgtttt ttoaggotgg gotacagago 60 tttttcqaaq attttttaa qcataacttt catcqctcca tcacttttca cctqqcqctq accaatqaaa acqtcaqcca qqccgatatt attqttcttt cattatqtca qqqqqaaacq 180 ctgacctgtt ttccggaatt actggcccgg caaaaaggaa ttgtgatagg tctcgtcgac 240 gatgagetge gettttegge getgeettee tgettteagg acattatttt tetteetege 300 egggeatege ttgategtat tageggegtt etgtttattg egtggtteae gaegeaatta 360 ccqqqttaca cctggaataa aaagacctgt ttcgactgcc agcataaagg gttatcccgg 420 caacaaatte qtattetqqt caatttttac cqaqqqetqt cqqtaqtqca qaccqettaq 480 <210> 5155 <211> 231 <212> DNA <213> Enterobacter cloacae <400> 5155 aaaagcateg eeeggetgge taeggtggeg tteaeggega eagtggaaet getgegtace ggaaagggtt attccgacca gatagctatc atgccagtgg ggatcaaagg catgtccttc 120 quaatgegee ttaattgtet caatacetgt ttetgeatge tgacgeaget caagecagte 180 gtttgccata ctgccctcct cttaccgtca gcattgtcac atcttgcctg a <210> 5156 <211> 438 <212> DNA <213> Enterobacter cloacae <400> 5156 tcattcaaca taaacgaggc acacatgaga aattttgata tgcacggaaa aggtcacggg 60 120 egtggtttgg geogecateg tatgggtaag ggeategtga ttggegeagt cetgttegtg gtgcttggcc tgctggtcat gtccctgtgg aacgcgttgc tcccggccat cctgggggtt 180 aaagccattg gcttctggca ggcgctgggg atcctgctgc tgagccgcat tcttttcggt 240 gggctgggtt tccgtcccgg tatgttcggt gcgcaccgcc gtatgcacga acaatggatg 300 360 aatatgagee cegaacaaeg tgaggeette atteageage gtegggeggg atttggtege catggtcatt gccgatggca cgatggccgg gatgaaaaac gagatgataa cggtgcgaaa 420 438 gcgccggaag ccgagtga <210> 5157 <211> 303 <212> DNA <213> Enterobacter cloacae <400> 5157 gactacegga egectatgae ageaeatgtt tecaaegate etttgeatgg egtaaegete gaaatgcagg ttaacgcgct ggttgcgcga tatggctgga atgaactggg caaccgaatc 180

aaaatcaact gttttegeaa ggaceegagt gttaaatega gtetgaagtt eetgegeege

accocatggg cgcqggcgga agttgaagcc ctctacctcg actcccttca cgatqacqgt

aacggggagc aggacgaacc ggcgtttaat ccctggacgg atagccggac acccaggagc

240

taa	303
<210> 5158 <211> 231 <212> DNA <213> Enterobacter cloacae	
<400> 5158 ttcaatcagg gattgataac ggtcaggatt gatctccgca gggaca gttaagccaa accttitica atgcatcacc tctgaaatga gtgttc cccqataata aacagttigt taacattata ttaactcage gtacca cagattgcag gttgcgaage gcgtcactct tttttttcgt tttatc	gtcg tcatcacage 120 gttt attaattgtt 180
<210> 5159 <211> 201 <212> DNA <213> Enterobacter cloacae	
<400> 5159 gctattcact tettectgag ettgtetgag tteageatee eggatt tteaaataca aaactggaca gaaaateett aaccaggaag egatge gccacgttee etacggttge egetgetgte tteagtgaca ataget aacgegggga tggggeggta g	tete geatttettt 120
<210> 5160 <211> 615 <212> DNA <213> Enterobactor cloacae	
<400> 5160 aggatgatta ggcagggctt tatactcaca accgcaatgc ttttga catttegcaa accaggtaga tgcgtacgat ctaatgcctc gtcctg tttcagatag tccctccgga cgaaagtatt cagtccagaa tgtttt gatggattag caaaaaaagg agtcattatt tccactcacc agccaga ttcccgaatca gcagctacaa ggaagacaag agaactagaca agcagc acaggctacg ttgtagataa aaagacaacg agaactgaca agcatg gactatgact acaagccagt cgatgggta ataggcactg agacag tatatgcgac agctggatgt cgaggtatac ccgtcagcaa agcatg aaagtagata tgcaaagcaa tgcacctgtg ccgtcagaca gcattg atcgacgcct ttactgataa attgatgcg ccgctgcgtt ccggaa actgac actga	nttac asataasagg 120 casgs cogttttgct 180 natta tgtgctcagg 240 rittct tactggggtg 300 rigga attgcatact 360 ritgtc gcagatgcac 420 cogta gcagattgcac 420 ritgtc gcagatgcac 540 ritgtc gcagatgcac 540 ritgtc gcagatgcac 540
<210> 5161 <211> 195 <212> DNA <213> Enterobacter cloacae	
<400> 5161 actacatgcg cogagacaga gctgaatatt tacctctcog tggaac gtacgcocta acttccttaa actaccttca gaccaccag atgccc cctaacgatt tgatgaaact ttgcaacagg caaggtcccc tctggg caagatccct cttga	tggc tacgtttgaa 120
<210> 5162 <211> 570 <212> DNA <213> Enterobacter cloacae	
<400> 5162 aacactatca ataagttgga gtcattacoc agcgaggtaa atcact actgtccccg tgattgactg gttttttaaa caagcaaccg aggcgc	

```
tgqttaccgg cctgtacgag ctttctgaat gggatcgaaa catcactcag ggttacgctg
aagttgaaat caactgttaa cgttcagcag tcagttcctg tactggtgga cttagatggt
acgtcagtaa tgagtaacgc tttaatgcga aaggctaagc aggaagggat gccgatagaa
ttactgtcat ttccagccga gaagaatatg ttggcaaaga tagacgctgg taaaaaacct
                                                                     360
gaagcagata togtcaggot tagaaatagt ctatgocatg gcaacattot ggagttoatt
                                                                     420
atgagtgtta aagtoggtto tocagatooc atacgaattt ttactootgg taactgotgt
                                                                     480
ggtttagcgc ttttactttc ggccttatcg aagaaatgga cggtaggctt gcatcaatac
                                                                     540
tqqatcqaca acaatctgac gtcctgctga
<210> 5163
<211> 357
<212> DNA
<213> Enterobacter cloacae
<400> 5163
actatgaaat taaaaaatat totgotgtgt gogatgatgt cagtogottt tggotootot
                                                                     120
gctaatacta cacataaagt tgaaaacgaa cctatcccaa acattattct tgatggtaag
qttqatqata tttqtaaaqa tqcaaqcatc cqaactqaac ttaatcatqa taaaqcaaaaq
                                                                     180
gaactggtaa ccaccaacct gaagcaggca ttaccattaa atacggtacc ggataagttg
                                                                     240
gatgaagttg cagaagcett tgtaaaccgc gacaaaggcg cttcagaaac agcagaccat
                                                                     300
                                                                     357
tgccttgtta atgtacgtaa taaatactgg gaaatgtatc cctctgaaga taagtag
<210> 5164
<211> 402
<212> DNA
<213> Enterobacter cloacae
<400> 5164
gaggtgtgta tgaaatctac tttactgagt acgttaatgc tggttgctgt aggtgtacag
                                                                     60
                                                                     120
cccgttttcg ctgcacaatg tcagtacgga gcctgtggaa cggaaaacga tcccggaatc
ggatttctga tgtcatcggt acaaatggat aaaggtgaac atctaaagga actctctggt
                                                                     180
                                                                     240
qttqcqacca caqqtqacac catctctaaa aagatggaaa gctacctggg aaataaaaag
ctcaaggtaa acaccgacag tacccgcaag gggccgggta ataccaccat caggcctaca
gatgageteg ecceaacgag geaactaaaa gttateegge eegaactggt aaaaaateee
                                                                     360
gattegeage tegtggtage ttteaatgag egeetggeet ga
                                                                     402
<210> 5165
<211> 444
<212> DNA
<213> Enterobacter cloacae
<400> 5165
gagogtocag aaggaaaaaa gatgtogata otoagtagot togtoatoag agcaaogggg
                                                                     60
atacctgaca aaaagtatct ccgggatccc gtaataaaac gttgttataa acgtctgagt
                                                                     120
                                                                     180
cgtagggtgc ctgctctaat gacggggtgg cttctgtgca ttctgggttc agggtatgtc
agtatggcac tggaacagcc tgatagcact gtattactca gtctgctgct gttgtatgtt
                                                                     240
atgtcaggca ttttactgat gcagttccag tatatgtatt cagagcgaag cataggctac
aagttotaco tggaagtgot tatgaatgoa gotgooagta otoaacataa agaacagtta
                                                                     360
                                                                     420
caqtatctqt tcattaataa qcccaattcc atcacqatqq qcqatcttta ccqactttat
gattttaatg ggggagggcg atag
                                                                      444
<210> 5166
<211> 1122
<212> DNA
<213> Enterobacter cloacae
<400> 5166
aaacgaccat gctatacgag ctctaacctt ttttttgtat gccatcataa ccgcatcaga
aaaqqagaac ggtctatgac tcgtattgca ttagcgcctt caaagatggt tttgcttatg
                                                                     120
tetttggtaa ttactggtge ceaegeeage eetgageaac eestaataaa agatacgeee
                                                                     180
```

tttgtatctq qccaggctta taaqaagggt ttcttctqqt atqacqatcc tgctaaaaaa

```
agegaagetg aagaagaaga ggttttgcca ccaaccggtg ctgctagetc gccttcaaaa
qaqqaaatqq taqatttaaa ttcaaaatqq ctaaaaqaqa atatqcctcq actqttaacq
                                                                      360
                                                                      420
caggcaatgg ataaccctac cgcagaaaat ctatcacgtt attacacggc gcaaaggtta
atgotggata toagtacgog tttttctgac aaatcaaaag attattttct taaaaaccog
                                                                      480
atgatgtctg aaaaacgcag gcaaccagtg gaaaaggtgg cactggatgc tcaccgcact
                                                                      540
gttgttgaaa aaaatcagca aacggtaatg aaagatatct ttactaagtc aggtttattt
                                                                      600
ttetttttee agagtaettg eeagttttge caegaagaaa gecaaataet teaatttatg
                                                                      660
cagaactatt atteggtaga tattetteea ateagtatgg atggaaggee attgeataat
                                                                      780
ggcctttttc aggattttaa catccccaac gcacaaatta ttgatcaatt taaaattcga
                                                                      840
gaggtaccta caattttcct ggtttcaaag gatgggacat cagctcagcg cattagtgaa
                                                                      900
ggcatgatct ccgctgatga attaaagaac actattatac ttgccgcgaa gggcatgaat
                                                                      960
ctgatcgatg acgettogtt ccagtcaact ctagatatta aaaggcaata taccatcggc
gatgatggcg ttattaccgt taataaatcc gaaatggaat cagacccatt cctacttcaa
aaaataatgg accaaaaact cgaaggctat gacatgccta cggccgatcc ggtcaattat
                                                                      1080
ctcaatgctg gcggcagttt tggaggcact tatgcgcagt aa
<210> 5167
<211> 192
<212> DNA
<213> Enterobacter cloacae
<400> 5167
acaaacgcag cgaaaatcag gcaaacgagc aggcaaacca ggtgtgcaga tttcatcgaa
acctectttg aaagtcacat getteeeetg aaatatateg ttacatteat caaegegatt
                                                                      120
caagecaaaa gtatgaattt acgcattetg cgtgcggtat ccgatcgcca gtgcaatgcc
                                                                      180
                                                                      192
atagettaet aa
<210> 5168
<211> 315
<212> DNA
<213> Enterobacter cloacae
<400> 5168
                                                                      60
ctttcaaagg aggtttcgat gaaatctgca cacctggttt gcctgctcgt ttgcctgatt
                                                                      120
ttcgctgcgt ttgttcacgc gcaggagaag agcgctccgg agaaagaggc ccagataaaa
cagcaggtcc tgaaagatgt aaagaaaacc tgtaccccgc agaaaaagca gagcgataag
                                                                      180
gcctggcagg cgatgatttt gtcgtctgag gccaatcagc tgctgatcaa aaacgccatc
                                                                      240
accgccgtga agcgtgacaa cctggacgcc tactgggatg cagtcagtca ggtggattgt
                                                                      300
                                                                      315
atggaagatt actga
<210> 5169
<211> 468
<212> DNA
<213> Enterobacter cloacae
<400> 5169
ttttetettt ctacegtatt egegtggege agetggtgeg ggaatacagt teegaaaceg
gagggcacgc ggatgtatga cgttcacgtg attttccgcg acgggcccgg cgagctggcg
                                                                      180
egetttggae agetgttggg gegeaacgge gtggggettg agggtggegg egtatteggt
accgatgccc atttcctggt ggaggacggg gaaaaagccc gccgtgtgct gctcgacgcc
                                                                      240
                                                                      300
gggtttaccg tgcaggcgct gcgaaagccg gtgatcagaa agcttaagca ggagcgtcct
ggegagetgg gegagatage ggeggegetg geggeaegeg gegtgtetat eetgaeteag
                                                                      360
tacaqtqacc atgcqaatca cottattotg otgacggatg atgataagot ggccgotgag
                                                                      420
atcaccacac cotgggcgac gaatgttaaa gacgagotta coototga
                                                                      468
<210> 5170
<211> 1089
<212> DNA
<213> Enterobacter cloacae
```

			2300			
gtotatacgg otcagtattt atgettetet gcctogetga atcatgacge ocgetgttcc agctacecca gcggtgtgcc ocgccgetga gtggcgacgc ctgatggcgg atctggcgga atctacgate tttggcgcg accacatcg gatctatacc	caaacgactt cgagtttcta cgctgttacc actgctgat tgttegttt tgttcggctc tgagcgct tgagcgct ttgagaaga tgattttcgt tgtttggttggcgt acagcagcca tttgat	tegecagaece caacaccage ggtgtttaat aatggtgttg tgecetgtae gatggegtg gatgaactae egatgecege egtgtteeag ectgtteeag ectgtteeag ectgttgetgg aatgagaga egggeagaae eggtaectte	gcacgggtat ctgcgtatcg tacggogtgt cgcacgtgg attatoggct tgtatgcagt ttattctat ctgctgcaga gtagacacag attagogaca attagogacat atgacactat tgcctctata atgatgcag gtagagcag gtagagcag gcactggtag gcactggagcag gcactggtag gcacagagcag	tetttgeogg tttttgtggt cgaagcagtt atctgtgcga ttcgetttat gogtgatget acatggagec agtogctget taagtgatte goggctegt tecttgtegt tgattggeet ggttagget acaggsaget acaggsaget taagtgatt tagatgget	gatgattgcg ctacccgate tatcttcage gtggccggte gagtaagggg caactttatg gagcgtgatg gcgtaagccg atccggcace gctttcggcg tatcagctc ccagettate tggtcttggcg cgcagtate ggtgttcage gatgttcage	60 120 180 240 300 420 480 540 600 720 780 840 900 960 1020 1080
<210> 5171 <211> 249 <212> DNA <213> Enter	robacter clo	bacae				
cattcatgct tgtgcgcctg	catggcggcg ttaatggatt	agetgteage aatecegtte	ggggctggga agaacagcag ttcaggagaa cggtttttta	gggcgggaaa acctggaagg	ttgtgttcag tgacaaaatt	60 120 180 240 249
<210> 5172 <211> 269 <212> DNA <213> Enter	robacter cl	pacae				
agaagcaatt cccattacta atttatgcaa	ttttattctt aaaaggtagg	ctattatttc gatgettgtt tgattccgca	ctaattcaag ctgggttctt gttccactca cagcaaacca	tattgccggt cgcttacctt	ttatcccgcc cggatgttac	60 120 180 240 269
<210> 5173 <211> 186 <212> DNA <213> Enter	robacter cl	Dacae				
agtattccat	tegetegtga	aaagacattt	ccagttegee accacegatg gctaaagtge	gcatcaaatc	egettegeag	60 120 180 186
<210> 5174 <211> 1011 <212> DNA <213> Enter	robacter cl	oacae				
<400> 5174						

cctgcttaa

```
atcogcagca caaaaggagg caaaagggtt atgggcagac accaaccetg toccaccatg
qcaqtqqaga caggcaaacg aaaagcccag aaaggtgaaa gggaagaaat aaccatgatg
                                                                     120
aaagagooto atcogttact toagttggta otaaacgatt coggtogtot aaccatgoot
                                                                     180
gtttattata gagatcaaca gtattgcccg acttgcctta caaaggtgtt gaagagtgag
                                                                     240
gatggaagtt tggcgcacct cggggaaata aatcaaaata catgtagacc ttctatttca
gtagttgtga caaaagcaat tattgaaatg ttatgtgacg gggaaaaaat atttgtaaat
                                                                     360
ccaatacgat accgaggeeg ggtgetggea ccetcagtaa tttttetee egacaeteae
                                                                     420
actttcaaac cgtttataaa tacagactat cagcctgtgg gagcaaactg gaaaagtgaa
                                                                     480
aagggatata aacteggtet gttttatete aaagategag ceaactetat caataaagag
                                                                     540
gaatttgatt teattgeegt tatagaceet aaggeaatge agaaagaatt tattteggee
                                                                     600
                                                                     660
tggtctgagg ttgatgaaaa aaatccattg gaaacgctga agcagatctt acgatctaaa
aacaactott otttatgggt aaaatggoot ggcaaaattg agcatgogca aaaaggaaat
                                                                     720
                                                                     780
tgcaacgaaa attactggtt cgattatcaa tctgataatc aggaagtgaa ctgtacggtc
totqttqtaq qtatoqaaqq taacaqttoo qqtqaqacaa tttataqatt qcaaactttq
                                                                     840
ctaaagcgta agctcaatga atatcaactg gttcggtctt tagggactat tatgcttctt
                                                                     900
gataataccg ggaatatgat tocatcaaac catcettatt ttgaagtcat ctcaaaagca
                                                                     960
tgtataaatg gagtgcgtga ctttgttcgt caaaacccgt gggtagtctg a
                                                                     1011
<210> 5175
<211> 360
<212> DNA
<213> Enterobacter cloacae
<400> 5175
ctggttagcc cagotogata cggcatcotg tttatgtttg gccgactgca ataccgccct
ggcaccatgg ataagcaagg tootcaaata ggtatcacct cgcttgctta toocgagcag
                                                                     120
gactigtita coccactgg agtgctgacg tggaaccaat ccgagccagg cagccagtig
                                                                     180
toggocatto togaaattgt tggotttaco aatggtogoa atcagogogo tggoggtaac
                                                                     240
agggccaata ccagggatct tgccgatacg ctggcagaga gcattttgcc gatagcactg
                                                                     300
ctcaatctqc ttgtcgagtg tagcgatgac atcgaacagg tacgccatgt ggtgctgtag
                                                                     360
<210> 5176
<211> 1329
<212> DNA
<213> Enterobacter cloacae
<400> 5176
gagactacta tgagccaaaa attcgcagtg atgattgctt acgacgacga tecaaacgtc
                                                                     60
aaaaggtact cacctgactt tcaaacgcag gatgagtttg ctaaagggtg gcagtcggct
                                                                     120
cttaaaaagg cacaccacac ctcaggtcaa aaatcagtca tcacctgcgg atgtcgtgga
                                                                     180
aaaggagaaa agcgacttta tgttcgtgct ttaccgaacg gtgatgcctt tattctcgtc
                                                                     240
aaagccgcta acacgggcat tgagcatgat cottectgtq tattettete cettgatgee
                                                                     300
eggeataceg geetgaaagg atatgegagt ggtgtggtee ggattacaac egaaggtgat
                                                                     360
atggctgtaa ggctcggtat cggtatgaca gagaaagatc ctcctgaaaa atcagaagtg
                                                                     420
cotcocetge cocatgitea gegaceagaa ggaggicagg cotcaatgae cotcetggge
                                                                     480
ttgcttagtc ttttgtggac agagtctggt ctgaatgtct ggtacccgaa aatggcaggg
                                                                     540
aaacgtaacg attcactggt acggtatcgt ctgcttgaaa ccgctaaaca aattcgtacc
                                                                     600
ggcagageet gcataggtga coatstatte attggtgtac etgaceegaa acaacetgte
                                                                     660
gotcagtogo aaattoagog totttoatoa caggogatga gtgataaacg totcatgoto
                                                                     720
                                                                     780
ctgtcagttt tacctcgcta cgatgctgaa aagcatgaga agccacttaa atttttaccc
ctgcggaatt ttggggggct accgctgatt tttttcaatt cagaaggcca ttgggatagc
                                                                     840
gtaaagaaac gattttcatc ggagtacgca gcatggaaat ccggggcgaa aatagttgtc
                                                                     900
tttgcgttga cgtcaccagc tgcggtaacc ggcagaggcc cttctgtaag agctcatcaa
                                                                     960
attgtgctga tgcacgttag cgagaactgg atacctctgg actcctccta tgaggcggtt
                                                                     1020
gttgcagaaa agctggatgc agagcaccgg cagtacgtta agcccatgcg ttatgatgcg
                                                                     1080
agtattagtg aggtgttocc tgacttotac ctgctcgaca caaaaagcga taagccgttc
                                                                     1140
ccgatggaag tatttggtat ggccactcct gcttatctgg cccgaaagca actcaaaaaa
gattattaca accgtgaata tgggccttat ggatggtggc actgggatgc gaccacagca
                                                                     1260
```

totgaaacta tggtgctgcc tcattttcca gaatcacgta aacctctttc aactggcaca

			1982			
<210> 5177 <211> 216 <212> DNA <213> Enter	obacter clo	oacae				
ctgtcaggga aaaatcggta	aaatgtcata toottgatga aogtgtttto gacgaaaact	ttacaagact tgcactggaa	ggggttatca agtggagact	ctcagataca	agctgttggt	60 120 180 216
<212> DNA <213> Enter	obacter clo	pacae				
<400> 5178 gcatccaacg gttgagttcc gtaaaaaaaa	cagttatggt cccaggacgc acatcatttc gtattttaac	gtcaccgtca cactgggaat acctgaattt	acaacaatca gttgagtaca	tgatgggcaa gacatgtatc	aagtaacttt cacaagccta	60 120 180 240 249
<210> 5179 <211> 183 <212> DNA <213> Enter	obacter clo	oacae				
cgagcattac	caaccatgac aagaactgtc gcgtaaagga	caggcattgc	gttcccgaaa	cagatttcga	agaattettt	60 120 180 183
<210> 5180 <211> 369 <212> DNA <213> Enter	obacter clo	pacae				
gatgtgccag gtaaaacagg gctgtctgtg gggaagattc	ccatgaacat ctgtgacaca caaatcgaga ataccgcaga cccctgaggt atgcccaggt	gattcagatg gggtctgaaa tgagattcat ataccaggtg	cgatctacgg ttatctgagt aaaggcaaac atatacgatc	tttccagaaa ggatgtcgcg gctcaactcc agtgcggcgg	ggttegetat geatetegae ggttgegeet gttegtggag	60 120 180 240 300 360 369
<210> 5181 <211> 330 <212> DNA <213> Enter	obacter clc	oacae				
gtgtatgace ggggcetget agegetttee gagatagaac	tgtgtgattt aactggttaa acctotgtcg ctgcgaaggg cgcagcgtgg cgttccagga	agagtatece agaactgetg atggeggetg agaetgtatt	gtaatgtggc tcgccggagg cgtatttggt	tgegggatte ggatggteet acaatgaaac	aacccggatc ggcgatgcag cattgacgaa	60 120 180 240 300 330

<210> 5182 <211> 228 <212> DNA <213> Enterobacter cloacae <400> 5182 gecaggatag cagatacete cettgtteeg tettteatee geaactegea aagegagttt 60 cgtgtgagcc aggtgaatat caacagcgtt aaacaaacta ttaatatgca caaaacaatg 180 ggttggttcg gcattttcat ggccttcttc tcctgtcaac gcaaagcaga agtgtcacca 228 teggtgegaa acagagatgt catgetttgg tteagagaat gegtttga <210> 5183 <211> 225 <212> DNA <213> Enterobacter cloacae <400> 5183 ttcacctctg atatggccac ttgcgaaatg ggaatggtaa ctgttattac tatgtgttta cttgctgttc ttgttacgca gccccttaaa cacattactt tcaaatatga tttcctgctg 180 ggtttaaata tgtgtctttc tatagtgcgg caacctattt ttacaccaac tcatgaatta aataagaatc ataaattaaa tgagaggttt aattotottg ottaa <210> 5184 <211> 201 <212> DNA <213> Enterobacter cloacae <400> 5184 60 atctqcqccc ttqtaaqctt ctqqqcqqaa ctqcttaaac ctqacatacc ttcccqqcct tatataaaac aatccgccag cagctcgact ggcggacaat gtttgactgg aaacagcaag gacatactat ttgctgacaa gtttgatatt ggtttcactc attcgaagtc gaaactcctg 180 aaaaccctgc tctaccgcta a <210> 5185 <211> 624 <212> DNA <213> Enterobacter cloacae <400> 5185 atttqtttaa taaqqctqaq tatqatqaat aaaqaacaac taatcqacaa actqqaacgc 60 gtggtatgtg gtcagtactc ctacgaaatg caggagettg cgtattcggc cctctgctgc attaaaggca ccccggacga ctgcgctaag ttccctgtta cgcgtccgct gcctgacacc 180 ttagtggacg tatgggacga gatcgggcaa taccttggca caggcaaagc cattgaaact 240 egeagttgeg gegttteget tetgetteat ggacactget acgatteaaa teatgtgetg 300 360 tactggcgca atgctggcgc acttccagca gcttgcgata cgccactggc tggtgggtct equaaactqt teacetqete ageetqtqqa qtqqaeqqte tqqatqaace acetqaaace 420 agttgccact gctgcacaga gggggcccac tggattgaga gcaggctctt cacctccggg 480 caggcagacc ctgaagaatt tagacccgtg gcggtcgtga aagagtgtgc aggctcaacg 540 coqqatqatc qqctcatctq qaqcqtqatt qaacaqctca acqqcqaact qqcqqaaqqc 600 gataaactat ttaagcaacg ctga 624 <210> 5186 <211> 297 <212> DNA <213> Enterobacter cloacae <400> 5186 totqqqaaqo otqooqtqat qocattotta acqqaqacaa aqqqtaaacq qoaqqtatcq cetgteattt ttaccettgt gaggaaaate etgatgaace atgagageeg aactgtatac ctgaacacgg ccattgagge cctgttgaaa gctgaggegg ctctgaacga gctggcatta 180 goctatgtac tcaaaccagg tgaaaaggca agcgcatgcc atccccgaac cggtacgctt 240

			1984			
tocacagett	cccaggtaag	aaaacttege	cgtgttctag	aaaaaacaa	gttatga	297
<210> 5187 <211> 924 <212> DNA						
<213> Enter	robacter clo	acae				
ttttoccgfg gcgatatttg ttacacctct tcatctgaag ctaactacat gcctttaaaa ggcgetttc gccacttcag aaacttgtcg tatttaaagg gttgttaggg gcattggaaa aaacgtatgt	aactgtcatt gtgegggect cacetteagt gtgaagataa attotaagtt ttttaaagtg ttateggett cttegactgt catatttaaa cgcaactaca egtatatgtc agacagettt ctaaatcaca	tetttteae getgataatg tetggaettt gttagtggtt gctattaggg ggaggaaata gteagtttt aaaggttate tgatagttate tataaaaete tggtgtatta aggtgtatta agataatee tacettttea	attogcacct cggtctataa atttttggtc gatattgatc tcggattttg attatgggc ggtgagatat acatctgctt aagaaatatg tggccacccag ggcaagccag cagtcaaata gtctcaccac aaagcgtcgg	agattagaaa tttgcttgttg tgccettgtc gcgatgcatt tattagtagt tcccgatgct taggttcgga taaaacatga gcgaagagt atgtgaagtt ttcccgtgaa ttcccgtgaa ttgcagattcg ttaattgct	ttcaggtttc gttgctgtca attcttcaat tggaggcttc ttcttcaact tctaattgct agagactgat aasatacgat atctgtaaac aacacagaat agttcgttat ttatgagcaa tataggcaat tatagagcaat	60 120 180 240 300 360 420 480 540 600 660 720 780 840
	cattegttgg tagaatcaaa		gctcttcttg	gtataaaaat	caggcggcga	900 924
<210> 5188 <211> 237 <212> DNA <213> Enter	robacter clo	oacae				
cttaaaaata ggtcagtttg	atactgatgc tcgctgatgg	caagctttat ggttgatgaa	caaattattg gaggcaatgc catcaattac gaggagtgtg	agcgtcttga gctcttcatt	aaagaaaatt aagcaaagtc	60 120 180 237
<210> 5189 <211> 306 <212> DNA <213> Enter	robacter clo	pacae				
tacgtgttaa gccagagaac gtcctgttcc	gacggatggc ggcgtacgtt ggctgggcct	atccggcacg tatggggaat cgtggagtta	teegeecaga atetatgata cetgatgatg tgeeageeag gggeatgaag	tctctggcaa tgacgtgcag taaggcatct	tttcagacgg gagctctccg ggagccaggt	60 120 180 240 300 306
<210> 5190 <211> 279 <212> DNA <213> Enter	robacter clo	pacae				
gaactaaatc cgtcctgtag getttctgtg	cgctggtttt actcgtatgc	aataatgatt tcatgctgat ccagcggcta	gggaaagccg gaggagaaca ttcatggagt actgccggtt gcggcataa	agatgaaaga ccgtcttcag	taacaagaca caacctcagg	60 120 180 240 279

			1985			
<210> 5191 <211> 195 <212> DNA <213> Enter	cobacter clo	pacae				
tcaatccaaa	gccagttegt aactgaaegt gcaceggttt agtaa	accggtttac	ctctatatct	cctcaatccc	ctgcgactta	60 120 180 195
<210> 5192 <211> 369 <212> DNA <213> Enter	robacter clo	pacae				
ttcgataagc aaccttggtc gagaaggaaa atcgttcctg	atteagtete egeaaaeget catttatega aacttgegea atacagatte tttecateta	cccggtacat gcaggtatcc cctgatcaga tgctgagctt	aattotgatg ggaagggato actgggogta catgaattac	ccgaaccett tggcaatget aatatggagt tgtctaatge	ttttccgaaa cacagaatca ttctgtcgct cgattccatt	60 120 180 240 300 360 369
<210> 5193 <211> 354 <212> DNA <213> Enter	robacter clo	pacae				
atgtcattac attatctttg aaggctaatg cgacagcgct	tatatttgtt ttgaagtgct ataatgacga ccgttttgcg tgcagcttgc tggcaacaaa	ttcaagctgg agataatacc caaaatggca cgtagaaggc	cttgaagata aactcagaaa tctttatctt aaagctgaat	acatcaatat ttctgtatcc cagattctgt tgtccctcaa	ggattotgaa tgotgtagaa toatgcaatt ggatgtggga	60 120 180 240 300 354
<210> 5194 <211> 189 <212> DNA <213> Enter	robacter clo	oacae				
tgctgctggt	tgatgaaacc atacccgtga aggcagaacg	ggactgccct	tacgtcagcg	caaaacagat	ctatcgccgc	60 120 180 189
<210> 5195 <211> 192 <212> DNA <213> Enter	robacter clo	pacae				
catctgcctt	atgcaggaaa taacettgcc actgttggct ga	tgttattaac	ggaatccttt	ctgactgggc	ggatcccacg	60 120 180 192

```
<211> 522
<212> DNA
<213> Enterobacter cloacae
<400> 5196
tgttgtccac tgaagaggga gagtaagcct gtgaccactc tcgtatttga aatggcagat
atcaataaac tgatcgaaga aattcgcacc gcaaaaacgt tttcggtcac cccagatcag
                                                                      120
atctatqacc cqqcatqcta tccqqqqqqa gccctcctta acgctgaggg acagactgaa
                                                                      180
                                                                      240
gaaqaqqqq gtaaagctgg tagggttttc tttccctcat cctcaaaaat tgccagcaca
                                                                      300
catctggtgc caaaagtgct tetegegeac agteatggtg tatacetgat cactaatget
                                                                      360
gagettgagg getetecege atccegegat actgtggett acgcccaggg gatgaatcca
                                                                      420
aaactggatg aggactggga ttacgcttgt gatgccgctt tgggtgggtc tgattgtagc
                                                                      480
tataccattc cogttgagtg gctggagtta gcggtagagc agggttttca ggagtttcga
                                                                      522
cttcgaatga gtgaaaccaa tatcaaactt gtcagcaaat ag
<210> 5197
<211> 231
<212> DNA
<213> Enterobacter cloacae
<400> 5197
gaatteteee tgaatggaag geaacegatg aaaatgtttt ttacccetta tgttegtate
                                                                      60
qttttctatt tttqcqcatt qatttttatt gtttacagtt tcagtgattt tttccagggc
gtocotgaca goacottott cagtgoggto atcaogotac ttgttatogg aaccattgtt
                                                                      180
geocogoate togategeaa aaaatetete aaatataett cacagattta a
<210> 5198
<211> 243
<212> DNA
<213> Enterobacter cloacae
<400> 5198
tttaataagg accggttcat gcataaccac gaaattcaga ccattgctat atttagtgcc
                                                                      120
caqtataaaa acatcqaaqa tqctqaaaat qcaqqtqctt tatattcagt agatattgaa
tatocgatga cactaaatga tttatogogg ctttgogact ctattgooga agcagtaggt
                                                                      180
                                                                      240
gtgeetggeg gegteaaata ceagttegtg teecageegg aagegeatga aaccagette
                                                                      243
tga
<210> 5199
<211> 237
<212> DNA
<213> Enterobacter cloacae
<400> 5199
ccagtaacca aactgootaa aagcaggtgo aaagccatga aacaaacaaa gtottotatg
                                                                      60
teaegtattg tgcagetgta egaegggage egataeggaa aetgegagea ggetgataae
                                                                      120
gaaggagage titttacggt ggtgttgaat aagcettege agategatga cateegtaaa
                                                                      180
atogtagaca caacogooga agtacttggc aaagetttgc cagtactcct cttttaa
                                                                      237
<210> 5200
<211> 327
<212> DNA
<213> Enterobacter cloacae
<400> 5200
totgqaqaqt caatcatgat cacatotota atgaatttoo gogatttaac oggagaggca
                                                                      60
gtcatccagg cgcggcaatg cgttattaat gctgagatcg aagcggcccg ggaaaaggta
atteatgete qtteqttatt caaaqeqqqt atacataatg ttgtaaacqg tagttetgge
                                                                      180
attaaggetq eggcagcaca ttttctggtg ataaaacgtt tacagactga cacteggtat
                                                                      240
                                                                      300
ctggacgegg ttatcactga taacetttge atgttttete ctgagggtta tetgtatetg
tttatgcaac aacgttattt cctataa
                                                                      327
```

<210> 5201 <211> 291 <212> DNA <213> Enter	obacter clc	pacae				
acggctatca	gaaataccac accatgtgat ggggctggaa		gtcattgtcc aacggcaatg ccactgcttg	acccegttgt caccacgtcg tccgtgagec	cattattgaa gtttggagaa tttcggaaat	60 120 180 240 291
<210> 5202 <211> 618 <212> DNA <213> Enter	obacter clo	pacae				
agtaaagaac cggacagcac accetgatgc gttgcggata gtcgttgagc eggccgtgga gacgacgatc atgtccggta	aggetgecat etgategggt tggeettgae gtteaeeeta tgtgtetatg tattteaggt ttgeeegget tteategaet eccatetega	attaaataa aagggcactt tcaaaaggct gctattgggc tgtgcccggt ctttcttgca agtcccgatg ttcctgtaac gacctacacg atacagccgt	gtagaaagag teggtagegt tacettgtgg ctaagttatt tggtttttgg gageagtact cettacatca aggetgeatg	tagtgaccaa ttaatggggg cggaattgct cgcaatttc ttgtcacagg ggttctttga agcgctggct atcgactgga	ctatcgcagc attaatcctg cagggggtat gatgcttatg ggactatccc cgaagtggat acttgatgaa gcgcatctgt	60 120 180 240 300 360 420 480 540 600 618
<210> 5203 <211> 351 <212> DNA <213> Enter	cobacter clo	Dacae				
ttcaaatccg cgtagggtat acccatactg aacttgtttt	ccggatacag gcgacaataa ctgggatgag tttctagaac	ttctttaatg caataattgc taaggetett cgaagcaegg aeggegaagt gettgeettt	accgaacage cccgtactet tacattatge tttettacet	ggtttgaact taaaaatgga cagcgtataa gggaagctgt	gcaatgcatc agagtttaaa gggccgtcat ggaaagcgta	60 120 180 240 300 351
<210> 5204 <211> 537 <212> DNA <213> Enter	robacter clo	oacae				
<220> <221>unsure <222>(526)	е					
agaacaaaaa cgtggttacc ccttcggttg tactattcaa gacccgttca	tgtccgcaat tggaacgcac ttgtacaaca tgcctcacgt gcgtgacgcc	ttgttgtgtt cgaaactgaa tggtaacggt ggaaggcttt tgtggaacac tatcgttgtt ttccatcgct	gtaaaaaaca gcccgtaaag aacacccgca ctgaacagcc cagatggtta	acagcaacga gtaacggcct cggccggtat tggccgatgc atggcgtacc	aataagcett tateattgae gggegagete etacatggaa tgtaetgegt	60 120 180 240 300 360 420

			1988			
cgtgaacgca ctcttcaccc						480 537
<210> 5205 <211> 204 <212> DNA <213> Enter	obacter clc	acae				
<400> 5205 gegggggetg ggetgtetaa etggttegte ttagaaggge	ttgttggtca gttcaaacga	caatctggtt tggttcaacc	ggaaaaatcc	acceteaatt	atttgataag	60 120 180 204
<210> 5206 <211> 276 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5206 agaggtaacc agtctgactg gcctataagc gtcaccacgt aaagaggcta	attcagtcga tacttgcttc ataaggtgaa	atacaaatac aggtaataag gcctaagcca	ttcaacggtc cctaaaccaa acgattgaac	aaacagaaat ctgtgaagcc	tagtgaatca agctaaagcg	60 120 180 240 276
<210> 5207 <211> 298 <212> DNA <213> Enter	obacter clo	pacae				
	ttaaccaaaa ccaaccgggt gtattaaccg	acctgggtaa tttattcggg cctggaaaac	ttcagttcga ggcgagtgga ggcaaagtgg	aaacccgaat tcaaagaggg ttggcgacgt	ttgctgatcg cgcattggtc ggtgtatgaa	60 120 180 240 298
<210> 5208 <211> 921 <212> DNA <213> Enter	obacter clo	pacae				
agcaacatga gaaacattaa gtggtcgatt tgctattttg agacgcttta tcctacccgc aaggtcaatg aaaactacca gcgcgtatga caggagatc tctgcgctt	cacatatett tggaagteat ttgttaagaa cttttgatga ctgaggtgec accatgacet ttaaagagg tggtteegge agcetegegt ttacaaaage gegatetgee cegttegega tataaaaage	ttttgoctgt ttatgagttc caattettet ggcgtcaat tgaggettac tgacggtgtg ceggegagtgt cegggegaa actacagec caatgetaat geegaacaac geegaacaac geagateca actegacaaac	toctocotga gaactcacgo gttaacacca tttctcgagt gtttcccctg aaggcgacgg tgcaatctgc cctgccggaa ggctcttttg gaattcccta ttaaagcaag aaacgtgtcg cagatagagg	agcctggtgt gttttgteat caateggtag ttgaeggeaa cggaatttge cgtttattga tgtttggtet aaatgggeaa agcttttaa ccctaeaggt ggatcagaac gageggeaa caateggeet	tectgatgtg gggtgcagag ctttaaaaac gggtaaatce cegctegcaa cgtgctgatg ggatctgcat taaaaacgga cgcgttettt getgacegc etggtttaaa tgcggtgctg ggaaaatac	60 120 180 240 300 360 420 480 540 600 660 720 780 840 900 921

```
<210> 5209
<211> 258
<212> DNA
<213> Enterobacter cloacae
<400> 5209
cgaagccacg attttcagga gggtgctttt gccgcagccg gagggaccgg ttatcagttt
aaattegeee ggagagagae aaaaategae gtgetgaagg atggtgttat cacccacaeg
                                                                      120
aaagccaaca tooctgatat ocagaagatt ttttttatta ttcattccga ttccattaac
                                                                      180
                                                                      240
cgctgtgata agaagagcct taagcataat cctttccgct acgcagcgct aatagcctta
                                                                      258
acctatagca agtgttaa
<210> 5210
<211> 186
<212> DNA
<213> Enterobacter cloacae
<400> 5210
egatgttggg ctaacgtcat cacggtgctc ageggegage ageacgacag tttcaaaacc
agcaagegee tgategagtt gateetgatt acgaacatca coggagacag taatateegg
                                                                      120
                                                                      180
ataaaaatga ctctqctqtt tqtcqaaqtt aqtaacatca aaatcagtct tggaaatctc
                                                                      186
gattaa
<210> 5211
<211> 192
<212> DNA
<213> Enterobacter cloacae
<400> 5211
tgttttgccg gatggcgctt cgcttatccg gcctacagga ccgtaggccc ggtaagcgcc
                                                                      60
agegecaceg ggeaacaaaa aggegaceac aeggtegeet ttttttatta caacagetee
egegeegeeg acacaatgte atgtgeegte aggeeatact cettttgeaa gaagteetge
                                                                      180
gtgcccacct ga
<210> 5212
<211> 183
<212> DNA
<213> Enterobacter cloacae
<400> 5212
tttgacgagt taacgettat cgtctacgge cetatcagge tggcacagga taccegatac
ggggtagcga tgacaaaata ttttgaacgt tgtcatagcc tgttgtggtt ttgcacgaaa
                                                                      120
attttaattt ttatacgtga agttgaggta cagecatgte gacaccegaa atccegteeg
                                                                      180
tga
                                                                      183
<210> 5213
<211> 252
<212> DNA
<213> Enterobacter cloacae
<400> 5213
qccagcgaca aagttattgg actggatgta tttgccgatc ttgttgttgt tgatggtgcc
                                                                      60
atcacctatc agegogtete tgatgaacac etgecegtte tgaataacga aeggaagegt
aacggtcgct ccggcctggt gcgttacggc gaagcggtca gccacgaaga taacctgcga
                                                                      180
etgeatgeeg gaeggegtat teteaaegee gateceeate eetgeegegt aataetgace
                                                                      240
                                                                      252
attgctggct aa
<210> 5214
<211> 210
<212> DNA
<213> Enterobacter cloacae
```

aagggttgtt aagctctccg cccggtataa <210> 5215 <211> 414 <212> DNA	ttgtcctgaa tggacaatac tcatccactt	gtatattccc ttttccattg tgtatattga	ggtaagcctg acgctggatg agaccagata	tactgaacgg	gataacette	60 120 180 210
<213> Enter	cobacter clo	oacae				
toccttggtg cccgttctgg atgcgcgatt tatcttcgcg accgtaaagc	aaaaggttgg aggatatgaa caattaaaat ttggcccgag aagtcgcaag	tacgcaggtt agegcatget cegetcatcc taaaaaacac teeettcatt	gggetteagg ttaegggagg ggttaegaeg tettegaaag tteateaaag egteeggege gaeegaattg	ccgggaaagc aatcagcgaa caaagggcaa cgttggctca tcgattatca	tgcacttgag agatgagcac tgcagttgtt ggagatggga gaaagcgaaa	60 120 180 240 300 360 414
<210> 5216						
<211> 405 <212> DNA <213> Enter	robacter clo	pacae				
<400> 5216						
agattotacg aaaattgtat gattatotgg cattacgcot gaatttatta aagottgcaa	tgagtgtatt agcgtcattc ttatgartgc ctgggttgct atgattgttt	gttattgact tgaaataaaa gatgatggaa ttcaaataat aacgcaaagg	ctttgctcaa gcatttaatt tcaaattctg gcacaacaaa ggtgatgtat agcattggtc aaatcagaac	catacgcagg ttgctgaaac agcataatag atgcaagatt aatccggaga	aactgtagac ttatgtaagc atctgataat agcggttaaa	60 120 180 240 300 360 405
<210> 5217 <211> 375 <212> DNA <213> Enter	robacter clo	pacae				
<400> 5217						
aatgtggtga gagatctaca gaaaaggaaa gttaaggcag	aacagcattg caggtgcggc gcagccctgg ccatgctact ccgtgtctca	cegeattgat ggcccggtac ctacgctgac gcttatcggt	tttttteggg accgacttta gtccagacat gacceggace cactggtatg gctgtggagg	egggtgatga ggacaegeeg egataetget caaacaggga	tgctctgctg aacgctctat caatgatgat atcggtagtt	60 120 180 240 300 360 375
<210> 5218 <211> 381 <212> DNA <213> Ente:	robacter clo	oàcae				
aactggatgg ggcgttaagc tcttacacag gatcagtttg	eggaatatgg etgteagegt tagegettee gtaegagteg	tgttcagaca ttgtggctat accgggttgc gaggaagatc	cctcttacgg tgggacgcat ctccagctgg aggctgacct accatttcgg actgagcctg	caggcaaggt cccagaacca attttcagag ggggaacagc	aaacaactat gaaaacaggc catgaacggc aacagtgtca	60 120 180 240 300 360

```
381
ttccagatcg agagggcata a
<210> 5219
<211> 1419
<212> DNA
<213> Enterobacter cloacae
<400> 5219
gogocaacac gttcaccage accacctgcc actaacccat tcagttttga acaaaccccg
ctccggcggg gttttttatt gcctggagaa aacatgattt atactactgg cactatcgcc
atcageggaa acaccettae aggtaeegge acaaacttea etgetgetgg atctettatt
                                                                     180
                                                                      240
cqtaacqqat qtaccqttat tqcaatqacc agccctqtqc aggtatttca gattaccacc
attggcageg caacaagtct caccgtaacg ccagcggcta acccagcagt tcccgccgga
                                                                     360
accegatttg coattettet gagtgacagt etgagegtgg atggtetgge geaggatata
gctgaaacct tcacgatgta ccagcgctac atgagcgggt tcgctgatgt aatgaacggg
                                                                     420
acatetgatg teaccattae tateaacgge actgeegtta cegtgeeggg teaaaaatet
                                                                     480
                                                                     540
ctggcgaaga aaggggctaa cagcgacatt accagccttt ctgggctgaa aacagctctc
ageattqaqe aqqqaqqqac cqqcqcaaag aatgetgetg acgetegeac aaacctcggt
                                                                     600
                                                                     660
ttaqqaacat caqccacqct taacqcqcqt cccaacqaaa catatccaac tgatggtgtt
ttgactgtag ggcaatatgg catcggagca caaaacccgc ctcttaccac agatttcaaa
                                                                     720
                                                                     780
accatagate gtggtggaat atttgcggga gctggctctg caggcgttaa tttttataac
gegtttgeac etgteettgt gatgageaga tatteatett etgeaatgea ggeeatacaa
                                                                     840
geogataact caaccottgc gtttaatatt aaagacggta atggctggcg tggatggtt
                                                                     900
aagetataea gtgaaaataa cactacccgt gccagtgatg gcacgctcaa agtcgcctca
                                                                     960
cctqtaqtcc qaataqtqaq atcacaagaq gaatgtagga gagcagatgt tgacaaggat
                                                                     1080
ggatttteet ggtgtggetg eggtaeggeg aatgeagagg cagagggtgt aaccettttt
cgcctcgacg taggtgttta cgttatcagc ggttcggcag gcctggcgtc tgagggatgg
                                                                     1140
cagttactgc cgccaatgga teetggegge atgggggaac tgggtgtagt tgaagetgag
caqacaqaaa geggtggget gaegattegg ctttttaage ggaaatacat actcagegaa
                                                                     1260
gaaggogaaa ttgttaaaac gaaagggget eetatagatg tteetgeeaa tagetggate
                                                                     1320
gacgttegee tegatatgee agaggatage atetggaaaa caagagette egaagettet
                                                                     1380
ettgaactga cagageagee tgaggacatt cageettaa
                                                                     1419
<210> 5220
<211> 498
<212> DNA
<213> Enterobacter cloacae
<400> 5220
aaaccaccqq tagcqctcqc tgccaccttc aaagagagag aaattatggc tgataaaact
tegecagagt acgegatget geetgetgge accgtegtta tgtggggtge tgegggeage
qacqtaqcaa caatqaaacc actcattaac tqtaaaqcqc tqqqcqctac aggacagacq
                                                                      180
ggcagetttg tagactgcac tacgetgate gataccagta aacagtttat etctgacetg
                                                                     240
cetqaaggee etgaaaaate getgggettt attgacgate cagecaacca ggactttget
                                                                     300
gattteetea acqeaqeaqa qaaccqqqaa accqtacaqt tttacqttga getgecaaat
                                                                     360
ggtcgaacgg cgaacatgat tetggeeett tetggetgge agatgaatga aattaccgcc
                                                                     420
coggoaagtg aagtcattca aatcactgtt cagggaaaac agaacaatat tacttggggt
                                                                     480
                                                                      498
acquetqueq quaquetqa
<210> 5221
<211> 378
<212> DNA
<213> Enterobacter cloacae
<400> 5221
ttctcaggaa aaactatgtc taccatcgat gtttctgcac ttaaatccgc acttctgaag
                                                                      60
cctagaagcg ccgttgttac cgccgaaatt tttggaacca ccgtttatct acgccgtatg
                                                                      120
acqqcqqqaq aactcatcqa tcatqaaqaa qcqctqcqaq acaqtcaqat tqcaqaaqat
                                                                      180
gcacqtaaag cttcagagat cagtgtgcag ttgatcgtcg attgtcttgt ccatcccgat
                                                                      240
ggcagcetaa tegeagetaa agacaageet accgcageeg agetacteca gactcatgae
                                                                     300
```

aacqtqqcqc tccttqatqc aatcqccact gtaaaaaaaac atgcgctggg taagcttgaa

1992	
gacgcggaaa aaaactaa	378
<210> 5222 <211> 474 <212> DNA <213> Enterobacter cloacae	
<400> 5222 cccttcccc ggtggggaga ggggatagtc cttcacctat gtgagtette atcaatgaga attaaaacaag ggttaatggt ggcagcattc gtgatgctgg ggggtgtaa cgcaccogcg cagcacgtgc cggtggaaac ctgcaaagcg gataaccaga tgcagcagac cacgctctat tttggcttga atcaccagca gtgactagaca gataccagca gcagttggtg gacaggacg tyacqccqcq ttttcgcqat ggcttaacgg tgtttgatg ccgtggtcag gggagagatg cgcagagtgg gagacaggac gagcctgata gtggacagga cagcaggaca ggcgagaca ggcgagaca ggcgagaca gcgagacagca gcgagacagac	60 120 180 240 300 360 420 474
<210> 5223 <211> 243 <212> DNA <213> Enterobacter cloacae	
<400> 5223 caaaacagcc aaaaaggact ggacttacgc ctgccgggtt gtggtatgtt tgaggcaggc gcacaggaag tgaaccttct gctgagacga aaaccggatt ttatcgttta ttttcatgcg gataaaaaga gaccgaatac gattcctgta ttcggtccag ggaaatggct cttgggaga agccgtgcgc taaaagttgg cattaatgca ggctcaatcg ccttgccctt taagaataga tga	60 120 180 240 243
<210> 5224 <211> 234 <212> DNA <213> Enterobacter cloacae	
<400> 5224 ctaaaggotg gicaactaag cgaccagcca cattacatga ttaacattgt toogtticta tegettecat tegtaticoa tateetegta ggetteatite gittigaga tgaaaacaaa aataccgagg ccaataaaaa taacqaaggg aatgatgatg etegcaatca gitteccagat tgetggegga tegittigeg ecaggaaact gatacgatag gcaatgaggg ataa	60 120 180 234
<210> 5225 <211> 1383 <212> DNA <213> Enterobacter cloacae	
<400> 5225 agaatataca aacaacagcc agaccoggat tocactgtgc cagtogtcat gattgtttc ctctatgtga tagcogtcgc aatgggcctc gcgatcoggg ctctcacctg gcctgaacag gaacacgtta cagctctctt ttttgtgcct teagttattc tgcccatctg tgttgtatcg ttgctagtt ttacaagttt catattcat gagcocaca ttotattgc tgaacccga aaattcatag caaaagagca ggagattaat ttaaaggcgt atggggaaa aaattcgct acceccctg gaggagccg cgctgaatat gttgaaacctg gaacggcagaca ggaatgaaca gacggcagaaca gagtttata ttcagctgga aaggactgatc gacgaacagaca gaatgatcac ggcttaata ttcagctgga aaggactata actaccgcta ttttgaacac gtgttattgg accgatggac gaatgaatcc tgcattgatg aactgaggcg cactctggag cggttggta ttgaacagg agaacacttggaa caggttgatt acaggatgg attaaattggga aacaggagacagat tcattgag accgatgga ttgaaccaga gagtcgttc ttgaacaga gagtcgttc ttgaacaga gagtcgttc tcaggaac gagtcgatc tagccaatg gatgaactt tctgattaca gagttgaata ttcattgta caggtcatta ttgaacaga gagaacgaga accggttgat gttatcgtg attacatga caggaggagagagagagagagagagagagagagagag	60 120 180 240 300 360 420 480 540 660 720 780 840 900

```
gggctgtccc gtattgaaaa atatccatta atgcaggcac tggataaaaa agcgctcacg
                                                                      960
gtggaacggc tggatatcga tgcctctctg ggcgcaaaga gtgccgggta tcggtggctg
                                                                     1020
gctctggcat ttgcggcgga tgcggtcaaa tatgcccagg gggagcaact ggcagcttat
                                                                     1080
tcagacaaaa acaaattttg tattacttcg ctttcctcca tgaagacage tatcccaaaa
                                                                     1140
aaacttacct ggtgtaactg gagtaatccc ctttatcctg cggggatggc ggctttattc
tgogtgttat coctoattgc ctatogtatc agtttcctgg cgcaaaacga tccgccagca
                                                                      1260
atotgggaac tgattgcgag catcatcatt cccttcgtta tttttattgg cctcggtatt
                                                                      1320
                                                                      1380
tttgttttca tctcgaaaac gaatgaagcc tacgaggata tggaatacga atggaagcga
                                                                      1383
tag
<210> 5226
<211> 327
<212> DNA
<213> Enterobacter cloacae
<400> 5226
atgccagctg teagegetet etttacaete aateceeatg atgegattga egattacegt
                                                                      120
coccgcaaaa tcatcgagaa acaggacatt actteetteg cccagaataa gtacgggtte
                                                                      180
accepttcct gttgcgtttt gccatgcatt cagcaactgc tgagcacttt cggcacgtac
aatttgatta gcattccgtt gaataccaaa ggtattccag ggcttaaggg agtgattcat
                                                                      300
 agacgctatc ctgatgcaaa aaccgggata gtttaccgta tatatggggg gataggtgat
                                                                      327
 ttgtttatgg aaaggaagca ggtgtag
<210> 5227
<211> 387
<212> DNA
<213> Enterobacter cloacae
<400> 5227
atatogoggg gtaaaaagta tagactgtca gcotoogcag gcatggaaaa taatogtact
                                                                       120
gtctggggtc cacggttact gtcgagcctg atgattgact ttggctcatc gcccatcgta
attatggcca cgcgggaatc cttcccctgc gccgctatcg tctggtttac cagactgatg
                                                                       180
gcatcitcat tacgatecgt attaacccac cagactecte cgactggcat gtggcgcaat
                                                                       240
                                                                       300
togtoccata atgactggat gccaatagaa aatatggagt ccacggtgto cotottttcg
                                                                       360
togaatttot atgtototoa gtttactago gaaagogtag aaataaacot aacattgaaa
                                                                       387
 ttaaagaaca tcagatttag catgtaa
 <210> 5228
 <211> 552
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5228
 getgteagae gaagaegeae eegatttega eggetatete ttegaategg teeetetttt
                                                                       60
 ccaggggaag ctggtgtgaa tatactgccg cttcacgctg cgccgcagtt tacacagcag
                                                                       120
                                                                       180
 gtgatcgact ggatctggta cgcgtttggt gaaggtatgc cgcgtgcctt tttccagagc
 attgtcgagc acagcctgac gccgggcgag traccgctca cctttattgc cgttgaggat
                                                                       240
 gaccagetge tgggcaccgt tgggttgtgg egttgegatt taattteeeg acaggatete
                                                                       300
                                                                       360
 cacccetgge tggctgcgct gtatgtcgat gaagccgccc ggggaaacgg gctggcggga
 aaacttcage ageatgttat eggetacgeg egaegegeeg ggtateacga getteatete
                                                                       420
                                                                       480
 tggtetgeet geogegactt ctacgaacgt tacggetgge actacategg egatgegetg
                                                                       540
 gaataceegg ataaaacegt ceatetetat egetgttege teaeggette egegggegat
 accaccgagt ga
 <210> 5229
 <211> 198
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5229
 ccaaagcagt atttgaaact cgtggcgtca cggcagatgc acttcctgac gcttctccgg
```

			1994			
	atctccaggc		agcagcgttc ttactgctga			120 180 198
<210> 5230 <211> 597 <212> DNA <213> Enter	obacter clo	oacae				
5000						
aaaaagaaga catctcgtct agcaatgcgt ggggcctttg gctgacatct aagctggtca actacggagg atcaacattc	cagcgttaaa cagagcggtg ttaacaaatg atgttteget getttgtget aggegggeta agggaaaagc gtgcggaaag	ccacgacgat tgctgaatta gatggtgcgc tctgcaccac gaacgtggaa cgtcaccagc gctgtgcatg cggtattccg	ttcgggggaa attgcggacg tcagagctgg tgcatgaccg gtgaatcacc gatacccac gagaaagcgg aagtaccggg ggcgcgtcga gccgcacgcg	ggogaatogt aatatgogot cagogggtga gcaacogtaa tggtgacgta gaaaagagot aggtgoggga ttggogagac	ctectecegt gateatgace aceggatatg gaaaaagetg tgegetgaaa tttttetee ggeetgeetg egegeagtta	60 120 180 240 300 360 420 480 540 597
<210> 5231						
<211> 387 <212> DNA	cobacter clo	oacae				
<400> 5231						
tcagccctgg gctatcaaac atcgtcagag gtaatcaagt aagatcattc	cagcaacgcc cgtacagcgc gaggtgaacc ttgagagtct	tgettattae teaggttgaa egatgttaaa eaaaaatgee eegtgeegge	gccactettt ategcagagt tetacettea gaagggtttg caggaetggt aattegegaa	ttcaggcgac gaccttttgg gagcacaggg atagctcggc	cgatcttgac tggacgcttc cagactggtt cgcataccag	60 120 180 240 300 360 387
<210> 5232 <211> 267 <212> DNA <213> Ente	cobacter clo	oacae				
aageggegte ggtggteaga aagaatatgg	tgaccatgct tggatatgcc	catcacgcgg gatccggaaa cgtcatggat	gtgaaaatca atgcaggaaa ggcgtcgcgg ctggtcgatg	atcacgttgc atccgttgcg	gactgtcttc ctatctcggg	60 120 180 240 267
<210> 5233 <211> 1167 <212> DNA <213> Enter	obacter clo	oacae				
<400> 5233						
tgegtteetg catteegace cageattegt atgatgacec ctggttgtga tggtttetgt	gccattgcgg cgcgacgtga tcatcaccat tgaccettcg ttggcgggat	cactgatcat tggcctggaa taaccgtgtg cgatcgcgct cttcctgttt	gategaaceg ccatatgacg agcagageag tactacetga aaceegaaac ggegatetga gttategtga	egtetgetae ggtaegeagg teggettegt getataeeae tggtgeagga	gcctcgatgc agatcgcacc cgtgatgctg ggcgctgttc gctgggtaag	60 120 180 240 300 360 420
			tecacegagg			480

```
aaccggctga aaaactggct gtttttaccg gcactgatga tccccgtggt aacggtcatc
                                                                     540
gggacgetat ttetgaaagg cgtgtegatt ggeggtgtet atetgetega ccagaaacag
                                                                     600
cttacqctqq cggcactgtq cgtaqcctgt gtggcagcta tcctcaccgg ctggtggctg
                                                                     660
acaaaaggta cacegotgca tgeggttegt cagtegegte ggetggtega taceattgge
tgggcggtga tcctgccgca gatgctcgcc atqctcggcg gggtgtttgt ggtggcgaat
                                                                     780
                                                                     840
accggcgaat cggtacaaaa ggtggtcagc ctgtttgtga acccggacag ccgcttcatg
ctggtggtca tttattgcgt ggggatggcg ctgtttacca tgatcatggg taacgccttc
                                                                     900
                                                                     960
gcaqcettce eggtgttaag egeeggtate getetgeeat teetgattaa egteeateae
ggtaacccgg cgccgctgct ggctatcggt atgtacgctg gctattgcgg cacgctgatg
acgoogatgg ccgccaactt caacattgtg cccgccgcgc tactggagct aaaagacaaa
                                                                     1080
tatcaggtta tcaagatcca gatcccgacc gcgttaaccc tgctggtggt gaacgtgttc
                                                                     1140
ttaatgtatt teetegtgtt tegetaa
                                                                     1167
<210> 5234
<211> 1005
<212> DNA
<213> Enterobacter cloacae
<400> 5234
ggagetgcaa tggaattaac gcaacatcag gctgacgcct tcgccagaat gccgttgacc
tatttacqtc aqqaataccc qaaccacatt atqcatctqc tcaacqatqa cqqcqacqtt
etgeegeete gegagetgea eeegatetti taeggetgtt tigaetggea etetgeggtg
                                                                     180
                                                                     240
cacggetact ggetgetget gegetgeetg egtetetgge eegaactgee gtgeegggaa
gagatcatca ctctgttcga agaacacctg accgacgaga aggtggcgaa ggagttggcc
                                                                     300
tattttaccg cgccgttccg cgcgtcgttt gagcggcctt atggctacgg ctggctgctg
                                                                     360
qeqetqqeqe aqqaqetqaa qeaateqtea etqeeqeaqq eqqaqeqetq qtaecaqaeq
                                                                     420
ctgcaaccqt taacgcggga tattcgccag cggctggtgg attacctcag caagcttacc
                                                                     480
tatecgatec gegtegggae geactacaae aeggegtttg egetegeget ggggetggat
                                                                     540
tatgcccggg cggtgaacga tgacacgctt gagcgcgcca tectggacgc ggcaacgcgg
                                                                     600
                                                                     660
ttttacctcq cqqacacqca atatcctqcq cattatqaqc cqqqtqqcqa cqaqtatatc
                                                                     720
teeggagege tgacegagge cetgetgatg agtgaggtgg tggaggattt ceeggeetgg
                                                                     780
ttegatgegt ttetgeetga agtgggegee gtttetgege tgatgaacce ggeagaggtg
                                                                     840
agegacegea ecgaceegaa aategegeat etggaeggte teaaceteag eegegeetgg
                                                                     900
tgtatgaage acattgeeeg tgetetgeeg gaaaateate aegeeeggaa geeattacae
                                                                     960
gatgccgttg cgcgccatct ctcggcaagc gtggagcatg ttgtcggcag ccactacagc
ggcggccact ggctggcgag ttttgcgctg ctggcgctgg agtag
<210> 5235
<211> 801
<212> DNA
<213> Enterobacter cloacae
<400> 5235
tgcaccggct tegetetget gcgaagtata aaaaatagcc gtcggcgcgc aacgctcact
                                                                     60
ttggataggg taacgtttat ggacagttct acactgttgc cacttatcgg gattccggtg
gtggttattg gttttgcact gcgtttcaac ccgctgctgg ttgtcgtggt ggcggggctt
                                                                     180
gcgacgggcc tgctggttgg catggatttc ggtatgctgc tggaaacctt tggcgaaaag
                                                                      240
                                                                     300
ttegtgaata geegateget tgeeacette attetgatee tgeeggtgat tggeetattg
gagtattacg ggotgaaaga acgogoccag gootgggtog cgaagatogo cagogocaco
                                                                     360
                                                                     420
toggogogta tootgatgot otactttgtt gooogogaag gaacggotgo gotgggootg
atgtegettg geggeeacge geaaacggtg egteegetge tggegeegat ggeggaaggg
                                                                     480
gcagctctga atgaatacgg ggaactgccg cagactatcc gcgacaaaat caaagcccat
                                                                     540
geogeogogt gtgacaatat egeggtttte tttggggaag atatttttat egeetttgge
                                                                     600
geggtactge tgattgatge gtteetgaaa gagaacggga tegaggggat egaacegetg
                                                                     660
catatoggoc tgtgggccat tocgacogoc attgcggcac tgatcatoca tatgacgogt
                                                                     780
ctgctacgcc tcgatgccag cattcgtcgc gacgtgatgg cctggaaagc agagcagggt
                                                                     801
acgcaggaga tegcaccatg a
```

<210> 5236 <211> 342 <212> DNA

## <213> Enterobacter cloacae <400> 5236 caggactgta aaacgctatg gtgtaacagg agccagttct ggcaatcctt ctacgatata 60 ggttegegaa ttgccggcac ggtgtcggat aggaatgate ttctggtatg eggccgaget ataccagtee tgggcatttt tgagaetete aaacttgatt acaaccagte tgecetgtge 180 tecaaaceet tetttaacat egggtteace teetetgaeg atgaagegte caccaaaagg 240 tetgaaggta gatteaacet gagegetgta eggtttgata gegteaagat eggtegeetg 300 342 aaactotgog atgtaataag caggogttgo tgocagggot ga <210> 5237 <211> 363 <212> DNA <213> Enterobacter cloacae <400> 5237 ttgctgacgg aacgtcgaag gaataaacaa aggggggaga agatggtgca tccgggagga 60 ttactcggct tacgcctcgc cetgcgggcc gttgctaaag caacgttatc ctccctggtg 180 cttqcqatta actcqcatac cttaaaacaa caqcatcqct qttatccaqg agaatatggt 240 gcatccggga ggattcgaac ctccgaccgc tcggttcgta gccgagtact ctatccagct gagctacgga tgcatcggga tttactactg ttactgctga tactcggtat cgcttcaaaa 300 360 gcaacacaaa gtaaaatatg gtgcatcogg gaggattoga acctoogaco gctoggttog tag 363 <210> 5238 <211> 390 <212> DNA <213> Enterobacter cloacae <400> 5238 aataatggct cetetgetgt aattatetgt etetttattg ettttatagg catagttatt toattttata tagactatog gaaaaattat ogocaggtta atcaaatata tgogatatta 120 acagatcaac agttgctcaa aaaacaagat tatcaaacct ggcaaaatct tgggttctgg 180 ggatttggtt tecteaceae aattttatea egggtettae agggtaageg tgtgagatta 240 actgagtgtc gttggcttga gccacagtcg tgcaataaat ttttttctga ttttgatttg 300 tcatgggtta agtcgtatag aagaaaaata cttattgcca ctgttatatt tttactgctg 360 ttaattottt ogagoattaa tagtototaa 390 <210> 5239 <211> 1152 <212> DNA <213> Enterobacter cloacae <400> 5239 60 accaaatcat tcaaaagaat geegaacagg agggcaatge tcaggataac tatacegeeg tggcggtgtg gatgggcaac cetcaggaca ccaetttgct gcatacgctc tetgacgcag 180 cacaatttct tccctgcgga actgattaga cacacaagga ttgatatgaa actttggcta tegggtttgg etettetgae ggtggegaee accgcacagg etgaaaactt cegcategtg 300 cagtetectg egeagaaget ggatatetgg ategacaaca ttaaagacaa taegeegeaa 360 agctggtgta aggcggacgt ggcgctgcgt atcgtggcga acggcaagaa agaggtttcg 420 gtgetggaaa acttegtgee gegeettgge tegetgetgg ageaceagtg cageaagetg 480 aataccetga actggacget taacgateeg gaaggeacga egettgeeeg gggeacageg 540 gctaaagcac aggactgggc gctggtggtg aaacagcagg aaacgacggc ggcaacgacc accacetcag gegegetget geegeetgae cagaateegg agaegeacae egtggeggea 600 gategtacgc catggcagga gttcaccett caggacggtt gccacctgcg caccttctgg 660 gagggeggtt cctccgegcc ggcgctgttt attccggatt ccgacaccac ccgctgcggc 780 aacggtagct ggctcagcgg ccacaccgtg gtgacgcaaa atcgtaacgg ggcgcagaaa gegatteegg teacetacat teaeggette eeggtgatgg gactgaacaa egeggtegat cctgaaaagg cgctgatcac ctccgtcaac aaagagcgca tggtcttcag caccccgaac 900 agogaccaga gotggatgat cotgoogtac gacagcacto tgaacggotg gaagagcaac 960 qqcacqqtqq cqqtqqaaat caccqttqaq atcqccaqcq acqacqccaq actccaqqcq 1020

cgtatcgcag aggtgaagaa gatctggagc gcatgggttg caccgggcgc ggagctgaac 1080 qttqttctqa ttqacacqct qcqtccqcaq ctqcqcqatc cggcagtqgg cqcctgqcqc 1140 gcggcgaatt aa <210> 5240 <211> 1056 <212> DNA <213> Enterobacter cloacae <400> 5240 aagggggctg gtatgagtga agttgcccct gcaacgctgc gcgtgcatcg cctgacgccg ctgcccgatg cgttctggcg cggagtgcgc gagacgccgt ggcgctacga tctgttccag 180 ctgttaagac gcattgatgc ccagggcggc gagcgttacc cgctggggcg cgcaccgctg cetaaatttg agccgctgcg tattggtcag aagcettcaa tgggctttgc gccgtcaacg 240 qttqctqaqq tccqqcaqcq qqaaqaqaac qqactqcatq aqqtttccat tctqaqcttc 300 360 ggcctgtttg gtcctaacgg cccactgccg gtgcacatga ctgagtatgc ccgcgagcgt atteateate ateaqqatea caqceteaqe geqtttqccq acctetttea ccaccqcetq 420 480 acgetgetgt tetacegege etgggeggae gegeageetg eegttteact ggategegae gacaacagge gettegaagg gtatetggca tegetgattg gcatggggca geetgeecag 540 600 atqtcqaaaq qcaqcctqaq cqcqcatqcc cqctttactc acgccgggca cctgacccqc cacgggcggg acccggaagg gctggagaaa atcctgcgca actatttcaa cgtgccggtc 660 aggetggtgg ccaacqtccc gcagtggatg ccqctctcaa cgcgggagea ggcacagetg ggtgagggc gtcgcctgcc gcgcatggga gagtccgctt ttctcggcat tgcqqtacqc 780 gacgtgcagc ataaattccg gctcgagatt ggcccgttga gcgcagacga ctacaaccgt 840 tttctgccgg gcgaaggatg ggtcaccgag ctgcgcgact gggtgcgaca gtacgccggg 900 gtggaatttg aatgggaaac acgggtgatc ctgcgcgccg atgcggtgca gggcgccacg 960 cteggtageg eegggegatt agggtacaac acctggeteg geetteagee teageetgtt ccgcgtggcg atctggtgta tcgcgcagag cgataa <210> 5241 <211> 1500 <212> DNA <213> Enterobacter cloacae <400> 5241 atccgtaagc ctgcgggtaa caggacggag cgaatgtata acatcaagtt tgtctatctg 60 ttccacqaqa acqtctcqcc agcqctqttt gcgaaaataa tccqcccqtc cgttqccgga 180 caqtqqatta tqtcqqttcc cqaccattcq ctqcqctcac tcttcacqcq ctacqatctq ctgcgcacga tcaccggtgc gaatccttat cagtccgggc gcgatacccq tacgctgatc 240 300 gegeaggatt tagagatggg cagagtggtt gecattgacg aaagtttteg tgactggtca 360 tcaqtaacqq aaatttttta tatcaacqcc aaaqqqcaac tccaqqctgc ctcqctqqtc 420 ggcctgggct ggtatccggt gagtacaatt gttgaccgct acgaaactat ggtgagaacg tacggatoto goootgogoo aacggtactg ocaaaacagg tggtgaaato taaaacggca 480 540 caggtgccgg atgaacctac tccgggcaag gacggtaaaa cctatgccgg gcagcttcag 600 aagatgacca aagcagaacg ctggcaggcg cgtaaagatc tgatcgcgaa ggggagcaat 660 agoctttatc eggatgeeca gategeegeg aaacgtetgg eggegaataa tategeggtg gaaaaagcga agcttgcgga aaatatttat aagaccgtga acccgctgga aaccacaccg 780 ggcgtgccgg agggatggac ggatatcagt aatgacgatg cgctgttagg aaagttcggg 840 ctgaacaaat ccatgctett tgacgatgat acgtceccca attttctggc gegegtetat caaccgaagc cggaagtgtt tggtgcagat atgaacccca cgctggtatt caggggatcg 900 960 egegageetg gettegeete tetgtetgag aatgteteet etetaetgae caaaggggaa ctggcgccgg tggtaaacgg ggctgactgg tcgaataact tctcacaggg catgggtatg 1080 gcttcagatt attataaaaa ggccgtgagt atcggtaagg agctggcaag gtcaggccag aatattgata ttgccggtca ttcccttggc ggtggtctcg cctctgcaac ctctatgggc 1140 1200 agegggaaag eggggtggae gtttaaegee geeggeetea atgeeggaae egtagaaaaa 1260 tacggcggta agatattagg cagtacggat aatatccagg cgtatcgggt tgaaggtgaa ctgctqacqa aqattcaqqa agttaacccc tqqqaaqatc tqaaaacqat qaaaqgqcat 1380 gtcccttcgt ggatcctcaa agaggaaatc tctgcgctga gccctaatgc tgccggaata occcatqacc ttoccgqtgg aaccggaaqt gcgctqqacc qccacqgqat taatcaqqcq 1440

attgattgca tagagcaaca gaaggatgag gatatttcga taatcgggag tcgattgtga

```
<210> 5242
<211> 522
<212> DNA
<213> Enterobacter cloacae
<400> 5242
aagaqaagct catccagaag gggggcgaat ggccacccgc gccggttaag tgattgctca
                                                                    120
actgtcatga acgccagaga taaggttttc gttttctggg gatgcatgga tgccctggcc
                                                                    180
gttgtcttat attgtgccca gtccatgcgg catgacaaga tcccttttat ttccgatata
                                                                    240
cacgccttca gtacggttgt gaacgcgctg tctgctggtg ggtatagcgc tctggttatt
                                                                    300
cttttcttta ttctcqattt tttqttqttq ctctcttta ttqcctcaqc atgqtgcttc
                                                                    360
ttegecegga atttataege gageagaetg geaetetaee aggaaataet gegtetggtt
                                                                    420
gggtttcgct actcagtttc cctttttccc ctggtgttaa gtttcacggg cgtgatgaat
                                                                    480
qtctqqctaa atqqattttt attcattttg tcaqaqtttc tgaaaatcta ttccctgtgg
                                                                    522
atttataaat atgaagggga aaggcccccg gttaaagagt aa
<210> 5243
<211> 885
<212> DNA
<213> Enterobacter cloacae
<400> 5243
ttgacacget gegteegeag etgegegate eggeagtggg egeetggege geggegaatt
                                                                    60
aaggggggg etatgaatac getttateaa egtetggegg gtgagtegat tagegaegeg
ctgcttcgcc tggaagccga aatcaaagct cgtccggcgg atgccgatct gcgcgccgcg
                                                                    180
tttgtgcagt ttctgatcct cageggcaac tgggegegeg ceetgaccca getgaagage
                                                                    240
tggctggcgc tgatgccgca ggcaaaacca accgtaacgc tgctggagca ggccattcag
                                                                    300
                                                                    360
ggtgaacage agegggegeg egtgttegeg ggagaggege gaeeggeaat geeegaggeg
cagtggccgt ggctgtcgac gttagcccag gcgctgaccg aacgcgccgg gcaagcgcaa
                                                                    420
acqctgcgcc tgqcqgcact cgaacagqcc ccggcaagcc gcgggcaggt cacgctggag
                                                                    480
aatgaagaga gccacacctt tgaatggctg atggacggcg atgcccgtct tgggccggtg
                                                                    540
tgtgaaaccc tggtcaatgg cogetatttc tgggtgccgt tctgcgccat cgatgcgatc
                                                                    600
egttttcagg etceggecag egtgacegat etggtgtgge gtcatgeget ggteegeete
                                                                    660
                                                                    720
acqqacqqca ccqaqcaqqt qtqtcaqatc ccqqcqcqtt atccqtttqc tqacqqcqct
tecgatageg ttagactggg gegeaceace gagtggetee egetegaega egaeggtgte
                                                                    780
ctqtatgaag qcatgggga gaaagcctgg ctgagcgagc aaagcgaaag cccgctgctc
                                                                    840
accotgaged tggtgadatt tacctoggat ggtgcgaatg agtaa
                                                                    885
<210> 5244
<211> 1893
<212> DNA
<213> Enterobacter cloacae
<400> 5244
actgaaagat qoggggtaat gatggaaago aaactgotog aatattacaa cogtgaactg
ctcggcatgc gcggcatcga agtggcggac ccgtacattg agcgcctgat ggaaggtttc
                                                                    180
                                                                    240
gettteetga cetecegegt geagatgaaa atggaegeeg aatteeegeg etttteaeag
cgtatgctgg agatgattgc gccaaattat ctggcgccta cgccgtcgat ggcgatcgct
                                                                    360
gaaattcagc ccgacagcag ccggggcgac ctgagcaaag gctttattgt gccgcgcggt
accatgatgg acagcotggc gotgaaaaaa accggogtta ogtgoagota taccaoggog
                                                                    420
cacgaggtga acctgctgcc tttaaaaatt gagcggatcg agctgggcgg cgttcccgcc
                                                                    480
gatetgeege tggeecaget eggeetgagt eageggggga teageagege ettaegggte
                                                                    540
                                                                    600
egeattgeet gegatggeee geageatete gggeacetgg attttgaceg eetggagtte
ttettaageg geeeggacat egaggegetg aagetgetgg agetggtgat ggagcaccac
                                                                    660
gegggeateg tetgecagae ggteageaag eageeceage geeagetget gtegtetgae
                                                                    780
gccctgcgtc aggaaggett tgatgcggac caggccctgc tcccggacga tctgcgtaac
tttgaegget ategeetgtt geaggagtae ttegegttee eggegegttt tegttteate
                                                                    840
                                                                    900
agcctgagcg ggctgggcaa gttgatccag cgctgcgaag acgaaaaagc gtttgatatc
                                                                    960
ttcattctgc tcgacaagag cgacgatcag ctggagcgcg tggtggatgc cagccacctg
                                                                    1020
gcgctgcact gcacgccggt gatcaacctg ttcccgaaag tggcggcccg gcagaagctg
```

			1999			
atttatgccg cgtccgttct cgccgtgagc atcggctcgg ctgcgctata caggagctga agccagctgc gcgctgcgtc gtggatggc ccggtggtgt ggcgccagcc atcacagct	tgaaaaaat ggagtacetg aggegttet aggtetegt teteegeeg ggeagttta cgeegeege aaatgaacta agetgttagg tegteactg tegeegeege tegteactg tegeegeege tegteactg tegeegeege tegteactg tegeegeege	ceacctgqtg ctatgccage gagcggagac ctcgdaacac ctcgdatgtg gtgctgttg tatggccgac tccggcactg gctgtacgcc cgtgctggag gatcggcat cagcaacgag acgcaacgag gacgcatgag gacgcatgag gacgctgag	geggatggte gegggaae gegggage acageegtg tecatgeegg geegaagggt atggacageg aacctegeeg eeggtgeae acctyaegg etggagegee agcageage	ageggaega aeggegeeta aeggeegetg aeetgeeget tgaaggegtt teageaeetg aaaegaaga agaegeeggt geegegtgee tggaegaaeg tttttgeeeg	ccagacgttt tttttccctg cacgggctat gcaggaaaac gatgctccag aaccctgcqt gcggctcatc gggcgtcatc ggcgctcatc ggcacgctcat gcacgctcat ccccgtcaq gaacccggc tgccttttcc cctggtctc	1080 1140 1200 1320 1380 1440 1500 1620 1680 1740 1800 1860 1893
<210> 5245 <211> 387 <212> DNA <213> Enter	robacter clo	Dacae				
accgtccata ttcccccgaa gttaaggaca gcctacattg agcgccgccg	ttttacctct ataacggaat gcattagcaa agcaacgata	gcccttatat gcctcatatc gaatgtgaag tttagccgtc tcaattgatt acaaaacgca agtttag	aaacgacccg tctttattac tttcttgccg gcacgtttga	tgtcatttga tgtgctttat ggtggcgctg ttgtaggccc	cagtettaca tgtggaacca tgettacecg gtgcaagegt	60 120 180 240 300 360 387
<210> 5246 <211> 588 <212> DNA <213> Enter	robacter clo	pacae				
aacgggtttc ttttttgcgt tcccgctaca gtcagagtgt cagaacaacg atgccgggcc ggcgtgatgg cctgttcccg gccagcgtct <210> 5247	acgagcatat tgattttegc atcttcagtt tgctgctgaa cgtcagccac agctttcgaa cggaatacca gcgaaaacgc	cctgcaaaga ttttatgaat gctgateggt tcaggctcat atccgategg gcttggcg aacctgagc ggcgctggac gatttaccag aaatggtatc	aataaaaatt ggttgtacgt cctcaaatca gatttcatgt aatctgctga gggcaaagct ggcaaaaaat ttctggaaat	ticateggat egtetteaca atgattetge ecagtgaett acagegatgt caceggaage ggegegtete ggteegeaga	gtggttccct cagcgacccc gccgcttaag ctactcctta gtcttccttg gcgttatatc acttcctttg	60 120 180 240 300 360 420 480 540 588
<211> 1032 <212> DNA <213> Enter	robacter clo	pacae				
tgcggtgaaa aaagccgagc gtggaaaaac ttaacccatg gtgcaggaag gaaaccgatc	acctggagta agcagtttgg tegecaccag ectggacacg ecctgteeeg egttetaceg	tategatgaa egaegetgat egaeaceate ectaetggga tegtegeggg ttaetgggag eateaaegee eteaetgete	ttccaggcca attccggcag cgcaccaaag ctggcaggtt cagctttacc ctcgccgggc	tggggcaggc agcctgccga atcttcgcgt acgctgacgg cgctgctgga tgagtgataa	cagteaggge ctggaacacg catgetggeg getactgetg agagtatgge atotgacetg	60 120 180 240 300 360 420 480

```
540
gacgcccagg cgctgcttga cggcagtaaa accgagtgtc cggattatcc gggcgggcgt
ccacqactga tcqatgagct gqcccgqgqc gatcagcccg gcaccgaagc ggtaatcgtg
atcaacgaac gcctgctggc catccgcgaa ctgcttaccg gctatctcgg ggaaagtggc
                                                                      660
                                                                      720
gtaccggaga tggaacagct gctgaaaacc gtcgggctgg tcgccagcgc gtgtcaggtg
                                                                      780
accgacatca gtaagetget geegaacegt gacgegeagg etgaacagea egetgageeg
cagcctgcgg cagcgcagcc cgttcagccg gtcaccgact ggcgcagcgt gcaggtgacc
                                                                      840
                                                                      900
agcogogog acqogoagot aatgotggaa aaagcgaaac agtactttgo gcagtacgaa
cccagccatc ccgcaccgct gatgattgaa cgggtgcagc ggctgtctga actcaacttt
                                                                      960
atggacatta ttcgcgacct ggcgccagac ggcgttaacc aactggaaaa catctttgga
cgccgcgaat ga
<210> 5248
<211> 630
<212> DNA
<213> Enterobacter cloacae
<400> 5248
aacagcagta ctgggagcag accactgccg gtggtaaagg tgctgaaagc agcgctggct
ggaacatcaa agaaaacaaa gaagcgtaac aggagtgggc ccgaaagggc tcactttatc
                                                                      180
ctgtactttc taaaagggaa aatatttatg cgtcctgctt ttggtgccgc ctggaacaga
                                                                      240
tttagagaag ttaatgtcaa tgtcgaaacg gtgggcaaat tattgggtgg aaaagtccag
cacaatattg aagooggaat tttocaaaat goatgoocca ttogtatgag otaogtttta
                                                                      300
aattattgtg gegttecaat teeeteeaac ageagatatg egaeggttae ggggagtgat
                                                                      360
aaaaaacgtt acatgtatcg egtaaaggat atgattgett ttetgecaac tgtactgggt
aatgcagata tgacggtgac gtctccaaca ccaagccaat ttgcaggtaa acaaggtatt
attatettta geggteacgg etggagegat gecactggae atgteacget etggaatggg
                                                                      600
aatatttgct ccgatgattg ccatttcttg ggttctcccg gtaatggttc gtttattcct
                                                                      630
ggcagcgcta cgctctggag cctgaaatga
<210> 5249
<211> 555
<212> DNA
<213> Enterobacter cloacae
<400> 5249
                                                                      60
cacctaagtc aaattttatc cocctctctt catcctctaa atatcgctac ggaaaagcat
atgaaactgc gtgtattgtt atcacttctg tttgttatgg cggtggcggg ctgtaaggcg
                                                                      180
cogcaaaaac cagogatcac cgatgatacg attgtgacca gccaggtgaa tggcatcacg
ctgacgcacc gtcacgctgt tacccctccg gcggagttca ctcaagtgaa tgaaccgtat
                                                                      240
cgtgccatgt acccggcatc cctgatgagc cgtcctgact acggtggaaa agtgatccgt
acgcttgaga coggcaaaac ttacgtcgtg ctggggcagg ttgaacattt ctggatggcg
                                                                      360
                                                                      420
ctggccgatg aagggagtga acagctgatt ggttatgtgc cgatgcgtgc cgtgatcaag
gctgaccagt acgaagccac cgtgcgtaaa caggcactgc gcccgaaagc gcgtaagaaa
                                                                      480
accaectgtg ttgatgtcga tggcaacagc aaagcctgca aagacagcgc gaacggtacc
                                                                      540
tggatcctga actaa
<210> 5250
<211> 1386
<212> DNA
<213> Enterobacter cloacae
<400> 5250
atggtateeg ggteateage cagtaaegee etteataaea ggaaagagat eateatgaeg
                                                                      60
aaagcagaaa aggtcgtctg gaccgagggc atgttcctgc gtccccacca ttttcagcgg
acagaaagtt acctcctcaa ccacgttcgt gagtgggggg ccttgcagcg ttcgtatctc
tggggctttc tcgaccttga gctggatgaa gcgatgcttc gccagggctg tattgccctc
                                                                      240
agetactqta geggtttget geetgaegge acetttttee aggtgegeag egaeegeaae
                                                                      360
ggtccggctc cgctaaaaat ccccgataat ctcaccaatg aaaaggtggt gcttgcgctg
                                                                     420
coggttcgtc gcggtggccg tgaagaggtg attttcagcg aggagcagtc ttctctggcg
                                                                      480
cgttttatta cctttgaaca agaggtggaa gacgacaacg cgatgtcggt cggggaggcg
acggttcagt ttggccgcct gcgtctgacc ctgatgctgg agaaagatct gacggcagaa
```



gataacaget atcaatgace cagecaggge egecacettg tggegeaget gagageatae ctgatgetge cacgaacget atttggette tcctgeceag gecgggeate ctacagetat	acatecegee tgeaeggett getteaatae gegaegtete ggetgeegtt tgeeggtata gteaggaet ecceeggtet gtgetgeegg atgaaggttg atgeteegg ttegaacteg	aatgetgaac getggtgeag gtetgagatg acattaaaa tgecaeggag egaecatgae gteetggtg gaacategte taaaageeaa egeeagtete eaatgeeegt aaagggeag	cgtagccage gttgagttca acgctgccgc ctcgccacct catctcgccg	gcccgcagct agatcggcgg cgcttctct tgtttcatcc ggacgccgca tttgcttcag atgccatcca gagaccagca gacacctgc gatctggttc cagatccgt cacagatgg	gtacggcatg ccgcctgcgc gctgatcaac ggaagcgctc gcgtaccgca caaactgatg gctgccgctg tggtccgcga aaaccattt agcttcagct gcatgcagtg acaagtacgg	600 660 720 780 840 900 960 1020 1080 1260 1320 1380 1386
<210> 5251 <211> 837 <212> DNA <213> Enter	cobacter clo	pacae				
gcatccgcaa atgacgaata gatttttgc gtcggcctgc gccccggtgt tgcctgctgc ttcacccccq cttggccgtc atgctgatga gacgtgattg tgttttgatc ctctacaccc	cccgttccag cccctgcgat agcgtcgctt tggcctggca ggaactttgt cgggcctgca ccagagtggtc tggggctgca ccatcccggc gctatgacga cgcttgcgccaaag	etteccegtt gaaccgatat tecggatace acaggaagag egtecegeeg cagegtagege egeggtgegt geceageeg egagggteag gaccagetac egagggteag egaccagetac eggaaacttt	atcaggtcac tctcatgccc agctggtatg ctgcaacgcc cagccagcg atgctcggta acgcactatc ctcggcaag aacagctatt gtgagccgc agcacgctgg tggtggacaa accaggcag ggtctttacc	ataaccgcaa gcaaattacc agtggtcgca gcgagcgccc gccagatgat cggtatgcct ctgagagctg ctgcctcca aaaagcgttc gctggcogca accgctgcag tctttacgct	ggacagccgt cagcgcgga ctggttccag gttttctaa tcagatgggc gcaactgagc gtaccagcag gctggatgaa cgacattetc ggcggcggag cggttatccg	60 120 180 240 300 360 420 480 540 600 660 720 780 837
<213> Enter <400> 5252 acatcgtcac acagccaatg ccagtctcga atgcccgtcg aggggcagcg ggggaattcc	cgagcccgga tccccggcga aaatccgcga cgccgccgca aactgtggca	gaccagcatg acacctgcaa tctggttcag gatcccgtgg cgagatggac	acceatttc cttcagctgc catgcaggct aagtccgggg	ctgcccagat cgggcatcat acagctattt cattcgcgct	gaaggttgeg gettegggea egaaetegaa geatetegea	60 120 180 240 300 357
<210> 5253 <211> 396 <212> DNA <213> Enter	obacter clc	acae				
<400> 5253 tggttcgttt ttcgtactcg ttttctcaac gacagtgcga aacctgcctg	cgttaaatac aacagatttt cgctgaaaaa	ctcatatacc tgaaaactgg tgatgcaaag	ategeceata gtgeagaate geaagegeeg	eteteeegga getgtategg cagcatgget	cgttaacacc caagattgcg ggaagtcagt	60 120 180 240 300

			2002			
		ggcaaactat caatgtccaa		agtgcagctt	aatateeeat	360 396
<210> 5254 <211> 987 <212> DNA <213> Enter	cobacter clo	pacae				
gttgtccag ctatttggca ctatttggca cacagattca gatggacca tggggcgata gaaaatattt ctttttggc ttaaataaaa ttaggactgt cctggtacg gatggtgt actactggaa ggcggttcg ggtgtgcca	gttactgtgt ctgcgogcaa aacceggaca atagcttagc ccgctgagtt caatcgtcgg taattaaaat aacaatttta taactaaaaa ccacgaaatc caacatatat ctttaggttt gagaacatga ctgdgcgtgc	attaaaaata cgttcagcaa tgaaaaatc catttgcaaaa tttgcaaaa tttgaaaaat tggcgtgagc tgaagccac tgctgagcg acagcttaag aatagtccat tgcaagagca attettttatg gtgcagcaga attegtcat tgcagcaga attegtcat tgcagcaga	cccggcactc gagtatttta gttgctgacc aagaaggtga aattatgata ggtacaggtg tatcaaaatc aatgcgcttt tttaaagatt gaatgagata gccagaatat aatacgtcta gttgcagtga tcccttgcgg	tggaatttca tggaatggaa cggttggcga ccaacgcgct atataaaagc agtacaggac tcagggaatt atgcggaatt atgcggatct actettacct acgaagttta ccagttagtat ccagttagtat ccagttagtat ccagaattta	ggcaagacag taaagacact taatcaaact tgcgactttg cataacagc taagcaaatt acaaggtgcg gaaaccttg taagagagca tggtgcaatc gaaagcaggt tcatgcctgc caaattgga tcatgcttgc	60 120 180 240 360 420 480 540 660 720 780 840 900 987
<210> 5255 <211> 207 <212> DNA <213> Ente	robacter cl	pacae				
gtttacgctt tcagccgttt	tatcactcga	tgaggtgege egaggggat etetteegge ggeetga	gattcggaaa	caggegegge	gggttttacc	60 120 180 207
<211> 300 <212> DNA	robacter cl	pacae				
ccacgegace etgegettea aaagegeggt cagetgattt	tgttcctgct gcaaggtaat ttcagcgtgg	ggtgcagggc gttcactctc cctgaatgac cgtggcccat caagaagcag	aaccgcgtgg ggtgctgcgg cagcggtgtg	cgaagctegt gtgcggaaga gcctgcgccc	cgaggttggt gctgccggtc gcagcgcgat	60 120 180 240 300
<210> 5257 <211> 258 <212> DNA <213> Ente	robacter cl	oacae				
gettattgee cataaactat	tttttattgt taatcggctt gcaccacgcc	cctcccctca gttttcaaca tttggtattt acaccgctta	attattcata gcaccaaaaa	aacataagcg tggatcaccc	taaaaattgt atcgcaaaag	60 120 180 240 258

```
<210> 5258
 <211> 219
 <212> DNA
<213> Enterobacter cloacae
<400> 5258
                                                                      60
egtecetggc gtttatcete eggegttatg cegetggtta teageteegg egegggetee
ggcgcacaaa acgcggtaag tacgggtgta atgggtggta tggtcacggc gaccgttctc
gocatottot togtacoggt gttottogtg gtggttogto geogettoag cogcaaaaat
                                                                      180
gaagatgttg agcacaatca ttcggtagaa catcactga
                                                                      219
 <210> 5259
 <211> 192
 <212> DNA
 <213> Enterobacter cloacae
<400> 5259
ccccctgagg ctggtgtttt attttgtcac agtcgaaatt tggctcgcga acgctctaat
 cetetetgeg etacgetaaa tateetgaca egetactggt titteateea gtgtttttta
                                                                      120
                                                                      180
etggcaatee tggccacaac gagtaaaatt actcacctgc cgcttattet gtcatcaggt
cgtcgcccat ga
<210> 5260
<211> 1038
<212> DNA
<213> Enterobacter cloacae
<400> 5260
tgtcaggaat ttccctggaa gggtttactc ctgctttcgg gcgtgcgtaa catagcgcta
                                                                      60
 actattttgt cttgcggact tattatgaaa aaaccagcgt ttatcatcac gatcgatacc
 gaaggggata atototggca gaaccacogg atgatoaaaa oggaaaacgo gogotacotg
                                                                      180
                                                                      240
qcqcqgtttc aggcgctttg tgaacgcttc ggctttaagc ccgtctggct gaccaactac
                                                                      300
 gagatggccg tcgaaccggt attcattgag ttcgcgaaag aggtcatage ccgcggccag
                                                                      360
 ggtgaggtgg gaatgcatct ccatgcctgg aatagccctc cggagcacga tctgaccggt
 gatgactggc getggcagec ttatetgatt gagtttteag acgaggteat gegtgagaaa
                                                                      420
 gtgctgttca tgacccgctt actggaagag actttccaga caaaaatgct cagccatege
                                                                      480
                                                                      540
 geogggeget gggeattega cageogttae geoeggttge tgattgaget ggggtateag
 gtagattgtt ccgttacgcc gcgcgtgaac tggcgcaacg cgaaaggtgc cccgcagggt
                                                                      600
 aatggeggaa egaattaeea geatttteee gategegeet atttttgga egtagaegae
                                                                      660
 atttcccggc cgggaaacag ccctctcctc gaagtgccga tgagtatcca gtataaacac
                                                                      720
 coggoatggc tgaattooot gaagcagggt tacgategte tgegeggtaa atacegttet
                                                                      780
                                                                      840
 cogtoagtta actggttacg cocgtoegge ggtaacgege aggagatgat taaggttgeg
 cagcagtgcc tggctcaggg gaatgactac gtagagttca tgctgcattc gtcggaattt
                                                                      900
 atgoetggeg geagecetae tittaaagae eaggeegega tigagggaet gtateaggat
                                                                      960
                                                                      1020
 ctggagcagc tetttacetg gttatcagat aagacegtgg ggatgaeget tgeggagttt
                                                                       1038
 taccagtaca aaaaatag
 <210> 5261
 <211> 327
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5261
 acaaccette egeacgtgeg gtotegaggt egetgtttaa etgtttgtaa aaatcaccac
 gcattgcaat totocagact oggcaaattt tggcacatat tacccaaacc aatagttcat
 qacqaqatqa cgcagtatct ettetegttt ttgcagcata aatcacgegt acccetgetg
 catatoggtg aatggotgaa gootgagoat tgtgatgata tgataaagag attagogtto
                                                                       240
                                                                       300
 gggatattcc ccgactcata cttcaaaggt tacagttatg atcategtta ctggcggcgc
                                                                       327
 qqqctttatc ggcagcaata ttgttaa
```

(3)

```
<210> 5262
<211> 930
<212> DNA
<213> Enterobacter cloacae
<400> 5262
ccaaacgaga agaacatgtt taaattootg aatgeteget accgccacat taccgggegt
cataacatte cetaegette cetteeggte aegegegate tegttgeggt tgattesate
gtgatccctt gtacgggcgc ggatttcgtc gaagaggcgt tattatcagc gacctttgca
                                                                      180
gagogttacg ccaccgacgt cagogagatt gttatcgtca gcgatcagcc tgaatccgct
                                                                      240
                                                                      300
tteggegage tgeegetaaa aaceegegtt gteaceetea egetteeaaa aegtgaagag
gggtaccgct ataagcagat ctacctcagt cgtctggtga agcttaatgc teegttgcag
                                                                      360
gcgcgcggtg aaggggtget gatgatcgac tecgatetea acetgettaa aatgecagag
                                                                      420
atcaacatgg eggatatgca catctactce agetteegte agggeaaaat gattgccaag
                                                                      480
ctggacggtg cgccagcgga gaaagtgccg gcatattaca aagaaacggt gcgcccgtat
                                                                      540
ctggtcgate acgttaacgg cgcgtttctt gcggccacca aaaagacctg gcgccgtatc
                                                                      600
tgcccgctgt ggctgacgct gttccaggat acctgggagc tgatggacga tacgcagccg
                                                                      660
                                                                      720
cogaccgate agetgecget egetgegetg etggacatge tggatgtaaa aacggttaac
                                                                      780
ctgggcgact ggatgaactg gccggtctcc aagaagatcg gcggtcagga agccgttgtg
ccgaaagaag tgattggcgc gcacggtggt ttcccgcttt ccgagtggca gaagtatctg
                                                                      840
                                                                      900
gaatogoogg ataacaaact gotgttcaaa ggtcaggact acaccogcaa ggtgcgttac
                                                                      930
ctgacggacg aagagaaaaa gaatcagtaa
<210> 5263
<211> 246
<212> DNA
<213> Enterobacter cloacae
<400> 5263
ttcaggcatg gttcctccgt tgagatgcag aatgcaaaaa accccgcagt tgcggggttt
                                                                      120
ttcaatacaa ggagactaaa attatttgat tttagcttct ttgtacagta cgtgctggcg
tacaactgga tcgaattttt tcagttccag tttttccggc ttagtacgtt tgttcttcgt
                                                                      180
ggtggtgtag aagtgacetg taccagcaga agaaaccage ttgattttet tegegaatae
                                                                       240
                                                                       246
<210> 5264
 <211> 195
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5264
 tggtacgtgg cgaaggtgac gatgtctggt atcaacgttt atggcgaacg ctggagccag
                                                                       60
 aatatttega cattateace caggaggege aacgetacet gttacegtta tacaaattta
                                                                      120
 atcagtcctg agtgctgtat aaaaattgcg cagtatgagg tgttcattta tgatgcacct
                                                                       180
                                                                       195
 cttatcacgg actga
 <210> 5265
 <211> 183
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5265
 ccagtatcgt cagctatggc atcatgcgtg gaatcaatcg cagatctcaa cattaacgct
 cccgccgggc tggcaagtca gtcgggggca gacaacacag tccggatgtg tcagcatcac
 ggtcacactt attteteeta tggggeggca gggegegtta acgegtetge actgeeeggt
                                                                       180
 tag
 <210> 5266
 <211> 183
 <212> DNA
```

<213> Enterobacter cloacae

<400> 5266 ctcgtcgggc cttaaaacaa ggcatgatac tag	taaacaccct	gaagggtgtt	tttttgtatc	tggcgtttgt	gaaaatgccg	60 120 180 183
<210> 5267 <211> 258 <212> DNA <213> Enter	obacter clo	pacae				
caagacatag ggtcgtttaa	geetgeeggg geatgatgea agaecagtaa	cagggataaa taagtggtgc ccaccgccag cgcatcaaac	acaggactgt	cggaaagtac taatggtaat	gctcagagag gtaccactgg	60 120 180 240 258
<210> 5268 <211> 480 <212> DNA <213> Enter	obacter clo	oacae				
tcacaggaaa tttatgaagg gctgctaacg gatgaaacca gctcttgaaa tataaggtga	cagacagegt aattgeagaa aegetgttge geateaaaac agggetacac egacaggete	gattgcagcc ggaggctttg gtcacagcag ttctgcactg ttctgctgaa catcattcag tcggatctgc tgtcgatagc	aataaatata gcaaaaaatc agcaaaaagt aaattaaagg ccagaraata tttgttcagg	geacegetet etggeggaat tetteatttt eactgaaaga taggaageaa teacaegeag	gacagagett ggatttggtg taaacegget tgatacegaa taacatttca taagtcatet	60 120 180 240 300 360 420 480
<210> 5269 <211> 420 <212> DNA <213> Enter	robacter cl	oacae				
<220> <221>unsure <222>(37)	9					
<220> <221>unsur <222>(44)	e					
<220> <221>unsur <222>(107)	е					
ggatttatta cgcatggaag cacggtgcag ctgacacccg	acacccgtga cagcggagct gtaaacagtt aagatcagct	getgageget ggaettacae tgeegaeett gttaetggea teeaaagaea	ttgcgtaaag gcaatcagaa tacagccgta acgatgccat attagcggcc	aaatganact   gtgtagegga   tegaeggtge   ttaatattea   gteeattetg	gtacgettae atacgtggat geaceggttg aactgtgacg ggatgtagaa ggaagttgag ccagegetag	60 120 180 240 300 360 420

<210> 5270

```
<211> 387
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5270
 atgtcttgct acggcgataa aatgtttcgc cataacactg agcgagagtg gctcatccat
                                                                      120
 catctacagg agctttatat gcgcaaattt aagtacataa tctgtcacca gtgcgaaggc
 cacgggacca tggaaaaccc ggcctttgaa aatggattca cccaatcaga aatggctgag
                                                                      180
                                                                      240
 tgggagccag aaatgcgtga aaagtatttt gccggagcat tcgatgttcg ctgtgacgtt
 tgtgccggtg acggtaaget cagtgtacca aacgtagcgg ctatgtcttt ttcagaacga
                                                                      360
 cgggttctgg cagcacggcg gcgtgatgag cgtcttcagg cagctgatga acggctgtcc
                                                                      387
 cgccaggaac gagcaatggg gtactaa
 <210> 5271
 <211> 873
 <212> DNA
 <213> Enterobacter cloacae
<400> 5271
ggtgcgacag caaagatgaa aatgacgaag ccaaaaccgg taagccggat gaaaagaccg
 tttattagtg agettgeaga actgggttta tegggtgaaa ttettteaat tegaactgae
 ggeatgeagg ggacgettat accegatett accgeagggg tgagtgaage aggeegtgtg
                                                                      180
                                                                      240
 aaaaccggca actgggtaat ctctgacaag agaaccttcg accatgtcgt tttgtgtgtt
gaaagacaag atgagaacca tgatgtgttc gtaggtaaat tcatccagtt acatgtagcc
gctaataaga gcctaaagat cgtcgaaatg ggcgatgtga aactggtggc cataaccagc
                                                                      360
togattocta coacttttaa tggggggatt aggagattta aaggggttac gtatgtgtca
                                                                      420
                                                                      480
ctttcccaaa cagetcaaac cactategae ttcccgaage gtatetacaa agagggccag
gaatgtactt etgteaceag eeetgaceag ggteettteg eeegggatgt taggttgaat
                                                                      540
tgctacgggc gatgtgttgt caccggcgta aggtccccct ggcgtactga ggccgcgcac
                                                                      600
ttaacgcccc gtcatgaaga aggaattccc gacgtaacga acggaatttt acttcgccgt
                                                                      660
                                                                       720
gatatecata cactgttega caatgaceat tgegecataa accetgacae tatgaaaatt
tacttcagec gggaggeccg ggagttggat gatgatetec tgaaatggca tggcgatgag
                                                                      780
atagagacga cacgcatgca ggttccggtt aacatcgaaa accttcggat acgatggcaa
                                                                       840
                                                                       873
 aaatttaagg ctaaggatcg tcagcgtaaa taa
 <210> 5272
 <211> 501
 <212> DNA
  <213> Enterobacter cloacae
 <400> 5272
 tactgtagag cotttgttca ttggaaatcg tacagggagg cgcatatgga ccgcatcaag
 tacetgaaat ggatagetga agaatcacca agtacggete ageagetggt ggeetggtta
                                                                       120
 aacagagcaa ggcactatac gcccgacatg aaagagcatc aggcaggtgt acagattcaa
                                                                       180
 gaaaagggga ttgttgtagg gcttagacaa agtactaatc gttatcatgg agattgtctg
                                                                       240
 accatacatg tggtacggct tccggaagaa atacaaaaca agggatggtt taagtctttt
                                                                       300
                                                                       360
 ctgaagettt getgtgaate gaateeetgg tgegatgttg taatagaaga egtgaaaaae
  ccatatttat taagettttg taagaaacta aactttactg tattagatga attttacccg
                                                                       420
  aatacttaca tagtaaacac agatgccatt atgagtttac ctatcccacc cttagggaga
                                                                       480
                                                                       501
  tacgaaacct atctttatta a
  <210> 5273
  <211> 273
  <212> DNA
  <213> Enterobacter cloacae
  <400> 5273
  tgggtacaga aaaggcagtt gcttgcgctg ggcgtaagtt acccgccgaa aagcggctgg
                                                                       120
  atogaacgac tgatoggcac tgaggtatot gacgagcagt acgaacgott totggggcac
  ageaegagca ageaggetga acagateeta egeggagage ageeageeaa ggggetteag
  tatgcaaagc gagcgaagaa gctcgcttct gaaagaaaag ccacaattga tctggataac
                                                                       240
```

```
273
gagcacctgt ctgaaatcga aaagtatcgg tag
<210> 5274
<211> 444
<212> DNA
<213> Enterobacter cloacae
<400> 5274
aaaccggaag cagtgataac acaaacaggc ccctacagcg taaggattgt gatggacgat
aaagagcaat ttacgaatet tgtggcaaag catgceteeg gacteacega agageagetg
                                                                      180
gcoggttacg atgectgttc cctggatggt gaatgcgtca cgccttcata cgaggttttc
                                                                      240
egggggtate gtaccegcea taccetggat gaatttetgg agatggceat ategetgaat
gocatocaco eggatgaata tttaacggat atgetgetta ageeteatga ggtgategge
                                                                      300
getetggeeg atgaaggega ceagetgaac aacgecacce eggtttattt etteceggat
                                                                      360
accggcgtct atgcagcggc cgtcagtgaa acccgggtgc tcgatgcctg gctttgctgg
                                                                      420
                                                                      444
ccatgctacc cggcgaactg gtaa
<210> 5275
<211> 408
<212> DNA
<213> Enterobacter cloacae
<400> 5275
etgttetgtg etttgetege eggtgggata gttettgeet gettaaacat aasteaggaa
ggaaatotga tggcaactga aattgaagto atgactgtog cggagetgca tgctcaacta
                                                                      120
caacagetgg ttgatgaggg gcacggagat attccggttt gcgcgtcaga tetccgtgcc
                                                                      180
                                                                      240
aggtatecat ttaaggetta taccgtgete agtaccgcag getataccga agegetgetg
                                                                      300
attaatgtgt ggccggatgc ccattttaca cgtaaagagc ccctgcccac taactggggg
aaaaaccgtg tagcagagtg gaacagtgat gccgatgccg ttcgccagtc ctgcggggcc
                                                                      360
                                                                      408
ttcgcagata atcctcaatc aagacaaatg acaggtgata atttatga
<210> 5276
<211> 573
<212> DNA
<213> Enterobacter cloacae
<400> 5276
 gtcatgattt cttcatcact tttatggtgc tctttttcac ctatcacaca gcaagttatg
                                                                      60
 aatacgaggc ctgtaatgga cgctaccgaa actgaagagc tcgaaaaaat tcgcaagaag
                                                                      120
 gcaatggatg aagttacaag tgctcttcag gcgcttgaaa ataagttccc gggtattact
                                                                      180
 gagggcgcag cagetttgge ggggtcagge graggegcag eggetteett tggtgctete
                                                                      240
 tatacgettg gtacaactgg agtgtcagca getggcatta ecteeggget egcaacagea
                                                                      300
 gggtctatcg tcggtggtgg tatggttgca ggcattgcgg tattggccgc acctgtagct
                                                                      360
 gtgttaggga ttggcggcta cgcggtggtg aaacacagaa aaaatgcgaa actgacagcc
                                                                      420
                                                                      480
 geocttagte aggecateca aaagetetae gaagtteagg aaaggeteat gtegaatgeg
                                                                       540
 gaatatttta aggcagaaat tgctggcatc aaggcaacaa tcgacatgct tactaagaaa
 gctccaaaag gtagcctggt cgcggtgagg taa
 <210> 5277
 <211> 453
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5277
                                                                       60
 agagctaaaa aggacggttt caattatatg aataaaacag cgttagttat gattctggga
 atcotcggat gtggtaaagc atttgcagcc actgaattac agctccagca aaaacgcgtt
                                                                       120
 atgeatttct gtgccaatge cageetteeg ttgttaattg eeggtacaac ttatgegaat
                                                                       180
                                                                       240
 acgtotgaca atggacgaco agaaaaagaa agagtggcaa tootgaaaaa tgcagttgta
 ageteaacag ettatteaat ggeateteee ggagtteaga gggeeatgat gagtgtggtg
                                                                       300
 gaagatattg ccgatccgaa agaattaget etteateaaa aagaggttag aegtettggg
                                                                       360
 gctagttate tttctgacag cggtgttaca tgggcttcaa aaaccgtttc accatttaca
                                                                       420
```

gcctggtgta actttaaccg tttcgaaagt taa	453
<210> 5278 <211> 204 <212> DNA <213> Enterobacter cloacae	
<400> 5278 atgcaaaccc aaaaagaaat tacagttggc cagatctggg aagaagtgga tccaagactg atccggaaag tgcgagttgt tgaggtggcc tcgttagaag ggcccaaagg catcctaatc gaaaacgtgg agtctggtcg taagaactgg gcgtcgtcat cccgctttaa tggaaagcgt ggggggtatc gtcttatttc ctga	60 120 180 204
<210> 5279 <211> 462 <212> DNA <213> Enterobacter cloacae	
<400> 5279 gcaacagett catgegegtt tacaacaacg acaacggca ggaaattgce egittegate tgtetgaaga tgeetcaace gaaacegeta tggtettegg tgaactgtat egicatgege etgagtggaa gittaacate tacaacaacg cettgeegg tggeetgeg getettgeet eccageacgg egitaacaate tacaacaacg etgagtacata eccegeaat geegggett tittigtgtg egateegeta tacagagggg eggggeaga aagggteegg gaateteaga aagcagagag atgitaatte tgaegtagae etittaaaga eaggaacegg attitietet gttaegtitg egaettatga aggeacgggt tetggaagat aa tetggaagat aag tetggaagat aageacgget tetggaagat aa tetggaagat aag tetggaagat te	60 120 180 240 300 360 420 462
<210> 5280 <211> 210 <212> DNA <213> Enterobacter cloacae	
<400> 5280 acgagtetet tigageotgg tiacagigae coatitectg gaccatical caaatigteg ctggegatee egataacgit giteticetg eigaegaage eagtegegat caacagegaa titteggital ceaacaaaga geectigiae titggeeatg acaacatice ggittgetta gaactgitea gacagacatg teagggataa	60 120 180 210
<210> 5281 <211> 225 <212> DNA <213> Enterobacter cloacae	
<400> 5281 gttggctgc ttcgcaagct gattcattt ggaagaacgc ggaagacctg tgggggggat ttcaagcata ccgacttcgg caagatcatt ttgccgttta ctctgctgcg tcgattggag tgcgcactgg agtctacacg ggaagcatcg ctcgatagcc aaccagccac gattgagtte ttagaagcag agttcagtgt tgatttcgat gcgctgctat cttga	60 120 180 225
<210> 5282 <211> 207 <212> DNA <213> Enterobacter cloacae	
<400> 5282 agggatgagg acatgcagca tgttacacgc ttaaccccca gatggtatga tgggcttgct ttcacctttt tgtccgaccg tcattacgtt ctgataattc gtgaggaaca cggtatgagc aatgaagtta cgaaagggat gctatcgget caggtacgcg gaggtattgt gcgtgactgt tctgtgcttt gctcgccggt gggatag	60 120 180 207

```
<210> 5283
<211> 1398
<212> DNA
<213> Enterobacter cloacae
<400> 5283
ggtaaacaca tgagtcagtc teettatgat gatgagttca gggccatccg ttatattcag
ctccgtggte aggatatcgc gaacgctcac gagacaatta gcagtgatat agagagcctt
                                                                     180
aaggcacagt tgaccgggct aatcagcggc actgaacttg atgaagcgga gcatctggcg
                                                                      240
cttaaagaac atcatctgcg agaaatgact ccttcagata ctgccatgca ttctactagt
                                                                      300
ctcaaqacta tatatagoga ggctaaccag cgtgtatgog gtgatattgg actgaccaca
atacteteca eggatgaeet ggetgttgta gatgeeegga tecagaatea tattaaagaa
                                                                      360
tttaatgatc gctacgcgct cgacgcctgg gattatgcta ttgcctgcgg atgtgggctc
                                                                     420
                                                                     480
atagcateca tgetggattt actttgegte agageeeege caaaacetae ggtgagettt
acggcagaag tggatggcat tttcaataaa caggtgcaga aagccttcaa tgccattttg
                                                                      540
                                                                      600
coggaggaco tgagtaaaaa actotoagaa atgttooota taggggcaco ggacagttog
atcaccagcg atttagtggg cgcggccggt ggcgttttgt ctcccacaaa tcaccgctta
                                                                      660
cgtgctttgt cacacgatcc catactgggc attattatcg gcataaagga tatgctgaac
                                                                      720
gggacctgta cggtggttca gaatggacag atcgtggttt atccttccag taaaggcgtt
                                                                      780
actgacgaaa caaatatttt caggeteate gecagaatgt ttggacacet ggcateggat
gttaatgeec ceteageaaa aggaaacegt ggeatgggtt taceggetee tittatgggg
                                                                      900
ctacttcgta tgcttgaggg gatccctgtg gggagttcta acttcggcaa acaaatagag
                                                                      960
tacatgtatg tcaacgggta tgactttcgt cagtttatcg tgacaagtat tccgatgacc
ataatggaag ttttgatgcg ggttttctat gtggcgaaac aggtatcgct gggaaaagga
                                                                      1080
gettttgggg agacettact ggataccatg cegttgegge taaatccacg etteeggatg
                                                                      1140
atgettgeet tgggttatgg aactteeagt getgttaaeg caggtaaaat gtatateace
ggcaatattc tcaatgcgaa ttacgcctcc tggatggggt tggcctggaa tggttttcac
                                                                      1260
tcactcaagt ggtctcttta tcagcgacac ttaaagcttt gggccggtat tgaaaaggca
gaactggaac ggcttcagaa caatatagac agcatcgagg cattgaacat cagagcagga
                                                                      1380
aacttgccag tcaagtaa
<210> 5284
<211> 210
<212> DNA
<213> Enterobacter cloacae
<400> 5284
tatgacagae tgaageeeeg gatagegete ggeettteea tgaataaaca geegettgte
                                                                      120
atgaagatca eggateettg gegeaaaage gaateeeage aggtgeatca gggegaaaae
atgttcagtg aagcctgcgg tatcggtgta atgctcggta atttccagat cgctttcatg
                                                                      180
                                                                      210
gtacagcagg ccatcaagca cgtgggttga
<210> 5285
<211> 384
 <212> DNA
 <213> Enterobacter cloacae
<400> 5285
                                                                      60
gtocagatog tacaccagog gtgtgatttt acggccttca aacagctogc ccacctcaat
gcctggctta aaatgaacgg tcagggtggc cggatctata cccataagat cggcatcaaa
                                                                      180
cagegeatge attgttggag teatcaggat gecattagae ggattgtace gggttecatg
 ttcaatgtgt geegeateea ggacaceace attaacecaa eeggttaceg cacaaeggee
                                                                      240
 agegaaatte tegatgagea gagetttaaa tttaccetgt gecaegeeae taegttgegt
                                                                      360
 cactacgege tegeagtget caccetggat atetacgtca ggttteegea ttggtteget
                                                                      384
 ggtggccgtc tcaacttgtt ttag
 <210> 5286
 <211> 225
 <212> DNA
 <213> Enterobacter cloacae
```

2010	
<400> 5286 atocagcatg gatgotatga goccacatoc goaggoaata goataatooc aggogtogag ogogtagoga toattaaaatt otttaatatg attotggato ogggoatota caacagocag gtoatoogtg gagagtattg tggtoagtoc aatacacog catacacgot ggttagooto gotatatata gtottgagac tagtagaatg catgocagta totga	60 120 180 225
<210> 5287 <211> 258 <212> DNA <213> Enterobacter cloacae	
<400> 5287 tttytgggag acaaaacgco accggccgcg cccactaaat cgctggtgat cgaactgtcc ggtgccccta tagggaacat ttctgagagt tttttactca ggtcctccgg caaaatggca ttgaaggctt tctgaacctg tttattgaaa atgccatcca cttctgccgt aaagctcacc gtaggtttig gcggggctct gacgcaaagt aaatccagca tggatgctat gagcccacat ccgcaggcaa tagcataa	60 120 180 240 258
<210> 5288 <211> 195 <212> DNA <213> Enterobacter cloacae	
<400> 5288 atagtagaag gtattgagac actgagtttg cagcttgatg agaatgaaac tatggccctt gctcaattag ttaaacgtot gagctggagc gatcttcgtg gctgtgctgt gagtgacgaa gaagcctggg taatgaaaag cgcaattgaa aaattacaac aggcgttaag ggaagaaggt tatgcgcctc gatga	60 120 180 195
<210> 5289 <211> 282 <212> DNA <213> Enterobacter cloacae	
<400> 5289 aacgtgatca atttaacacc ttgccggttg accgtaaaga aagatgcgct acatacaagt gtagcaccgt tctgtacgtg taaattcctg aatacggcga tggctgacga atacgccgcc ctgtccctct cactctcat caaccgtaaa actgccatcc gagtgtcaac aatgttagga tggtaadga ttgataadga cggcaacaag catgttagac aatgtttaga gaattgccac acgccaaagt cctcttgcac tctggcaggc acattatgtt aa	60 120 180 240 282
<210> 5290 <211> 225 <212> DNA <213> Enterobacter cloacae	
<400> 5290 ottotoatta tiggoottaa oggaaattio gittoootoa ggaaacoagg totgattato agitgagoogg aaaacggood gogagaacat otdaggiggo togotitica atacaaaaco gigtooocog goggoattaa ottigogoda gatatoatta tigtoatood ogotgaocad caggagtogi accigigggi aaagitgiti tacticittig agiaa	60 120 180 225
<210> 5291 <211> 183 <212> DNA <213> Enterobacter cloacae	
<400> 5291 tttoagggco gttooggaag agagcoaaaa atogattaco agcaaaogtg gogggcoatg atotobaart tgtoogtago aatoatooto attogtoaco acacaogcot gtttaaaoctg goaatgtgta atcagaaaat tggogatgco gottgotaco aatggatggt catoaaogao	60 120 180

2011	
taa	183
<210> 5292 <211> 501 <212> DNA <213> Enterobacter cloacae	
<400> 5292 gotcoatttt tittgattit aaaatigoot oatgatatig toaacgaato toaccotttt tocaaccca coctitigaa attaaaggaa attaaaggo togoogaagaagaagaagaagaagaagaagaagaagaagaa	60 120 180 240 300 360 420 480 501
<210> 5293 <211> 318 <212> DNA <213> Enterobacter cloacae	
<400> 5293 tttatqaaaa aaccactaat cgttttaacc gttacgttga tgttagcogg ttgttccacg ttgaaaacg atcaggctat tccactcotg caagcggaaa ccgctaaaat gctgggactg ggacaatagg atgaaataac tgtgaccaat gttaatggog cccagccgga cgcactggt ggacaaaagg tgtcttatg cgccacgacg gaaaaaggg gtatttcga ttgctcacca atgatgatgc cggggattt aggatccgca ccgacactca gcgcgccaac ctgtacacct gttgtcacac ataaataa	60 120 180 240 300 318
<210> 5294 <211> 282 <212> DNA <213> Enterobacter cloacae	
<400> 5294 ccatcgcgca gaaagagace ggtggcgaga atcctggagg agaaaatcce ggaggcgaaa accttggcgg tgagaaatcct ggtggtgaaa accctggagg cgaaaccct ggcggtgaga atcctggcgg tgaaaaccce ggaggtgaaa atcctggcgg tyagaatcct ggtggtgaaa accccggagg tgaaaacccg ggcagcggca agccggcat tttccagace gtggcccaaa gcagcaacca gtggaatace gctggcgcg tetccacgct ga	60 120 180 240 282
<210> 5295 <211> 477 <212> DNA <213> Enterobacter cloacae	
<400> 5295 ttacgcgtga aaaaaacaat cccattttt ataacctggg ggaagattaa cgtgaatgat gatagcggta ataacgttta tttgacttta gatgataaaa aaagcgatga atttactta aagcagaatc tcgacqcct gaaaaagata aaaaatgacg agatgacgcg aattacgcag gatttggttt cgatccggc cacgctgta cgcctgaaat ggcagaacgccg tatgagagtt tacgccttgc aggccaagga ggagatatac ggccggtga tgaacgccat tattgaacag cgtcctgagc ttaaagagaa gatcctcggc cgactgagag cgaactatca gtacctgctg gaacqcagaa cagccacct cggcctgacc cgtaaactct cggaaggcaa tacacgacac tcaaacgtga cctgtgtggc gcttgatgaa gaggcgccga cggcgccttc agagtga <<210> 5296	60 120 180 240 300 360 420 477
<210> 5296 <211> 528	

<210> 529 <211> 528 <212> DNA

## <213> Enterobacter cloacae

Encoropacion contract	
Hatcaaaaaa aatggagct tectatgatg caagagttca ataaaacgaa agtgtcaaaa 1 jacgtcagtg aaccgccgca gcctgaattg atgtcgaaag aggagggga agatcattc 1 cccgtattga tgaacgccgt gacgcggtc tggtactggc gagtaaatca cgaatatatac 1 jatttcctcc atgcgacaat taagcgaatg aaaatggccg aaattaatga tacgcccggc 3 itgttcgacg cgcagcgccg ctgtagcgac cttaattcgg cggtcataa atattacgac 3 itgttcgacg cgcagcgccg ctgtagcgac aaggtgtcgt acccggatt agatgtatta 4 itattcgacg aggttftt gaatggcgac aaggtgtcgt acccggaact ggtcgcgcgc	20 20 80 40 60 60 20 80 528
<pre>2012 DNA &lt;213&gt; Enterobacter cloacae</pre>	
ogtottocogo atcaggatot aydaaayit (1999g-tot) adamagama beessaya aaagtagaag ticaagotta tgitogatato ottotitjato atatocogo tooagtacoco 1980etocogo agogottyo goqoaaago goqoatyaog cogogaagocog taaagaacocog 1990etsaant ogottootto oottootto oottoottoo agogoaaaat ogocoacotg	50 120 180 240 261
<210> 5298 <211> 591 <212> DNA <213> Enterobacter cloacae	
aaggatagt tadatgogaa tidaalagug tragusaata asgutas bersamass aggatagogo tatititoo ggataaati tyocotcagit ogatagacag aaacatatti gataaccgacg caaatgaata tactgtacig attgatagoc gtaegocgot oogtitaati gattacctga tacgocatoc ggocasgaacg agaaaaacga totgoctgot tatgotiggat atgoqtocto gagaggagga tottotcagt atgaaagcig tidatgaaca gtogottacg gotocggata tigogtogit attoaatotg gtgottgata tgaaaggoag gogtotgaca accaaatigo tgottaactga augastigos gataagotga atatgtoggi taaaagocto tatoomago gaacggigot gotoadiga augastigos gataagotag atatgtoggi taaaagocto tatoomago gaacggigot gotoagogi tagoagogi tagoagoag qaacattcaa ogagocgigt	60 120 180 240 300 360 420 480 540 591
<210> 5299 <211> 213 <212> DNA <213> Enterobacter cloacae	
agocatoacg ottotgoatg godagoayga abogtogga yagagoteta ottottotgo caaaatgatg gtatototgo teoggogoag atoogtttgo taaacaacac otttottogg ctggtattta gotttadtgo totgocottt gtaggtatto ottotgocat otggatttat	60 120 180 213
<210> 5300 <211> 333 <212> DNA <213> Enterobacter cloacae	
<400> 5300 aageggattt ttgatgtgac attgeegggg aatgtgegge etgatgeeet eaceceaace etetecetea agggagaggg ggeegtetgt geaggeatta ttttgtgggg ateceteage	60 120

2013		
tcacagggag agggcgcaaa cactacaaaac ggtaacggti atggtcttaa acacttecge caccgcgact gececegga tetttattca catacgacga gegtecegeg eeggettee gegeeetget gegeggeetg egetgeegee tga	g coattating ogttgetteg	180 240 300 333
<210> 5301 <211> 363 <212> DNA <213> Enterobacter cloacae		
<400> 5301 geaggeeget catecagaaa getteeageg gattteeaa ggteaaatgg caatettatt tatacaaaaa tgtgetaaa tattgtgtat ttaactattt ttacaacege ttaaageac gatetgacte actatacgaa ageggtatta tegatgeag ageagaatat taatetggtg ttgeatteaa tgeegeata geegetataa atgaaaaaa ceateagaac ataaggaaa tga	g agtgettate tagttgtttt c gggeaggtge aggggagtgt c gtgetgaaat geagatttat a aateaetgtt ttteagteet	60 120 180 240 300 360 363
<210> 5302 <211> 264 <212> DNA <213> Enterobacter cloacae		
<400> 5302 ogtttcatac geggaceteg cattegeet ettitleat tttgaggact tgettcagag ggaateteaa ttactgeat catccagaaa gettecageg gatttecaac ttateggga caatettatt tatacaaaaa tgygetaaag agtgettat ttacatattt ttacaacege ttaa	a aatatgatga geaggeeget wa ttggtacaca ggtcaaatgg	60 120 180 240 264
<210> 5303 <211> 339 <212> DNA <213> Enterobacter cloacae		
<400> 5303 aaacagtatg gcgtaggtaa aaccacaggt ggtgtgaat atcaaaaata agaaagtcac cattgatgg caagaggg gactggaatg gctctaaatg ggaatcagge ggtgcggti atcagtgccg caaccacag cacaacgacc cctgttgc ctggttacct ctctggcgt taggggacc gatacgct ttagatggtc aggcaacaat taccctgaaa taccttag	eg acgadattit titeaaatgie ic geagegaegg tateteeatt it ttaccaetge ggttiteeea gg egattaetga egatacatet	60 120 180 240 300 339
<210> 5304 <211> 669 <212> DNA <213> Enterobacter cloacae		
<400> 5304 ctottcagac ggctgcatta ttgctccttt gagtgcga cgatacggt ttgattgtca aatgaagcgt ttaatttg gtcagttcgc acgtctcagc atctgaaatg accggctt gacogcttcgc tgacggaaat ttcaaccata gtgcccct aagaaaacgg ttcagatgga agttactcat ctgtctca aaagacagct ccgcgcactg gatctgcctt catgacga atttcagata acgaaatgg tgcagggctg ttaactgc atccataaag agtgtgtgaa tacaacggaa cgagtcag ttgttaaatg ccactcacgg ggatttagt gaattgt agaaaaaaga tccgcttta tcagagagac cctgtaca accgtctctt attactttga tggcgaaaaa ttgcgcggg	tt cattgcaatt actugutgua cg caacacagta titacgatgaa tit coccgaccat cacgategge ga tittoagtac atacgtggag cg atggcaccaa tiattggtte ge tagccatate cagggatgge tg tetcagtete tggcgtteca cg gcaacaacaac aateggcaac cg atggattgt tetcaaccaat	60 120 180 240 300 360 420 480 540 600 660

```
669
agtaactag
<210> 5305
<211> 345
<212> DNA
<213> Enterobacter cloacae
<400> 5305
cgcggaggca gcatgacata tgaggaatta ataaattcgc cagccggtga gtttgtcatg
                                                                      60
tttgccagca aggatggaaa agttcgcatt gaatgccgct tcgaaagcga tacgttgtgg
ctotcacagg ccacgatotg tgagttatac ggcaaagcca aagctacgat cagegggcat
                                                                      180
atcaagaata tttttgatga gggtgaactg gtcgaaaatt cagttgttcg gttttaccga
                                                                      240
                                                                      300
acaactgcca gcgatggtaa agtatacaac gttcaatatt ttagcctgcc cgttattctc
                                                                      345
accategget ategtegget tattaaaatg ggaaaagcag getaa
<210> 5306
<211> 924
<212> DNA
<213> Enterobacter cloacae
<400> 5306
tttccgtcgg tatatacctt cggcgaattc tgcgctcgcg acagattatc caatttattg
                                                                      120
ttgccagttt ctgatgccag gataatctgt aaacgttggt tatcagatga gaaaattaaa
                                                                      180
atggatattg tacttttccc tggtcagaac gcccgcgcat gggctgaaac aatgataaat
                                                                      240
ettgaageee gcaageteat caatactgeg aatattgteg gagggeaaca teteagegae
ggactogcac ggattaaatt tatggatgat attoggoagt ttgtgatgca acaatttagt
                                                                      300
gctaccoggg cagocagaag tgatgaggag tgcatggaat gcctgaaaaa catccgggct
                                                                      360
                                                                      420
gagaacgaaa gtottottga gcaaagcaga atgottogot coogtacago toagottttt
gctcagattg aactggttaa agaaaataac aaagtcgtcg gttacgttat ctcatcgatt
                                                                      480
                                                                      540
aaggttgtgc tttcagggtt acagattgtt gcaggtgttg gtgcaatgat gacaatgaat
ccagtgggtg cgcttgcagg agcgattctg gttatggatg gtgcaaatgc catttcaaaa
gaaattaaca gaacgettea acateaacea aacteegaag gtatgetgge agatggegte
                                                                      660
                                                                      720
atggatateg eteagtttat gggatttaaa egtgaateag eacttggggt atteaatage
gtaagcotgg cagcaagcgt ctatacggta tttggcgcca tccggaaacc cgaatcatgg
                                                                      780
                                                                      840
cgtctgtttc gttatctccc gctggatttc taccgcaaag tcgacggaat gaatcgcgca
gegeteacta tgaaaattgt eggetggggt gtetetgeaa aagtetegtt tgatttaatt
                                                                      900
                                                                      924
totaatgogt otggacagaa otaa
<210> 5307
<211> 885
<212> DNA
<213> Enterobacter cloacae
<400> 5307
tetteegeca aaaatacage taaatetaet tteagagtta ataacatgta taaatatett
coctcagaaa gaatogatat acttgaaaat aacttaatat gttttaataa coctttaaat
                                                                      120
tttaacgacc cattigaatt caatacttct tttaacttta gtagctttga atccaattta
                                                                       180
tacgattcgt taagcactgt agaccttctt aaagaatttc cagctgaatt attaaatcag
                                                                       240
attgaaaaac tgcctaaaga aattgtcagc aatatactta aagatgcaaa aaaagcaatg
                                                                       360
ctctcaatgt ataaaaaaga aaaagaaaat ataataagag cagcagatac tacaatgcaa
 agttttaact caaagttgat aggaataacg agaattctat cattaacaga aacccctacg
                                                                       420
aatattttga tgtggggaca ctacgcacag gcccacagtg ggtttattat tgagtttgat
                                                                       480
                                                                       540
 atcaatcatc cattitictc acaacgtcgc ggccaaaaag gtgaatttgg ttatttacga
 aaagtcatat atcagaaaga atatccattc ttggatccat tctcaggcga tcaaataaat
                                                                       600
 catttcctaa taaaaagcaa agactgggaa tatgaacatg aatggcgaat gttgttacca
                                                                       660
                                                                       720
 caggocaatt ctggtaaaac aattaatgta tgtgaaaaag agtttgatct ctatgaacta
                                                                       780
 ccatccgatg ctatcaaaac aataattttt ggttgcaata cctcagaaca ttttaaaact
 aaaatgitca ggttaataag ticacgaacc gactatgaac atatcagtit tatacagget
                                                                       840
                                                                       885
 aaaaaatcaa attcaagatt tgagattgta ttagacccgt tataa
```

```
<211> 189
<212> DNA
<213> Enterobacter cloacae
<400> 5308
cttaccattc aaaatgggaa tgctgaagaa ctttgcctgc ttaaaaaagaa agttatcgtt
                                                                      60
gcgagatata tgtggtatga attgatatta aaaaagtata aagttgattt atggttgttc
                                                                      180
ttocatttta agaacaataa tgacataaaa aatgtatcaa gtatcaaaat ggtgaatatc
                                                                      189
gttaaataa
<210> 5309
<211> 753
<212> DNA
<213> Enterobacter cloacae
<400> 5309
gcaatgatge ttttgeegeg tetetatgeg egaetetgeg egegeeagge egggegeaeg
                                                                      120
etgetggcaa accggateae geaaaactae ageeagttta tgegetgeee ggaggeegat
                                                                      180
gttccggctg attttctgca tcagaatgcg catgagctga gcgggtttaa cttcgtggag
                                                                      240
cagatettee egecegeget ttgggegege aacgttegtt ttgatetgea egggtaegtg
gcgcagtgga cgcgggagca ggcattttac agttcatctc gcaccctgct actgggcatg
                                                                      300
                                                                      360
egetgggegg getttggtet gategtggat gegetgeteg ceaeegegee ageegatgtg
egettteagt ttattaceeg teaccetgeg etgeataage tgatggeege geaegaagge
                                                                      420
egaegegeca getegttttt egeeceteae egeetggtga eggtgetget gatggaegaa
                                                                      480
                                                                      540
cgcctgccgg atgcgccgct gttctccacc caggcagggg atcaaaaggc gtggttaacg
gacgtotcaa cgcggttttt atcgcgctat ggctacagcg tccgaacgct gctgccgatc
                                                                      600
                                                                      660
tgttcgctgc acgcggcgga gtttgggctg gagagtcagg cgtatgcgcc ggaggattac
cgtcaggccg ccgccgacac gctgaacgcg ctgcgcaaaa cccccacgct ctggagtgca
                                                                      753
tgggatgatc tttcagtgat ttatcatgga tga
<210> 5310
<211> 363
<212> DNA
<213> Enterobacter cloacae
<400> 5310
 tocacgttac tttccagaag aaaaggtagt ggcatgaaca atattgaaac gcagttactt
 quatcaggtt tcaccgtama agaattagcg tatctgaacc gaaacattag ccgttatggt
 tcatccctgc tcgaggtagt gcttgagtta ggtaagcgat ttatcatggt tctgtgtatt
                                                                       180
 actgcgactg tggccctgat tttcctggcg cttctttttt tcgctgaaca ttataatatt
                                                                       240
 gtttccggtg gcatttctct tttcatcgta ttgattattg cctggttttt tcaaccccg
                                                                       360
 atcattacct acaaagoctg gcgcttcaga aagaaataca ttagttctgt ccagacgcat
                                                                       363
 tag
 <210> 5311
 <211> 207
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5311
 agatatettg etettgtagg taegtacatg teaacageta aacgegacee taatcagtea
                                                                       60
 aaatccggaa aagcaccaac ttttcagatt cgtattacgc cggagttgaa ggcgcagttt
                                                                       120
 gaggetgegg egaaggetga agggatgagt tiggggaatt ggttaaaaaa titaggtega
                                                                       180
 aatgaattaa atagattaaa aaagtag
 <210> 5312
 <211> 192
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5312
```

			2016			
atcagcaatg a aaatacgaga t totottocgo o occgcagcgt a	:gagaatgac :agctgatga	gaatgaaaaa	gaaaacatcg	ctcagcgagg	aggattaggt	60 120 180 192
<210> 5313 <211> 243 <212> DNA <213> Entero	bbacter clc	acae				
<400> 5313 teagaegete ( gegttaeggg ( aaaateetta a atggeacaet 1 tga	geetteacee agteaaact	ggagggcgcg ctqcqtaacc	gaggegtace	tgaaatgggc atatgcccgg	tgcatcgtca cggcgagatt	60 120 180 240 243
<210> 5314 <211> 222 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5314 gacgttgaat ctacgcaacg gggcagaaag acagcgttga	tgctaccacg egccctcgtc	cggctatgta gaagaacttt	ttcagtgcgg ceacacgcct	actttttctc tggtctggcg	ttacaacacg	60 120 180 222
<210> 5315 <211> 354 <212> DNA <213> Enter	obacter cl	oacae				
<400> 5315 ggtttccgca acgtcgtcag tcggctgaac cgcgatctga ctttccccga acctgccgct	gegeeeeett gtetggttga tgeaaaaatt ttattgaaca	aacgetggaa catcattatt tggcattacc cgacggcaaa	agtettatgg gecetgeace gaacgeacgg gggegetate	ccccttcacc gcaacggaag tgtaccgcga agctgctgcc	ccgaagccgc cgttaatcgc tttgcaggcg tgcgtatcag	60 120 180 240 300 354
<210> 5316 <211> 198 <212> DNA <213> Enter	obacter cl	oacae				
agcaccaget	cgaacttttg acttaataca	cgccaacagc	ttcatcgcgc	gtaaggctat	ctggcgctca actttacgcg taagatgagg	60 120 180 198
<210> 5317 <211> 204 <212> DNA <213> Enter	cobacter cl	oacae				
cagcatggtg	teggtateac	actgcgctgc	acageceaeg	gegtggggta	gettgagege tegteaegge geteateetg	60 120 180

```
2017
                                                                     204
acqqqaacqc tggcggaaga ttaa
<210> 5318
<211> 1626
<212> DNA
<213> Enterobacter cloacae
<400> 5318
tgocgottta goggtactca ttgtctctca aggaaaacaa tgatgattag otcatogcat
                                                                      60
                                                                      120
catacccgcg aacagtttga acactgtctg gcggcgatcc gtcaggcgtc tgttgaaatt
                                                                      180
ttacttotgt tgaatgtaca tgtttctgaa ggaaaagatc cacgctggtt tctggagcaa
                                                                      240
ctggatageg cccgcctggg gctgggeggg tggggegctg tagccaggaa gctgaacctg
                                                                      300
aatgatgogg aaatgacggo otttacgotg caattacgot tgottcagca gogtgttoco
                                                                      360
cagtatgaaa gogggcagga tgtcagogaa aatcagotga ttgoggogat gogottogto
acetecettg aatatetgeg tetgeaacag ecceteetga eetaegaaac egggagggtg
                                                                     420
                                                                      480
ccagagaagg agagccagct tcaggcgcag aaacaggtgc gtgccattga gctgatgatt
aaagggctga tacagcaggc gtggcccgac ccggtgcggc tgaataatca tcttaagacg
                                                                      540
ttgtttaacg ctgaacgcgt gcgtcgctgg ctgaaaaacg gtgaaattaa tgatgttctg
                                                                      600
agcggcatgt tgttcagcga actggcccag ctgctggtag ataaaaaaga atttagccgc
                                                                      660
                                                                      720
tactacgogo cgctgtttaa cgccccggac atgctgacac tgctggtaga gccccgcaaa
                                                                      780
accotgoaaa cottootoga agatattoga caaatcogoa acagcatcao ogtgoagoag
                                                                      840
cogttaagcg gagcgcaaat ccagctgctc gactgctatt acacgcagat cacccgctcc
                                                                      900
gttcagcgcg cgtttgagga agggcggaca cgcgttaacc cggcggcgct gatggcggtg
                                                                      960
gacqaaageg agctgcacgc gttctgggaa aaggcgcaaa aaatggaccg caccacaggc
ggcgatcttt ttgaagtgcg cgacagtata gaaaaaccga ctcagcgtgc cacgcgtacg
                                                                      1080
ccagageage gegaacaget gattteegge gtgetgtggg gageggttgg egtgatggtt
ategegattg tegtggggg attetggetg gtgaacagca gtaaacegca geeggetgtg
                                                                      1140
                                                                      1200
gecagtaegg cateteeege aceggtgeag gagatgegeg aaaegeette etegegagaa
                                                                      1260
acgctgacgc ggatgggtgt cacctgggat gaaaacaact tccgttcagc gattagccgc
aacgataccc gggtggcgct cctgtttttg cagggcggga tggactggaa aatgtcatgg
acggaggagg cgttgtcggc aggctacgac gatgtgctgg aagtaatgtt gegctacege
                                                                      1380
ctgcaaatga cagagcaaaa gccctgccga cgctttatta atacgcttag ccatgcgatg
                                                                      1440
gegaaegggg aatcgetgae geetatgegt aageagtace tgaaageatt etgtacegte
cctgeggtgg tgaaaegcca geageaegae geegatatgg caaegegeeg egegaagaeg
                                                                      1560
cagcocgatg ccagcacaaa aaaatggcag tocatccaga ctgccattta tgaggtgatt
                                                                      1620
                                                                      1626
cqttaa
<210> 5319
<211> 429
<212> DNA
<213> Enterobacter cloacae
<220>
<221>unsure
<222>(34)
<220>
<221>unsure
<222>(282)
<400> 5319
 cattgogtag attatatata tgtaagattt gacnaaaata gcatttttca aaaacattac
 ctacttaaga aaagagatgt atttaaaggg aaageteate ttgatacaga agtaatgget
 gattgggtag atactcaaaa agaaattaat ttatttactc tggattcgct cagcaatatc
                                                                       180
                                                                       240
 aataatacag atgaatttaa caggaaaggt aacgaaagat taaatgaaat atacgaatct
                                                                       300
 cgccgggtac atggtaaaga tattaaaaag aacaggaaaa tngaacttga ttcattagga
 cgaactcatg ttgctaatgg aagatctgaa cccatacttc cttcatccag taatgttctg
                                                                       360
                                                                       420
 cttttgcctg gccgggagga gaaacaaaga tggttaaaag gtaagaagaa gactgaggac
                                                                       429
 gcagaataa
```

<210> 5320

2018	
<211> 333 <212> DNA <213> Enterobacter cloacae	
<400> 5320 aaagcgctac gcgttcgcct gttactacgg aaaaagatta gagatatgaa aatgcacgta aagatcaccg caaaactgat ggccaaaatg caccttgtte tcgcgctggt atgggcgata ctgactatte ctaccctgct gtggtggaaa aacagcatte tgtgggtgte gttaatgagc atttacqcca tcctgattte ccatctggct gcgtacagcg ccgccatgc agaaaaagcg gccagcaagg cgatggataa aagcgaaggc gccagcaaga aaccgccaac agccttcaag gcaatgcgcg tcaggcact taa	60 120 180 240 300 333
<210> 5321 <211> 243 <212> DNA <213> Enterobacter cloacae	
<400> 5321 atgattgot atttgttggg taagccggag aggaaagagt gggaattgtt cccggatatc aatcaccgag tcattaaact cagccagata gaaaaagtta ctttcgacag aagaaaggag atgatggttt cgaaacgtct taaggccaaa gactatcgaa cggtttccac gggatttaac gtcctgagct ctaagccagg gctgataact ttggccatag cccactccta tgccgtcacc tag	60 120 180 240 243
<210> 5322 <211> 204 <212> DNA <213> Enterobacter cloacae	
<400> 5322 ggcgccatac catcotggat otggcacgga agatgtatog aaaagegcot gacacgttoc agatcgaagt toaggagtgg atttocgato gccgttogto cacgtgaaaa gccgggcagg gaaaaccgot acccggccgo ogcggttaag aacgtaaato aatcaccata oggccacgga totggccotg ttocatotot ttaa	60 120 180 204
<210> 5323 <211> 312 <212> DNA <213> Enterobacter cloacae	
<400> 5323 tgcaatattt gtttaacagg tgatcaacat ttgtgcagcg tagttcactt ttggtgcagt ggcaggctg aagggtatct atttggtgaa tacgtcagcc tcttcacatt ttttggtaag atgaaagctc tggggaaaaa agagggagcc ttacatggcg aatttgccct ggcgggtcag cgtgcgcctg atggctctcg caaaaaaaa agcgatggtc atcgggatca ttgtgctctgg tctgcttteg gtgcgggtt atctttcgca gcaggggcca gccctgcatc actggcacac ctggcgggct ga	60 120 180 240 300 312
<210> 5324 <211> 336 <212> DNA <213> Enterobacter cloacae	
<400> 5324 atttgtcgtt ttttcataag gcatggggt cggccaggag atcaattcca caatactgcc ccagggggtc tgtccatagc agaaagcatt cccttcacct tgctcatccg gaaacgtgag cggctttggc gcggtaaaca tctccccgcc ggcagcggtg aaagcggcta tcgccttatc aaaatcatca acataaacag caaaatgctg gaggccaaag tcgctggcg gggcggcat tccctgttca gggccatgca tttcgaaaag ttcaatgccg ggtccatggg gcataacaag catgcgaatg gcgtgaattt ttgtgccggg aaataa	60 120 180 240 300 336

```
<210> 5325
<211> 534
<212> DNA
<213> Enterobacter cloacae
<400> 5325
                                                                      60
caggagttta ctatgecate gteagtaagg ggeategace atateggtat taeggtgeee
gacattgaaa aagccaccct attttttgaa cgcgctttcg gcgcacaggt tttatatcat
totgtogatg oggaaacoga taatattgat caggoogooc agcagoacac ottaaaatta
                                                                      180
                                                                      240
tttcccggca caaaaattca cgccattcgc atgettgtta tgccccatgg acccggcatt
                                                                      300
gaacttttcg aaatgcatgg ccctgaacag ggaatgcccg cccgcgccag cgactttggc
ctccagcatt ttgctgttta tgttgatgat tttgataagg cgatagccgc tttcaccgct
                                                                      360
                                                                      420
gccggcgggg agatgtttac cgcgccaaag ccgctcacgt ttccggatga gcaaggtgaa
gggaatgett tetgetatgg acagaccccc tggggcagta ttgtggaatt gateteetgg
                                                                      480
ccgacgccca tgccttatga aaaaacgaca aatttacgcc gctggaaacc ctga
                                                                      534
<210> 5326
<211> 207
<212> DNA
<213> Enterobacter cloacae
<400> 5326
ggtgtgcagt ttctcactgg taataaacat ccqaacagtc acgtcccgag taggcgttac
                                                                      60
cagtttctgc cggaacgagt gaaaggcggc ccggaaagcg ttcggttcag tactcacatt
                                                                      180
cetqaaaata ttgatgtaca geaggtaaca tteegteagt gteatacece gggtgaggag
tacactcatc actccgtttg tcagtga
<210> 5327
<211> 252
<212> DNA
<213> Enterobacter cloacae
<400> 5327
eggtatgtac catateagat gtateetgag aaacateata tattaacaat ageatatatt
                                                                      60
                                                                      120
gegtttgtat caacgettat atteattttg agaacatgtt egeaattagt taattatete
                                                                      180
gaagtaacgg aaatatgtca gatattatat tgtgattatt attgtgtgtgg tattaatgat
gttgttcatt atttaaacaa aaaaagactg agggaccgtt atccggaaaa tgttgtatcg
                                                                      240
ccaggaggat aa
<210> 5328
<211> 849
<212> DNA
<213> Enterobacter cloacae
<400> 5328
gatttcggag aaaaaaagat gcgttatacc cgaaccagca ctgcaactga tgtcactgat
acactcagae aataccagge tgacttgerg acaggteett getggatgte ggtatggeca
                                                                      120
                                                                      180
ctgatagage ggctactgag tegtgagaat gaaatgeagt eggtetggea gaatattgee
cgtcaggege taacetggea geaatgetat tgtettetgg agcaaatcat actggeggge
                                                                      240
                                                                      300
cgtttcagta gacctgatat cgtttcccga ttgaaagagg attatcgcca gcttgaagaa
ctgaaccgga ctatcagtaa ggaggccggt gaactggcac agaagatatt ggtccgagat
                                                                      360
gogatootga accggaacge attoacactt gagagaacca cgcacatcgt ggaactgatg
gagatggctg aagataatga tgggctttac cgttattatc ttcatgaaac actcgatggc
                                                                      480
ctgacctgtc gttatgacgg aaaatactgg ccgggactcc ctggcgtcct gcaggttata
                                                                      540
                                                                      600
gcaagggage acceggaaat tggatgteta teagaaageg ategggeeat cattaacggg
cgcggcaaaa tgctccccga ttatctccgc gaattattca gtagcatcga gaacgtcagg
cagggtecat qqqqtetqee qaaaqaattt acqttqacqq acaqtaqeet qqctacqetq
                                                                      780
gccactgtaa cactggatca tactgaagtg ttctccgctg atacggtaaa agtacgccgg
agtgaattca gcaaaagagg agagcgggga gcatggccat ttaagccact gaaggcagtc
                                                                      840
gatatgtag
                                                                      849
```

<211> 519

```
<210> 5329
<211> 1740
<212> DNA
<213> Enterobacter cloacae
<400> 5329
gtggatcact ttttacccgt tgttgacagc aatccactca gcaccatccg cgaactgcta
                                                                      60
tttctttacg aaatggaaga tcgtttcagt gccgataaaa aaagactccg ggtggccact
gaactgotog aqttactoga gaccgatcaa gttotoagga gagaagcatt tgaggacato
                                                                      180
                                                                      240
cocgetcaac tggtgactct tetggacaga gatttgetgg ttgaccccac tegcageceg
                                                                      300
gtggaaaagc gtcctcgtct tatctgtagc ctatgtgtac aactggcgga tatcaccgag
gecagttata teactgagge tettgagatg ettgaacagg aactgtttge atggeceeet
                                                                     360
                                                                     420
ctggatgaac accatgcacg ggatatttac tcactgacaa acggagtgat gagtgtactc
ctcacccqqq qtatqacact qacqqaatqt tacctqctqt acatcaatat tttcaqqaat
                                                                     480
                                                                     540
gtgagtactg aaccgaacgc tttccgggcc gcctttcact cgttccggca gaaactggta
acgcctactc gggacgtgac tgttcggatg tttattacca gtgagaaact gcacacccta
                                                                      600
                                                                     660
cttaacacge aaggacccac actgcagttc aacggatgtg tgttcatgcc acttgatgaa
goodgacaac gottotooot otoagtogat atacoggttt gotcaatgto tgacacatet
                                                                     720
                                                                     780
geoogtaaca tggooggtoa gatgottogt gaatcootgg atgtoattgc ctacatggta
qqtaagqqaq atatcaccgt ccagaaacag ttcatgataa tcaggqatga agacgaaaca
                                                                     840
                                                                     900
gaagtgccgc gcttcgataa tgaaatcgag gcaaacgcgg accggttaac ggacgaggag
                                                                     960
tttgcgcgct ttatggtggc gatgaaccga ctgttcacgg atacaccgga tgtgtcccgt
                                                                     1020
aaaaaaatca gctccgcatt tcggtttttc cgtaacggca ttgaaagcca agttcaggag
                                                                     1080
agtegtttea cegettaetg gteggegett gaateattaa egetaggagt tgeecetgge
acaccatcae atgaacagca tgtcatcggt gttgtggctc cctgtatggt gctggactat
                                                                     1140
gttgttaage aactgttttc tctaagaaaa gttctgcgct tcattctgcg agagccaggg
                                                                     1260
caccecttge geacacegga gategettea etteegetgg ggeaacteta tgeeettett
aaaqatqoqq accqqqtccq tgaacttcaq acaqatttac agcactttcc ctatqtcatq
tatcgggtgc gtaagcttgc cgggatctgt gcgtcacccg agaaaatggc ggataaactg
                                                                     1380
gggcaacatg ccgagaaagt cacccgacat cttcaccgcc tgtatctgct gagaaatacc
                                                                     1440
atogtgcaca atgcaggtac cagocogcac attgacotgc tgacggtgaa cottgaacac
tatctgeggg caacaatcag egegttgttt aatattgtgg tgatccaccc aaccgtcagc
acceptgagg aggicattiac coggitgcoag titaccagtg agticagtitt caggigaactg
                                                                     1620
                                                                     1680
aacccccttc acgggatcac ggaaaagaaa gtatacacag ccattgataa tcagttgaaa
                                                                     1740
aacgggacge tttcccgtag cgatgctcgt ttgatagcat ggctcaatgc ccaccactga
<210> 5330
<211> 225
<212> DNA
<213> Enterobacter cloacae
<400> 5330
gctcagcagg atttacttaa catcttacgg accattttct tcttttttat tccggactgg
                                                                     60
gaatteagta tgtaccccaa tgaatcageg atetggatta tttateegea aaaaaacatg
tcatataaag taaggggttt tattgatttt attgatttta ttgattttat tgattttatt
                                                                      180
atogatgaaa toggaactac toottactgg aagcacggaa agtaa
<210> 5331
<211> 246
<212> DNA
<213> Enterobacter cloacae
<400> 5331
acettactga tgccgctgaa acatcagcgg cattccttat ttaatcaccg gcgccggcgc
                                                                     120
aggcaatcog cttactgctg cataaatccc ttttgtcatt attccttctt aactaatggt
                                                                     180
teggeacate ggttaacgee atteaacgta accagegtea gaagtaaagt tgatttaegt
attacaqqat taaactatgt caaagaaact ttttggtgcc cccccaaccc tgacagacgc
                                                                     240
                                                                     246
caqtaa
<210> 5332
```

2021	
<212> DNA <213> Enterobacter cloacae	
<400> 5332 gaaacotgtt gtaccagggc acagcaaaaa caccaaatct tatccagtgt taaacatcac tgttatgcag gtggtaagga gaacotgatg aaactatta cgattggttt caccacatct teggcggagg attitttac gcgtctgaag gaatccggag caagacgtat totggatgtg cgtotcaata atcgctoca gctggcaggt titgcaaaac aggacgatct gaagttottt gccgtacto tgtgtgatat cgattacgac catatgccag atcttgcocc gacgcgggaa atgtttgatc gatacaaatt acagaaagga gactgggata tatattotto ggattoatc gatttgatta caaaaagaca tatcgaaacg ctcgaaaaag gtcagttgc tgatgcttgc tatttgtga gcgaacataa accacatcat tgccacagac ggctggttg tgagtacctg gcagataaat ggcctgatgt cactatcat cattatag	60 120 180 240 300 360 420 480 519
<210> 5333 <211> 204 <212> DNA <213> Enterobacter cloacae	
<400> 5333 egegttetgt gtgeegttet gacetgggae tgegeagegg tagatgegae eaeggagatt aaactggtge tgegeetege tggeaeceeg ategaeatag etategeegg geaegeaatt gtegeeggtg eegtgetggt gaegaataat gegetggagt ttgagaggat ategaeettg gtaeetgagg aetgggttaa etag	60 120 180 204
<210> 5334 <211> 210 <212> DNA <213> Enterobacter cloacae	
<400> 5334  ataatgetea atgtogocog caattittooc actgacagga toaatocatt tigoggatto tataacatoa toaaaaagti ogacoctgat ggootgatgi toggaatogg cagggaatat atcaataacg toacogogaa cocggaacat ogocogtooc agagtitigi otgtacgggo atactgcaga ogtgocagti gatgaattaa	60 120 180 210
<210> 5335 <211> 492 <212> DNA <213> Enterobacter cloacae	
<400> 5335 aggacattta aattgaacag aatgacagga ctcgctgttt tatgcctctc gctgatgga tgcagtgccg tgccatcaga aaacagtgcg cagtacctca gaacggaaat gcagtcgcca gtatcagggg caaccataat taccgtaact gcggacagct tatgaaca agscaataca cataacgcta tactgtatgc actrcgaccg atgcctggaa aagcatcac ctctgagctg gacagaaaat ttgccgcagc gacgatgtat attgattgt ctccggtga aaaaagcaga acggccgaga tcagtggtga gataaattac tatgatcacg agcgatacgt gaatgctcgc ctggtaggag acagtatcag gacaataccg attgcaccaa agaccatccc gcttacactg aataaaccat totcaatcaa tctgccacaa ggtattcact attcagtcat gctgacggac agccagcctt aa	60 120 180 240 300 360 420 480 492
<210> 5336 <211> 411 <212> DNA <213> Enterobacter cloacae	
<400> 5336 aggaaacaat coatgtcoaa tocagttatt toaggoaatg goatottoto toaogtottt atoggtgotg tagatgttoa aaagtoggot gagttttatg acgccacttt aggtgoacto ggtatoaaca acottggtoo tittggtaat ggotgggtgt tgtttggoog tgacaagcog	60 120 180

2022	
gettteatea tigecegice tggeaaiggi gaagegeeat ceageaaigg igigaeaai ggettigetg cegeeaegee igeigaagii gaegettice aigeegaagg eeiggelige ggegggaeig aigaagqeea aeegggicei egitggicale igeeaggige iilaigeig iaeetgegig aiceggeigg iaaeaagaie igeleetata eelioaletg a	
<210> 5337 <211> 195 <212> DNA <213> Enterobacter cloacae	
<400> 5337 acgctgacta ccgcaggcag gacttttca agcatcggcg caaggctggg aatggctc tgtccaggca cctgcgaagg cagtgccgca ctggcgggga aggacgccga gagagataa ccgacactta acgctaaggc gctcaacagc tggtttttt tettcatcga tgctgactc cgtatcctgg aatga	C IZU
<210> 5338 <211> 216 <212> DNA <213> Enterobacter cloacae	
<400> 5338 tgttatgaaa gggagagatt ttatoagatt togttatogg aaaacatgoo tggtcaacg cgccgaaata acottaaaag taaattaaat gttatoaaaa tgatgttgtt ttggtggoo ggcagggtgt attgtaacco octottaatt ogttgttgco tacagoocga tagtattoa gtgaaggtga aagacgtgog acotcaaatt otttag	T 120
<210> 5339 <211> 234 <212> DNA <213> Enterobacter cloacae	
<400> 5339 gtegtecece ectaegecca tgtgaaaege ateaagatte aaceageage cageetett cegcageaag tgetgatgeg ttgteteatg cagetgeege tggetataae ggeteagg gaaatggaae tgtecetgea actgatggga gecaaaegte agetegeggg tgtegeage caaacegtte teegteggga agatataegg egtetgeate tetteeageg gtaa	30 150
<210> 5340 <211> 234 <212> DNA <213> Enterobacter cloacae	
<400> 5340 acttetgaag aagagaaaat gaaacaacaa etategaetg eeagtgaeta caacgagg tgeaatetgt taegtteegg etaegtgaaa catgttegte ttggetggaa tgtaggaa gatgagttet ttegaattge gtetgaetgg tgtgataeeg gtgeaaaaat aaagaaag ggggataatt teattattte getgaaagge treeegatte eteeteaaca ttaa	30 220
<210> 5341 <211> 285 <212> DNA <213> Enterobacter cloacae	
<400> 5341 attaaacacg tgttccgaaa ggatgtgaca atcatggtta ctgcggtttt aaacgtta attgatgaag cgctaaaaga aagacttcgc cactatgcgg aagacaataa tgagaatt agcgtgacca cagagaaacta gctgctgctg gcattttgaag cagtagaaga ggcgggag tcggaagagg agctgtgataa tcagcatacg gaagaagag agctaactcc atttactc aaagaaatca aagcactacg taaacttctg aagaagaga aatga	ta 120 ta 180

<210> 5342 <211> 216 <212> DNA <213> Enterobacter cloacae	
acagttacga aacatatcca tagagccaag cgggctaata tgtgtaatca agtgagctcc	60 120 180 216
<210> 5343 <211> 261 <212> DNA <213> Enterobacter cloacae	
<400> 5343 agtatettee accaetttgg gettatgeee caaaccaegt tecceaegee egteaatgtt gtgtteetge aeggtgagag aaccagteae tectteatat actttteeeg teactataaa aeggettetg geogtaccaa aaccaaacae aaatetetea ttetgattae cetacaggtg etgtacagaa tgaaccagge gaaagetatg ttteaggagt geaacaatga gtacattaag ecaegeggeg ageagegetg a	60 120 180 240 261
<210> 5344 <211> 243 <212> DNA <213> Enterobacter cloacse	
<400> 5344 cgtttcacaa cacttcgggc ggaataccgc cogcatattg tgaaaatatt tatcttactg gcgcacaagt cgtccggtgg caggcacaaa atcggtattg gtgcgccacg ggttgatatc cagaccgccg cgacgggtgt agcgggcgta aacgctcaac ttttcgggct ggcagaaacg ctggatgtcg ttgaagatgc gctccacgca ctgctcgtgg aattcgttgt gatgacggaa tga	60 120 180 240 243
<210> 5345 <211> 183 <212> DNA <213> Enterobacter cloacae	
<400> 5345 ggtaatcaga atgagagatt tgtgtttggt tttggtacgg ccagaagccg ttttatagtg acgggaaaag tatatgaagg agtgaccggt tctctcaccg tgcaggaaca caacattgac gggcgtgggg aacgtggttt ggggcataag cccaaagtgg tggaagatac ttcacggaat tga	60 120 180 183
<210> 5346 <211> 234 <212> DNA <213> Enterobacter cloacae	
<400> 5346 tocactttgc theatcotga ageottoctg eggegteatc otgacgtgtc octggtaaga aacgocatca toctgatgtt egtttetegt gteggeatce tgteggacaca gatagaatce getattetgc tregtettac aacceacett gtgagcaatg taagccaggc gaaacggggg attteettte agaaaaccac taacttattg aaagagaagt taatataat etga	60 120 180 234
<210> 5347 <211> 210 <212> DNA	

<400> 5347 tgcceggaag cagactegec caggaacgtt aaccetteaa eccattteac aegegettge atatteacte actecaacgt tgcattttt atgacagatt aegtgtacgt tacatttete geaacggaag gegacetege teatgetaaa gegagacacc aggagacacg eggegaaage tatgetaaaa cactetggat getacagtaa <210> 5348	60 120 180 210
<pre>&lt;210&gt; 5348 &lt;211&gt; 243 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacse</pre>	
<400> 5348 cagattacgt gtacgttaca tttotogoaa oggaaggoga ootgogotoat gotgaagoga gacaccagga gacacgoggo gaaagotatg otaaaacact otggatgota cagtaataca ttgacgttac acatgtatgo agaggacato aaactttact ggotgogaaa ogttacgaca gocqacttoo caggtatggg taagaattog attgoaacco cagagtoogg atgoatota tga	60 120 180 240 243
<210> 5349 <211> 207 <212> DNA <213> Enterobacter cloacae	
<400> 5349 cgaaagatgg ctgtacgtaa acgctttatc gcgggcgcaa aatgcccatc ctgccaggcg caagatacgc tggccatgtg gcgtgaaaat aatatcgata tcgttgaatg tgttaagtgc ggtcaccaga tgcgtgaggc cgacaaagaa gcccgcgatc atgttcgcaa agaagagcaa gtgatcggca tttttcatcc agactag	60 120 180 207
<210> 5350 <211> 264 <212> DNA <213> Enterobacter cloacae	
<400> 5350 attittitte aggategeat cattititta gecacagaaa tactettete tattageget attictogea teaaaaaaa gaaretaace graaactite eigagitigag geegataace ccactatteg tictacqtgt egitacatta aggaataaat atggcaagta titetacqti gggagtega teaggitige agtitagega cattetggac agtetgaceg eigeacaaaa agcacagetg acgeegatet etaa	60 120 180 240 264
<210> 5351 <211> 222 <212> DNA <213> Enterobacter cloacae	
<400> 5351 atgaaacagt cotcattaat aaacaccacg cogggottgt gggogtcaca agoggotgog agttottoaa oggtgtgtgc atogttgatg totototto taacccotot gottgotaag tacccggtta accottagoog ggtgtatotg cataaatoca taatgatogt tgacatggoa taccctcact caatgogtaa ogataattoa coacctgoot ga	60 120 180 222
<210> 5352 <211> 465 <212> DNA <213> Enterobacter cloacae	
<400> 5352 ggaaaatggt caatgaaaac gttaatctct cttactgctc tcctcggact agcctctgct tctgcctttg cagccactgc accagagtgc gtaaaagctg ataatcagca gattgaagcg	60 120

etettegata aatggaatge ategeteeag acaggegatg eccataaggt ggeggataa tacetgageg atgeggtatt getgeegaea atateaaace aggteagget gaeggataa	ag 240
gaacgtgtgg attacttcga ggattttctg aagaagaagc cgttcggtaa aattgaca; cgcaccattc gtctcggctg taataaagc attgatacg ggacatatac gtttacttt gcggataaaa catcogtaac cgcacgctat acctttacct acgcatggga cggaaaagc tggaaaatct catcgcacca ctcttctgcg atgccagaag ggtaa	ge 300 se 360
<210> 5353 <211> 795 <212> DNA <213> Enterobacter cloacae	
<400> 5353 aacytcogtt tyggaacatc agccatactt aatgegeggt ccaacgagac tracceaggatgtyct taactgtagg acagttygg ataggeggg attggtyce cotgactagattttaaga ctattgaaaa aggtggcatt tatgetggeg gtggogctac aggagttattettttaac cgatacqce tytctogtc atgtgaaga tygcactc cgcattgcgctatcagg ctgatacaca taccettgca ttoacgtga aggatggaaa tygctggaggttgggta agctttatag cgatacaat acaattcag cacqcaacga acqcacagg gtgcatgca cgtgatcaa agtatttca gatggaacat accagaccaa cgatgaatgaagaggccga ctgatacaca tetgaccaca ggcaattac tygtagaag gtgtcaggctgaactaga accacaca cgcagacga agcgcaca gacgacaca accagaccaa accagaccaa accagaccaa accagaccaa agcagcaca accagaccaa accacacaa acgagaccaa gtgggdgacag gtgatcctg cgacattca cacgtactac accgtactac accagaccaa cgacaccaa accagaacaa accagaacga actggaagga atcagaagg atcagaagg atcagaagg aaccagaacga accagaacga accagaagga accagaaggaag	ct 120 at 180 aa 240 gg 300 agg 360 ct 420 gg 480 gc 540 ttg 600 gc 660 aa 720
<210> 5354 <211> 186 <212> DNA <213> Enterobacter cloacae	
<400> 5354 tgoctggaaa actocageto ttttgetgee eettattaet gggatgatte teagetea accegggeee agaageteaa actottegtg teegatattg egaegateee ggaaaata aaaateeage eeettegeee gagetteteg eagataagea teaaageeat eaatggtg agatag	ac 120
<210> 5355 <211> 339 <212> DNA <213> Enterobacter cloacae	
<400> 5355 cotgatcaac aacgoggacg aagogoggga aaagtetcaa coccoggogt aaagtttc atgtogettg ogotocogat ggggogoacg ototoagago ttoggoacaa tatgacgg agogagette tgatgtggat tgagtacaac agocaaagte oggttggoga tattogg gacattcagg cogcoagat cgtctcgcc atctacggtt ogoaggggga aaaagtac ttggacgatg ogatectgog otggggtggt gaggagcaat cagaaccgaa tgaccogt geagggettg aggetgeact tactgeogog acgoagtga	gca 120 ggt 180 ecg 240
<210> 5356 <211> 351 <212> DNA <213> Enterobacter cloacae	
<400> 5356 tgctggggaa coaaaatgga aattitacta gtitcaatig tiataggott aattocag tiaatigotc aaagcaaagg aagatotito tiigcatggi gggtgtatgg igototgg titataatig ottiigtaca tiotiiggia ataaagaagg atgiigoggo agaagaag	cta 120

			2020			
gaagctatta	aatgtaagca	ctgtggtagt	tgcccattct gatttagcag caaaaggtct	togattocco	accggttaag	240 300 351
<211> 222 <212> DNA <213> Enter	obacter clo	pacae				
gacgtcctgt cgtgaaatct	gegacacega aeggeceegt	taagcaaccg ccattcacgc	ctcactgtgg gtattcagcg ctgctcaaac cccccggcgt	tagacgaaga aggcgcttga	agagcaggtg	60 120 180 222
<210> 5358 <211> 447 <212> DNA <213> Enter	obacter clo	pacae				
attgctatca ttgtatctga catgatattc ccaggagtta tttcagagcc aatgcggcac	ageggaatet gteaggetaa ttgttettte aaagaattet atteacateg	tgagaatatt geceggacag agecacaaaa ecacteege taccaagaca atctattgga	gatgtgtggg totgatacat cttottgggg ggactgaggg agggagaagt actccaagac gtgaccgcaa	ggtcagatct caaagtttga aaagatgcat atcctgaaga cggtaacgtt	ctgggcaatg tgatgtgagc tgctcttaag tgtgtttttg agttgcattt	60 120 180 240 300 360 420 447
<210> 5359 <211> 393 <212> DNA <213> Enter	robacter clo	pacae				
ttttttcagg gtaaacaact cagaaaacag agcatgaacg gcaacagtgt	aggactggat atggcgttaa gctcttacac gcgatcagtt	ggcggaatat gcctgtcagc cgtagcgctt tggtacgagt tgataccgac	ggtaacggga ggagttcaga gtttgtgget ccaccgggtt cggaggaaga tactcagcag	catgggacgc atctccagct gcaggctgac tcaccatttc	ctcaggcaag ggcccagaac ctattttcag ggggggaaca	60 120 180 240 300 360 393
<210> 5360 <211> 672 <212> DNA <213> Enter	obacter clo	pacae				
agetegeeaa aataccaaag aeggttgagg agaccgaatg eeagactacg egeaegetga aacatcaata aeeggggttg geaaagettg	tegetetaca tgaegeacac tegaaateac caaceggeac ggetggeegt gegatgttgt caactetgge tateegeegg agggaageaa	ggcgcgaaag attececgea ccagacgata agcgtacgtt gtgggatget cacceteggt gggaagtgg cggtcagceg tacgeggata	acqagcgggg acagcggcac ggtcagcctg agcggtaaca tatttttct tcagggacg accgcgggg gcctgtatgc caaccctact ttcgccaggc aggaacgtga	ttcagggaac ttgtcgcgtt ccatcacgat ctattttccc tgattttaac tggatgccag ctgccatgct cggccatata cgcagacaac	ateggggttt egtteattgt tgatttete geagacaaag aaacgaaacg etcaggatac ggggctaatt caagagcatg ceceggege	60 120 180 240 300 360 420 480 540 600 660

			2021			
aactatgatt	ga					672
<210> 5361 <211> 1347 <212> DNA <213> Enter	robacter clo	Dacae				
4400 5001						
ctccgcgggg attaacggaa cgtaacggct atcggcagcg acccgattig gctgaaacct ctagacaaca gcacttggc ttagacaaaa ggcctttga aacggaact ggttattca caggctatt caacggcaat gctgaagaac caaggaact caaggaact caaggaact caaggaact caaggaaga ccaagaagagag ccaagagagag ccaagagaac caaggaacagagagag	gttcaccage gttttttatt acaccgcaac gtaccgtat caacagtct ccattcttc tcacgatgta tcaccataca agggggtaa agggggac cagtaaatac cacttgccag ggaaagcgg cattctggac ccattgccag gcttacaca gcttgcaag gcttacaca gctacacag gcttgacac agttactgcc agttactgcc agttactgcc agttactgca gcagagagagagagagagagagagagagagagagag	goctgaqqaa cggcaccggc tgcaatgacc caccgtaccg gatgacagt ccaccgtaccg caccgacatc cgggcaacg cgaaggaacc agcatatcca agttacattc aactacatacacat aaccgtcaag taccgacatt ccacaat aaccgtcaag taccgacatt cggggattac gggggtttac ggcgattaccg	aatatgotti accaacttoa agocotgtgo coagoggota ctgagogtg atgagoggi atgagoggi aatgacgott aatgacgott caattactt ggtagtgagot ggggtaact acgacagtaa tctcaggaag ggcacggtta gaactacacog cctggogga attatcogoc atatacogaag	ataacaccgg ctgctgctgdtgdtgdtgdtgdtgdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdtgdagdtgdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdtgdagdagdtgdagdagdtgdagdagdtgdagdagdagdagdagdagdagdagdagdagdagdagdag	cactatogoc thotettatt gattaccace toccqccqga gcaggatatt aatqaccqgg tcaaaaatct aacagtctc aacactccgt aaacttcact tgcccaqcaa cttcattqct ttttaaggac aaccattaag tacqgatqtt agaggagta cctggcqtct tgaaatcatt gaggggttett gaaatacatt gaggggttett gaaatacatg	60 120 180 240 3300 420 480 660 720 960 960 1020 1140 1200 1260 1320
<210> 5362 <211> 207 <212> DNA	gtgatgaaga robacter clo					1347
		24040				
aaatttgggt ggactgcaag	ataattotga gcaaatcaac tgatottgaa tagatttoga	agatatogac gecaegggee	aacctctcgc	gcaaccaaga	categeggte	60 120 180 207
<210> 5363 <211> 234 <212> DNA <213> Enter	robacter clo	pacae				
atggeggeaa egegagettg eteggeegae	ttcgggtggc gcctcgatca tgcagatatg aaggtgcaac	gcgcggaget cggcctcccc	gacaccccgg cttgagggcg	cccgcatgtg tcgggccaga	tecgtegeae actegggate	60 120 180 234
<210> 5364 <211> 324 <212> DNA <213> Enter	robacter clo	oacae				
<400> 5364 cttgccaacg	ctgtctcgcg	ctgggtactg	cggttcaacc	accttgcttt	gcaaatactt	60

```
gegaacggtg ttoctggaca ggccgcttcg tcgggctatt tcccgaatcg acgcaccatc
gegaaaatge cagegtegaa ttgegeteaa tategeeacg tttateacte ettgatttet
                                                                     180
                                                                     240
cccgccatat ccagacggga aacagtgtca tacgtgggtc aaatttcgac gcaaatcttt
accotaagtt ggggtgcgga caaaatottg gactacttta ggagtagttc atgtattcgt
                                                                     300
                                                                      324
atgaagatog cottogagoo gtga
<210> 5365
<211> 1161
<212> DNA
<213> Enterobacter cloacae
<400> 5365
aactgtgcag ctggtttggc atcccgcgtc agagtcagtt tgcagatgcc atttcacagc
gaatttttgg agaaaattaa aatgcagcca catgacacat ttaccggctc ataccagccc
ggtgacgtgg aatttctgct aaagccggta gtcattgaga tgacgccggt tgagcaaaaa
                                                                      180
gaagagetga tteagteagg gaagaaacat tatteggaca tgeteagtea ggageeageg
                                                                      240
ccaacacaat ggcatcttga titgtttcac cgggcgctgg atcgggggc agagagactt
                                                                      300
qcaaaagaag tcacacaget egetattget etggeegaac getteggtga tgageceatt
                                                                      360
gtactggcca gtetegtcag agetggcgtg cegeteggeg ttatgetgea ceaggeeetg
                                                                      420
                                                                      480
egtgacatgg ggaaaacctc atggcattac ggtatcagca ttatccggga tegtggaatt
gacggtgcag ccctcgacgt cattgaagag cgccatggta ccagcggtat tgtctttgtt
                                                                      540
                                                                      600
gacggatgga caggtaaagg cgcaattacc ggagagcttg tacgcgcact gaaagatcgc
                                                                      660
eegggetate etgageagee gegactggtt gteetggeeg atecetgtgg etgeteetgg
cttgcagcca gtgatgatga ctggctcatt ccttttggca tcatgggtgc gccggtatca
ggeetgatet eeeggteagt atggteetet gaaggattae atgggtgeat ggtttgegag
                                                                      780
catctcagtg aattcgaatg cagccggatg cttgtcgata ccgtcgccca tttccgtaag
                                                                      840
aagttaaccc cgtcatccct cgctaccctg agctggaata tggagtcage ccgggtctta
                                                                      900
tggcagacaa gtcgcgacgt tatcgcgttc ctggccgatg aatttaaagt ggacagcgtc
                                                                      960
aatogtatta aacceggtat tgctgaagca accegggetg tattacgtcg ggtaccggac
                                                                      1020
catgtatttg tgcgttctat tgacgacccg gacgttgcct tgcttgtagg gcttgctcgt
                                                                      1080
gaaaagggaa tagttgttac agaaatgggg ggaaccctcg gccagtatcg ggctgtaacc
                                                                      1140
attatcaaga aggtactctg a
<210> 5366
<211> 1665
<212> DNA
<213> Enterobacter cloacae
<400> 5366
cttcgacgta aacagaggga gaggttgatg tcgcaaaatg ctttacttga agagaagatt
atcogottag ttotgtotga gotgggocac cotgttgaag gtgagoggot tttacttota
                                                                      120
                                                                      180
togcaggacc catecettac egaagaaatt atgeggetta aagageggat tgagageett
gcacagggtt tatetgegeg ggttagegaa ggtgataacg acgcagagat tgccgccteg
                                                                      240
teageateca gtettteega teageaacaa aeggtegtaa gtgttgetga taaceeggge
                                                                      300
attgacgeta cegatacate ageaetgeaa eccetgecag aaaatgagee teateeteeg
                                                                      360
 ttctggaagc tgatgcctta ttacgaattt gataaaccag cacagaggga agacgaaaac
                                                                      420
etgtetteee tggtattaaa accegggeag atacegacag gecageageg ggecagetta
                                                                      480
 getgtgecae etgeegttee eeegagaget aaaataaega teeecaaege eegegeagge
                                                                      540
 gaacgtttct cttcgccggt tgctatcgtt ctgggtgagg gccagcaggc tactgtcagg
 gacgttgtct ttccccggaa cattggcctg tcttttgaca aagaacagga gttgctgaca
                                                                      660
 ggtactccca ccgaaagcgg cgatatagag ctttcagtaa tctggtcatg cacgtcgcac
                                                                      780
 gacgaatgtg aaacaaaaca gctatttata atcaatcccg atccgagaag cctgtggaag
 gtggtagage caccagcaga cgctccctac cctaagtccc atctggacgc tgctggcctg
                                                                      840
                                                                      900
 gtcaggggtg atatacgtat tgctgccgcc agtcgccggg gacgctctca tgagcatgcc
 ggaagettea gagatgaega ettetacate aaceaetgee aggaaacagg atggtetgte
                                                                      960
 atgetggteg cagacggage eggtagtgeg gtaaatteee gggaaggete eeggattgea
 gtcaaaacgg ctggcgatta ccttttaaat cagctcagtg gtgtgaaagg cgtccattta
                                                                       1080
 aagcagcaca teacggcgtg ggaagggage gatcagcagg caacaataaa cgccatgctt
                                                                      1200
 catcatttta aacaggcagc tacgctcgcg gtcaacagta tccagaacga agccatttgt
 gcagaacaac ctgtgaaatc ctattcaaca accettetgg caactgtage gctacgaact
                                                                       1260
 gataacgage tgtttgegge tgcattetgg ettggtgatg gtgegatagg tgeatacage
```

			2029			
cgtttccttg aaatggaatg gagacggata cctgtcctta	aagtcaggat accagagcat atgtatetca atgggetteg cagaegecag accatgatga	tategeagae ettgateete eagtgaegaa tattgegeet	ccctcgttta atgacagacg aaatggaccc gagaggttag	geggeegeat gegteteaga gtetegttga gegaetgget	cagcgtgggt ccctctgttt tgagctcaac	1380 1440 1500 1560 1620 1665
<210> 5367 <211> 228 <212> DNA <213> Enter	cobacter clo	pacae				
ccgtttttca ccgttgttgc	geggegtetg tgttettetg tggtaceggt eggegaagat	cttcaaactt gctgtcgaag	ccagtttgca ggtattctca	tactgttcgg cgctccacat	cccaggecgt	60 120 180 228
<210> 5368 <211> 741 <212> DNA <213> Enter	robacter clo	oacae				
egtagcattt ttgegtateg aaaacaacat tggetatate egggagcett cetgatatee tgtetgtgte ttcetteget etgatetget gaacttgeat gteagtatt	tgttcgtaaa ctgcgaagtt atcttcctga acagtgagtg atcattaat cagaggaag ttccggcag ggttaacggt atttcaggt ggcaggaaat atcttcatga cagaggttaa cagatgttaa cactcttata	aacctttgac tattgaaatat cattgaaagt gcatgaactt tcataacgcg tcgggcttat gcactgcctg gatttcaaaa gattgtccgc aaaccatgac	cacettcate gaaatcagte ctgatcattg gaatctgaac cagegeettg ctagtcaggt gacatcgete gaaaacageg acccaggaag atcgeettat	cttccgaaag aggtgcagct atgagccag ctgtctagga ctgactgtaa tacagcagga agaccgatga aacatgtcag gccagtcctt acaatcaccg	agttgccgca cgggcgacgt ttcccgggaa gtatcgggga gatgaaattg tacgattg tacgattg ttacgaaaga gacacaaaac gcttaacaat	60 120 180 240 300 360 420 480 540 600 660 720 741
<210> 5369 <211> 261 <212> DNA <213> Enter	robacter clo	pacae				
gctgcttcgg tactgcgact gtaattcatt	tcagatcogg taaattcoag gctattgggc caagtattot gtggagtata	eggeaaeget aaaaateaee getteaggge	acgtcatcac caattctttt	tcatcttatg tgtcattatc	ctcccatgaa taataccctg	60 120 180 240 261
<210> 5370 <211> 207 <212> DNA <213> Enter	cobacter clo	oacae				
gaagggcgcg tttaaccgtt	tegttgagea aggteaegga atteceageg accagategg	gggtttgcga aagagagctg	cacctgttcg	atgctcaccg	cgtccaccca	60 120 180 207

```
<210> 5371
<211> 972
<212> DNA
<213> Enterobacter cloacae
<400> 5371
atatgcattt ctcgaggtat aatgaaaatt ccgaaaaaga agaccggaca cttcatctta
toggoccaga caaaaagaga aaatgotatg gataatcaca totcatocag ggotttgota
                                                                     180
categaaggg atgtcattaa aaacaacccg cgatttggtg aagctataac agaacactac
agaattaatg atgtcattta taaaaaacaa cccttgttct acaaaacgat gcttcaggaa
                                                                     240
                                                                     300
tcacgettca acataatatt gtccatgtgt tgttttgttt ttggcaatca ggctgagtca
                                                                     360
gtttcagaga ttaaggeget atgcaccegt tacaatateg ccagecetaa cagtgttate
gcgatcatta ccatacttaa aactaccggg cgaataaaga cctggcgctg tagtgaagat
                                                                     420
                                                                     480
egeogaaaaa caaaaattge geogaeggaa aaaggaeteg atgagettaa aegetatatg
tooggggggt ttacgcctgt cagcattctt tatccggcat tcaacattaa tgttaacctt
                                                                      540
                                                                      600
ctcgacaatg acattctgag gcacaacttt ttccggcgcg ccgcagagta ccttttccgc
qqattaacat tcaggaaagt gcttccggag gtgggtttat ttattgataa ggatggtgga
                                                                      660
                                                                      720
cgaatgatta tgctctatct ctatttgcag gccattaaaa acaaaacagc acacggtgcc
                                                                      780
ataatagogt attoagocag caogotggoa aaagaatttt togtotogog tattoacgto
aaccgcatta tcaaatcggc gcaggaggca ggttatctta aagatcgcgg cgatggccgg
atgtcaattt atccggcctt tatcgagctt gtcgaaaatt atgccggatt atattttgcc
                                                                      900
                                                                      960
tatgtcacac attacatcaa tgtggtacca aaagaacgac gccatgctgt caacatgacg
                                                                      972
cctacactct ga
<210> 5372
<211> 510
<212> DNA
<213> Enterobacter cloacae
<400> 5372
aaagaggagg ccaatatgcg aataatccta atgctgtgct gctttttggt acaaagttta
agetgggetg gegaactgee aaageetgtg ggcaaaccca tettaaccat taacggtaat
atagaaaata cgaacgaaaa tggaaatgoo gtttttgata ttgccagcot tgaaaaactg
                                                                      180
                                                                      240
ggcatggtga gtttccagac gacctctccc tggtataatg gccgcacgaa gtttgagggt
atoccgatgo gcaaactcat ggagtatgtg ggtgcaaagg gttotgtoot gaatgtgatt
                                                                      300
geacteaatg attacactac egteatecet eteagegact tecagaaata caacgecate
                                                                      360
                                                                      420
ctggctttaa aggtcaatgg cgaatatatg cgcatccgcg ataaaggtcc gtcattcatc
                                                                      480
gtotaccott atgacagtot tootgaacto aataatoaga titattacto gogatoggoa
                                                                      510
tggcaggtca gcaaaatgaa gattgaatag
<210> 5373
<211> 276
<212> DNA
<213> Enterobacter cloacae
<400> 5373
ttaaacaggt tttccagtat gaatttatcc cgtcaggaac aacgtacett acacgttetc
                                                                      60
gccaaaggtg gccgtattgt gcacgtccgc gatacctccg gccgcgtcac cgccgttgaa
tgctatagec gcgaaggact actgctggct gactgcacgc tcgccgtttt caaaaagctc
                                                                      180
                                                                      240
 aaaaccaaaa agctgatcaa atccgttaac ggtcagccct accgcattaa cactacgggg
                                                                       276
 ctgaacaacg ttcgcgctca gcctgataat cgttga
 <210> 5374
 <211> 336
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5374
                                                                       60
 tcatcgatct cttcttcaac aaaaatcggc aacaccagat cgtttaaggt cagtgttgtc
 tetteaaaca tggcgcgcag tgcgggtgae ttgcgcagge gacggggaeg tgcaattaaa
 teggteatgg tatgeetgat gtttgtggaa caaagaggta tagtgtaeet gaaageaggg
```

			2031			
tatttagtct	tactaaagtt atattataaa tggtttggga	tottattctg	atgttcagcg			240 300 336
<210> 5375 <211> 768 <212> DNA <213> Enter	cobacter clo	pacae				
-400× 5375						
ttgagggatg gccgggatcg cttacgcttg caggcgtcg gtcgctgaca ccggtcagtc tttgtcagcc attgaacatc agcgaacatg cgtgttaccg ctctcggcaa	ataacatacc ctgaagggg tcacggtgg acgatcegcc aaagctytt gcgccgggga tgaacagcag agcaggcccg tggcagctt ccacggcgga ttctaaacgg gctgtggtta tccatctggg	gegegtgaaa ctacegetgg eggaaaaata aacgeaggeg gtgtceactg ctttettgee geegeteacc tgcctgeege tgegetggat ctggaaaageg ttacggtaac	ggaaaggtc ttgccgtcgc acccagttta aaccaacgtc agtaacgtgg agttgcccgc aaaacctgga aatatctaca atcagcgctt gaaaagacgc ggtctgggac	tgtttattct agtacaaccc aacttcggcg ggcttatccg tgcgcgtacg tggcgttaag cgggaagcga gcegcccgga tcaggctggc agccctggct cggactataa	tattgttatt tttegtgeeg tttaacece tacceaggeg tgattttgge tteggeget gettgegegt tgegeggege aaaeggaeag acaggeetg	60 120 180 240 300 360 420 480 540 600 660 720 768
<210> 5376 <211> 351 <212> DNA <213> Enter	robacter clo	pacae				
atggtagatc ccactggagc cttcacaata ttcggattta	coggogogaa gtgaatetac cacaggaacg tttttgatga agtttacacc cgtatttagt	aacggcattt gatcactgct caagcctgtt tggagagcgg	atcaaagata atccaaatca tatgtaccga tataacttcg	atcaagtttg acagtgataa agggtgagtg cgtatgacgt	tgtggtgtca tagcgactct tcttcctgta ccaatctgct	60 120 180 240 300 351
<210> 5377 <211> 195 <212> DNA <213> Enter	cobacter clo	pacae				
gttatcgcgt	taactatggt taattgeege ttgtettegt egtag	cgcattgggc	tttggtggac	tggcgggtac	cgcggcatgg	60 120 180 195
<210> 5378 <211> 213 <212> DNA <213> Enter	robacter clo	pacae				
aaacatatgt tetgtegeee	gtgacgttaa ggatcggctt atacagcctt tgaaacgtgc	taacctgagt cagggagetg	caggatctgc gatttcaaag	ccaacggcat	caagaacatt	60 120 180 213

			2032			
<212> DNA <213> Enter	obacter clo	pacae				
<400> 5379 atgaaacatc cctgcctcat cagtttaatt acgaagtaa	ggteegeega	tgagtgcctg	ctcaccctca	ccccggtgct	gagtgaccgc	60 120 180 189
<210> 5380 <211> 207 <212> DNA <213> Enter	obacter clo	oacae				
<400> 5380 gttaattete a atteategea f gatateceat f acagaataca f	taagccggaa ttttttattt	cttgctggtc tgttatgttc	aaatattctg	gtattggcga	attacagagt	60 120 180 207
<210> 5381 <211> 534 <212> DNA <213> Entere	obacter clc	pacae				
<400> 5381 aaggcagcca ttaacgtttg cggaacggtg ggtaataagc ggcctgaatt agcgccggta ggccctgaatt cggtcagcttc cattgcgctga g	caacggctcc gcggacaagg acaataacgg ccggtaatga acggcttaac agccactgcc cttcctatcc	ggccatggct taatagcggc tcaggataac tgtggatgct gggctacgac tccgggcatt gggctatgaa	aatcctggta aatcatggta cctgggaaat cgcgtaagct tctctgcctc gcgaagaaaa tggcgcgtgg	acgggaatgg acgggaactc cggataagag tcgatcatgc cgggtattgc ccgtgccagc taggttacga	cggtggtcac tggtaaccat ctttaaaaac ccgccatctg gaaaacctg cgatatgctg cctggtccta	60 120 180 240 300 360 420 480 534
<210> 5382 <211> 255 <212> DNA <213> Entero	bacter clc	acae				
<400> 5382 gccgtaattc a accgacatct t attgtgctta t tccgccaccg t cgttgcaaac c	tgetgtttt taccatggt ttcegtgac	taaagctctt taccagagtt	atccgatttc cccgttacca	ccagggttat tgattgccgc	cctgaccgtt tattaccttq	60 120 180 240 255
<210> 5383 <211> 207 <212> DNA <213> Entero	bacter clo	acae				
<400> 5383 ggaagttcag a aggcgtcacg c ctgctactga t acatcagtcg a <210> 5384	acgttatgc attaattat	gccttgtcga ctatitgtti	tttaaaaaac	tcatcctgct	aatgcaaagc	60 120 180 207
<210> 3384						

<210> 538 <211> 225

			2033			
<212> DNA <213> Ente	robacter cl	pacae				
accetegett agaetegaca	catcagtete	ttttgtccgc gctgtgcatc	tacctatact tacataggcc	gcaagtgggg taatggataa cccggatggg tttga	cagecaaaac	60 120 180 225
<210> 5385 <211> 195 <212> DNA <213> Enter	robacter clo	oacae				
<400> 5385						
gtcccgcaac gagactgcca	gtgataaact tacacacgtg	ggaggaaggt	ggggatgacg	gtcaggeegg tcaagtcate agaagegaee	atggccctta	60 120 180 195
<210> 5386 <211> 198 <212> DNA <213> Enter	robacter clo	pacae				
ctccgcccct	gccatataga ccttcctgaa	atcetttget	teggeaaagg	ggtgtegega atttttttt egeaggettt	geetgeaaaa	60 120 180 198
<210> 5387 <211> 192 <212> DNA <213> Enter	robacter clo	pacae				
<400> 5387						
ctccaccatc gcgaagtttt	gctctttaaa agtctctcaa	aatctggatc	aagctgaaaa	tgaacetgaa ttgaaacgac aacatetteg	acacagetea	60 120 180 192
<210> 5388 <211> 363 <212> DNA <213> Enter	cobacter clo	acae				
<400> 5388						
gtcgctgacc tacgtacacg tcacggtact catattcaga ttcgtgtacg	gtttcaggtt ggttcactat caggatacca ggactatcac	ctttttcact cggtcagtca cgtgtcccgc cctgtaccgt	cccctegeeg ggagtattta cctactette eggaetttee	gaaggtgete gggttetttt geettggagg gagtteaeag agaeegttee getaetgggg	egecttteee atggteeeee caagtgtgtt actaacacac	60 120 180 240 300 360 363
<210> 5389 <211> 225 <212> DNA <213> Enter	obacter clo	acae				

			2034			
<400> 5389 ctaccgtttc ccgccactcg	cagtagttat tcagcaaagc	ccccctccat	caggcagttt ttcctgttac	cccagacatt	actcacccgt gcatgtgtta	60 120
ggeetgeege etcaatgaat	cagegtteáa taaaettegt	tctgagccat	gatcaaactc	ttcaatttaa	aagtttgatg	180 225
<210> 5390 <211> 219 <212> DNA <213> Ente:	robacter cl	pacae				
	ggagegette eegeegttat					60 120
attgtcgatg tttttaaaag	aactggtaag cggctgagtt	gctcggcagg	cagaaggggg			180 219
<210> 5391 <211> 426 <212> DNA <213> Ente	robacter cl	pacae				
<400> 5391						
ctgacggacg gcggtcgtgg	acattegtca gcctgaatac tttcagegec	cgcacgtcga tttgacgggc	tgtagctgct attaaggtga	cgttttgcag cgcagggcgc	gatgegtggg ggacaegete	60 120 180
tacacgttcc	gtttcaacac accaacgacg	ttecaateee	aatgaatatg	gtgtgaatgt	egeetgtetg	240 300
gaaaatgtca atggatggcg cgatga	egecattega acageggggt	etteeeggaa atttggetat	gtggcggtaa ctctctttcc	tggatggagt gtaaagaaca	aaatcaccct gacgaaacag	360 420 426
<210> 5392 <211> 195 <212> DNA <213> Enter	robacter clo	pacae				
<400> 5392						
cagcacagac catttegetg	gtattggcct gttttagcat	gacaaataac caccccgcag	gaatcactat aaaccgattt	caggttattc gccttaaggt	taaagccgta tcattattcg	60 120
	ccatcacgat					180 195
<210> 5393 <211> 1359 <212> DNA						
<213> Enter	cobacter clo	pacae				
<400> 5393	aggaccaaat	cataacaaaa	acacttttac	aceacaatee	totogatoat	60
tttcaggccg	ttggtggcgg	cggacaggcc	gtttttgaat	cagegetgea	aatccgcgaa	120
	tgegeaaaca ategegttga					180 240
geggeggatg gtggagtege	aagatgatcg tgagtaaaaa	ttatcgcgcc atgccttcag	ctacgctatc	tggaaaacac	getegecage	300 360
tetetgetet	caaaagcctt	teagttteee	ggtgaaaact	ttgttttcct	ggtggatggc	420
ctggactgcc	tetgettetg tgegegaate	gttggtccct	gaacctgage	cagtggtgat	taacgagcct	480 540
gaacctgaac	aggagcaaga ctgtggcttc	accggccccg	gtagtgacct	ttgagcatgc	cgacgcgccg	600 660
gtgcgcatga	acgccgcgcc	gccagagccc	gcaccggtgg	ccatgcagaa	aaaacgtege	720

```
teccecetgt ggttgctgcc ggttgccgcc gtcattattg cgqccattgc caccccqctg
                                                                      780
 ctttggccaa aacaggcccc gaccgctgcg cctgttgcca caccagcgcc agtgcctgtc
                                                                      840
 gecattgete eggeeceegt aaagaeggte gageegettg agetgaaact eccqetqeae
                                                                      900
 caggetgaag tggtagagee gaaggtgaaa acgeetgeae eggeageega aceagtggte
                                                                      960
 attaccgcga taccgaaaga tgcgatggtg atggaggcaa accaggtcaa agcggggtta
                                                                      1020
 acgcgcttcc tgaatggcac ctggcgcgcg tttctcgatg tgcaggatcc gctcaccggc
                                                                      1080
 aaaccgccgt cgctgcgcta ccagatccag aacaataaag gtttcgcccg ggttgtgcat
                                                                      1140
 ggcgacaaca ttgtctgccg ggtagacgtc ttttccggat tacacagcaa aggcgagctg
 ttgatcaaaa cgcgcggaaa cgctcgttgc accgacggtt cacgctatcc gatgccggaa
                                                                      1260
 gtgacctgta aggcaggtgc cagcgacgtg gcggaatgca ccgcacqtta cqatqccaac
                                                                      1320
 accategite etetgaegit eaagaaagea ggigtetga
                                                                      1359
 <210> 5394
 <211> 2247
 <212> DNA
 <213> Enterobacter cloacae
<400> 5394
actgaatact ctggccgatc gccgacacag cggcagccac tactggatcg acagcgggag
                                                                      60
cgtatacctc aaatgactgc gacgactgcc accactcagg ccttaatcgg gtggatcaac
                                                                      120
gagacgcgac agcacgcccc gatgctggat aacgaagccg acgccctgct tgcccgcctt
                                                                      180
aacgcactaa gcgcgcgtga agaggcgctc gatcgcgccc ttgtcagcca gggcagtatc
                                                                      240
ggcctatatg gccactcgca ggccgcgaaa gcgcacctgc tggctgccct gtgcggcagc
                                                                      300
ggggacgaac ggctgaacgt aacgccgggt caacgcacgt ttgattactt ctcgcatatt
                                                                     360
aaccccgggc atgcaccgac caacatggcc gtgcgtttca gcagagcgtc ccgcgaggtc
                                                                     420
gcagacgacg cgtttcccct gcgcctgcgc ctggtaacgg aggccgagct ggtgcagctg
                                                                     480
tttatcgcgc gcaccacgct ggatccgcag atccgcgcgg tggataaatc ggtgattgaa
                                                                     540
gcacggettg agaagtggeg ggegetgegt caacegeaga gegtgeeggg aatgacggeg
                                                                     600
cgggaagteg egaccatage cegattetgg caaagegtag tacceggege taagcagcat
                                                                     660
attgatgatg ccctgtggca ccagtttgct ctgctggttc cgtcgcttga tctcagcacc
                                                                     720
egegecageg tetggtetet getgtggggt gageageagg agttaaceca geagtggett
                                                                     780
aaattegeee aggtgetgea teaaaceage catgecageg cacttgegge geegttgagt
                                                                     840
ctgctggtgg acagetttgg tetaccetge gaaggettte ttactcaegg ggegtttace
                                                                     900
gtgccggaag cacaggaaac actgcttcat ccgataaaaa acggcgaget gcttaacgcc
                                                                     960
attagectge cegttgatgt actggeatet etgaceegeg aagtggtget geeegttgag
                                                                     1020
aactgcgtgc tggataacgt tgacgtcatt gatattccgg ccattcctga ggaaaacacg
                                                                     1080
ccgctgatga tgcaggcaaa atgcctgtgg ttgctggagc attatcgtca gcacattcag
                                                                     1140
ccggatgtac tggttatctg caatgcaacg gcgcatcacc agcagaccgc gaaaacggca
                                                                     1200
aggeteetge aaaactgggt caaagagaeg cageeggttg aagaateege gttgeegggg
                                                                     1260
ctggtctggg ccattacccc tcatgatgcg cggtttacca caaagcagaa tctggacgaa
                                                                     1320
gcggtgcagc agttgctggg ccagccgggt ctgcgctggg gcacgcttca ggcgctcgat
                                                                     1380
agccacagea tgcagegagt gattgagtgg etgtegeagg etaceetgee ggcacagege
                                                                     1440
cagaagegte teegegeget gaaaaggetg ttacaagagt egetgtegae getgatgege
                                                                     1500
ccatatgteg egecteteae teaggageea ggegeaggge gggeaatgge egaaaaaatg
                                                                     1560
gteegaacge tgeaaggeag tgeegetegt catggtgaac tgettgaggg gettetgeeg
                                                                     1620
ccgttaaacg cgtttgagac actgctgacc gtccaccagc ctcgtgagga acaggtcaac
                                                                     1680
ggcctgttta acgatgttat cgatctgttt gcggaagaga cgcaggaaaa tccaggcgcg
                                                                     1740
ttgcagacca aagacaaagc gcggctggcc cataacgtgt gggttaacca tcttcqtcag
                                                                     1800
tggagtegea acgaegegge ggetgeeegt etgggeetgg acgeagaggt attacageag
                                                                     1860
attgeggatg tgetgategt taccagetae eggetggate tgeetetgea aetgeaaege
                                                                     1920
attgcagaaa aagataaaag cagcgccgcg cagctgcatg ccgcgacagg caatttcatt
                                                                     1980
agetggettg getatgaact gacaccegte tetgaacgge etgcaageeg gateegcaaa
                                                                     2040
ggtgagccaa tttttgtgac gcccgttgtg agcagcgctt caccccgtct tacccgactt
ggegageage etgtecatge ggegaeagee tatgtttatg aetggttggt tgegetetae
                                                                     2160
accegegega ttgagaacgt ggattatcag tgteegtatg acgtteagee tgeggeacgg
aaagcettgt etgeettget gtettaa
                                                                     2247
```

<sup>&</sup>lt;210> 5395 <211> 3009

<sup>&</sup>lt;211> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 5395
ogttcaagaa agcaggtgtc tgatcctatg ctggttaatc tttgcgacta taaacagagc
gtgacgctga ttgctaacag cggcgtgcag tttctcgatt ttggcctgac tccgcaggac
                                                                      180
acctccagca acgggcgttt cgtgcgtaaa acggcaaatg gcccgctgtt gcgcctggat
                                                                      240
tttgatctgg ttaacggccg gtacacgctg cctgccaccg atggcgggca gccggaagtg
                                                                      300
gtcaagcctg aaagcaccat tccactgcat aactccctga acgtgctgga cggcgtctgg
ctgccgctcc ctttcctgcg ctttaacccg ccgcggacgt ttgttgatgg tccggataac
tgggcgcgcg tccaggtacg aaagctttca actcccgacg cggctggcaa tacgcaccgg
                                                                      420
qtcaccqtcq cqctcqacaq ccaqattqca qaqcatqcaa cqtctqccct qtcqccqqtt
                                                                      480
gaaaacgata toottaacgg cacgogttto gogotogoot ggogogacag tgaggttgag
                                                                      540
agtttccttg accagacctg gattgacggc tggctgcgcg aagcctttac gcagtttgcc
                                                                      600
                                                                      660
gacggggttg aaaaacgctc cgagcgcgag ctgcatcagg ccatgcgaag ctttgaatat
caggcacact ggctcaacct gctctccatg ctcggggaac aactcaccgt gccggaagtg
                                                                      720
                                                                      780
aagtttgtca cccataccct gagcacccct gctatttctg tcgatctgat ccttgacgta
                                                                      840
ggcaacaccc acacctgcgg cgtgattatt gaagatcatg gtgatgccaa cgacggcctg
cgccagacgg ctgaacttca ggtacgatct ctgagtgagc cacagttcct gaatgagccg
                                                                      900
ctgtttacca gccgtcttga attttccgaa gcgcgttttg gcaagcagca cttctcggtg
                                                                      960
gaaagcggcc gggaggatgc attcgtctgg ccgtccattg tccgcgtggg tgatgaagcg
                                                                      1020
cgtaagctgg caatgcagcg tctgggcacg gaaggcaaca gtggaatttc cagcccgcgt
                                                                      1080
                                                                      1140
egetatetgt gggaegagae geeggtggtg caggaetgge getttageea gatgaacage
aaaacccagc gcgaaccgct ggcaactgcg tttccgctga tgaacctgat gaacgacgac
                                                                      1200
ggggaaccac totttacgct gccgcaggat gagcgtctgc cggtgttctc tccgcagtac
                                                                      1260
ageogeagea ceetgatgae geacatgete tgegagetge tggeteagge gettggeeag
attaacageg tggccacceg ettgeggete ggetteeegg eeteteeeg eeagetgegg
                                                                      1380
                                                                     1440
acgetgatee teaccetgee tteageaatg cegaaacagg agegegagat ttteegtege
cgcatgttcg aagccatcgc catcgtctgg aaagcgatgg gctggcaccc gcaggatgaa
qattttqcca qccqcaaqca qcaqqaaaaa aqcqtqqtqc cqqtccctqa qatccaqatq
                                                                     1560
gagtgggacg aggccagctg cggccagctg gtgtggctgt ataacgaagc catttcccat
                                                                     1620
                                                                     1680
ttcqqtqqcc aqaccqaqqc ctttttcqcc tecetcqccc qtccqqatcq cqcqcctqaq
cetggcgtcc tgccggggcg tgcgctgcgc qtggcctcga ttgatatcgg cggcggcacg
                                                                      1740
                                                                     1800
acggatatgg ccatcacgca ctatcagtta gatgatggtt ccggaaataa cgtcaaaatc
accompage tgetgttccg egaagggtte aaggtegetg gegatgatae getgetggae
                                                                     1860
qtqatccagc gctacgttct gcccgcgctg caaacccagc ttcagaaatc cggcatagcc
                                                                      1920
gatgeeteee aactgatgge atceetgtte ggtgatteeg ggeggatega tacceaggeg
                                                                     1980
gtcctgcgcc agcagacggc gcttcagctt tttatgccga taggtcacgc gatcctggcg
                                                                     2040
gogtgggaat cgagogatgt tgacgatccg ctggccgggc tgcatgccac ctttggcgac
                                                                      2160
ctgcttacgc aaaaaccgac gcgcaacgtg atgaattatc tccagcaggc gattgaccat
gogttgcctg coggetcaga acactttgat ctgttcagog tacogotgca cgtcagottt
egggagatge gggaegecat getggegggt cagtteacge ttgeegecee getteatgeg
                                                                     2280
gtatgtgagg cgatetetea etacagetge gatateetge tgateaeggg aeggeeggge
                                                                     2340
tgcctgccgg gcgttcaggc cctgattcgc cacctgcaac cggtgcccgt caaccgcatc
                                                                     2400
gtctggctgg ataaatatca ggttcatgaa tggtatccgt tcagccagca gggacggatc
                                                                     2460
ggcaacccga aatccaccgc tgcggtagga gcgatgctct gtagcctggc gctggatctt
                                                                     2520
cgtctgccgc gttttaactt taaagcagcg gatatcggcg cgtactctac ggtgcgctat
                                                                     2580
ctgggcgtgc tggataacac gatcaatact ctgcgggacg agaacgtctg gtatcacgat
                                                                     2640
                                                                     2700
ategaceteg ataaaceegg egegaaactg gacgeeggte tgeactteec getgegegge
aacgttacgc tcggcttccg gcagctggcc aatgcccgct ggcccgcgac gccgctctat
                                                                     2760
accetgagea teaactetge egagetggeg aaageeattg egggegaegg egtactgaae
                                                                     2820
gtgcgcctga agctgcgtgg cggcactaag caggaaggtc cggaatcttt cgagctgagt
                                                                     2880
gatgeetgge tacaggacgg cacgccagtg cogccggatg coctgacett taaactgaat
                                                                     2940
actotggccg atcgccgaca cagcggcagc cactactgga tcgacagcgg gagcgtatac
                                                                     3000
                                                                      3009
ctcaaatga
```

<210> 5396 <211> 1971 <212> DNA

<213> Enterobacter cloacae

<400> 5396

```
gaggtttatt catcgttcat gcctgtgaca tggctaacat ttctgcacct tgcggattca
ctatgctttg ccgcagttga ttacgagggc gaaccgatgt gggcggcaaa caaagaaaaa
                                                                     180
tcaaatccgt tgtcttcacg ccaggaggta gtggcgtcgt tgaatgcact tttacaggeg
                                                                     240
ctggacacgc aatttccggc gaaccgttca cgattcccgc tgggcgacac ctgcgcccat
                                                                     300
tacacagogg atattgogca gatggaggga otttocogog ogotgtgggg gotgtttoog
                                                                     360
                                                                     420
ctgatggcat ctggcgaaag cacgccgttc agcgagaagt accttactgc cattaagctt
                                                                     480
ggtaccgacc cgcaaagcag cggttactgg ggtgaaaccg gcccgtacga tcagcgtctg
                                                                     540
gtggagatgg cggcctacgg tctggggctc gctctgatgg gggagacgct caccgcgcgc
tttaccqqtc qcqaqqtqat qaacctqcac qcqtqqctca accaaatcac cqaaqcqcaq
                                                                     600
                                                                     660
atgcctgaca gcaactggaa ctattttgcc attatggttc agctaggctt taagcgcgcc
ggcctgccgt acgatcagga cgccattgac caccgcttcg cgctgatgga cgcctactac
                                                                     720
                                                                     780
ctcggcgacg gctggtattc cgacggtccc ggccgcccga aagattacta catctccatg
getttecatt tetaeggeet gatttaegee accetgagta acgaegagge gagggegaat
                                                                     840
gtgctqcqcg aqcqctcqcq cctcttcqcq qaaqacttta tctactqqtc cqccqccqat
                                                                     900
ggcgcctcgg tgccgtttgg ccgcagcctg acctaccgct ttgccatggt tgccttctgg
                                                                     960
agegeggtgg cettttetca getggaegte tteacecegg geategtgaa aggeattgtg
ctgcggcatc tgcgctggtg gcagcagcag tcgattgtcg atcgcgacgg cattctcacc
                                                                     1080
                                                                     1140
ctggggtttg cgtatccgaa cctggcgatg tgcgaggatt acaactcccc cggttcaccg
tactgggege tgaaaaceta tetgateetg gegetgeegg aageacacee gttetggeag
                                                                     1200
goggaagaac aacogetgee egegettgat gaaaaacatg tgateeegea tgegeageag
                                                                     1260
atectgatge attegaaaga ttegeageae gtegteatge teacegeegg teagetggaa
                                                                     1320
ctgaacaact acgtcaacac cgaagcgaaa tacaccaaat ttgcctactc cagccgcttc
                                                                     1380
ggattcaccc ttgagcgcgg gcgttttggc ctgaagcatg ccgcctgcga ttccatgctg
                                                                     1440
ctgctggcgg acggagatga ctatttccgc ggtcgtcgcg agtgcgaaga ggttcgggtg
                                                                     1500
                                                                     1560
gatgaaaatt acattttete gegetggteg cegtggegeg aegtgeagat tgegaeetgg
                                                                     1620
cagatocogt toggggagtg goacotgogo otgoacogta toaacagoac gogoactotg
                                                                     1680
caaaccgtcg agggcggctt tgcggtgatg aaaaccgccc accaggtgcg cgaacgcggt
                                                                     1740
tgttatetgt tggetgaaaa eggeageage gteattgteg atetttegee gateatteag
                                                                     1800
cgccagccag acagcatcgt cacgccgccg aacagcagca ttatgtttgc ggagtgcgcc
                                                                     1860
tocattocgo tgttaaaago tgacctoccg caaggggaaa gotggototg ttgogoogtt
                                                                     1920
ctggctggcg gaagacagct cgctgcggcg acgccgcagc tgaatataac ccatagccgg
                                                                     1971
gtcgtcatta gcgaacccgg aagcgaacgt aagctgtcgt tcacattata a
<210> 5397
<211> 1236
<212> DNA
<213> Enterobacter cloacae
<400> 5397
cagaaacgtc aacacgataa attacgccgt caaagaagga accgaaatat gttaagtcgt
                                                                     60
                                                                     120
atcaaagaag aacqtctgcc tgttatcgct gcgcccgttg actcccgcgc attcagcgat
                                                                     180
gaactgaatt cggcgcgcag ccacgttctg gacctgatta gccgtcattt aacggagttc
ggcgacaaat tcccggcgga aacctgccag aacggttttt atccgctgac tgacaacgtg
                                                                     240
gagtggacca ccagcttctg gaccgggcag ctgtggctgg cgtgggagat gagcggcgag
gaaaaattcc gtgcgatggc ggaaaaacac gtgcgctcgt ttggcctgcg catcgccggg
                                                                     360
                                                                     420
cgcaacgaca ccaataccca cgatttaggc ttcctttaca cgctctcctg cgtagccgcg
tggcggctga ccggaaaccg cgaggcgcgc ggcttctcgc tgctggcggc ggaagccctg
                                                                     480
ctggaacgct tccacgagaa ggcgaagatc atccaggcgt ggggcgatct ctccgatccg
                                                                     540
                                                                     600
gagcaggeeg ggegaatgat categactge aacatgaace tgeegetget etactgggea
acqqaqcaqa cqqqcqatcc qcqctttqcc qacqccqcaa aaqcqcacqt catqcaqqcq
                                                                     660
                                                                     720
gegaegtate teattegtga egatgeetee acetteeaca ectaetatat ggatgtggea
accggcgcac cgcgctacgg caacacccag cagggctacg ccgacgacte ctgctggtcg
                                                                     780
cgcgggcagg cgtggggcat ttacggtttc ctgctgagct atatctatac cggcgacgaa
                                                                     840
acgatgateq ctctgtcaaa acggctggcg aactacttcc tcaatcgcct gccggaagac
                                                                     900
                                                                     960
tacgtctgcc actgggatct ggcgctggtg ggcaccgacg cgctgcgtga ctcttcctcg
                                                                     1020
geggegattg eggtatgtgg getgetggag etggtaaaac acetgeeggt eaeggateeg
gatcgcgaac gttacctcga atgggcgaaa gggattatgt ccacgctgac aaagcactat
                                                                     1080
                                                                     1140
ctgatgggca aagaagagaa gggcaacggg ctgcttaagc actcggtgta tcacctggcg
agcaataaag gegtggatga gtgegegage tggggegatt acttetaegt egaggegetg
```

1236

gtgcgcttca cccagagetg gaagetgtac tggtaa

<210> 5398 <211> 567 <212> DNA <213> Enterobacter cloacae <400> 5398 cqtctqaqqc tattqqttca cqtcqcqcag aggaacagca tgaaaatcqc ttgtcttgqc 120 tqqqqctcqt taatctggaa aagcggcgcg ctaccggtag ccggtgagtg gcaaaccgac gggccttctt tgcccgtcga gttctgtcgg gtcagtgatg gcggtgaact ggcgaccgcc 180 atotqtatqa atqcccctqc cqtqccqqtq ctttqqqcat qqctqqaqqc cacaacqttq 240 agogtggcct gccgcgcttt gcgtgagcgc gaagccattc ccgaggatcg ctgcgatggc 300 attggctcgt tgctaatcac cggacgcgac acgggtatcc tgacaacatg ggccagggag 420 amaggtattg amgegatemt etggaceggg etceegeegm gammagegegte memggammagge agggtteetg cegtggacga agecateget tatetegacg geetcagegg agagaceege 480 540 agecatgege gggactatat ttgeegegtg cetgeecage ttgatacgee etacegaege 567 gccattaaag aggtgcttgg gtggtga <210> 5399 <211> 195 <212> DNA <213> Enterobacter cloacae <400> 5399 ggteggetac catggegtea teategacaa ttaacacatt tateaegega tatteetete 120 gctatcccag gggatctgaa caaaaaattg ggtaaatacg ccaggttcag actcgacggt 180 aatateteeg eecagattet ggatetgetg aegegeaagg aacageeeaa egeegeggtt 195 ttcacctttt gttga <210> 5400 <211> 249 <212> DNA <213> Enterobacter cloacae <400> 5400 agetgtetgt ccagegeact ggcaacegtt tccagatggt tacgetgggc tggagatata 60 agcatettee agtaccacaa ettegegeea ggteaggaga gtggaaaaaa teaggacaac gataaaacag aggttaacaa tcaaactggg attgctacgc ttatgcagcc actgcaaaaa 180 agattgtttt acaacaaagg tatcgtgctg cacacacact ccctgattgt cgctcaccat 240 ccgatatga 249 <210> 5401 <211> 201 <212> DNA <213> Enterobacter cloacae <400> 5401 tcaggcgaaa cacgcgggag gcaagcgctt cgtcatggga aaagagtttc aggaggatgg gegageecat cagaacggeg gagtagetgt aaacgegatg getateagge attgeatgag teeteaggtg tageceegge aggeacegeg cegeegggga aacaggagee ttacegtgtt 180 ttegaacgea tageegeetg a <210> 5402 <211> 183 <212> DNA <213> Enterobacter cloacae <400> 5402 cgcttacccq gcctacactc tccacaqcaa tacttaaacq ttgctaaact atttattctc 60 tgcacactgg teagaccege etttteetge etaaaacegt cattetette aagaaatett 120 tacctgcctt taactattga gacgaatccg atcgactcaa aatcctggca tgcctactat 180 taa 183

<210> 5403 <211> 216 <212> DNA <213> Entero	bacter clo	acae				
<400> 5403 aaattgtgtg a ctctcccacg g cccggcaagg g gctgtcttcc c	ggagaggga gttagaagc	gaagggcacg gcgaatctac	aategtagge egeagaegee	cgggtaaggc	aaageegeea	60 120 180 216
<210> 5404 <211> 282 <212> DNA <213> Entero	bacter clo	acae				
<400> 5404 acaacatcac g agtetgaaac t catetgataa g gataaggeet g agecagtege t	gtttggegg sttegaaagg getgaeggt	ggatacggta acagaaacaa gccttacacc	gtggtgcgtt tcgcaggcag ggcacctggg	gctcagageg atatecttae atgtgetgat	ttgccgcatc cgtccaggac	60 120 180 240 282
<210> 5405 <211> 384 <212> DNA <213> Entero	bacter clo	acae				
<400> 5405 ataatgaaac t gatticatag a tctatcgtaa a aagaaaatga g caattagatg t acgtataaag a gatttgaagc a	gtatggaaa leteatatga gaggtgtgaa lttegaaaaa lagtgeagee	ggaaataaca gtttgacacg gcttgatagt cacatgttca agcccgatac	tgccctgaat ctcacagaag gaacataaga aagtgtttaa	gcgagggggt aagtaaaatg aatatagcta aagagttttc	aatagtetae etttttggtt tgatgaaage egetatatta	60 120 180 240 300 360 384
<210> 5406 <211> 183 <212> DNA <213> Entero	bacter clo	acae				
<400> 5406 gttcaaaagc g agttatatca a catattgacg t tga	gcagtttaa	aaaaggctac	gaggaaaaag	atgactacgg	tttacattgt	60 120 180 183
<210> 5407 <211> 228 <212> DNA <213> Entero	bacter clo	acae				
<400> 5407 ataccetgta t aatggeetat c atttettet g agagaggtta a	tctgttaaa ttggctggc	tattaattta accetcacgt	ataacaatta atcgtcgtcc	cttgcatttt acacttatct	tatattgttc	60 120 180 228

<210> 5408

<211> 186 <212> DNA <213> Ente	robacter cl	pacae				
accccctggg	gagtagttgc	tegecegtge acagteagtg acceegtaac	ggcaattcat	gcctgattga	ggtgcgtaat	60 120 180 186
<210> 5409 <211> 336 <212> DNA <213> Enter	robacter clo	Dacae				
tgtggtgaaa acacgccagt ttcaatgtgc tacttaacat	gtaacatact tagtctttgt agggcgaaaa tcaacctgtc	teteatttgt tgttagtgtg gttaagegag actattttgg aaaggaagtg tatteetggg	ccatttttaa cctaagccat tctgcccctc atcgttgtct	gctatgcatt tatcaaccgt ctgaaggtgc	ggtcgactta tttgaccatc gactttctat	60 120 180 240 300 336
<210> 5410 <211> 429 <212> DNA <213> Enter	robacter clo	oacae				
atttatgcac cagaacaaac attgcagcaa gatatgttta tctgattttg	cgggtcaggc cacccgtact ttaaagaaat tcaaagcgca acgccgtttg	tttacttttc ggcacttaaa caatccagac gtactctggc ggactgggat cacaaacgtc tgaagagcaa	ttcaatcaat attatgaacg gacagtaacg gatgactgga tatgtcgcat	ggtatatagc agtacgtagc ataaagatat atcagataac ttggtaagaa	gcagttagat ctcagggacc gcccgatgcg cgtcttacat gcaagatcat	60 120 180 240 300 360 420 429
<210> 5411 <211> 345 <212> DNA <213> Enter	cobacter clo	pacae				
tacgtaacag aaagatatgg gctggtgacg tacgatggtc	aagcgatcag ggcgcacatt tcgcagttat aacagtggat	atcacacgcg agcgggtggt agtcaatgca ccaaaatata cagcgatttt ttacgaactg	cgattaaaaa ggctttcacc gttggtcatg gtgcaacgca	tccccaacac tggtatatga atagcggtca ccatgtatcc	gcgtctggca tcaaccccat cgtttgtata	60 120 180 240 300 345
<210> 5412 <211> 234 <212> DNA <213> Enter	obacter clo	pacae				
ttaatgagaa	tagtaatcat aaatgtgcgg	catcacttcc taatcagttg ttatagttt	aatgtggagt	atttctttcc	ttcaaagcct	60 120 180

<210> 5413 <211> 675 <212> DNA <213> Enterobacter cloacae <400> 5413 aattaccgca tocacattga cgggatgccc cacatgaccg gaagagtcga ttatcatott gaaaaatacc toottaccga agcoggogag cocgaacgtt tgacgogcca gtgggccgag 180 gtgatgegeg agtgteatga ecagaaatee ggggeagaag ageggetgeg tetegegetg ctgaacgtgg attatgtgac cagcittgag cttcccttcc ggttacttct tacccgtgca 240 cogcagotga tigatggcat cagaaatgag ticcagotca gicaaaaaaa tgiccigitc aacggcaagc ggtttggctg cgtttacagc cttaaacagg atttgaaggg cattccagat 360 420 gaatttacct accacctgaa tacccgtatt cagcggatcg atgcctccgg cggttcggaa gtgccttacc ggcaaatcgc tcagcaggtg aaagcccccc gcgagcgcct ccagctggcg 480 ctggaacagg ggcttgcggt caccgcgctt gacgggcttt tctggtttgg cctccagcgc 540 600 atagcogcog acgtgcagcg gttaaggaag acggggatga gaatagtgac gtccgatacg gaggtgtteg acaccettae eggaacaaca eggegeatte eggtttateg tettgaggae 660 675 gctgccgcta cttag <210> 5414 <211> 249 <212> DNA <213> Enterobacter cloacae <400> 5414 tgtgaggtga ttatgagcga cgttgttctt ctggtaccga atgactgggt tagcgaaaag 60 gttetgattg eggttacegg geteaageee ggaaceatee teegggeeag aaaagaatge tggatggttg ggcgggaata tgtgcacgtt tcaccggacg gaaatccgaa accttccagc 180 gagtgcatgt acaaccgtaa agcggtcgat gcgtgggtgg cctcaatgaa aaacaaacag 240 cctgggtga 249 <210> 5415 <211> 186 <212> DNA <213> Enterobacter cloacae <400> 5415 atteteagta acegegeegg ggaatgttta ageggggeta acatactgaa eagtatgaat aaaatatggc aagcggacca ttatttcttc tggagggtgg taaatgaaaa gaaaacttct 120 ttttatctgc gcgggtacag tgctgacggc ggcgactgtc ggtcaggcgc tggcagtcac 180 cagtag <210> 5416 <211> 1002 <212> DNA <213> Enterobacter cloacae <400> 5416 getgeaaace taeggteege tgacetgteg ggaggegeeg tgagaegeet gttaategeg 60 120 etteteetge tgtgeteegg eggeagetgg geggeetgta eegteagtae ggtgaatgee togtttggca gogtcacete gttcgcacte ageggeaecg gggaagtgga aacgacggge 180 acgctggtgg tgacctgcga taccgttctc aacctgttaa ccaacgactc ggtgacgctg 300 aattacactt cggcatccgt ctttgcgaat agccgggcga ccatgaagcg tacggacaac 360 geggetatta cegatgteat teetaegege etgtgegggg egteeggetg eggeggaaac 420 agtgaaatac aaatcagcaa agectatace tggageggaa acaegetget egggetgetg ggttcaaggc gctacaacat tcccctttat ttccggaccg taatggggca gaacgtcacc 480 gccgggccgt atcaggtgtt gttaacgttc agcattaact acaacgtgtg cgccgttggc 540 geggteggag egtgeetgae eeegeaaace ggeaeggeaa eeacetegat eeteeteaac 600 atgaccatca ccaacgatta cagcaccata accacaccag acatgaattt taacaacagcag 660 cogotogoto ammattito caccotttom cagtogotto cogtomocto taccamago 720

gtcageggca ggtageageg ettttaegta	gcaacttcat gcagcgagcg cctacaacta	gagttacgac ctgggccagc caccgccaaa	atctacaaag gccagctcat	tgaacaacgt aggcgaccag cgcaggtcag gccaggccac ga	caaccgctgg tacggacggg	780 840 900 960 1002
<210> 5417 <211> 186 <212> DNA <213> Enter	robacter clo	pacae				
tcaggcattt	ctgaaggctg	gctcgcaaaa	ttgaccttcc	geetgeettt ettttgatae eatttttgee	aaaagaaacg	60 120 180 186
<210> 5418 <211> 234 <212> DNA <213> Enter	cobacter clo	pacae				
agggttgaaa atcgatttga	acaaatgtac tgctttttc	actcgtggct caaacctggt	ctcagttctg catttccgcc	tgacatette cegtattege tgatteetea teagtttteg	gcagctgaac ggacgctgat	60 120 180 234
<210> 5419 <211> 1395 <212> DNA <213> Enter	robacter clo	pacae				
geogatecgg cotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectolylectotylectolylectotylectolylectotylectolylectotylectolylectotylectolylectotylectolylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotylectotyl	cattcagoga atacctotgo gcacatogoc teagoctggt ttgocgottaa coagaacogg gcotgaactgctgctgctgctgctgctgctgctgctgctgctgctgc	gggaggagaa ctattagaag cgatctgaga tattagaag cggatggaaat cctgcagaa gcaggatcg gccgcatc gccgaaag gcaggatcg gcaggagtg gcaggagtggt gctgaaaaag ggagggtg gctgaagag gcaggatt gctgaaaaag gcaggatt gctgaaaaag gcaggatt gcaagaggt gcagga	geggaatcec tegtategg gacgtgegeg gacgtgegeg geggggaag gtgetggaag gtgetggaag gaaggagat gaaaggaga taaggaat gatacegate gatacegate teagagege teagagega teagageac etcegggaag atggaac tteagageag atggaac etcegegag ataggeag ataggeag tecgatggaa teggaage tecgatgga ataggaag atagacad atgaaadg	atgcagcact cgcgggatta tcatgctgcc tgtttaatca cggcaccgac aggacacggg ggcaacacgg aggttccgct cgcatcgg tcctgctgga tgtgttatc ccctgacgtt ttaqcctgg atccgcaqcc aatagcctg accagctcgg taaaattaa gcgtgcgcta ggaacgggc gtaaaacta ggggcaggc	tgoctaegge getggegatt gtegggagag caccaeggeg caccaeggeg ctetaeggetge ctettaeage acctgaggeg acctgaggeg acctgagtge ctggagaggg tctgagtgeg geggaaaaeg gaccteaat egatctgetg tgggaaacg eggegaaacg eggegaaacg eggegaaacg eggtetgge	60 120 180 240 300 420 480 540 660 720 840 900 1020 1080 1140 1260 1320 1380 1395

<210> 5420 <211> 2637

```
<212> DNA
<213> Enterobacter cloacae
<400> 5420
eggategttt aeggtgaagg tggaaacatg gacgagettt acateettgg etgtttgtte
                                                                     120
ctggtttttg cgctggtcgt ggcacccgtg ctcgcggtga taggctttaa ccgaagcacg
                                                                     180
geggegegge aggagatege ceggettege cagegeattg aggegetega geagegtagt
                                                                     240
qtqqctqaqa aaqcaccqqa qcaqqtqcaq accqccqcqc cggtgaagac gccagcgccg
qtqtcaqaqq ccqctaacqc acctgtcgat ccctggcgtc ccgaaccgcc cgtcactgaa
                                                                     300
geagageetg tgeetgtace ggeggeaaaa egteetteeg eetttggegg eateetgtee
                                                                     360
tegetgacge getggtttat geagggeaat cegetggeaa aactggggat tgtactgete
                                                                     420
ttcctcqqcc tctctttcct gctgcgctat accgttgaac attcactgtt tccgcttgag
                                                                     480
etgegtettg eegecaegge getgtttgee atggttetge tggeegttgg atggeggetg
                                                                     540
eggeacagge ageggateta egegetgate etecagggeg gagegacegg egtgetttat
                                                                     600
                                                                     660
ctgaccgtct ttggcgcatt ccggctgtgg cagatgctgc cgatgacgct ggcgtttgtg
                                                                     720
ctgctggtgg tgatttgcgc ggcgagcgtc gggctggccg tgttgcaaaa ggcgctgagc
cttgccatgc tggcgagcct cggcggatat cttgcgccgc tgctcctgtc taccgggggc
                                                                      780
                                                                     840
qqtaqctttq tqqcqctatt ctccttctat ctcctqctqt ccatcggcat tctcgtcatc
                                                                     900
aqcatctqqc aqcactggcg cqagctcaac ctgctcgggc tgctcttcac gtttggcgtt
ggeggggtgt ggggactgag egactaceag ceggaagaet atgttatttg teagetgtte
                                                                     960
ctgattgcca atacgettat ttttggegtg tttagegtgg egetgteget gegggegeag
gaaaaaggca aacagattat tgacggcgta ctgctgtttg ctccgccgct gattggtttt
                                                                     1080
                                                                     1140
gggatgcagt atggcatgae gtotcactgg acgtacggec cggcgttaag cgcgctgggc
tatggtgegt tttacctctc gctggegttt ctcgegctgc ggegttaccc ctccatcgga
                                                                     1260
egacegetgg ttatggegge getggegate ggeggegggt ttgccaeget tgccatteeg
                                                                     1320
ctqqcqcttt caqcqcqctg gacgqcgatg gcctgggcgc ttgaagggct gggtattctt
                                                                     1380
tqqttqqqcq tqcaacaqca qcaqcqqcqc atqaqctata qcqqqacqqc qttqctqqtq
etggegeteg geagegegat atgggegeaa atggaeggeg teaetteget gagesteetg
                                                                     1440
                                                                     1500
cttattttcq caqtqctcaq tetttqctqq ctgqctgcgq cctgqctgtg gcagaaaatc
                                                                     1560
gegetgeegg geagetggge attgetggee ggtgggttge tgttetggtt agtggegttg
                                                                     1620
ctqqqcqcqt cqcaqttqtt cctqaaqcaq gagttatcqc ttctqgcagg cgtqctggcg
etqaeqqeqq eqteqaeetg gggatggegg caggetgeeg etegtetgge atggtgggag
                                                                     1680
ctggatgcca gcaaatgget getgtggccg gtgatgctgc tgatggtgct gtatcaggtc
                                                                     1740
                                                                     1800
tegeaccage agattetage ageogactag geaaatetag cotaggetat egegetaeet
qeegeeetga tgetgetgeg gegegaegaa gataaaette tgeegegeat etcaatgggg
                                                                     1860
etgeatetgt egetgttgtg gatgatttta etegecettg eegeegaget ttaetggttt
                                                                     1920
qeccqctccc tqccatqqqq catqqcqqcc tqqqqaaqcq qcattqcqat qqctqtcqgc
                                                                     1980
ggtggggtga ttatggcget etcegeggee gtaeggegte gegggtggee ttteegggta
                                                                     2040
tggcctgcgc tctacgcctg ccttgccgcg atccctgtgg ttgtggcgct ggtggtattg
                                                                     2100
ctggtcgtga ccaatttcca ggacggtgtg gtctatcgaa agacctggct gccgctggtg
                                                                     2160
aacccgcttg aggaaggggc ggcgttcgcg ctgctggggc tggtagtatt ttatcgggca
gtggateget actateegge ategettgeg cagteeegae ettggeeege tgttgtgetg
                                                                     2280
                                                                     2340
atggegettg gettetggtg geteaaegge gegttgetge gtgegetgge gtggtaegge
gaggtggcct ggaacatgga atogctgtgg cattcgcggc ttattcagac cacctttgcc
                                                                     2400
                                                                     2460
etgttetgga tgttetgege getggtggtg atgateegeg ceaecegtca ggeeteeegt
catcagtggc ttggcggtgc ggcgctgctg ggggtggtga tgctcaaact gatgctggtg
                                                                     2520
                                                                     2580
qacaqeqeqq qeqgtqqeqq cetqqeqeqe gecqteqeqt ttattqqeqt ggeqateetq
gtcctgattg tgggctattt ctcgccgcta ccgcctaaag caggagaaga aaaatga
                                                                     2637
<210> 5421
<211> 219
<212> DNA
<213> Enterobacter cloacae
<400> 5421
actgatetta tgetgtatte eggeeeteat tetggggget atetttgget atetgeegtg
                                                                     120
qtttttactg gtggccgtga cgggattgct cgtctggcat ttctggaatt tactgcgtct
```

ttcctggtgg ctgtgggtcg acagaagtat gacacctccg ccgggaageg ggagctggga

accgcttctc tacggcctgc accagatgca gatgcgtaa

180

219

<210> 5422

```
<211> 204
<212> DNA
<213> Enterobacter cloacae
<400> 5422
tgtaatttac gcagaataga attacatett tgcattttaa ttcagaggga taagatgtgc
                                                                      60
                                                                      120
ggcgggtgct taagactttc tgtcttgagc attgttgagg gacagaaagt agaaagcccc
                                                                      180
qqqaaatttt catttacccq aqqctactcc ctcaactcca acaagttgag agtagcctct
tattetttt ttqacaagga gtaa
<210> 5423
<211> 783
<212> DNA
<213> Enterobacter cloacae
<400> 5423
togataaaaa gaacgtoggo acgtataagg ggtggacggt taaatgatoo tittecotot
cccqcaqqqa qaqqqaactq ttttaaaqqa qtcaccatqa aacqctccqa catcaatqaa
                                                                      180
atceteggee atacteggea qttettetee atgeaegaeg tgeateteee geettttgee
agettteege egacaaaatg geageagett gaceaggetg catggeagga ggtgtttgae
                                                                      240
ctcaggctcg gctgggacgt gacggcattt ggtggcaaca acttcgctgc acaggggtta
acgctgttca ccctgcgcaa cggctccccc aacggcgtgc cctatgaaaa gtgctatgcc
                                                                      360
                                                                      420
gaaaaaatcc tgcacgtccg cgacggccag gtgacgccga tgcattttca ctggcgcaag
egggaggaca teattaaceg eggeggeggg aatetgatta ttgagttatg gaatgeggge
                                                                      480
                                                                      540
qcqcatqaaq aqaccqaaaa caccqacqtq accqttaccq tcqacqqctq tcqgcagacq
                                                                      600
cacqcqcccg gcagccagct gcgcctcaca ccaggggaga gcatctgcct gacgcccggc
                                                                      660
ctgtaccaca gtttctgggg tgaacgcggc tttggcgacg tgctggtggg cgaagtgtcg
toggteaatg acgatgaaca cgacaaccac tttttacage ccategateg ctacaacace
                                                                      720
                                                                      780
ateqaaqaaq aegaacegge ggtgctggtg ctgtgcaacg agtacaacet gttteggata
                                                                      783
<210> 5424
<211> 351
<212> DNA
<213> Enterobacter cloacae
<400> 5424
ggccagttca cctgcgagtc tggccttatg aaacgttact ctaccgctct gttattgggt
                                                                      60
etgetgaett taaccageca actggegeat geegatgtga ttgatgaege cattggcaac
                                                                      120
atteageagg egateaaega tgeetaeaae eecageagea geegtaatga egatgaegae
                                                                      180
gategttacg accgcagecg temastegae agecgaeagt acgaegateg tegteggeag
                                                                      240
                                                                      300
ctcgaagaca gacgccgccg tttagacgag cgtcagcgtc agttggacga cgacaggcgt
                                                                      351
cggttagaag aggacgagcg caggttggaa gacgattacg atcgcggcta a
<210> 5425
<211> 240
<212> DNA
<213> Enterobacter cloacae
<400> 5425
aagtoootto caacatoaat gaotttaaaa gttgagtoaa togotatttt ttgcaaaaaag
                                                                      60
tgttggacaa gtgcgaatga gaatgattat tattgctctg cattcaggaa gacctcctac
gggaacctga aagcacgaca ttgctcacat tgcttccagt attactttag ccagctttta
                                                                      180
getggetttt tttttgttat ggttagactc agcaacettc gaaaaaggac tgagccatga
                                                                      240
<210> 5426
<211> 219
<212> DNA
<213> Enterobacter cloacae
<400> 5426
```

			2045			
gctggccacg gctgcggcgt	ccgcggttat	gecactetge egacateaat	gcacatatca gccaacgcat ggtgaggtgg ttcgcctag	ataccgaaat	cggcaacgtg	60 120 180 219
<210> 5427 <211> 237 <212> DNA <213> Enter	obacter clo	pacae				
gcgaatgaag	tagtttgttg	ccgggtggcg	cggcgagtat gcttcgcctt ggcaacaaaa	acccggccta	egteegtgte	60 120 180
			acagegegee			237
<210> 5428 <211> 195 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5428						
cgtcagactg	aatcgcctga actacaaatt	cagegtgeee	aagggaggte gtggttgete gatgatttge	agaaaagccg	cattaaattc	60 120 180 195
<210> 5429 <211> 285 <212> DNA <213> Enter	robacter clo	pacae				
<400> 5429						
ttaaaccgtc agggcaccgt ccggggaaaa tgcaataact	tteeggtgee atceegaege teetgeeagg	ctggggtcag ggttttcacg cctgctgcgg	aaaatggaaa tgeettaace gagtgeatge gtaaateeeg geetggeaae	tgcagtcgtc gtcttacagg ttatagttta	tcatctgtct tcagttagtg	60 120 180 240 285
<210> 5430 <211> 381 <212> DNA <213> Enter	cobacter clo	pacae				
<400> 5430						
gaaaactcaa ttaatcactg ctttcagacc acaaacgtgt ggggcagtaa aagctacagg	cactgattag tgcatttege caggtgggee taggaaatac	eggeeetgtt eteageagea tgtgaagaet ggeagegatg eageataace	aaaatgatga cttgcggtcg aatggtttgc gtaattgtca gctgaaaatc aacaagccag	acggtactgg agcaaattga aattcaactt tggagccggg	caaagtccag aggcacggga gcttcagaat tcagcaatgg	60 120 180 240 300 360 381
<210> 5431 <211> 741 <212> DNA <213> Enter	robacter clo	oacae				
<400> 5431						
agagaggegt ggggeeetae	tagacatgtc agtcctctgt	tgatggtaaa taatatcctg	acaaagggcg ctccatacac	gaacaaccgc attatgcaat	ttcacgageg ceggetttgg	60 120

```
qaqqqcaqqa aacqtqatgc tccggacgag acaggggtga aaaaaaaagag gcctgaaata
atcagcatgo ogcaagecat tgogogagot ggtaatgott coogagacto agoggoagat
                                                                      240
                                                                      300
aatccctatg ccgatatggc tctggtacgg ctcgaagaag ccctgcaacg agcaacactt
                                                                      360
aaaattaatg aaaacgtcag ttcactggat gccatattgt cagccgtacc caaaggggta
acgetetegg aagttgaate ageegateeg ttaaatgtga gegtttteag eegtteaceg
                                                                      420
                                                                      480
ttaggatacc ggtgcgtatg gcttctggtt ggatatgatc agttagcaat gaaagctttc
caggetttte attacggact gatttegegt tegeaacgtg acgetateet ggacaatggt
                                                                      540
ggccatgctg ttcgtcaggt ctatggcgtg attcagcctt accgaacact tgcagtgact
                                                                      600
cgccqtqata ttqcaqaaaa aaccacgcaa gggcttgttg ccattgagcg aaatggcgaa
                                                                      660
                                                                      720
cctgatccgg atgtgttaag cggtaaaaaa cgttcttcgt tctcacctcc gcttaaaaac
                                                                      741
accatagcag aggaggaatg a
<210> 5432
<211> 549
<212> DNA
<213> Enterobacter cloacae
<400> 5432
cccccqacqq qaaaccactc ccgtcagggc agatggtttc tccgtcgtac ctatttttac
                                                                      60
ctccatggag aaaacatcat gtctgcaaac aacacttetg catctgcaaa atctgagtac
                                                                      180
ttcaacctqa ctatcaaaqq catcqqqtat ctcaqcaaca ttcqccaqgt taaccatcaq
aatggctcqt teeteagetg egtaatcaat geactgagtg gteegactga taateeggee
                                                                      240
                                                                      300
tacqtccgtt ttgacatttc tgtcgcaggt aaagaggcaa ccagccttat cgcccgctgc
                                                                      360
cagaaagccg tcgatgaaga caagaaagtc ctgttgggct ttaacctgag taacccgtcc
                                                                      420
acggacatat ttacgctgaa caagggcgac catgccggcg aacagcgcgt cagtctgaaa
                                                                      480
gcccgcctga taaaggtgga ctggatcaaa ataggccagg aaatggttta caagactgaa
aaatetgaet eegtgeegee geagaatgge tetgtegeae aacaaaacta egeagaaaac
                                                                      549
tcattctga
<210> 5433
<211> 699
<212> DNA
<213> Enterobacter cloacae
<400> 5433
gggctgtttt atcactgtac aggaaaaatc cggatgaaac gtaacacctc tcacaacgta
                                                                      60
ttttcaccag gcaggettgc caetgttett eccetgetge teettgeggg etgtgtttee
cagoogcaaa agttgoagca acgtgogoot googacooga caccoggoac caccgtcaco
                                                                      240
egeaacgttc ageoggtete teeggaegag tatgegegga egeeggaagt ggtgegetae
gatogttato tgotggtcag taccgatoeg caggeggccc agegtgaccc tototegeag
                                                                      300
attattgata ttegeateee gteateeetg cateetaeeg tggtggatge getgegttae
                                                                      420
qccctqcqcc aqtccqqtta ttccctqtgc gcgaccggct ccgccaacgg cgtgctttac
eqecaqqeat tqeeggeagt ceagtaceag etgggeeega tgegeetgeg tactgeeetg
                                                                      480
caggtcctgg ctggtccggc ctggcagctt gaggtggatg atgtacagcg tgtggtctgc
                                                                      540
cacagoetge gegacggeta ccagttgeeg gtotoccago ttocgeegee ggtoageace
                                                                      600
tggtccgcgc ctgcgccgtc agcggtgtca caaccggcca tcagcgcacc tcagtccgtc
                                                                      660
                                                                      699
cccgttaaac ctgtcagcgg agggtttctg agaaaatga
<210> 5434
<211> 636
<212> DNA
<213> Enterobacter cloacae
<400> 5434
atgggtaatc gcagcgttct gaccggegeg ctggegetgg gcttactgat ggeggeegte
cctqacqqcc atqctqacca gacggtgccg gagggttacg tccgcgtggc catggcgcac
                                                                      180
ggcgtgcccc cggaagcget ttactcggta tcactgagcg agtcttcgcg caaacttccc
egeggegtge ggeeatggee etggaccate aatgtggeag geaaagggta tegetatgag
                                                                      240
                                                                      300
acgcgtctgc aggcctggca ggcgctgcag gtctttatga agcgtcacgc gcttaagcgc
                                                                      360
atogatgtog gtattgccca ggtcaatotg ggctggaacg gtcatcattt tgcctcgacg
tgggaggcgt ttgaccctta caccaacctg aacgccgccg ccaccatttt gcgtgagtgc
                                                                      420
```

ggtcagectg acaccccgca	ctgcacgtta	ccgcgccatt ggcagctgaa	geggeegget gtgagaagge gegeeeegtt agataa	atctggcaaa	aatcagccct	480 540 600 636
<210> 5435 <211> 411 <212> DNA <213> Enter	obacter clo	)acae				
cgtttcgcca tgcaaaccgg gggctgtccg gtggcggccg cgcaatgaga	gtegtaeget cetttgegga gacaaateaa ttgeetttat aageeaeetg	gaccegegee cttgecaage gggetacetg caacgttgee gaccaaatte	cattotgagt ggtacgettg gttgaagege caggaeggea attgeegeee ggggeeattg tetgeegaca	ccetcctggg ctgagtccgg ttgttatcgg tgcacacctt tggtggtggg	etggeteace aggeggaage ggggetggte cacegaagte tgtggtgetg	60 120 180 240 300 360 411
<210> 5436 <211> 369 <212> DNA <213> Enter	robacter clo	oacae				
gtgtttcgcg ggtctgctcc ctgctggtca cgtggtaagc	gattcaccac tgtcactgcc tgccgctgct ccgagaactg	ccatgagatg gtttatcccg gctcgtctgg gctctggcag	ttacctgacc gggctggcag cttgccggct ttcggcggcc cgactggaga cggggctggt	ccettgccgg gggttgttgt gctggatggc ctaaaaaacg	cgcgggtgcg tcccaccggc caggctcaag ccggctgggg	60 120 180 240 300 360 369
<210> 5437 <211> 474 <212> DNA <213> Enter	robacter clo	oacae				
eggtetgaeg ecegecatte ggegtgetee etgaeeggge gecatetate eagaegaget	gagaaacaac atgagcacag cggcgacaca cggtcaaaat ttgagggaaa ggccgcagga	aggagectge tggeggtgeg teageatetg gaegtgteae getgaageag agaggagtat	acgcgtcgcg cacggtatga cttttcaccc gtgaggctgc ccgcaccggg gcggtgaata gcgcatccgc tggattaacg	tgacactgaa tgtcgcctca gggcgatgct tgggactcag ttcttatcac gctggtatat	gtaccetgaa gggggageee caggeagege cageagegtg egtgaeggga caeggtgeeg	60 120 180 240 300 360 420 474
<210> 5438 <211> 195 <212> DNA <213> Ente:	robacter cl	oacae				
cgtactatgc	agataaacgg caacacgaac	cactgtcgat	cgtaatgcag gaaaaggttg aggaagcacc	agcagttgcg	caaaatgttt	60 120 180 195
<210> 5439 <211> 489						

```
<212> DNA
 <213> Enterobacter cloacae
 <400> 5439
tttgtagttc cggatataga atttaatgcg gcttttctga gcaaccacgg gcacgctgtc
                                                                      120
aggogattca gtotgacgga gtoccgattc atgaaactga cotcocttgt tttoctgccg
gegetgetge eggeateett aetggeegge aeggtegtet teactgaeag teageatetg
                                                                       180
                                                                       240
coqqccaacc tgccgcctga cgtgccggtg gtgcttcttg atggtcctga ccggctgcag
geogacatgt teggggaact geetgeagac cegeageagg cegaageaca agteaggeaa
gttatgacgt etcetgeetg gcaacaaaaa cagetgcaac taaacgatte ttategacag
                                                                       360
 gtggtccggg cctgggagct gggcatcaaa aaagtgccag cagtggtatt tgatgaccgc
                                                                       420
 gatgtggtgt acggcaccac ggatgtggcc gtggccactt ccctgcgtaa ccggggaggt
                                                                       480
                                                                       489
 ggtcagtga
 <210> 5440
 <211> 327
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5440
 cgggatgatt ctcatctcgg actgtcgtgt tttatccacg acggcacaga gcattttcgc
                                                                       60
 gacatggaag tgatcgaagg cgatttttc taccgcgtta ggcaggtgga tacgggctgc
                                                                       120
                                                                       180
gotqatataa gootgattoa tgtocatoga cagggttttg atggattoga totgacggto
accoaggete tagaggtaac cegecagget ttcaaccoog cgatcatcoo tgagctccag
                                                                       240
ggcctgtccc tgtgtatcag agataaccgt gacgtactga tgaccctttt tgaaggcgac
                                                                       300
                                                                       327
ctcatcaaca cagaggtgac gtgctga
<210> 5441
<211> 570
<212> DNA
<213> Enterobacter cloacae
<400> 5441
caqaqqaqqa atgatatgat togocotgtg ttootootoa cototttott tttactgago
                                                                       60
 ggatgcgcaa caacggactg ggctgcgatt aataaacagg tcagcgatac cgctgcgaac
 etgaaaaaaa egttaggegg caacgatage ggagaaagtg gtgggatgee getgatgage
                                                                       180
 coqqoqqqqc aacaggccat gaagtccqtc gataaaacqt totocqtqcc ggtcgatgtg
                                                                       240
 gataccgcgg cggcccgcct gaagcgccat tacaaattta tctccacaca ggaqcttqaq
 geactgegge aggccacaaa tgaeggggae tggaaagegg etgetgaaga tgatgegeat
                                                                       360
 cocgtotggg acgccatgcc gggcagctac tacaaaatgg gctccgactg gaacggacgt
                                                                       420
 gatcacctgg atatcgaaat cgagaaaaac gggtccggca gcaggctcta tgttgtctat
                                                                      480
                                                                       540
 eqttcatcat catcacageq tetqqeeqqq tecqqeqtea eqaaqetgat gaatgatqte
 egegetgttg eggegggtga aaaacgetga
 <210> 5442
 <211> 270
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5442
 teeggteage atttaaggat aactgacatg cetgttatac tgaggateaa eggttteegg
 ttotttttt attotaatga aggtaacccg ctcgaacctg cacacattca cgtaatgaaa
 geaggtagtg aagccaaatt etggttaacg ceateagtgg tactggeeag taacgatggg
                                                                       180
                                                                       240
 tttaattcac gggtattaaa agaactgacg gggatcgttg aagataacca agcattgttt
 etggaggeet ggaatgacta ttteagetaa
 <210> 5443
 <211> 765
 <212> DNA
 <213> Enterobacter cloacae
```

```
<400> 5443
 eggeegectg acceptectea gageagaata acggagegaa taatgaaact gaaacatace
                                                                      120
 tttttageeg ceatgetget gagteeeeeg accetggeeg egaccacate aggacagaeg
                                                                      180
 gatgtcaqcc gacaggaatc aacacaacgg gcggactccg ctcagcaaaa cctgcagcag
                                                                      240
 caqqccqqac aqtqqqqact caqtaccqac gattatcagc gttatcagca gctgatgaag
                                                                      300
 qqaccccqqq qtatccagtc gccqggtctc gatccgcttt ccaccctggg tattgaggcg
                                                                      360
 cagacgeegg cagagegeeg taagttiget gaaaagtggg tgaaggaaga gittigeeege
 acceagaaag agettgattt ceagegtgag gtgaaegegg eetggeageg eetgtateeg
                                                                      420
                                                                      480
 ggcacactgc cggtcaatat ggggaacgcc tccggcgtgg cgcacgacag tggtggccgg
                                                                      540
 ctqqcqctqt tcqtcaqqtc aaaaqactgc gccacctgcg acgcgaaact gtctgccgtg
 ctggctgaca accggccggt ggacatctat ctggtcgaca gccagggcag tgatgatgcg
                                                                      600
                                                                      660
 ettegeaget gggegeggga ceateaeatt ceegtggaaa aggteegeaa gegeeagate
 acgettaacc acgacggcgg acggtggatg egetttggta acggcctgat geeggtttta
 etgeageagg egggagaegg taaatgggta ategeagegt tetga
                                                                      765
 <210> 5444
 <211> 783
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5444
 acqtgccggt cacaggaggg gcgaatggct gaggtaaaac gtcccccaca gcagcagaca
                                                                      60
 ctgccggaac gcaagcacgg cattctgtat aatctgctct ggggctggcc atgggccctg
                                                                       180
 qtqqqcqtqq tqctqtcctc qctqctqctq agcctqctqa ttgaatatat cggcatcgcc
                                                                       240
ttottotggo oggaagoogg ggoggogoac agtgaagogg ttatgaatac ogagotgggg
                                                                       300
tggctgtcca cagagttcac ocgcagootg ctgctgtctg agocatcggt gacggttgtg
                                                                       360
cqctqqqtqa ccactqccta tcaqtqqgct tttgtggaca gtggttttct cgactgggtc
                                                                      420
 eggeageagt atgegeacea gatgeaeagt gacaatgeeg teaceegaga aateaacage
tggagegget ggettgeegg etacetgegt gagtacetge tggecaeggt atggataage
                                                                      480
                                                                      540
attatcaccc tggtacgcgt caccatcctg gtgctgtccg tcccgctgtt tgtgctggtc
                                                                       600
gtggtggtgg cgctggttga ggggctgggg cggcgtgatc tgcggcggta cggcgcgggg
                                                                       660
tatqaaaqtt cqtttqtcta tcatcatqcc aagaagctgg tcaaaccggc cgctgtggtg
                                                                       720
cocqccatgo tgtaccttto otggoccacg goagtotace coaatotgot gttgttgeeg
                                                                       780
 gegactgttc tgctggggat cgccgtaacg gtgaccactg cgtcgttcaa gaagtatctt
                                                                       783
 taa
 <210> 5445
 <211> 264
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5445
 ttaccggcgg gagcggccct gatgtccatg acatccgaac aaacgaacgc gtttaaagcc
                                                                       60
 ggeteeggea gtettgatgt gaacateett catetgetet geategggge attgetggeg
                                                                      120
                                                                      180
 tttctttttt tatqggccgc qtgggcgctg tcggatgtct ggaccggctg gagtaacacc
 aaagtgeggg acgeggeet ggggegtttt geegteegea eegtgetget gttgettgtg
                                                                       240
                                                                       264
 tgtatctgga tgtttgccag ttaa
 <210> 5446
 <211> 978
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5446
 accqqaqaaq tcaqqaqtqt ttcaqtqatq agtaaaaacc cccactaccq cgccgggctg
 atggegetgt cettegeest getgeesetg gegaegetgg tateaegtes tgeeggegea
                                                                       120
 gatgagetga tgaaatggga gegtatteeg etgeagatee eeetgaaggt ggggeaggag
                                                                       180
 egggtggtet ttgtggacaa aaacgteege gteggtttte egeegaeget taacggtaaa
                                                                       240
                                                                       300
 ctccgtgtgc agagcaccgg gggaaccgtc tacctgaaag ccgacagcgc ctttccgcag
 acgcgggtgc agetgeagga tgtggaaagc ggcgaggttc tgctgtttga tatcgccgcc
                                                                       360
 ggtgaaaaag ggccgactga gccggtgcgg ctggtctaca gcggtgatgt cagcacgctt
                                                                       420
```

```
agtcacgccg gcgatgcggc cggtcagcca ggtggtgcag atcgggctgc ttccggatca
                                                                      480
                                                                      540
qqctcatctq ctcccaccqq cagcgatgac ggcacccagg ccaggcgtaa aaaaatccgc
                                                                      600
tacagegoec coatcoeggt getgetgace egetatgeeg egeagageet ttatgegoea
                                                                      660
qcccgtacgg tcgaggcggt cccgggtatt catccggtca atcctcatct gccccgacgt
                                                                      720
gtcagcacgc tgtatccctc tgaaccatta acggtcacgc cgctggctgg ctggggcgtg
                                                                      780
gcaaaccgta gcgtggtggc actcaggctc acgaacaccg gcagccgtaa ggtcgttctg
                                                                      840
gateegegeg egetgeaggg acagtttgtg teegeeacet teeageaceg etgggteggt
ceggeeggca egectgagga caccaccaeg gtgtatgtgg tgacegeegg tegteeggag
                                                                      900
                                                                      960
agogcattca ttgctgagcc gtctgcattg cgtaaagcga cccgcacggt aaaacaggag
                                                                      978
geocgecatg cagattaa
```

<210> 5447 <211> 2946 <212> DNA

<213> Enterobacter cloacae

<400> 5447

cacgcctgtg ccgggttaca gcaccgtgtt cccgttctac agccagacgc agtatgccat geetggegag egtaeggagg ecetgtaatg ettteaetgt ttaegegtag taaateeaee gaccggcaga cgccgcctga tgatggccag tctgttcagg cagatgaaac cctgaccgcg gtegtgaagg gccggcaacc cctgaagegc cccgggaaaa tgacgegcca ggatgaggag aaggtttatc atgccagtcc gtccatcatt gactttttgc cctgggccga atttctcgat gaaqaqcagt gtctcctgct ggatgacggc gtgtcggtgg gggccgttta tgatgtgaca ccggtggcga ccgaagggcg aaccgaagag cgcctggagc aaatccggga ctcggttgag gatgcacttc aggacagett tgatgaacat gacgtgaatc cctggatcgt gcagttettc tgecaggatg aggacgacac tgacgcgtac ctggacaggc tgcgcggata tgtcaaacca catgcacage gcaeggegtt tacegaegee tggetgggtg aaatggageg ceatattege agtatetece ggeetgaggg actttttact gaetegetga ttaceggeea geegtggege gggcagcage geegeacceg gatggttgtt tategetgge tggggaaaag eegggateeg atgoogoogg tggcgatgot caaccaggtg tgcgaccggg tcgttaatgc cctgggcggg geggggatee getgeaceeg geagaaegge etgeaggtge atggetgget getgeggetg ttcaatccgt caccggactg ggtggagaaa accacgctct atcggcaggc tgcttacgca gaccegegeg agacgcctga aggcaccgtg ccggtcagca atgattttgc cgaaaccctg tggttcacgc cgccggtctc cgaccoggaa aacggcgtgt ggtggattga caacaagcca cactgogogg tggoggtgga aaaactgogt acacegeegg ageogggcae cetgaeegge gagaaaagcc ggggtgaaaa gaaaattaat gccctgatgg atatgtttcc ggaagggacc atgqtqtqca tgaccqtggt ggtgcagccc caggaccggc ttgaagagca gtttaaccgg ctgtcgaaaa atgcggtcgg tgagaatacc gagtcgggcc gcgtccgcca ggatgtgaag acggteaaag agtatetggg caaceggeae aagetgtace gggeggggat cacetteetg ttgcgcggcg atgacatgac cagcctgaag cgcaagcggc tggagctgtc caccgtattg eteggggeeg gtetgeagee ggtaeggeeg gagtttgaag aaggteeget gaacagetgg etgegggege tgeegatgtg etttaacccg gacagegaca aaaaacactg gtatacccgt ctgacctggg ttcagcacct ggccggtctt ctgccggtga ccgggcggga aaccggcacg gggcaccccg gcttcagctt tttcaaccgc ggcggggata ccctgacctt cgatccgctc aacaageteg acegeaceea gaacgegeat etgetgttgt teggeeegae eggggeggge aagtoggooa ogotgtgtgo ogogototot cagotgatgg cogtocacog toogoggotg tttattgegg aggeegggaa etegttegge etgetggeeg aettetttga eageeteggg ctgacggtga ataaaatcag cgtcaaaccc gggageggeg teagtetgee geegtttget

gatgeteaca aactggtgga agaaggeetg geegeecagg eegtggatga gagegaeetg coggatatog acacggacga cgatggcgag gatgacaagc gtgacgttot cggtgaaatg gaaateteeg egegeatgat gatcacegge ggegaceega aagaagagge tgaeettaag egegeegaca gggegatgat aegtgaggeg etgetgatgg eggeacatge caegtataag

goggaatooc tgggcatgit cactcaggee gggagetttg aageggaget gttcaacege gaaggggage tatggccgga ageggaegtg aegetggteg aeetggggea tetggegegt gagggttacg aggcgcagat ggccctgacc atggtctcga tgaccaacat gatcaacaac ategeggage gtgaccagtt cetgggeegg gatattgtet teaeggtgga tgaggegeat atogtgacgg tcaaccogct gctgtcgccg tatatgacca aggtggtcaa gatgtggcgt

aagettggtg cetggetgtg getegecace cagaacetta aggattacee ggatattgee gaaaaaatgc tgaacatggc ggaatggtgg atttgtctga ccatgccccc ggaagaggtg

gaagggegge agatgetgee gtetgaeetg cagaaggege tgtaegaeat tgeetetgae aacgatgagg gcgtcatcaa tgtccgcaat gcccagcgca aggcgaaagc ggcggaaatg

840

```
aaagatatca googtttoog ogogotoacg ooggagcagg aatoggtgot gotttoogco
                                                                     2760
agtaaactgt cgggttgtta tacggaaggc gtggtgctgg cgaaacggat cgaagcgctg
tttcgtgccg tgccgcccag tctcttcctg gcactgggca tgacggaaaa agaagagaaa
                                                                     2820
                                                                     2880
googaacgcc gggcgctgat gaatgaattt cactgcagcg aactggaggc ggcaaaacgc
                                                                     2940
gtogogoaga atotggacog totgogoggt otgacggaga aacaacagga gootgocacg
                                                                     2946
<210> 5448
<211> 633
<212> DNA
<213> Enterobacter cloacae
<400> 5448
acggcactgt cgatgaaaag gttgagcagt tgcgcaaaat gtttgctcag agttcaacac
                                                                     60
qaactaagga tgacaggaag caccgtgggg atcgagaaaa ggtatattac gaaggctgag
                                                                     120
tttagcgaag attttgtaaa agccagtgaa gactttaagt acggttatga tgttatctct
                                                                     180
aaagtaaatg tcaaaactgg ccagtcaatc ttgcgctacg cagtccgtct ccagcagaaa
                                                                     240
tggaatgatg agaattgtat totoatttat gatoatgacg atgacaagot otggggcaga
                                                                     300
                                                                     360
gtaaaggcat ctgactcaaa agatgatgcc ggcataagct ggtatcttgg tttttttcat
ggacgagttg aagcatggaa aaacgatccc ctaattgtaa tatcgtttcg tgatgaaatt
                                                                     420
                                                                     480
atccctqccc cqcaaqqatt tgataaggga tttgagctgg cggttataca tgcaatcagc
gatcacccaa coctottogg ggaaaattgg gaaaagaaac ttocagaaca catgogogaa
                                                                     540
aagogtaaac aaaatgotoa tactotoaat tacttogtgg atgtaaacag ttotgattot
                                                                     600
                                                                     633
gacggcagec ctgatgagtc atccccaact taa
<210> 5449
<211> 1557
<212> DNA
<213> Enterobacter cloacae
<400> 5449
gtacgcgatg tttaccggtc cgggagtctg aagatgacga caaacagcta tcttgagtat
tttctcacgc tgctcggctg ggtgatcaat aacggtctgt ggaatgtcct gctgagcacc
                                                                     180
ggcctttttg teetteeget ggegtttaag gtggtgggta tetggeteag ggteegtgaa
gaggggagg atgaaggcaa caaggggatg ctgtcgctgc cccgtatcga gaacgcgctg
                                                                      240
                                                                     300
tatgccggct tcctggtgat gattgcctgc tgcgtaccgc tgattaatgt cagcctcagt
acgatgcagt acgacacaac cogggcaaag agctgtggtg tgtggacgcc caaagcgccg
gatgaaageg getatgeegg egtggteace agteteaaeg accagaegge tgeageaeeg
                                                                     420
gtatggtggg tgctgattca taaactotca aaaggggtca cccaggcggc cgtggcgacc
                                                                      480
                                                                     540
attocctgcc gccctgacat gcgtcagatc cgctttgaag tgcagcatac gcgtatcgac
aacaaagege tggegeagga getgeaggae tteactaaeg actgetatte ggtegegttg
                                                                      600
                                                                      660
tatotqtqqa aqcaacagqa toagggccag acaaaggaca aaaccacgot gogtgatato
                                                                      720
quatggattg geageagtac ettectgage eggtattate ettegttgea gtecaaactg
ccccgggctg cgttcccgtg gaccgacagc cgggacagcg gccggcccaa caccggaaga
                                                                     780
ggeggetate ceacetgeag egagtggtgg ageagttegg acaeeggact gaaagcaegg
                                                                      840
                                                                      900
qtqaaqqacc aggccgaccc cgatatgtgg ctgcgtatct cggccgcaat gaaaatgtca
                                                                      960
ggetttaacg acagtgacta teaggaagee gteateogte gtetggteag eeeggaaage
etgaeggtet cacagaatgg teaegtgtat geeggetatg geggeaacge egatttace
                                                                      1020
                                                                     1080
ctggataatg cagcggcacg cgtggcggct attggcggga catctctcgg cagtctggcg
gegtteeegg egttegatge aatgegacag gegetgeeaa tggtgeagge tateetgetg
                                                                     1140
                                                                     1200
atggcaatat atgtcatgct googotgatt ctggcgtttg cggcttacga gttcaagacc
                                                                     1260
gttattacgc tgacttttgt aatattcgct ctgaacttcc tgacgttctg gtgggaactg
                                                                     1320
gegegetgge tegacagetg geteetgaca gegttgtaca gttcagatac acacageege
                                                                     1380
tttaatatgg cgggactgca gaacagetca gatgacetca ttatgaatet ggtgatggga
                                                                     1440
gcgatgttta ttgtactgcc tgccgtttgg ctgggagctc tttcgtgggc aggggccagc
                                                                     1500
gtqqqtqtcq ctqttagegc tgcctttcaa aagggtactg aaactgctca gaatacaggc
gggaaacttg gagaagctgc tggtaatgct atcggcagta aagcaaccaa agggtag
```

<sup>&</sup>lt;210> 5450 <211> 786

<sup>&</sup>lt;212> DNA

## <213> Enterobacter cloacae

<213> Enterobacter clo	Dacae				
<400> 5450 acetgteage ggagggtte gegeeggee gtaaaagatt ggeggtgtgg egetggeegg teggacettg atgageget gagacagteg egetgteagte gacagageeg teggteagte egetgagtg egetgagtg egetgaetg egetg	cagctgaggt cattctggg tacagcatt gtagagagg gtagcaggag attgggacc gagctgaca ggtcaaaaaa toogtooct ggcagagtcc ggtcggagag gacgtttcgg	eccegeegee etgggetaea gaateteagg accaegetea etgagegeag etteaggaeg gegetgaaat aacgegeetg egeatggee etgggetgeea gegeatgeee gegeageaeeg	gcctcatctg ccgccttcag gcagtactgc gagccggtct cagcgaaaca cccagcaggg cacagccggc ctgcaaaaa gcaatgcgcc tcgcgccccg	gggcgctgcc cctgggcata ggccactgtt gcaggatagc ggcggcagc gctggaacc accegaccc gcccgtccc ttttgtgctg gggctacagc gacgctggtc	60 120 180 240 300 360 420 480 540 660 720 780 786
<213> Enterobacter cl	oacae				
<pre>&lt;400&gt; 5451 acccgggaga taaccctgat accggcatg ctgaactgaa tttgaggccg ttaataaca ccgtcacccg tgctgcaggg ccgggagaga ttgccgaccg gggatgatg ccctgtcccg catgcggccg ggatgatagt ctggcacccg gtgtcagtct attgcgcatt atccggtact</pre>	tgtgattgct gcccggtatg cgaggccgcc gccgctgcag tgaatggctg caacgtcacg ggccccggct	gatetgggeg ageaegggaa atgetgeegg etgeeeggea aaggetaatg gatatggeta teeggeageg	gtgaagatgc acgacacaac tattcacgcc tcggggcgtt ccggtgagct ccgtgcgtga agctggcccg	tgcgccgtat atcttcaccc ggagttgcgc gtttctggtc ggctgaacag gctgcgcgag tcgcctgcag	60 120 180 240 300 360 420 480 540
<210> 5452 <211> 537 <212> DNA <213> Enterobacter cl	oacae				
<400> 5452 ccattetege ogggeaggac ctgaacagec tgogetgege gtgectgee ctteogege gatgacetga acgacagtt cactacatgt ggaaggatg geagectgta cettactge ttgogggee tatgateat ttactgeege atgecetgeg gggacgtata ceceagge gggaagtata cecagagge	tttgtggett tgtetgeetg geagaaagag eeeggtgeet egteteeaca ttttteatt tttteactet	gtgttetgtt ctegeetggt gcaaaggcat gataatgegg gaaacegegg ctgtegaatg cageeetgca	tattccgtca ttgttttcgg ggcgcaccgc ctccgcctga cgaacaatta tcctgtatgt gggaagccgg	tgeegtttte ccatceggte geegeeeggg tgeaaageeg cctgetgtea getetggege ctccgcaaag	60 120 180 240 300 360 420 480 537
<210> 5453 <211> 405 <212> DNA <213> Enterobacter cl	oacae				
<400> 5453 cccgacgett cetetteege aacteacate gtecggeat ttgetgacet ttetggeate gtteagegte agetggacea caggeegace eggetgaceg	geggegeaae agetgttgea ggtteaggeg	egtegtgtee caggeateeg tegettgaae	egggeateae agaaagaega gggeeegegt	tggtctggta gcttgcgtct ggcggctgca	60 120 180 240 300

```
ctcaacacca teegcagegg cattgacege tatetggage cetecegege geaacegegt
                                                                      360
                                                                      405
gacccqtctt atgtggccgg taattaccgg cgggagcggc cctga
<210> 5454
<211> 672
<212> DNA
<213> Enterobacter cloacae
<400> 5454
caggagaget teatgageeg ttttegeeat geggtaaaag acegegacea geatatteag
acgetgegea tegeetgege egtgettgee tittteetti tatteacetg tgeaggetgg
atgetggeac ceageaaget gacegtgeat aacecacegg atttaegtae eggeagtaeg
                                                                      180
                                                                      240
eggeeetggt gggaagtgee geeecegaeg gtetacteet ttgegtteta tattttteag
cageteaatg eetggeegaa aaaeggegag gtggaetatt eegeeaaaat eaatgegetg
                                                                      300
                                                                      360
togoogtato tgaogoogto otgtoaggat ttootgaaag oggatgoaaa gaaacgoggt
gacgccgggg agctcaccga ccgcgtgcgc gtggtgtatg aagtgcccgg tcgcggttac
                                                                      420
cagteacaga gegtgacegt acaggatege gateactgga ttgcccgcct ggacgtggte
                                                                      480
geogatgaat atttecatge egageoggte aaaegegeee tggtgegtta eeegettaaa
                                                                      540
gtggtgcgct gggaaggtga tgcggagcgc aacccgttcg ggctggcgct ggactgttat
                                                                      600
geeggtgtge eccagegtet ggaggeggea eegeetgeac etaaacegga gaagteagga
                                                                      660
                                                                      672
gtgtttcagt ga
<210> 5455
<211> 702
<212> DNA
<213> Enterobacter cloacae
<400> 5455
eqtqatecet gegtettetg eggetetgtt getgegacee gtagegetgt tgeetgeegg
                                                                      60
cgcaccttta ctgcgctggc gcgatggcca gcttttactg gatattggca ggttctccct
                                                                      180
gccgctcagt gcccgggagt gtgccgtttc gtggcgcagc ccgaaaatcc cgcgccggct
ttactgcccg cgtatgacat tacgggagct ggggcacctg ctgaatgtca gtgcgttcgt
                                                                      240
                                                                      300
ttttatetge ggeggttaeg atceggeege etcacaaagg agataceggt aatgtacaga
                                                                      360
acqqttttca ttctqqccct qaqctqtgta atqctcagcg gctgctcaac ctccaaagag
                                                                      420
qaaatgctgc cggcgggcga taacaccatg cttgaactgt ggaacggggc ggacggtggc
                                                                      480
ggcagtactt cccgtcagtc tgcggcggcc cgcgacacgc tgcgacgccc gctgacgggc
agegaaaege aggeggaege geagggegae egeagetaea geegtaetea ggaaagegaa
                                                                      540
                                                                      600
atcacccage agtttccccg getgeccaae eccgacatgg tgatgtacet gtatecccat
ctgqcagacg gtaacacgcc tgtgccgggt tacagcaccg tgttcccgtt ctacagccag
                                                                      660
acquagtatq coatgootgg cgagogtacg gaggocotgt aa
<210> 5456
<211> 1008
<212> DNA
<213> Enterobacter cloacae
<400> 5456
ccggggaggt ggtcagtgat gacaacacct teccgcatca gaaccacggt ttgctcgctg
geggttgeca etttactggg taeggeaace gegeeggeag etgttgeage acttaacaeg
                                                                      180
gegeagatta ttgccagege egtgtegeaa aactgtatea getggegtgt eagtggeate
                                                                      240
tgttactggc tgttctgcac cccctttggc tgcaaagtgc gcacgtcggt caaagtcact
cacticatic occagacagt ogtitogaco tatgitogogo ogggoggiaa occgiggoag
                                                                      300
                                                                      360
gaaatggcgt ttgtcagcca gaccgccggc gggctggaga gtgccgtgac cagcgggctt
teeggtgttt etgeeggagg agecaateeg geegacatga aaaateeegg eeagegeaag
                                                                      420
                                                                      480
teegeegtte gtttcaagta tgeegatgeg attggtcaee eggeeacete eetgattgge
                                                                      540
ggeagtatte egggetatte etgtgacace geagceacee egttaatgee ttaetteetg
                                                                      600
agtacgotgg attoggogge otggogtacg ggogtgoogg agtocotgta tooggaagog
                                                                      660
cttqtqcccq qccaqcqqqa aattqqcagt caggccqcaq cgaatatqtq gggcaacqtc
                                                                      720
tatccccqtt cggggtttgt cagccagacc gatgatgaca aagcctctgc cgtggtggca
cagegtgtgg cagacattat caceegegte gggeageece atgtttatea ggtgettaag
                                                                      780
                                                                      840
qqcaaccqcc atgacgqgta ctgqccaccq gqcgaggtca cggaaaaacac cggcacgcgc
```

aatcacaaat ggcagcggt ggctcccac atgacacagt cctgtgccgt cttcccggac ggagagccac accecccage gataacaac gaagcctttg cgctctggca gcctacagc ggcagagcaca cacceccage gataacaca gaagcctttg cgctctggca gcctacagc gcctggaaa agccgggaga gaaatttctg gcagagcactg atactga gcctacagc gcctacagc gcctacagc gcctacagc gcctacagc gcctacagc gcctacagc gcctacagc gcctacagc gcctacagcagcagcagaaattctc caccacacacacacacacacacacacacaca				2004			
<pre>&lt;211&gt; 231 </pre> <pre>&lt;212     DNA </pre> <pre>&lt;100&gt; 5457 aaattatttt catcittett tidataaaa ctattatti aagacatett agagctagat cotatatigt tidatgoage sataaaagid cataataaaa ctoogetgoa gettateaag aaacegeetg etatagatge aactaacgaa caaaggacag ctaaaagaag eggtatigag cetaaceat teggeagtit giatigtita gecagtatiga egoageetg a  210&gt; 5458 </pre> <pre>&lt;211&gt; 204 </pre> <pre>&lt;212&gt; DNA </pre> <pre>&lt;211&gt; 204 </pre> <pre>&lt;212&gt; DNA </pre> <pre>&lt;213     Enterobacter cloacae</pre> <pre>&lt;400&gt; 5458 agggactata gaggattit tigagcaatta ctaattactg etteagaet tigtacatt aaaaaaagaa cattaated tiggitaatt titticaatig egitacgaet tigtacatt aaaceadatt etaacetgee giaa <pre>&lt;210&gt; 5459 <pre>&lt;211&gt; 186 <pre>&lt;212&gt; DNA </pre> <pre>&lt;211&gt; 186 <pre>&lt;212&gt; DNA </pre> <pre>&lt;211&gt; 186 <pre>&lt;212&gt; DNA </pre> <pre>&lt;213&gt; Enterobacter cloacae</pre> <pre>&lt;400&gt; 5459 cacaaatata ticttattit taaaaaceag atetegatg ataattatic cattattit coateggiaa etagetgetaa eggetteeet tictaagea atetegatg tigtacaagi tigtitataaaaagi atagggata tigtitatgee atgataaa agtecaatag tigatecaagi tigtitataaaaagi tigateeagi tigtitataaaaagi tigateeagi tigtitataaaaagi tigateeagi tigataaagi tigateeagi tigatagaagi tigateeagi taagaci tigataagi tigateeagi taagaci tigatagaagi tigateeagi taagaci tigatagaagi tigateeagi taagaci tigatagaagi tigateeagi taagaci tigatagaagi tigatagaagaa cattaaaaataagi tigatagaagi tigatagaagaa tigataaaaataagi tigatagaagi tigatagaagaa tigataaaaataagi tigatagaagaa tigatagaagaa tigataaaaaaagi tigatagaagaa cataaaaaaaaaaagi tigatagaagaa tigatagaagaagaa aa</pre></pre></pre></pre></pre></pre>	gggagccaca : tgctgcaaaa :	ccgccgcgag	cgataacaac	gaageetttg	cgctctggca	cttcccggac gccctacagc	960
aaattatttt catctttott toatataaaa ctattaatt aagcatott agagctagat 60 octatatgtg thatggcage aataaaagt cataataaaa ctgogctga gottatcaag 220 aaacogoctg ctataagtgc aactaacaga caaaggacag ctaaaagga gottataagtg 231 cctaaccact toggcagttt gtattgtta gocagtatga cgoagcgctg a 231 cctaaccact toggcagtt gtattgtta gocagtatga cgoagcgctg a 231 cctaaccact gocagcgctg a 231 cctaaccact gocagcgctg a 231 cctaaccact gocagcgctg a 231 cctaaccact gocagcgctg a 231 cctaaccaccactgctaccaccaccactgctaccaccaccaccaccaccaccaccaccaccaccaccac	<211> 231 <212> DNA	obacter clo	acae				
<pre>&lt;211&gt; 204 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacae  &lt;400&gt; 5458 agggactata goggattttt tgagcaatta ctaattactg cttcagtget cagagttact aataaattot ctaatatcat gogttaatt tttttcaatg ogttacgact tgtcatcatt aaacaccatgt ttaacctgc gtaa  &lt;210&gt; 5459 &lt;211&gt; 186 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacae  &lt;400&gt; 5459 cacaaatata ttcttatttt taaaaaccag atctcgatg ataattatte catttattt cocatgcgtaa cggcttcoct tctcagcaa cagttaaatg tgacctttt acaactcgct tataaaaagt ataggggtat tgttatgcc atggataata agtccaatag tgatccaagt ttttaa  &lt;210&gt; 5460 &lt;211&gt; 183 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacae  &lt;400&gt; 5460 tgttttata caatttttag cactgaaaaa gatttaaga aaaacttcat caattcatgg ttatgccgt taatacaaat aacgccaagt caaaactat tgcttcaggg tatgtcctg tagactggcct acaaacatca acggctccca ttggagacg tcttttaac aactactcga tagactggcct acaaacatca acggctccca ttggagacg tcttttaac aactactga tag  &lt;210&gt; 5460 &lt;211&gt; 183 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacae  &lt;400&gt; 5460 tgttttata caatttttag cactgaaaaa gatttaaga aaaacttcat caattcatgg ttatgcccgt taatacaaat aacgccaagt caaaactat tgcttcaggg tatgtcctg gactggcct acaaacatca acggctccca ttggagacg tctttttaac aactactgca tag tag  &lt;210&gt; 5461 &lt;211&gt; 5461 &lt;211&gt; 5461 &lt;212</pre>	aaattatttt cctatatgtg aaaccgcctg	ttatggcagc ctataagtgc	aataaaagtc aactaacgaa	cataataaaa caaaggacag	ctgcgctgca ctaaaagcag	gettateaag eggtatgtgg	120 180
agggactata geggattitt tgagcaatta ctaattact cticagtget cagagitact atataaattot ctaatactact gggttaatt titticaatg cgitacgact tgicatcatt 120 aaaaaagcat catatactg tgettatatg ggtettecce gateatggg ggagactat 120 aacacccatgt ttaacctgcc gtaa 204 210 5459 211 186 212 NNA 213 Enterobacter cloacse 400 5459 cacaaatata tittitti tasaaaccag atctcgatge ataattatic catitatitt catatggida agggggat tgggaggida tgggaggida tggtgatggida agggggatgat ggtgacggatggida agggggatgat ggtggatggida aggggggggatggida aggggggggggggggggggggggggggggggggg	<211> 204 <212> DNA	obacter clo	pacae				
<pre>&lt;211&gt; 186 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacae  &lt;400&gt; 5459 cacaaatata tictitatiti tasaaaccag atctcgatge ataattatic cattitatiti cattigoggaa eggettecet tetoagcaa cagtiaaage tgacctititi acaactogot tataaaaagt ataggggtat tgtttatgee atggataata agtecaatag tgatecaagt tittaa  &lt;210&gt; 5460 &lt;211&gt; 183 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacae  &lt;400&gt; 5460 tgttttatat caattitiag cacigaaaaa gattiaaga aaaacticat caattcatgg tatageecta caaaacataa acgeecaagt caaaactait tgettoaggg tatgeteed tagaciggeect acaaaacataa acgeecaagt cagaagage tetititaae aactacteed taga 183  &lt;210&gt; 5460 tgttttatat caattitiag cacigaaaaa gattitaaga aaaacticat caattcatgg tatageecta gactgaceet acaaaacataa acgeecaagt caaaactait tgettoaggg tatgeteet gactgacegeet acaaaacataa acgeecaagt cacaaacataa tagaagaaga tagaagaaga cattitaaga gacaacaata cagteegaagaa cattitaaga gacaacaatag gacagaagaa cagaggggg tetititiaac aagteegaaga cagagggaaga cagagaagaagaa cagagagaagaagaa cagagagaagaagaagaacaacaatagaacaacaataagaacaacaataagaacaacaacaacaacaacaacaacaacaacaacaaca</pre>	agggactata aataaattct aaaaaagcat	ctaatatcat cattatactg	egggttaatt tgettatatg	tttttcaatg	cgttacgact	tgtcatcatt	120 180
cacaacatata thottatitt taaaaaccag acotogatgo ataattatic catitatitt (cacating decreased acotogodia oggoticoci totaaaaacca acotogodia acotogodia oggoticoci totaaaaaagt ataggggtat tgittatgoc atggataata agiccaatag tgatecaagt tittaa (california) 186 <pre> &lt;210     5460</pre>	<211> 186 <212> DNA	obacter clo	pacae				
<pre>&lt;211&gt; 183 &lt;212&gt; DNA &lt;212&gt; Enterobacter cloacae </pre> <pre>&lt;400&gt; 5460 tgttttatat caatttttag cactgaaaaa gattttaaga aaaacttcat caattcatgg ttatgcccgt taatacaaat aacgccaagt caaaactac tgcttcaggg tatgtcctgg gactggccct acaaacatca acggctccca ttgggagccg tcttttaac aactactgca 180 tag </pre> <pre>&lt;210&gt; 5461 &lt;211&gt; 450 &lt;212&gt; DNA &lt;213&gt; Enterobacter cloacae</pre> <pre>&lt;400&gt; 5461 cgcagttcgg caaccttcct gatgaagagg cctggctgct ctccgttcac ttcgaagtcg cgaaagacaa cctttaagga gcaacacatg gaacagatta cagtcgtgat tgcggatcgc ctgggtaga cgcgggagag cgcgggagga cgcgggtggt gtgaaaaag cggcggaag cgcgggtggt gtgaaaaga cggcggaag cgcgggtgt 180 gtaccgggat tgcaacgga tatgaagca ggatgagag cggggaga cgcgggggcg cactaacaga aaaccacc 240 ttcgggatct cctcttgcgg caccggcggc gcgggagca tcacccgtca gaccaaatat ggctacaagg ccaataacagg gatggcgcca tgggatgag gttggaccca catcaacaga 360</pre>	cacaaatata ccatgcgtaa tataaaaagt	eggetteest	tetcagecaa	cagttaaagc	tgaccttttt	acaactcgct	120 180
tgttttatat caatttttag cactgaaaaa gattttaaga aaaacttat caattcattg 60 tatagcocg taatacaat aacgccaagt caaaactat tgcttcaggg tatgtctctg 120 gactggcct acaacacta acggctcca ttgggagcg tctttttaac aactactgca 180 tag 210 5461 211 450 212 DNA 213 Enterobacter cloacae 4400 5461 cgcagttcgg caacactact gatgaagag cctggctgct ctccgttcac ttcgaagtcg cgaaagacaa cctttaagga gcaacacactg gaacagatta cagtcgtgat tggcgatcgc ctgggtaaaag gcggggggg gcggagaaga ccgggggac gcggggggg cgggagaaga cgggggga tggcagaaga cggaggaga cggggggg cggagaaga cggaggaga cgcgggggg cggagaga cggaggaga cggggggga ttcgaagaga cattctgaaga caacacacta gaacagacta tgaaagaaga aaaccacac 240 ttcgggatct ctcttctgcgg caccagaggac cgggggggca tcaccacgaaata aggctacaagg ccatggattagg gttggaccca cataacaga 360	<211> 183 <212> DNA	obacter cl	oacae				
<211> 450 <212> DNA <213> Enterobacter cloacae <pre> &lt;400&gt; 5461 cgcagttcgg caacettect gatgaagagg cetggetget etcegtteae ttegaagteg cgagagteggaagagaagagaaeaeaeaeaeaeaeaeaeae</pre>	tgttttatat ttatgcccgt gactggccct	taatacaaat	aacgccaagt	caaaactatc	tgcttcaggg	tatgtctctg	120 180
egeagttegg caacetteet gatgaagaag octggetget etcogtteae ttegaagteg 60 cgaaagacaa cetttaagag gecaacaact gaacagatta cagtegtgat tggegatege 120 ctgggtaaaag gocagaaagt ggetgeeggt tggaaaaag coggeggag egeggtgte 180 gtaceggge tggeagegg tatgaagetg ggggegee tgaaageaga aaacgecace 240 ttegggatet cettetgegg cageggegge gegggegea teacegetea gaccaaatat gggetacaagg coadataacgg gatgegetee gtggatgagg gtgtgacege catcaacgaa 360	<211> 450 <212> DNA	robacter cl	oacae				
	cgcagttegg cgaaagacaa ctgggtaaag gtaccgggca ttegggatet ggctacaagg	cctttaagga ggcagaaagt tggcagcgga ccttctgcgg ccaaatacgg	gcaacacatg ggctgcgggt tatgaagete cageggegge gatgegetee	gaacagatta gtggaaaaag ggtgacgtga gcgggcgcca gtggatgagg	cagtogtgat coggoggacg tgaaagcaga tcaccgotca gtgtgacogo	tggegatege egeggttgte aaaegeeaee gaecaaatat eateaaegaa	120 180 240 300 360

```
450
caqqcqtqqc agaagaaata cggcgcgtaa
<210> 5462
<211> 789
<212> DNA
<213> Enterobacter cloacae
<400> 5462
aagggcagac tgatgttott aattatatta ataaaatcgc tcatcategg eggeetggta
ggcgtcggtg tcggggccgg ggctgcacgc atgtttcatg cgcctaccac tcagggtatg
ggcgcgtttc gtacgttggg ggaactgaac tectgcgaag gggatccggc gtcccacttc
                                                                     180
tootttgggt taggtttott otttaacgco tgggcetott cogtggcogc aggtgcotto
acacaggacg ttgaccaccg catcatecea aactggggtg etgecgeget gatgateaaa
                                                                     300
aaccgtaacg toggtgaaac gotgoatgac cogogoaaaa tggogattgo otgoggoatc
                                                                     360
                                                                     420
ateggcatga ttgtcgtgac cttccttaac ctgaccgcct cctccgtgcc cgcagcgctt
                                                                     480
caggicaccg ccgigaaggi gciggigeci gccgcgaacc igciggicaa caccgigatg
coggtaatot totggotggo ggocatogac gogggtaaaa aatogggott otgggocaco
                                                                     540
                                                                     600
atctttggcg gcgcggcaca gctgatcatg ggtaacgccg taccgggtct ggtactgggt
                                                                     660
attotgateg gtaaaggegt ggaggagage ggetggaace aegtcaceaa agtgatgatg
geggegateg ttetgetett egtgetgage ggettettee geggettega catgaagatg
                                                                     780
ategaateet tecatetgae egtgeegaae tggetegaea tgateeacaa etegeteage
                                                                     789
ggtaaataa
<210> 5463
<211> 642
<212> DNA
<213> Enterobacter cloacae
<400> 5463
                                                                     60
atggaacaga ataaaggttt ttggtatgcc gactggtcgt tcccgatctt cgttggcctg
ctctcctccg gcgtgtttgc cgggacgcac atgtactacc tctacggcat cggcgcgttt
                                                                     120
aacgaagtgg cottogtggc gatgotgaaa gogggcattg atacoggogt ttacggogog
                                                                     180
gtggcggcat ttggcgcgag cttcctgttc gcccgaatta tcgaagggtc gctggtaggt
                                                                     240
                                                                     300
attettgata teggegggge gatecagace ggegtgggee teggegtace ggegetgetg
ctgggcgcgg ggatcatgit cccggtgacc aacticattg cctcgctgat taccggcctg
                                                                     360
gtgattggte tggegattgg etacgteate atcetggege gtaagtteae cateaaccag
                                                                     420
ageaacteca cotacggege agacgtgatg atgggegegg gtaacgcete eggcegette
                                                                     480
                                                                     540
ctegggeege tgattateet cagegeeatg acogeeteea ttecaategg egteggttee
ctggtaggcg cgttgctgtt ctacatctgg cagaagccga taaccggtgg cgccatcctc
                                                                     600
                                                                     642
ggegeaatga ttttgggetg getgtteeeg gtegeeettt aa
<210> 5464
<211> 768
<212> DNA
<213> Enterobacter cloacae
<400> 5464
cgaagtatta ggacaggaga aaaacgcatg aaactgaccc ccaactttta ccgtgaccgc
                                                                      60
                                                                      120
gtotgcotga acgtgctggc aggctcaaag gccaacgcca gcgccatcta tgaggcggcg
qaaqqccacq tqctqgtggg cgtgctctcc aaaaattacc cggacgtggc gagcgcggtc
                                                                      180
geggatatge gtgagtaege gaagetgatt gataaegege teteegttgg eetgggegeg
                                                                      240
ggegateega accagtegge gatggtgagt gaaatateee gecaggtgca geegeageae
                                                                      300
gttaaccagg totttaccgg cgtggccacc agccgcgcgc tgctggggca aaatgactcc
                                                                      360
gtggtcaacg gtctggtctc tccgaccggt accgtcggga tggtgaaaat ctccaccggc
                                                                     420
                                                                      480
cogotgagoa goaacgogoc ggacggcatt gtgccggttg aaaccgccat cgccctgctg
aaagattteg geggeagete cateaaatat tteeegatgg geggeetgaa gtgeegtgae
                                                                      540
gaataccagg eggtggegga ageetgegee egteacgaet tetggetgga geegaeeggg
                                                                      600
                                                                      660
ggaatcgatc tggagaactt cgaggcgatc ttgcagatcg ccctggatgc gggcgtgagc
                                                                     720
aaaatcatcc cgcatateta cagetegatt ategacaagg ccageggtga taegegeeca
                                                                      768
qaagatgtgc gcacgctgct ggcgatgacg aagaagctgg tgaagtaa
```

			2056			
<210> 5465 <211> 225 <212> DNA <213> Enter	obacter clo	acae				
<400> 5465 ataaacttat tttgcgctca tacaagaatg cctgttccgt	ggacagtcgg aaaattttcc	googattgtg aacgotacaa	geacegeaag ceegetteag	agegtatgat gtggegaagt	tegeaggaga	60 120 180 225
<210> 5466 <211> 459 <212> DNA <213> Enter	obacter clo	acae				
<400> 5466 ctgttggctg gatctggttt gggatttggc gccgtagctg ttcgtatata attaaaaatg gaagacagaa ggctctgcct	ttaaaaataa gcatgcttgg ataagtctat aatattatct gttatgaacc cgatttttct	gaatatattt tgacttttt gttgtatatc ttacacggca tttccttgtc taaagtaagc	gtgttattta taccttgaac acggaaagca caaaagaccg accaccgatc ggggatattt	tgttagetae agactatagt gegegggtge atgaagtttt etggegtgaa	cataggatat ttatoggoat gaogacttot tttagaagac agttagcatt	60 120 180 240 300 360 420 459
<210> 5467 <211> 372 <212> DNA <213> Enter	obacter cle	pacae				
gttggggaac gccctgctgg cacgttcgcg gagctgttcg	aggoggtgca cecggcacaa caatggegca acgaaatttc ttectgatga	aacagaacag catcatcccc ccggtccgtg accagattca	etegegaaga aaegeggtae aceggegage atgeaacttg	acggagcggt ccatgcttca aggagcagat cgctgccgga cccgtgaagt ttcacttcga	gcaggtstac gctgacctcc ggttgaagca ggtagcgcag	60 120 180 240 300 360 372
<210> 5468 <211> 357 <212> DNA <213> Enter	obacter cl	pacae				
aaagaacagt tttgccgacg ctgcgtattg gcgtttctgt	tcacaaccac cgctcaacca agccacagga tcttctttct	ggtgagagtg cgttcaggcc tgtgcaggtc gcgccgggaa	aaggggaagg gcggtgatga gttcaggcgc agacgcacct	aaatacggog gogacgocaa aagootoaco aagaagoggt acagogtgga togtoacgca	agegegegee geatatetta gegaaaagaa getggatgtg	60 120 180 240 300 357
<210> 5469 <211> 240 <212> DNA <213> Ente:	robacter cl	oacae				
<400> 5469 ccactggtgc agccagcgca	tgatetetee eeggeateeg	aggegaegea gggegattge	cegggegggg tgeeagaege	gcaacagcag aaacgcagcg	agagaagatt cgttcgccag	60 120

			2007			
cgtcaacagg cgtatcctgc	gtategacet gegtagteaa	ctctgttttg agcagagcgt	cgctgcggta atcggcgggc	acctgaaaag atctccagct	tgttgctgaa cacgcgctaa	180 240
<210> 5470 <211> 201 <212> DNA <213> Enter	robacter clo	pacae				
gactttgatc ggggcactta	attattgcct	geggtggeeg egatttettt teagataege a	tcaataattg	cctacgttaa	cgattcagca	60 120 180 201
<210> 5471 <211> 279 <212> DNA <213> Enter	robacter clo	bacae				
aaagtaaaga ctaattaaat acattatatt	aaaacgcaat cttttcagaa gcggggtgaa	gagettgatg gaetgegttt aattttgage caategtttg ggtteatact	gagegggeag acaattgeag egeggtaata	attttagtcg gttttaacgt	cgaaagtgat gatgcagatc	60 120 180 240 279
<210> 5472 <211> 183 <212> DNA <213> Enter	robacter clo	pacae				
caccqcctgc	gtggttggct	gegtetegee gegtaecete tgeggteaat	gatgaaatac	teggeaegge	tattaccgcc	60 120 180 183
<210> 5473 <211> 399 <212> DNA <213> Ente	robacter cl	oacae				
tttattattt tctttggtta agtgcacaac ggggggatag gatgtgtttg	acatgotgaa gttttgataa ttattgogac ctgaactgat aaccctggec	ctttatttt tatattattc ctgggaggac attacttaat agaaggtccg tatgaagatt gaaaaggaat	tgtggttatg cgtacaatcg cgggcattgc ctattagtga attggaatgt	tactggctac caataacaat ctcataagtt ttggcgcaat	atgeeteatt catattagga acatatttta tgtatgtetg	60 120 180 240 300 360 399
<210> 5474 <211> 213 <212> DNA <213> Ente	robacter cl	oacae				
ctggctcttg aatctcgccc	ccaacgagga gtgaagcggt aggcgatgaa	ggtatttatg tttagacatc aatcaaageg tatgetggtt	gtgcaaaaag gagaaagagc	gccatgaagt	atcgcgagaa	60 120 180 213

```
<210> 5475
<211> 450
<212> DNA
<213> Enterobacter cloacae
<400> 5475
cgctttctgg ggggcgctgg gctgcagctg ctttgcattc tgatgaaaaa caccactatg
cogcocogga togacotggg gotgttotto ottogootga coggoagoot gotgotgotg
tacqtccacq qcctqccqaa gqtqctgcac ttcagcgaag agctgacgcg cattgaagat
ccgttcggct tcggtcctta cgccagcctg atcccggcga ttgtcgccga ggtgatctgc
                                                                      240
cogotgttta toattgoggg ogtgtacaco ogcotggogt gootgoogat tatogoogtg
                                                                      300
                                                                      360
etgetggtgg egatgetgge ggtecacceg aactggtega ttgccgaagg geagtttgge
tggctgctgc tgattatctt caccaccctt gccctcaccg ggccgggcca gtggcggctg
                                                                      420
                                                                      450
cagegtaagg cageggagag gttegcatga
<210> 5476
<211> 303
<212> DNA
<213> Enterobacter cloacae
<400> 5476
catgtaggcg ggcgtgccgc cagacgcggc aagccgggac tgggagaagg cgtcggaggt
                                                                      60
geogeaggaa agacegaage tgcacagaeg geaggtggeg tegtgatgaa egaagatege
cccqqqtttq atategeegt ggatcaggtt gtgctgatgc atctggegca ggggaccgca
                                                                      180
                                                                      240
gatgeggate gecatetega taaageggge gateeeggaa ategeettae etgeeeggea
                                                                      300
cgccagcagt tcaaagcaga atggcgcgta gaccagcgca aaacgtccgc ggtactgggt
                                                                      303
tga
<210> 5477
<211> 303
<212> DNA
<213> Enterobacter cloacae
<400> 5477
equegative ggotogetaa tteeegtegg egggetggte ceteateegg etegeegetg
                                                                      60
cototttoto tagaattoac aataagtact agactaatat coottagage agacgtatta
attggcctga tgtatgccgt gctgaaggtg cgctcccccg cgccgcccgc gctggcgctg
                                                                      180
attggcetge tggggatget ggcgggtgaa caggegatge gccatctttt atecegegat
                                                                      240
                                                                      300
aatcoggotg cogtgoaggt gacggttooc cacgttoaac accegacogg agcgtoatca
                                                                      303
tga
<210> 5478
<211> 360
<212> DNA
<213> Enterobacter cloacae
<400> 5478
tegaattgeg eggggeageg acaaactatg gtagagaata ttgageageg catctaegee
ttagtcagac gctataacgg cgtttatcta atgaataacg aagagaagca aaaattactg
aatgcaaaaa ctgatttgga tactgacatg cagcttgatg tcactgaagc agaagatttg
                                                                      180
atggacgagt tttttaaaga atttaatgtt gatagaggga attttaacat aaacacstac
                                                                      240
tatcctgatg agoctttttc atggaatcca ttcaaaaaat tcccagtggt gatggttcca
                                                                      300
gatttcacta ttggaatgct tatcgaatcc gcaaaagcgg gcaaatggtt atacgastaa
                                                                      360
<210> 5479
<211> 462
<212> DNA
<213> Enterobacter cloacae
<400> 5479
```

			2059			
accgcggcag gacgatgtgg aaacccgcgg aaacaggcga tggacagtaa ttaataggca	gactttttt caggaattgc gagctacgga aatttcctta agtgtcgaat tagtgatatt	tatgatotac tgcgttatac aggaacgtcc tggcattaag ggtatcgaaa	tgtgaatcaa agtggtgcta cgagcctcga ctgcctacct gtgagtgcgt gtatcactaa	atgetggcag ttgeegatea ataateaaac aagecatgag gggttggtgg ttgttggeag teacetatge ag	ttttggtatt gactagaaag gaactatttc gtacactccg gacaataccg	60 120 180 240 300 360 420 462
<210> 5480 <211> 318 <212> DNA <213> Enter	obacter clo	pacae				
aaggeetgga gaegtgeatt ggtgaacage	ttattteget eeeeggegee tgateeeeat atgaatgegt	ggtgtgeggg geeggtegte eggaeggegt	geogeggetg gegetgettg etggtgagee	ccgaccggag gggtacttta gcctgttcgg gcgaaccgct cgcccccagc	cgccctgctc catgctggtg gaccctggcc	60 120 180 240 300 318
<211> 327 <212> DNA	cobacter clo	oacae				
caacaggcaa cacactcagg gagcgtatca ctcggctggg	ataaccgaaa ttgtcgccag agcttgcgaa	caggagaata ctgcggaacg gagcgatccg cgaagataat	attatggtag cacgtcgggg gaatcgggcg	gegetacagt ataaaagege ttgtggacca geaageacea tgaccaaaaa	aattaaggat tottgatggt ttttattoot	60 120 180 240 300 327
<210> 5482 <211> 645 <212> DNA <213> Enter	robacter cl	pacae				
agcettgeat gaaacattaa ggaatteett teeetetggt gtatteattg egaggttett agcateattt acacegeaaa aatteatega	taagtgcttt aagaacagtt tggcagtgag tgttgctgtt cagcgattgt tacctggata atttcatctg taacctcttt ttttttaccg	ggttaaaagt aaaagategg eaegttaetg tegetggete atattgtetg taaaetgeat gaeggggatt getggggetg	aaaatggcga ttcggcgttc gctattittt ggcttacccg gtagtgatga atttcgtca tcgcttttat ggattitcc ctaacgctac	tgatgaaata ccgatgatct ctgtgggcgt gctacgccat aatttaaggt gcacgatgtt ttacgctgac tcggccctgt ttctgaccat ataatcgggt	caaccagctt ccatatgaca gctgcaagtg tatgatgaga tctgactaca aggcataatg tgagaactac tatgtggatg	60 120 180 240 300 360 420 480 540 600 645
<210> 5483 <211> 183 <212> DNA <213> Enter	robacter cl	oacae				
<400> 5483 caacaaggag aaggagacaa	ttttaacatt ccgtcctaat	tgatgctgga attcgttttt	agaattgttg aagattaata	cagctaacct ttaagagcaa	aatagcaggc agttttaagg	60 120

			2060			
ttttcggatt i taa	ttetttatat	tgacaaaata	gatcaccgga	ccatttattg	cgatatttcc	180 183
<210> 5484 <211> 1059 <212> DNA <213> Enter	obacter clo	acae				
<400> 5484 acactattog acaatcaaca gatottocag ttaccageac tactcagacg gaaagttogg caggeacaa atttectgeg ccttracttg gogatttc cttaacgt cgttaacgt ggaatg tcttacgt ggttaatg ggatttct gttaacggg ttgctcttac gcactctaag ggtttaattc	tttcacacgg attacacacgcactttgcaggtcaggtca	acggagagat cggacgaggag actggactgg gtggctagta actgactaga agtcataac tcttactgtt tcttactgtt ttccaggagttgcc tgccgggg gagtttgctc gattattcgt aggcgtgtat gctgagagg agttttcct aggcgtgtat gctgaaracca	gaagtgacat cttggtcttg agcagaaatt cggccatcaa aaagtaaatg tccctggcaa gccgctgtga cgactatcgt tggtatacag ttaaaaagcg tccttattac atccgcaatc cccaaacgtt atttcaaata attgtatacagt	tcacaggaca cotctggogg thagcaggc gaaggattgc cogcattagt ctgaaattgg cagggoggg ttttagcogg ttttagcogg tgattgctat caaccaacac ctgcattaac aaaaattga coggcatctc atccgtcaga tttttgcgt ttttgcgt	attitcaaag cgatataaat cgggattate tacaccaaac taaccctift ttcaacggcc tatggctata tggtgtagca gaatcatgat agccttggat atatcgcctt ccgggccgac gaatcaggt agcgttgcag gagttgagg	60 120 180 240 360 420 480 540 660 720 780 840 960 1020 1059
<210> 5485 <211> 225 <212> DNA <213> Enter	obacter clo	oacae				
<400> 5485 ctatatctga tctgttttta gtaatgagtg aatcggacaa	taattgagct ctatcgttgt	cgtatcattt atcacaaagt	tactttaaca tttgtcggcg	tatcaggggg ctcaatattt	ccctacggct	60 120 180 225
<210> 5486 <211> 186 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5486 cctttgagaa tggggaattt gggcaatgca cactaa	egececgece	tgagaataag	cgagataact	ataacgctat	tgattaccct	60 120 180 186
<210> 5487 <211> 273 <212> DNA <213> Enter	obacter clo	pacae				
aacgegtggg aageegegea	attetteegg tteetteegg eteaacagat	ccatatgccc aagcacggcc tagtacagac	caaaaattta ttacgactac gagtacggcg	gcaagcaggt agcgacttat aactctgtct tgcgttttcg	aaacgaaaac gtcaattgag	60 120 180 240 273

```
<210> 5488
<211> 363
<212> DNA
<213> Enterobacter cloacae
<400> 5488
atgaaaaaa taategtget atcacttetg ggegtagtgg ttgeggtggg tgetgeggee
agcatctatt caaatgaaga accagaatat attcagtcag caaaaagccg tgtcggatcg
                                                                      120
                                                                      180
tatttaacca gegattaegg aegtgtegaa tgtaatagea eecaggtaag tgaagatege
                                                                      240
tgggagetgg getgtaceaa taaggegaga ggcaaaaeet teeagttege egtttaceea
                                                                      300
cccgagcagg caccgtatgg ggtctctcgt gcgttttatc tcgaagcgat taatgatgat
                                                                      360
qcccqccaqa qtqcagatca ggggctgatg cgttatctgc aaattaatac caaagcgggt
                                                                      363
taa
<210> 5489
<211> 312
<212> DNA
<213> Enterobacter cloacae
<400> 5489
ccaatattct ccacgoteat atogtacacg cgtgtaagat atatggteat aaagggeage
                                                                      60
gttgccccgc ggccaattgt taataacaat gacgatgcca gcagcgctgc ggttgagcgc
ctgattgatg gtttcatttt cctgcccgac aaatgcttat gcttttttgt tgtgttatta
                                                                      180
caggattate atgggategg cagettgtat ageacceaat ttateegcaa gtgettetea
                                                                      240
teagtaceag aattaatgat ettetegegg ggetattttt tetgttacet tgaagtgttt
                                                                      300
                                                                      312
acaaaatttt aa
<210> 5490
<211> 660
<212> DNA
<213> Enterobacter cloacae
<400> 5490
aaaggtgaag gaatacatta toggtactat coagtoactg goggtttttt gatgaaaatt
                                                                      60
etgcaettgt taaccggaca egtttettae gageteetge aacacggaaa aeggattgag
gacgetattg geogteatga caatgactta ttaaaccatt ccacacccga actggagegg
                                                                      180
tatttttcac gcccgcttag tgagetgcca cggaaaaatg cttatccggt agogatatta
                                                                      240
ttaccqctat ttctggtgat ttttgcgttt aatttgctgc catttctcca gacaatatcc
                                                                      300
                                                                      360
agtatgtogo caacgotaca tacactoagt ttttttgtoc catogotago gatacttato
ttoctgatgc tcgcgagtgc cttccttgcc cggggataca cttcagggct atcagggttt
                                                                      420
ttagegettt teateateet getgacatta aeggtactge aatggettea etatetgace
                                                                      480
                                                                      540
atttctgatg gcagtagctg gcagctgatc attgcaacga tcgctttggt aattagccgt
atggtgttaa acagtcgagg ctttgtgctg ttcacgctat attgtcgttc gaagcgtctt
                                                                      600
                                                                      660
qccacqctqq ctcqcatcat qcqcctaaaq agcggcaagg ataatgtgag gaacacatga
<210> 5491
<211> 234
<212> DNA
<213> Enterobacter cloacae
<400> 5491
cacqattatt tttttcattt attcqatcca atccttagcc agaaaaatct tattgtaaat
                                                                      60
gattteecaa taaatetagt tgetetttge ataccagaaa tgggagttta caacgtegat
atogotttta agaatagtot taagogogtt ttattgogac cacaattttt gacactotat
                                                                      180
                                                                      234
tttctcaaat ttaaagagtc gaataattac tctatgaaat tatccctacg atga
<210> 5492
<211> 231
<212> DNA
<213> Enterobacter cloacae
```

<400> 5492 aaagtgaaga tagagtgtog agtagogotg ogottacocg acctggaaaa coctaatt aggcogggta aggcgaagoc gtococoggo aaaaccaaca cottagtggt gcaacatt ctocaccacc tgotocttgt acatotcatt ogggtagtag gtoggcoagt tatocatc ttttcagcago gcotogtggg aggtgttgcc cataaagata tggaagtgtg a <210> 5493 <211> 189 <212> NNA	ctc 1	50 120 180 231
<213> Enterobacter cloacae		
<400> 5493 cccgtcaaag aagtcaaagt gccaccaggc gcggcggaat tcaccgtccg ttaccacc cagaccgcag gcgcactgct gttcgacaac atggcgaatg gcctcgtct caaccgcc aagctgaccg gcatcgatct caccgctggc aaattgcaga cgggcctgtt taacagag cgggcgtaa	gcg 1 gtc 1	50 L20 L80 L89
<210> 5494 <211> 222 <212> DNA <213> Enterobacter cloacae		
<400> 5494 aaaactgccg actacatogg ogoggtacgg ggogtggtgt ogotgcatgg aaatoto tgtotgtogg ogttaattgo ocacagtgat aattoattto ttgaacattt agacttof atytotaaac gtootaaaaa qatgtoatac oggotogcog oogacaaacg agaaaati atotgtgttg aaataaatto atgttoacag ggoggogat ga	tgg 1 ttc 1	50 120 180 222
<210> 5495 <211> 339 <212> DNA <213> Enterobacter cloacae		
<400> 5495 atgcagogog cegggeagat geogeoggge aaaatgttea ggetteeega caacgtgg cagaacaaag teetgeteac egetggatac egegtgatgg acateggeg agteegt gacgeteaga egacgeagaa aatgceeeac ggetteetge ggeteageag eeggaaa' agtaacatag eteatgaate tteeteattt gtggtgtttg tgttaacact actetat- ttaatteaga acatgaatge gteegeceta gecagaaaac agcaaaaaga tgacaaa- aagacateee tegeegegeg eggtegtget ggeatatga	ete 1 tte 1 ece 2 ett 3	60 120 180 240 300 339
<210> 5496 <211> 249 <212> DNA <213> Enterobacter cloacae		
<400> 5496 caccagaaga ggatcgacgc tgagaatacg ccgagccatg accagtattt tacggtt atgttattca tcatagggac atcagacttt aattatttaa ggttgcgagg tctgccc ttctatattg ctgatgtgta tttattaagg agtacaaaag cgcacagtct ttattca- tatttgcatc attacgcaaa attcaaaaatt attgttttt gggttcgtct tccgcga- catcaataa	tcg I gac I aca 2	60 120 180 240 249
<210> 5497 <211> 213 <212> DNA <213> Enterobacter cloacae		
<400> 5497 acaaccattg tttcaccatc ggcgagagtc tcttccgctg cgtgtgcgct ctggtat	agc (	60

			2003			
tcatttccat	ttgttaaaaa	aagtgtagcc tgcgatgacg aaaatcttca	aatattaatg	ttattatgtt atagtcattc	attcatcaac tcattacaat	120 180 213
<210> 5498 <211> 252 <212> DNA <213> Enter	obacter clo	acae				
ctggaattac tgtcagcttc	tggggttgat gtgacaatgc tgacgccaca	tatggtcatg tcacaaagcc	acggtgcgta cgtaaggcgc	atggtggttg cagaagcgag cagcaaccag tgttcgcgga	aaaagagatg egtgecaget	60 120 180 240 252
<210> 5499 <211> 297 <212> DNA <213> Enter	obacter clo	pacae				
ccgatccgcc cgccagacac gttgtgtcaa	tgaccacgtc ttaagattat ctcttgtaat	aaaaacgagg teegaataca aatteaegee	tttggccacc gaagcacccg acgttcacat	caaaagaagc ctcttttcaa ttgcgacgat taggattatt ttaccgtccg	cacgttattt atatttttgc agctaagcga	60 120 180 240 297
<210> 5500 <211> 426 <212> DNA <213> Enter	obacter clo	pacae				
accetcagea catetgeaaa ategegtete teacagtate egegtetatg	cattaacage ttecactggt tttatcagga tacaggacae ectegetgae	ctgragttct gttgccgggg aaataaacag caccgcaaaa caagctggaa	ccccaaccag gaaaaatcgc cagatcgaga gaaatttttg cagctagata	cgttctttt acaatgttga cgcaggtaca ccctaacgcg ttgcggacag tggttaacca ttcttgaacc	aaaaattaat gatatcgcat cagcgtaaaa tgccgttcaa gcaatacctg	60 120 180 240 300 360 420 426
<210> 5501 <211> 843 <212> DNA <213> Enter	cobacter clo	oacae				
tggaacagaa gcaaaccggc gagataaaac gaatgcattg cgcctgttaa aataaaatcg tttggtggct ctgattgccg ggacataaac ggatttaatc	catggtcaga tgtcagcatt aggttgcaga catgcatcaa gaaccagagc tcggttatgt ttatgatgtt atggaatgaa cctcgcaagg ctaacacggg	taccatggtg ctatttgcaa taaagaatt aaatctgcgt cgcacagctt tatatccgcc atccactatg cggattaacg ctggattaacg cttggctctc	aatctagagg gatggtctta gaaacagcac gctgaaacag tacgcgaagg gtaaacgtgg gggccgattg aaagaagtgc gactccgcga tataatggtg	ttgcgttgct cccggaaact cacgtatcaa gacgagctaa ataatctaca tcgagtttgt tgctatcagg gtatgctggc tcaactttga tgcatacggc ttactctcgg gattatttcg	cgtcgaaaca gtttgtcgaa aaccgatgaa cgaacaagaa taaggaaaat cgtggttetc tggggcagtc tcagccagaa ccagttcatg tgcagttg	60 120 180 240 300 360 420 480 540 600 660 720

			2064			
cacgattact ggttatggtg taa	atogcaaagt ttaaagcaaa	cagcacaatg agtgattttc	agcactccta gatctattga	agctaacaat caaccgaaaa	gaagattgtc tggaaccagt	780 840 843
<210> 5502 <211> 372 <212> DNA <213> Enter	obacter clc	pacae				
aaagtgactg aaaagcaaca cgatttgtta gtcttcagct	atgaggettt ttgaaaaata cettggeggg cacetgatag tegegeagee	gttacgttca tggaggaacg agtggtggct agcagttgca	gggtttacgc cttggagagg gtgtgtgcct tgggggctgg	ataagggacg agcccgaatt ccataaatga taatcctact cgatgatctt cctggcgtta	gcagaagata cctcgctagg gctacttatc tggggttgcc	60 120 180 240 300 360 372
<210> 5503 <211> 204 <212> DNA <213> Enter	obacter clo	pacae				
atggctaccg	ggaagagaaa ttgaactcac	gaaccaaaag agaggagcaa	gaatcacctg	ctaataactc aagaagagtt tcgaatccat	agatcgcttg	60 120 180 204
<210> 5504 <211> 219 <212> DNA <213> Enter	obacter clo	pacae				
tcgttaaaca ccgaacgttg	acagttttgc ataacgacag	cagctggtcg	ctggaagegt getattaagg	cggttcgcgg catctgacgg ctctcatgtt	tgcggcgaaa	60 120 180 219
<210> 5505 <211> 570 <212> DNA <213> Enter	robacter cl	pacae				
actgccatgg acgtttgagt gcaattgccg aaattcctgg ctgacgtttc gacgcgtatg acctgtttc atcacgccgt atccgtttct	aaccaaaaa acgcatttcg ggctgttttc ctctgagcta cggtgacgtc agcccggcag tcgtctacga caaaagcagg	tgaaaaagtg tcaggtgggt aageggtgtg tgagegette tgaggggaaa egtetggcca tegtttacaa	cctgggataa tttattgtgc gtcagcgacg ggtcgccgcc tataccctca caaccggaca cagaccgata	aattaagcga aagagatta tgttagctat tggagaaaac agaccgaatc gcctgaccag gcatgtacag aatttaccgt gcgtaaacaa	tegtttactg tategtggeg aaacgatgca geggatggeg egaaagcage eegggggaat tetattatte	60 120 180 240 300 360 420 480 540 570
<210> 5506 <211> 366 <212> DNA <213> Ente:	robacter cl	oacae				

atatggaaaa gattataccg ttccatatgt ttttattact	teggegette cagetaaaaa gtgtaateag gtgaatttat	aacttogggt aaaagaagcc aagagtgaac gacgccaatc ccagcaactg gccctcaccc	coggttcagt gaaaccaatg cogacacctg acttcgaaag	ccaccataat atgttgcgtt attttgcagg aatctggaaa	agaagatacg agcaacatct tgcgccgcca gcgcctcgca	60 120 180 240 300 360 366
<210> 5507 <211> 633 <212> DNA <213> Enter	cobacter cle	pacae				
<220> <221>unsure <222>(80)	2					
cgtaccgcet ctttgcgcca gcacctgaac tacgtgtacg gatgttccac cccgagggcg gagcacgata aagcaggcat gttgacgaaa	ccccagcctn tgctggttgt cgatcaacgc tgagtaaacc cgatgcagga cggtgccgca tcgcccccgc taaaagagca cgcaggataa	geteagegea gaaaaaegta eggeetgtat cagegttgee gtteeegeat tetgeegat eggataeeteg cageaegage gaageaggag tteaeaaageg aeggeggag	tteggeaaaa atgeaegtet aaaceggaaa eegeageeta ageagtgata egggatacet agtgaagagt tatteteaag agtgtaaaaa	cagcgttatg actggaacct cgcagctttc aagttgggca atgccgactg tacceggaac catcattaac gaaaaattcc	getggtegge gegeeaeeeg ggaaatgeat agtgeatgtt geageaggeg egaggegeat ggaattattt egegeegeeg	60 120 180 240 300 360 420 480 540 600 633
<210> 5508 <211> 186 <212> DNA	cobacter clo					
gtgacgcttg	ggcaatacgc	cgtctcccct tgagactgtt ttatcttgcc	ttgctgcgtt	ttaaacgcgc	aattctttac	60 120 180 186
<212> DNA <213> Enter <220> <221>unsure	robacter clo	pacae				
<222>(187) <400> 5509						
agogaactet gaaateetee gettaentgg gaatttgagg acgaaatgeg gatatgetge	ccctcaaccc tcgactgcaa aagaggtgaa acgacgegga actactgccg cgcacctgac	aattatgaat cgatctccca atcacttccg atccggcctc gcaaccgcga ggcgttaaac gggactgctg gtgcatgact	accettgeeg caaaegeage acagagteaa caaaaagagt catgtgetge catgacatea	agegetgeaa cegtttgeeg tgegtgattt ggttgetgga tggtategea eccaegegat	actgeteace ttgettegga teaggtggtt agatacegaa tgttgacege ggetgaagat	60 120 180 240 300 360 420 477

```
<210> 5510
<211> 183
<212> DNA
<213> Enterobacter cloacae
<400> 5510
gagegttgtt cettetteeg cetggtgage atattgaatt tatatgeaat agaaatgatt
                                                                      60
aagtattatt ttaatcacaa aaaaaagegg ataacecate aggttaeceg etecatgaat
accepttttat gcatttgcgt ggttaattcc tgcgctcaaa cgctaacgcc ttacgctcga
                                                                      180
                                                                      183
<210> 5511
<211> 192
<212> DNA
<213> Enterobacter cloacae
<400> 5511
tcacacctgt taaagttata tittagatac atgtttaagg ttatgcctgt gccacagcag
                                                                      60
agaaaagtgc tttcttatac taagtggagg gttattgatt tagcgcaatt ttggcggcag
gttcactacc gccaaagcag tatcaggctg agaagaacgc catcagaatg ggtaccagca
                                                                      180
ggctcagaat aa
                                                                      192
<210> 5512
<211> 2325
<212> DNA
<213> Enterobacter cloacae
<400> 5512
ctgatgcaga acgecagege tttgccgcac cgtaacgccc tgcgcccggc gctgctgtgg
                                                                     60
geogeggtat geotgateet getgggegtg etgetgtege tgetgeetgg egegeggetg
aacagcageg tgctcgccat getgeegaaa cagaegeteg gegegateee tecegetete
                                                                     180
aacgacggat ttatgcagcg cotogaccgc cagetcatet ggctggtcag coccggcaaa
cagceggace egegegtgge geageagtgg ttaaccetge tgcaacgcag ccaggegetg
                                                                     300
agtgtcgtaa aaggtccgct ggatgccgcc gggcaacagg cctggggaga tttcttctgg
                                                                     360
cagcaccgca atggcctggt cgatccggcc acccgcgccc gcctgcaaaa cggcggtgaa
                                                                     420
gcgcaggetc agtggatcct gtcccagctc tactccgcct tttccggcgt gagcggcaaq
                                                                     480
gagetgcaaa acgateeget gatgetgatg egeggegege agetegeget ggegaagaac
                                                                     540
agccagaaga tgcagctgat ggacgactgg ctggtgacaa aagatgcggc cgggaactac
                                                                     600
tggtatctgc tacacggega gctggcgggc tcgtcgtttg acatgcagca aacccaccag
                                                                     660
etggtgacca ccctcaacgc gttgcagcag acgctgaaaa gccagtatcc acaggcgcag
                                                                     720
ctgctctcgc gcgggacggt gttctacagc gattacgcca gccagcaggc taaaaacgat
                                                                     780
atttccacge ttggcgtcgc cacggtgctc ggggtgatcc tgctgattgt gtcggtgttt
                                                                     840
egetcegtge gtccgctgct gctgagcctg ctctccattg ccatcggcgc gctggcgggg
                                                                     900
acggtcgtga cgctcctgct gttcggtgag ctgcacctga tgacgctggt gatgagcatg
                                                                     960
agcattatog gcatctegge ggactatacg atttactace teacggageg gatggtgeae
                                                                     1020
ggcgcggaac actcgccctg gcaaaagcctg gcaaaagtgc gtaacgcgct gctgctggcg
                                                                     1080
ctgctgacca ccgtcgtggc gtatctcttc atgatgctgg cccccttccc cggcattcgt
                                                                     1140
cagatggegg tgttegeege egeaggaetg agegeetegt geetgaeggt aatgttetgg
                                                                     1200
cateogtggt tgtgccgtgg catgccggtc cgcccggtcc ccctgagacg gataatgcag
                                                                     1260
egetggetgg acgectggcg cgacggtaaa geeeteteeg tegggetgee ggtagegetg
gegetgetet eegecategg gategeeage etgegggtgg atgacgatat egeceggett
                                                                     1380
caggegetge egeaggaeat tetggegeag gaaaaaacca teacegeeet gaeegggeaa
                                                                    1440
aatgtogato agaagtggtt ogtggtgtac ggogogtogg otcagcaaac gotggagogg
ctggaggcat ttaccccggc gctggcgcag gcgcaaaaag ccggtgaatt aacccgctgg
                                                                    1560
egtaccetge egetgaacte getggegega cagaacageg atetgeatet getgegeaac
                                                                    1620
gccgcaccga cggtggtcaa aatgctgcaa agcacggggc tgaacgccgt ccctccgaac
                                                                    1680
ctgaacgcca tgcctgtcag cgtggaageg tggctcgcca gcccggccag cgagggctgg
                                                                     1740
egtttgetgt ggetgaegtt geeggaegge aaaageggtg tgetggteee ggtegatgge
                                                                    1800
gtcagaaaca gcgccgcgct cggtgagctg gccacccgcc atcccggggt cgtctgggtt
                                                                     1860
gaccgtaagg ccagettega cageetgitt gegetetace getegetget gteggggetg
                                                                    1920
```

```
ctgggcgtgg cgctggcggt gattgcctgc ggcgcgatgc tacgcctcgg ctggcgaaaa
                                                                       1980
  gggctggtgg cgctggtgcc gtccgtgctg tcgctgggcg gcgggetggc ggcgctggcc
                                                                        2040
  gtgacgggcc atcoggtgaa cotgttttcc otgctggcgc tggtgctggt cotcggcatt
                                                                       2100
  ggcatcaact acacgetgtt tttcagcaac cegegeggca egeegetgac etecatgetg
                                                                       2160
  gegattaccc tegecatgat gaccaccetg etgaegetgg ggatgetggt atteageace
  actcaggcca tcagcagett tggcattgtg ctggtgagcg gtatettcac cgcgtteetg
                                                                       2280
  ctegeceege tggcgatgee gtetaacaaa gagaacttac catga
                                                                       2325
  <210> 5513
  <211> 312
  <212> DNA
  <213> Enterobacter cloacae
 <400> 5513
 cogggtcatc ggcgacgatc agcagcgttt cgccactctg catgttacgg acggtttac
 gcaccatcat taccggctcc gggcaacgga ggccctgagc atcaagcgtg tggtctgggc
                                                                       120
 tggaaaacag gtcggtcatt ttcttctcgt tcaggtaaaa acggctgtag tttacqcccc
                                                                       180
 gctatcgcca atgcaaacca ggttaacgat tgcgtgaaaa ttagccattg caaagtgtcg
                                                                       240
 tcaaagcagt atcatgoggo ggotttattg ggttccctca ccccaaatat taatcaaaaa
                                                                       300
 ggtacaatat ga
 <210> 5514
 <211> 375
 <212> DNA
 <213> Enterobacter cloacae
<400> 5514
 ctgcgcagct acaggagttg tttcatgaag atccctgaaa tcgggcgcct ccagcccgat
                                                                       60
 ccacagcate tggagataac cttttatett gateetgace tgetetggtt taagggacat
 ttegeegtae ageegetget geegggegtg geeeageteg aetgggtaat geattaeget
                                                                       180
 gccgcgctgg cgccgggcta ccgttttcac agtattcaga acgtgaagtt cgccgccccg
                                                                       240
 ctgttgccgg agaatacggt cacgctgctc cttgcctggc agcccgaacg cgagatgctg
                                                                       300
 acctttagct accagegeca tgegggtaac gagegecaca eegeeageag egggaagatt
                                                                       360
 egettatgte agtaa
                                                                       375
 <210> 5515
 <211> 183
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5515
 agttgtaaag ttttaaaaaa acacatacaa aacatgatgc taagtgtgta tcacaegetg
 ttccaacatt ataccttgat gttcttgcag gaactgcaat ttacaggagg aaaaaggtgt
 ttttgtagtt atctggcgtt acgtgacagt gttggtcaga tacttccacc tcttcagagt
                                                                       180
 taa
                                                                       183
 <210> 5516
 <211> 723
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5516
 atgaaattta cacttaccct tategactgg caggcaagag cgccaggact cagcgatgcc
                                                                       60
 gacgaatggc aggcatggtc acgccggtct gacgccatcg atcccgctgc accqctqqcq
 aaactgaceg atctgccgat gatgacegee egeegeetga attcaggcag caggetggee
                                                                      180
 gtcgatcttg gcctgatgat gctgcgcaaa caccgcatcg atgccgtcgt ctacagcagc
                                                                      240
 cgtcatgggg agctggagcg caatttccgt attctccagg ccctggcggc agaacagccc
 gtttccccca ccgattttgc catgtcggta cacaactcgg cggtcggcaa tctcactatc
                                                                      360
 gccgcgcgtc agcctgttgt ctcttcgtcg gtttccgccg gtatggatac cttccagcag
                                                                      420
 agettgtgeg acgtgctgag cotgetgcat gegggatact coegegtatt getggtggat
                                                                      480
 ttogacggtc tgctgcctga tttttatcac gccgggttgc caccgcagat gcccgtctgg
                                                                      540
```

```
ccctacgcgc tggcgctggt gattgaagcc ggaaatacgc tcagctgtga aacgcacgtc
                                                                      600
 aaccgcacgo ctgaagagoo egogotgoog caaagcotee agttootgog coattacotg
                                                                      660
 egggacgage gecagtteae eetgeeggge gagegeetge tgtggcaatg gaegegeeaa
                                                                      720
                                                                      723
<210> 5517
 <211> 819
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5517
cagaacaaca aacgatttat caggaagtot otgogottot tattaogotg tttgaaatog
ccccggagga tattacccct gaggcacgtc tttacgagga tctggacctc gacagcattg
                                                                      120
atgccgtcga tatggtggtg cacctgcaaa agaaaacggg ccataaaatc aagcctgaaa
                                                                      180
cetteaaage ggtgcgcacg gtgcaggacg tegtggacgt tgtggaacag etteagegeg
                                                                      240
acgcgtaacg tgcgttcgat tcgagttctt cccgccctga cggggctgat gctgctggca
                                                                      300
tggccgtttt tgatcggctt cgggctggcg aataatagcc tgcacgggat actgcccgtg
                                                                      360
atggcgctgg tgctgctgat gcgcgtctgc caggcccgtc ggcagggegg ccccctgcgt
                                                                      420
tatetgtteg taagegtgge getggeegge atagegettt gegeggegag etaegteetg
                                                                     480
cacgcgcacc agtgggtgct gttatatccg gtggtggtga atctggtgat gctggtggtg
                                                                      540
tttggcggtt cgctgtggac ggcaatgccc gtcgtcgaac ggctggcgcg cctgcgtgaa
coggacotot coccogtogg ggtacgttac acgcgccggg ttacccaggt ctggtgcggc
                                                                      660
ttttttatta tcaacggggc gatcgcgctg tttactgtat tacatgccga tatccgtctg
tggacactgt ggaacgggat gattgcctat ctcctgatgg gcacgctgat ggctggcgag
                                                                     780
tggctggtgc gacaacgggt gaagaaaaac gatgcttaa
                                                                      819
<210> 5518
<211> 759
<212> DNA
<213> Enterobacter cloacae
<400> 5518
aaaccgtctg cgcatcgcct atcaaatctt cgacgcgcaa accgggaaac gcaccaccac
                                                                      60
cggctacacc attcaggtgg cggtggaaga agcaagccgg gagatgtgct ttgtcagccc
ggccattctg ttcgaacgca tggggatcgc gccatgaaat ggataacgct actcgcgctg
                                                                     180
ctggtaagce cgctggtgaa cgcggtcacg ctggatgaac tgcaacagcg gtttgcggag
                                                                     240
caaccggtag tgcgcgcaca cttcgaacag atacgcacga tcaaggatat gcctcagccc
                                                                     300
ctgcgctcgc agggggagat gctaatcgcc cgcgacaatg gcctgctgtg ggatcaaaaa
                                                                     360
gcgccgttcc cgatgacgct gctgctggat gacaaacgga tggtgcagat cgtcaacggt
                                                                     420
cagtegeege agaccattae egeegacaet aaccegeaga tgtttcagtt caaccatetg
                                                                     480
ctgegggege tgttccagge egacegcaag gtgetggaag agaacttceg categattte
                                                                     540
aaagacctgg gegaaggeeg etggtegetg gtgetgaege eegteaceae geegetggae
                                                                     600
aagattttet eeaceettga tttgaaggge gegatetate tggaateeat tegeetgaae
                                                                     660
gataagcagg gegacaegae ggatategee etetecegee accaactgae geeegeeege
                                                                     720
ctgactgatg cagaacgcca gcgctttgcc gcaccgtaa
                                                                     759
<210> 5519
<211> 594
<212> DNA
<213> Enterobacter cloacae
<400> 5519
caaagagaac ttaccatgac cogtttcatt cgcctggcgg cagtgatgat ggccctgttg
                                                                     60
ctggcggggt gtagccatac gacgaaccgc gatgacgcgc gccctcaggc ctggctccag
occggcaccc gegtcacgct acccccgccg ggcatcacgc ctgccatccg egegcagcag
                                                                     180
ttgcttaccg gcagttttaa aggccagacc cagtcgctgc tggtgatgct gaacgccgac
                                                                     240
ggaaataaag tgacgcttgc cggcctctcc tacgtcggga tccgcctgtt cctcgccacc
tacgacgaca cogggatoca catcgagcag toggttgtga tgccgcagct geogeocgcc
                                                                     360
agccaggtgc tggccgacgt gatgctgagc cactggccgc tcagcgcctg gcagccgcag
                                                                     420
ttgccgaaag gctggacgct gaacgatact gacaccagac gcgaactgcg caaccccgat
                                                                     480
ggcaaactgg tcacggaaat tgtctacctg aaccgtaacg gcaggcgcga accgattagc
                                                                     540
```

```
attgtgcagc acgcttttca ctaccacatc accattcaat atctgggtga ctga
                                                                      594
 <210> 5520
 <211> 672
 <212> DNA
 <213> Enterobacter cloacae
<400> 5520
gacgtattta tgaccaatat gattgccgac gaagccgtgg cgaagtccag cgtgctctct
                                                                      60
gtotttgact ttgatggtac gttgacgcac cacgacagtt ttatcccqtt cctqcqcttt
                                                                      120
geettiggea agegetaett tgetggeega etggtgegea tggeeetgee taegetgeae
                                                                      180
tgtgtgcgcc gcaagctgac gcgagatgag ctgaaagagg tgttgatcaa aaccttcctg
                                                                      240
acgggggtgg atgagcactg gttacgtcag caggcggaag ccttctgtga aaaatactgg
aacaagetga tgegeeegga aggtgtgetg geegtegeea aegaggteaa tteeggtgeg
                                                                      360
gaagtgacga tttgctctgc ttccccggcg ctggtattgc agccgtgggc cgataagctc
                                                                      420
ggcattaagc tgattggcac gcagctggaa gtgaaagacg gcaagctgac cgggcggatc
                                                                      480
accggccaca actgccggtg tgcccagaag gtggcgaggc tggagaaggt gtatggggat
                                                                      540
ttgaacgegt atcacctgeg egeetgggge gacacgegtg gegaccacga gttgetggeg
                                                                      600
gcggcgcagg atccacactg gcggcatttt catcatccga gcaagcgccg aaattcacca
                                                                      660
attaagggtt ag
                                                                      672
<210> 5521
<211> 717
<212> DNA
<213> Enterobacter cloacae
<220>
<221>unsure
<222>(520)
<400> 5521
aataaacgta tagcaataat gtacgggaac aacgagatcg tcagttattt acaggccaat
                                                                      60
aaaatacttg cgcttaaact cgaccatgct gttactgcgg tcggccagaa cgtcaaaaca
                                                                      120
caggtgaata tgatagggaa aggcgccact cggctgttgt attacgcctc atgtttcact
                                                                      180
gatgaataca atgatgtttg cctgagacag aagagcgaag acctacgctt cagagatgcc
                                                                      240
gtttataaat tagtaagogg tgtggatgta gtctatgaaa tgcttagact gtattttgag
                                                                      300
gaagttttca aatacaaaaa tootaaacag ttagagtata ttaaacagog gotaatggot
                                                                     360
gtaaatgtcc acategetgc ggttagcctt aceggtgccg ggtttacatt agecgttgcc
                                                                     420
gcctgcgttc gccttggatt aaatatcagc ctcgaattaa gcgccattac cggaagatgg
                                                                     480
getteeegag gtattgettt tattgggetg tatggggtan tacageaage egeegatage
                                                                      540
gegeategte tgtaegttga attreeegee tggtaetegg caetttatge teaagggett
                                                                      600
gaaatgottt attitotoat tgagootgtg titogotgga oggacgogac acgtgogota
                                                                      660
tgggcatctg atgacgacat cgcggatatc atcaccaggt tgatcagatt acaatga
<210> 5522
<211> 732
<212> DNA
<213> Enterobacter cloacae
<400> 5522
ggatgcgaga tgaataaaac gtggacccgt attgtgattg tcgtcattgc ggctgccgcc
                                                                      60
gtggcgttet gggtgttttt cgacaggcag cgcgcccegg aacggcagat ggataacgcc
cttaacgcga tgcccgcctg gcaggtgatt aaggagcagg agcccgcgct gcatcagcgc
                                                                      180
atcotogaco agatggoogo cotgoaaaaa gogggogago oggagoagoa gattatogac
                                                                      240
accatecage egeagatect geatetgeag atgtegegee tgeagaaege eeeggaegee
                                                                     300
aacgtggtga actacatgac catcaacatg gagcagaccg ccgccatcca gaaggtgagc
                                                                     360
gacgacgcet getteegett eetetaceeg atggtgaagg geggeateaa eeegatgegt
                                                                     420
atgctggata aagacctgat gacgcggcgc atgcaggccg acgccgacat gatgcgcgcg
                                                                     480
gectaeggea aaaacegeea caeegtgace ceggeegaae gegaggegge tqtegaggat
                                                                     540
gtgcggccga ttatgaagca acttgccgat aagtacggcg aggacatcca gctgctgcag
                                                                     600
atgccggaga aageggtggg caaagagaag ctctcctgcg atatggtgca ggagatgtgg
                                                                     660
```

gecaaggtge gagetggaet	tggegetgee ga	ggagcagaag	gcggcgaggg	tgatacggct	ggcggtgtct	720 732
<210> 5523 <211> 237 <212> DNA						
<213> Enter	cobacter cl	pacae				
gtggttaccg caaggcagcg	ccagcgcaat tcagtctatt	tatatatccg tttagagagt aatggagtgg cagccagagc	ttcattcatc cggatgcgtc	atccattaat atttcccgga	tagaatagag gagagtaaaa	60 120 180 237
<210> 5524 <211> 1119 <212> DNA <213> Enter	obacter clo	oacae				
<400> 5524 actaaggaac ccactacca ccactacca ggacgtatcg gggtgacgca gacttaaccg ggtgacgcat catcaaatca ctgagcaaga gaacagttct cagccacat tcgtcggggggggg gcggggggg gcgggagacacagacagca caatcaagccagca catgaaaaa ccagccagca cctgtaaaat ggcaaccaaa ttgaagcgct	teageaaact tetettgatea atotgetgge caecgetga cegacgetga ttaageaacg ttategtgge catgggatete taagtegtge ceggaacaag gaagetggta teceageaac getttaegat atotgtateg ggetggaaca getttaegat acetttaegat acetttaegat acetggaaca	agccagcaga gtgagatgatcagattgatcagattgatcagattctttaatacc ggagaagctggattacgttacctgcattacgttacg	caactgotgg atogceatc gatgoctcgc caggogtgg tatgaaaaat gaactggaag gatcottca ctgttcttta gatcagacga gaagaaccct gaagaggcac ttaaaacagc gagttggta cacggcgaaa gacgatcccc ctcgaagcgg actccaaat	agaagatgat aggaaaatac tgatcctgat attacgcctc ttctcggtgg aagagtcgt ccgaagctat aagtgttcca aacgcaaac ggaatggcga ttcgatagcggg ttcgtcagaag tgcttcagaag tgcttcagaag tgcttcagaag	tttaaacgac gotegataaa tgagettaag ctgggtggat cggaaatcta caatcagteg tgtcgattat gcacggtgac aaatgccgg gtttaatgc ctttatcagt cgaccggtt cgaccggtt cgaagttgaa agatgttctt atattttgt aaqtttett	60 120 180 240 300 360 420 480 660 720 780 840 900 960 1020 1080
<210> 5525 <211> 282 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5525						
gtggatctta attgtcagcg tctgaaaatc gattcacttg agtgtacctc	tgggttactt agactcttgt gtcaagctac	cctcggactg ctcaaatcct aagcggtgtt	tttgtageet gttccattga tttgatgeag	cgcaagcatt gagagtatta caatttatgg	egeggtttte ccaageggtt	60 120 180 240 282
<210> 5526 <211> 210 <212> DNA <213> Enter	obacter clc	acae				
<400> 5526						
tteegggttt aeggaegggt aattacacat	ttgcctccac	ctttgttgga	aagatttgtg	aaacggggtt	gcaaatgaat	60 120 180

2071	
tgtctgatct gtacaagaaa cactttctga	210
<210> 5527 <211> 456 <212> DNA <213> Enterobacter cloacae	
<400> 5527 cettatacag gcattattaa aatgaataaa ctcatttte ttgtgttatt cagcacagce gcattagggg cogaagatt tcagatacog atgcagegeg ceettgaatt caateggtgg tacgtcaaac aagtgaacaa cgategttat ceetccaac agggaaatga aatcgatgag ttegttacag caagtacacat gaaaaatac cgcategaa agacacceg ttatgcega gctgaattt acgaggetga ttitititat aaatcgcaa atateggega ggactggget gagaattgtg ctattgatce gtatgattca gaccogget gtgaaacgg gaatacacg tttgcgaaaa agacccagca cacagtcatt gattgcatgt ttaaagaaga tggggtctgg aaaatccagt ctgtcgcaca cacagtcatt gattgcatgt ttaaagaaga tggggtctgg aaaatccagt ctgtcgccac tcgggataat aattga	60 120 180 240 300 360 420 456
<210> 5528 <211> 258 <2122 DNA <213> Enterobacter cloacae	
<400> 5528 agggeacege getggtgeat aageaaatta attatttaet eagaacgeat taatatteat aaagaacegt ttgeattgag taaagegtge attaaatege ttgateceaa aagegagetg egtataatge eegacaatti geegggagga ageatggtea agegtgtaeg acataacqte ttaacegegte tgaaateaaga egetggeetg eegttttet teeegttget aaacetatte eeagageeee teatttga	60 120 180 240 258
<210> 5529 <211> 498 <212> DNA <213> Enterobacter cloacae	
4400, 5500	
<400> 5529 cacaccacaat tattictaaa gcaagtagag ggacctatga agcagtacac caacaaactt accacagaaa tgctggcagc ttttgacgaa tcaccattta cagccgaaca actegcegga atgaagcag aagccagttc actcatcgaa aacacaaacg cetacaatct cgctcatcoc gttacagctg cttactcgat gcacagttga cacgttgatgg tggaaagtt tttagtgaat ataacggacg gcagatcaaa cttgatgacg gcacaatgct aaacgtgtct cgagttggc atgaagtgcg ttacccagat ggaacaccq cgagatcac cactggtgcg ggaacacac caggcgaatc tattgccctg gttggtagct cgctggatgaa attattacg gcccacaaaa tgccggaaga agagtagcc gagcgggga atcgttgca gaaaacttc tgaaataa	60 120 180 240 300 360 420 480 498
<210> 5530 <211> 219 <212> DNA <213> Enterobacter cloacae	
<400> 5530	
Study-Sussi gtggtcgggc gttcaacctt cgcaggccag ggcattaagg gaaggtcgcc tgccggtgcg gcaaaggcgg aggcgccgag cataagcccg gcggttaaga gactgtaccg taacatgaat gttccttatc tgacgggcca aatacagca aaacatctcg ttaacatgcg ctcaaattgt cgtcaagcga atgcgccgac ggagatcaca ggttgttga	60 120 180 219
<210> 5531 <211> 357 <212> DNA <213> Enterchacter closeco	

```
<400> 5531
octactaato gigaatatta totaagtaac tacaaaggag agtataigog ogataaatti
attgatgcga ttcatagtcg ctctaaaatc atgrtaactt tttattcaaa agaagataac
gogacaatca ogagattaac ogotootatg gaetteggee etageegtag agcacatgat
                                                                      180
aaaagtgaca ggtttcattt ttgggattac gaaagtgata aaaaaaatca tgttctcagt
                                                                      240
ttgaggcctg aagctattaa atctctagta gtaatcgctc aaaattttca cccgcaagag
                                                                      300
tttgttaact ggacacccaa ctggtttatc cccagagatt gggatcaata ctcttaa
                                                                      357
<210> 5532
<211> 1152
<212> DNA
<213> Enterobacter cloacae
<400> 5532
aataaggogg toactatggo atoggttaac agaggotgoa cagttoacgg taagaacgtt
ggtctacacg gagataaaac ctctacaggc gcacaatgta ttgccgcccg ccccggtatg
                                                                      120
totgttatgg gottgtggaa actttacato ggogataaga coactoottg cocgaaatgo
gggaaagtgg gggtaattgt gageggtgat cetegetget caaatagtgt egeaqtegee
gtggatggtg ctgaaatcct ctgcggttgt ccacagggta ctaattttct tatcgcacct
ggcaccgttg aggttaatac cccttcctgg actatagcgc ctggagagcc agtgcagcac
                                                                      360
gcacaggcag cgaagaagca aaacagcttt actgacacct gcaagccaga agataatccq
                                                                      420
ttattgaacg gcgtttacat ctggactgaa accacagacg caggacatgc tttcgtttcc
                                                                      480
gtacatcaag acaattegat ttatetetat acctatggte getacggeag aacaggeeca
                                                                      540
gggaatttaa ctggtgacgg aattttaaac tttctgcaag gtgaagatgc gagggtttac
                                                                      600
tatagagcag agetgtaceg gatgggegea agagegttte gaatagatga tgetgateeg
                                                                      660
acaaaaacaa ggcagttott tgaagatott tggaataagg gtgaaccago gattogcaca
                                                                      720
toggaaatga aagaaacaac ccaacgcaga ggccgcacaa ttgatgagta cgacgtaaca
                                                                      780
ggaaacaact gtaccactca ctctgttgaa gggattaagt ttgctggttc aagggtattc
                                                                      840
gagcacaact acacatetac tacgacgcag attectateg aateegcaga agatttcaca
                                                                      900
atcoctgtct cattgcagcg ttarcttgag tcaaaaagtt ctgacttctc atcaatgaca
                                                                      960
gttgttgaaa tgacaggcga gtttaaaaaa atgtatccca acaaggacaa tttgccgcga
                                                                      1020
taccaagagt caccaaaggg taaagttcag cacatogcag cogaagcagc ggctacagge
                                                                     1080
gattcattat cacagtattc cageggtact tttggeggtg tattaggtgg atcttatgae
                                                                     1140
gttgacgaat ag
<210> 5533
<211> 462
<212> DNA
<213> Enterobacter cloacae
<400> 5533
ggcaggggta aactgttggg cgacaaaatg tggacagagc cgaagcgccc tgcgcagcca
                                                                      60
gtgcagcagg cacaaacgtt gattaagggc ggaaccetca atteggtage agecateatg
                                                                     120
gtgcgtgacg atatcaagcc gatgatagcg ctggatttca tcgcgcgtct cggctatatc
                                                                     180
ttgccgtgcc atgacgtcgt ccacgccgtt ggcagcgatt atgctctqtq cgqtqacqqc
                                                                      240
agcateggge aggtaaagea teaaaageae etggeagegg egetgegaae tggaaageae
                                                                      300
agatggaatt tcaagcgtcg tcatcatctg tcgggtatcc agtgtgaatg tttgataaga
                                                                      360
atagetaaag gatgggeget gaaaagegea ceggeaggee tttcactcag gattgetgge
                                                                     420
gaacatcaca gaatttttga cgtgaggaac agatgcaaat ag
                                                                      462
<210> 5534
<211> 345
<212> DNA
<213> Enterobacter cloacae
<400> 5534
cacgaattga taaataattt gactaggcaa gaatgtgatc cagatctaca cttacggcac
aggogaaaaa cttgcctcag gcatatcgca ttaaataagt atgagaataa aattatgaaa
                                                                     120
aaaatcaaaa cogotacago agogatggtg otttoogcac tttoatttgg ogtatttgot
                                                                     180
getgataata egeaacetge caatgaegtt aacageecaa tegggatege taaageetet
                                                                     240
gatgtagaag caggctccaa cattgcccct ggcactcagt ctaccggcca gtcaatgaat
```

			2073			
gatgcatttg	atgtacataa	gctggtggcg	ggtgagtggt	cctga		345
<210> 5535 <211> 291 <212> DNA <213> Enter	obacter clo	oacae				
<400> 5535 aacatattoo goodtggoga gotttgaege eggegeaace gtegttttge	aacggcgtaa gtgatctgct ccggcgagca	agttcagegt gcacgacccg acgcccggag	atggggtgee atagegeaeg egeetgatge	atatgaaget aegggtteee gtaggggtaa	ggaaagcete gggtgggtte aacgegteag	60 120 180 240 291
<210> 5536 <211> 186 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5536 atagtgaata gaggccaaat tgttcgaggg cagtaa	ataattctgg	aattgtgatc	gctcgcgaaa	tttatcggtc	gtttacgccc	60 120 180 186
<210> 5537 <211> 192 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5537 gatttatete geaattataa gatgaatatt atetggettt	tttetaaegg cagecatttt	gcatttcttt	gtattgtttt	gttacaaaca	ggtgccagcc	60 120 180 192
<210> 5538 <211> 210 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5538 agaggggggg caggacagca atccacgacg tecgcegect	tcaagcagtt ctcatacgcg	gcaatacage teteettttg	aacaatgagt	ttgaggacaa	gtatgaccat	60 120 180 210
<210> 5539 <211> 459 <212> DNA <213> Enterd	obacter clc	acae				
<400> 5539 cgaggaatg atcgccctga aactgcage cttaacggca cgcgccggac aaacaacttt catgcgccgg gaaccccggg	aggeggagag ggggtgaaaa ggetggtggg gtattegtea tgaeegtggt aaaeegegta	tatogogttg cogotttaac ogtgtgoggc tototacgtc gatggoggat oggattttac	aatttcaata gegeegggtg eteaacegeg agegaaaagt geeageatet categggegg	tgctgcgcag aaaagctgtt atccgttcag gccgtgggca ggtttgattt	gctggaagag gggggcgttt ccagcagccg gggcattggc tcttaatacc	60 120 180 240 300 360 420 459

<210> 5540 <211> 288 <212> DNA <213> Ente	robacter clo	oacae				
aaatttttca tatggagaca cgccgtatga	agatgcccag tagaaactga tactgaaagg gtatcatttg tgtcattgtc	cttcctcaat gtatgaattg cacggcatgc	gaaateteeg tgttgegttg tgegeaagee	caccatcaaa gtttatggga ttaaagaaca	actgcatgaa ttttttaacg	60 120 180 240 288
<210> 5541 <211> 225 <212> DNA <213> Ente:	robacter clo	Dacae				
tteegteeag aaccategaa	ccatagetee gtattggetg aatttaaaat gttateacce	ctecegeetg gtttttteae	atttgccata agtgtgctcg	aaaaaggaga taaatagttt	cagcgatgct	60 120 180 225
<210> 5542 <211> 258 <212> DNA <213> Enter	cobacter clo	pacae				
gaacagatgg caccacgtca	taaacgcetg caacgctetg ttctggeggt tgaccaaget ggeagtag	gcggcaaacc agaccaggtt	gatagcgaat ctgacggatg	gtggcaccct gcggggatct	cttctaccaa ggatatgaat	60 120 180 240 258
<210> 5543 <211> 210 <212> DNA <213> Enter	robacter clo	pacae				
cagaggggta gaacatatcg	tatactcccc accttatgtc accagccgtt gagaatgttc	gcatcagcaa gaacattgat	attattcaga	cacttattga	atggattgat	60 120 180 210
<210> 5544 <211> 240 <212> DNA <213> Enter	obacter clc	acae				
geggegetga etttttattt ggaaaggagt	gtgcagaagc gcgccagtgt tgagcggatg ttttacttat	gatettgege gteaaaaaae	atattttccc tatccgacca	ctgaatattc taaccccagc	agtttgttat gggaggggaa	60 120 180 240
<210> 5545 <211> 429 <212> DNA						

<213> Ente	robacter cl	oacae				
ctatacctga cactggcggg tctattggcg cggctgccgc gtttacgttc	ctctcacttt cgcatcgcaa acgtggaagg cgccgctggc ccggacgccg tggaggtta agcgtgggat	atcaggagat cgctgatgac ccgcaaactg cacatcttat ccctgaggcc	cgcaaaatga gcaacgtatc ggtctcggcc ccgcatgcgg tggatcaatg	aaagacetga etgacagcaa gcattggtat aaagegaega ggtattttat	ctgtattcgg cgaacgtttt tcaccatgaa agaggagttt ggaagctcga	60 120 180 240 300 360 420 429
<210> 5546 <211> 255 <212> DNA <213> Ente	robacter clo	pacae				
acgtctgtct gcgtctgcgg	ttatgaagaa atgcagctcc ggagttctac caaccggtgg agtaa	ggtccaggtc cgcagccagc	ggggaagcag accagcgccg	caggggcggc taagttcagc	agcgacgtct cgtgggtgtc	60 120 180 240 255
<210> 5547 <211> 486 <212> DNA <213> Enter	robacter clo	oacae				
ctgacagcaa gcattggtat aaagcgacga ggtattttat tgtcacacct aataaaaaac	ctgtattcgg cgaacgttt tcaccatgaa agaggagttt ggaagctcga ttatcaacaa ataaccgtat tcgaccatcc	totattggcg cggctgccgc gtttacgttc acceggagac taccgatgaa ctactatccg	cgccgctggc ccggacgccg tggagggtta agcgtgggat gaggtgcgct ctcaatccgg	ccgcaaactg cacatcttat ccctgaggcc ttccagccgg tactggtggt tgtatgccgc	ggteteggee cegeatgegg tggateaatg gaegggegtg gggtgaggee gaegegegaa	60 120 180 240 300 360 420 480 486
<210> 5548 <211> 1332 <212> DNA <213> Enter	robacter clo	pacae				
gtetteetttt gacgcaatgg cocgegttgc ggcgtgcagg atcaatcatt ttaggtttega ctgaaaggca gatgttettt atcgatcagc ggtgtggcgc acggcgtctg gatcttggcg tataactaca	acgagcacac ttatggcaaa geggaacggg tggcaaaatc tgaccgatga acaaggatgt tcaatcagtt agaccgcaca ccgtggoct aggacattga tggattgcegg gegttecggt gegttecggt ccacctcaat acactggctt	tcaggcgga tgtcgcggca taagcccgag agacaatctt ggttgatagt ccaggggca cgccaccgca tatggcaaaa ttatctgcgc gctaaacggt gattgttcc ttccgttggc ctacgattac	gcagccaata gggagctatg gatgatgtga caggacgaga ctgacccca gcgaaagatc ggggggga ggctatgccc ggtatacaca accgatcaaga gactacggta gacagcaga gacagcaga gacagcaga	cctggacgga gcagcggggc cggttatttt ttgataccat ttgaagttat tcgctgatga ttgccgtcag atggccgggt gaagcgatgc tcaccaaaaa ttgcggtgga agtgcgatgaaaa agtggaacga	agcgcgtagc gttaatcaac gccgtccgtt taacgacaaa caccaatcca actggactac tatccctaac cagctcttca ggtggctgcc ccttaactct ccgtcagttc aacctggctc cagccgctac	60 120 180 240 300 360 420 480 540 600 660 720 780 840 900

			2076			
cgcattcgca ccgctggtca gatctgaccg gccgaagtca gggaacgaca	acggacgcac ctgtcggggc aaaccaaggg cgccgctgag gcaacgtctt tggggcttta	gggagaggta cgcctggcat ctttaaaagc ctggctggca taccggcggt	atgtogogog gtgagttata aacgatotgg gaagacacot gtacgogocog gtoggtttog gagacotggg	aagacaccta tcacgcttac cccagtacgt gttatcgtgc cgccgttcaa	tcagatcegt egcagaegge tggegteggt ggatatgaaa egeegteeae	960 1020 1080 1140 1200 1260 1320 1332
<210> 5549 <211> 192 <212> DNA <213> Enter	robacter clo	pacae				
ataattcatc	gcattgaatt ttgatttcgt	aattgccttt	ttgtgtggaa tttggatttt ttttattcag	atattctttg	ttttacactc	60 120 180 192
<210> 5550 <211> 399 <212> DNA <213> Enter	robacter cl	pacae				
tattttegea gacatecett atcatgcata cagcaggagg ctggactece	tgegtttage acgaatcaga acgagaacgt tggeggagaa	catgottgag catctacgat cagoctacag gottggcatc gegeaccege	aaaaagtatg tacgatgacg aacgtaggtt gccgcctggc agccagtccg gaaaagctgg gagggttaa	atgatgaaaa taccgggtga gcattttacg ccgtgtcaca	cgactgggaa agtgtgcgac cggcatgtcc gctggaagcg	60 120 180 240 300 360 399
<210> 5551 <211> 483 <212> DNA <213> Ente	robacter clo	pacae				
gcaccgcgcg attectgctc aacaccgtgt gatccgggga aagccgttta acggcgatag	atctgctgtg cccataaggt ttgaggtgga aaaagctggt tgacggcaat cgcgccaccc	getetgetgg gaccgaatge eggeeagegg etttacegae tttgeteetg cacgaaggaa	acagacttaa actacgccag gacetegace atggataace ggctataceg gaagacgceg atcegegage etggtggggt	agcacatcaa tgegegtggg ggggcgtatt aaggctggaa gggagggcaa agcatgaaca	aaacttette eggaeggtte cettgaaate geeggeegag aaceegetat gatgggattt	60 120 180 240 300 360 420 480 483
<210> 5552 <211> 231 <212> DNA <213> Ente	robacter cl	pacae				
aacatttgct aagcgcccgc	ttcctgattg aggcgctttt	gttgggcgcg tggatatcag	gegeeagaeg attaatttet gaattteget geeaaceage	gggggttatt taggcagcgc	aaagcacaaa cgggaaccag	60 120 180 231

```
<210> 5553
 <211> 480
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5553
 atototttaa aaccacttot otttoattot titigootgot tatactoggt toactttoto
                                                                      60
 ctgtccgacg atctcaatat gtacgccagc tggacatatc gcctgcgctt tatcaaaaaa
 catctgetga tgtttttgct ggcgtttggc tggctgttga tccagactca ggtggccgtc
                                                                      180
 qcqtcccatc aatqttcaat ggatttgcgc ggcgaggtgg ccaccatcca gcatatggag
 atgatggege aaccggggee geattatget geeggtgett cacegetgtg tgaaaaacat
                                                                      300
 tgtgtgccgg atcaggtaca aaaagateet geccageege atctggtgge getgeetgee
                                                                      360
                                                                      420
 qccatqaccc tqaccttaac tccqccaqaq tgctcgtctg caagccattc tgcgtggtcc
 gttacccctc ctgctgtggg gccgccggca acgatccgct attgccggtt tcgggagtaa
                                                                      480
 <210> 5554
 <211> 1242
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5554
                                                                      60
 atgagcatgc ttcctacgcc agaatacagc cgcaatatgc ggctgattgg ccatagcgac
                                                                      120
 cagggeggtc gtccggatgg cgtgcagctg atggtgcacc gcggctttgc gtatatcggc
 catatogtot cocaqogett ttegattote gacotococo atecaaaaaa teegaaacce
                                                                      180
 gegggetatg teccegegee geegggeace tggaacgtge acetecagge geatgaegae
                                                                      240
ctgctgctgg tgatcaacgc ccgggatctg tttgccgatg cccgcttcgc cgacgagaag
gtotactaca coegtoaggt aggagagaco gtoagogacg ttoaggacag gggotggago
                                                                      360
geoggette gegtttttga tateteeaeg eeggacagge egegegaaat eggetttetg
                                                                      420
                                                                      480
 tegetgageg geateggeat teacegeate tggtaegteg gtggcegetg ggegtaegtg
 teggegetga tegaeggttt tacegactac atttteetga ceattgaeet ggeggaeeeg
                                                                      540
                                                                       600
 cgcaagcccg aggtggcggg gcgctggtgg ctgccgggga tgaaccagtc cgcaggcgaa
 cagooggact ggooggaagg gaaacgotac goodtocacc acgogattat tgooggggat
                                                                       660
                                                                       720
 accecetace geagetgee egacgeege etgacgetge tegacetgaa ggategeace
                                                                      780
 cagoctaago toattagoca cogtaactgg agoccgoogt ttggoggtgg gacgcacaco
 gegetgeege tgeeggaceg egatetgetg gtggtgetgg acgaageggt getegataac
                                                                       840
 caggaagacg gcgagaagct gatctggctg tttgatattc gcgagccgtc gaacccggtg
                                                                       900
 agtateteta cettecegea teeggatgaa ategaetaeg tggcgaaagg ggcgcatttt
                                                                      960
 ggecegeaca acctgcacga gaaceggeeg gggagetttg teageteeac getgatettt
 qeqacqtate agaacqeggg cgtgegegea tatgacattt ccaatccgta tegeceggtg
                                                                       1080
 gaaacgggag cgctggtgcc cgcggcgccg gagaggatga tggatacgcg gccgaatcgc
                                                                      1200
 ccqcaqqtqa tccaqtcqtq cgacgtgttt gtggatgcgc aggggattat ttacagcacg
                                                                       1242
 gattataacg atgggttgtc ggtgattgag tatctggggt ga
 <210> 5555
 <211> 879
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5555
 acagtgagea gegtgeeage tteegeeage agetgteega acaccatace gaacaccatg
                                                                       60
 aattccaccq togttaaggg agoogctatg aacatgaaac cgatcggtgg aatgctgttg
 ttgatggtat ccaccttege ettegeecag caatetttet ccacacetga gcaggeggee
 aatgccctga cgaaggccat cagcgagcag aatgagagcg cgatggccga cctgctgggg
                                                                       240
 gataactqqc qcqactatct gccacctgaa ggggttgatc cggaggcggt ggctcgattc
                                                                       300
 ctgcgtgact ggaagataaa ccatcgtacc gaaatcagcg gcgatattgc ccatctgtca
 gttggcgata acggctggca actccccata ceggtagtga agaaaaaaga gggctggcaa
                                                                      420
 tttgatatgc agaaagoggc tgatgagatc ctgaccogcg aaatoggcog caacgaactc
                                                                       480
                                                                       540
 geggetateg aagegetgea egeetaegte gaegeacage ggagetaeta egeeatgaac
                                                                       600
 cacegotatg egeagaagat tgtcagcaeg ceagggetaa aagaeggeet gtactggeee
 atotogoogg gogaagegee aagooogotg ggtooogoot ttagooogoo ggagootggt
                                                                       660
  atgggctatc acggctatcg gttccgcatt ctgtcggata aaaatggctt tgcgatggtt
                                                                       720
```

			2078			
gcctggcccg aaggtttatc taccacccgg	aggcaaatct	cggcaacgat	teggegeaga			780 840 879
<210> 5556 <211> 201 <212> DNA <213> Enter	obacter clc	pacae				
<400> 5556 egggaegaee gtggataatg gtaetcaege atgegetteg	gggtggagca agetgeegae	gggcattaag gattcagggt	ccaggctttt	teegetggat	cggaaaatat	60 120 180 201
<210> 5557 <211> 195 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5557 tgeegaaaaa ggeetgetaa tegetateeg aggtetataa	gegaagegee agagategee	agcaggcttc	aaaggttact	gctggttttc	gctccagtca	60 120 180 195
<210> 5558 <211> 312 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5558 gcaggcgacg ggggacgaca aacgattcag tcctgctatg agcgtgaaga agaataccgt	gaettaegga caaatttttt ctgeeegaeg gaaegeeege	actgetteeg aatgttgett eggtateggg	ggcccggtga ttttgtaaac catttaccct	cggggtgcta agattaacac acaaactgct	catcatgctt tgtgcagaaa gtctcacagg	60 120 180 240 300 312
<210> 5559 <211> 189 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5559 caacctcaac caacttttta attttgacta cagagatga	aattattgaa	aataatggat	ttatattttg	atgctcccaa	atgggtagtc	60 120 180 189
<210> 5560 <211> 282 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5560 cgtcageccg agegegagec aaagecgage gaggtggegt gtcaacatta	ategeeggaa agaaagaega ategtategg	aggegaeget eggegatttt eeegcaegtt	ggcaataaac gctgcgatac acggataaac	atgtttatca gtcatggaag gcgacaaagc	aatcaaggaa tteeteeggt	60 120 180 240 282

```
<210> 5561
<211> 516
<212> DNA
<213> Enterobacter cloacae
<400> 5561
gcaggtcggc gaacagatca gaaaactggg actggactga tgaccaccgc cgtacttcag
atgeggeagg gggtgeteet gaccaegtea tgeetgeteg cettegtget gttgtttetg
                                                                      120
                                                                      180
gtgatcgccc ttggcgtcag catcggtgag ttgtctatcc cgctcaataa cgtgttctac
gccatcagca ataagctggg gctgactgac gttccgctca accgcatcta cgagagcgtc
                                                                      240
atetgggact ttcgcctcag ccgcgcgctg gtggcggcct gctgcggagc cgggttggcc
                                                                      300
atotgogggg cogtattgca gagocttttg aagaatgcac tggoggaacc ttacgtgctc
                                                                      360
                                                                      420
ggcgtgtcgg cgggagcgtc aaccggggcg gtgtcagtcg tcgtattggg tctcggcacc
                                                                      480
gggegeagtg tegetttetg egggegegtt tgeeggagee ttegeegeet ttgeettigt
                                                                      516
egeetteetg accaaeggeg egegeggegg caatga
<210> 5562
<211> 363
<212> DNA
<213> Enterobacter cloacae
<400> 5562
                                                                      60
acgetegtga atgatecagt cogetteege cagttgttee agegagteaa ceggatggtt
tgccagccag cctggcgttg ccacgggcag gatggtgaag gaggtcatca acgcggcgtg
                                                                      180
gtagegegaa tetgeaageg tgeegageeg gatagegaea tegaageget eggegataag
atoggoatgo aaagaggaog agacatgoog cacgogaagg toogggtgoa actggotaaa
                                                                      240
ttcaqccaqc aaaggcacca ccacctgcga gccatattcg ggcgtggtgg tgatccgcag
                                                                      300
                                                                      360
ttctcccgtc agcccggcgt ggttggcgcg aacgtcatec tgcaatcgct ctgcatcccg
                                                                      363
taa
<210> 5563
<211> 417
<212> DNA
<213> Enterobacter cloacae
<400> 5563
caacacqcaq ttacttgcgc aactgcaaca ggagcaacca tgacccattt cgaacaagag
                                                                      60
atcotegaca ttcacgtege cettgaaaac tggttaggtg caggegaagg caatcgggac
                                                                      120
geoctgoteg coegttteeg teeggattt etgatggtte cacegagtgg caaceegtta
                                                                      180
gatcatcacg cgcttgccca atttttatat gcgcagcggg gaacccgacc cgggctcagg
                                                                      240
                                                                      300
ateggtattg acgcgttaac aacgcttcag acatgggaca acggcgcggt gctccattac
                                                                      360
egggagacge aaaceeggee aggeeageee gteaaegtge getggteaae egeggtgett
aatcaggaag gggataacat cacctggcgt ttgctgcacg aaacggcgca gccgtaa
                                                                      417
<210> 5564
<211> 240
 <212> DNA
 <213> Enterobacter cloacae
<400> 5564
gtaaatgttt gcctggtcga gtatagggaa tacgtgaaag gagggaagcg taaaatgctg
gattttacgt gttgcgtcat gttttttaac tattggttaa cgaaagcgcc gggtagcgct
                                                                      120
acqcttaccc qqcctqcatt qcatttcccc ctctccctgt gggagagggt tggggtgagg
                                                                      180
gcatcagoco gcaccgaacg ttgcactaaa cotgotgott ottatogtgo tggoggttaa
                                                                      240
<210> 5565
 <211> 252
 <212> DNA
```

<sup>&</sup>lt;213> Enterobacter cloacae

			2000			
<400> 5565 gcccagaggg cg aacgtcacgc ct tcgctcgcgg ac agcactaact ta cacagaattt ga	gtaatteg ( acattgat ( caaaataa (	ggaaatacag gtgtggccaa	cacggcgaca cactgttccc	ttgttatgat tgttaattgg	ttcattatgg ctggttagca	60 120 180 240 252
<210> 5566 <211> 249 <212> DNA <213> Enterob	pacter clo	acae				
<400> 5566 atctggtgcg co tatacctttt tt gtcagogtta ta aatcgtcacc ac ctattttga	aattoogo . atttatttt	agttttagcc cctgactgaa	agtagetttt ttttggegtt	cttatttatt ataaaatcgt	ccgactcagc cattcagtat	60 120 180 240 249
<210> 5567 <211> 231 <212> DNA <213> Enterob	pacter clo	acae				
<400> 5567 aactecegtt ta gttetggaac ac caccetgget et ggagaaagaa ca	eggettaeg eggeeettt	ccgtaacaca tttctttaag	atggaaggtt cacagettee	tctataatga ttcgctatgt	aataccgcat ctctttgtca	60 120 180 231
<210> 5568 <211> 483 <212> DNA <213> Enterok	pacter clo	acae				
<400> 5568 ctaccgcgta caccgcatttttg catccacagcg as ggcctgatge taccgccacgcc gatggggctttg as atactattta acctctggtacg cotaa	egggatatg atacageta getetgete aaegetgea atggetegg egeeteget	gctgctgctc tgaacccgtg ggtagcgctg acgtctgctg ctrcccgatt gcctgcggcg	tgcattggcg gggccacgcc ctgctgcgcc gtaatggtga gccaccgccc gggatctccg	gcatgttegt cettteeegt ateeggatae ttgteetget tgetgaegat gggtegtaet	egeetggeag eggeattgte egtggagtgg gatgtaegeg ggtgattgge gggeatttta	60 120 180 240 300 360 420 480 483
<210> 5569 <211> 207 <212> DNA <213> Enterol	bacter clc	oacae				
<400> 5569 aaacagtgta g caatgcctgt t agcaaaacta t ttaaacaaat a	attgacaca ctccgctgc	tageggaege acttettete	atctttcaca	cgtttctata	taacctggtt	60 120 180 207
<210> 5570 <211> 444 <212> DNA <213> Entero	bacter clo	oacae				

gcagccagca attgagcaag gatgctttgg attgacgcgg gagaaatccc	etgactggee ecceaaeget eegeageget gaaagtggee eegeegaagt gtgeteagtg	aatcgtcctg atcagcactt ggctgccacg cacaacaaac gcacatggtt cgacgcgttc cctctggatc gtaa	catggaatcg getgaegeca accagegeca ggeagegata tateagegea	cctcaggtga ggcaggcgca cactgaaagc tcgtctgcac cccgccgggc	cacacactgg actgctggag gctccagacc gccgcctcta gctgctggat	60 120 180 240 300 360 420 444
<210> 5571 <211> 195 <212> DNA <213> Enter	cobacter clo	pacae				
tggccggacg	gtgacggcga cectetecee	tggcgtcgtg cggtgaatta aaaggggaga	cagctggtaa	gcatggtgcg	gtctgatccc	60 120 180 195
<210> 5572 <211> 210 <212> DNA <213> Enter	robacter clo	oacae				
egteaegace egecegtteg	cgatgatece	aagettaacg geegteeget tggccagttg eggatgetga	ttggtaatca	ccaccgttga	cgatcgcgga	60 120 180 210
<210> 5573 <211> 195 <212> DNA <213> Ente:	robacter cl	oacae				
cttcacctgc	aacttcccga tactggtgga	ttcatacgta ttctgcggat aatggacgat	ctctttgaac	tggctggcac	ctgtgcggcg	60 120 180 195
<210> 5574 <211> 453 <212> DNA <213> Ente	robacter cl	oacae				
gctggaatga actggcaaga aataaaaata tataaaattg tcgggagaga gccggatttg	ccgtaagacg tgtataaaga atccggaccg cgggacattc gttttggtcg cttcggaggg	acctggcgct gcataaggag cggcaaatta tcagcatgtg gaattctaaa ttcagagttc gtgcattatt ggtagtgcga	aacgttatgg attgagacag aagggtctgg ggacccatta cgcattcatg ctctcactgt	gatggaagta gatattccgg gtccattgcc ccattatcct gtgaccataa	tgagcaatca tgecettaec gegeggaaca tgagcaaact gtaeggteca	60 120 180 240 300 360 420 453

<210> 5575 <211> 204

			2002			
<212> DNA <213> Enterob	acter clo	acae				
<400> 5575 cctttaatgc aa ttatcgttca tg aagacgcaaa aa ttggatgagc aa	eggeagte a aegeeete t	agggaggaga tgetgaacte	tecteteatt	geetgeggat	gtttatcaag	60 120 180 204
<210> 5576 <211> 234 <212> DNA <213> Enterob	pacter clo	acae				
<400> 5576 acatttttat to atgatattgc aa agcggtaatg aa ggcggcaacg to	attattac agagggtat	catttgcatt ggagtgggtt	agcgttgtta gctgttgggg	acaaatttcg atcggcgcgc	ttggggaaca tgcccgccgt	60 120 180 234
<210> 5577 <211> 258 <212> DNA <213> Enterok	pacter clo	acae				
<400> 5577 aacggaatgc gg atagcgggtt ag gcotttagcg tg cggaaccgaa tg catatcctgc gg	cgcccaggg gcatttcag gtttatcga	cctgcgccgc	gtgetggacg	ccaccccgca qctttctgta	cctttttgcc	60 120 180 240 258
<210> 5578 <211> 372 <212> DNA <213> Enterol	bacter clc	acae				
<400> 5578 tatttaagga t tgccagctgg t catcccggac t gaggtggaac a agcagctga t acgcttatct c gtcagcagat g	acggcettt ggagggacg catcttccc tgcccaggt cggttcgaa	tggcgaggct gtatcactgt ggaacgcgat cgatatgtct	accacttata atgcgaagcg acgcctaact cataccaccg	aaccgtttac cgcttgatgc tttttgatat gggcaaactt	cgtttcagcc tgaaggctac ctccagaggg tctggatatt	60 120 180 240 300 360 372
<210> 5579 <211> 924 <212> DNA <213> Entero	bacter clo	oacae				
<400> 5579 acgggtacca g ctgatgtctg a ttgcgtgcc g cgccgcacgc c tggtacacct g atcgcaaaag c ttgccaccgg g cgcctgctgg a gtggcgtgga a	acctgtcac gcgcgaaag gggcctgcg gctggaaca gctgcaatg gcgaagcccc	etetetecag cetegatecg cegggaggag gggeegggaa cacceegace geaggeggtg geegaaacet	gatgacaccc cagcgtctcg gtggcgatgc gtcaacccgt gaagcccggc tgctgcgagg gccagtattc	gcaagcagct gcttaccgcg tcgcggatgt ccagcgcggt atcttttgt ggatcagcga agaaaccgaa	gggggegttt cageggeege cggegtgace gatggeege getegeeggt aggeaegegt tttegatate	60 120 180 240 300 360 420 480 540

			2083			
gaagatogoa aaacgtgacg cgtggcgacc aaaaccctgt acccatcccg aacggatcgc tggctggcgg	acgtgetgee egetetggga ggeaceageg agetggggga ggetgetggt	gattttegte agegaagetg taaegaegtg tttteatete etatttaeee	tectaettee gegegttttt egeggegtgg eageagatgt	gcgcggccat ttgcagtgtc agaaccagct actggtactc	ggctgagcac cgaagagttc caagctgttc cgccccgcga	600 660 720 780 840 900 924
<210> 5580 <211> 228 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5580 eggegtaate eegggaeata etggeggaaag gtgegggtga	acgggcgttt ccagcaagga	tgtgctggcg taaaaactac	aaacatacct cggctgctga	ggaacgatcc cgccggagct	actgatccag	60 120 180 228
<210> 5581 <211> 192 <212> DNA <213> Enter	obacter clo	oacae				
aaagtagcgt	taacgcacat aattttatta	ttcaagccag tuttcacagc ttcctctacc	acaattgact	gttataacag	tatttttctt	60 120 180 192
<210> 5582 <211> 186 <212> DNA <213> Enter	robacter cl	oacae				
cgtctcaaac	cagcatggat	gcgacaaaat totatattgg tgaagaggac	aactctctgc	tgaatcgggt	caacatttat	60 120 180 186
<210> 5583 <211> 228 <212> DNA <213> Enter	robacter cl	oacae				
gageceagte aaaaacatee	gggcacaggt cgttcggcag	ggtcacgttc cggcgcagtt tttgtccttc tgctgcggat	accacaatgc eggatttgeg	agacagcggt caccaggcac	tcatgctgtg cggcatggaa aacgcatctg	60 120 180 228
<210> 5584 <211> 219 <212> DNA <213> Enter	robacter cl	oacae				
gegteacata	cgcctatcca	gctcatcacg	atcctccagg	cttttgtttc	tacttgctct atatatgaaa aagcgacaat	60 120 180

		2001			
gtgacgaatt tgttaatco	a tcagcaatta	attaactaa			219
<210> 5585 <211> 258 <212> DNA <213> Enterobacter of	cloacae				
<400> 5585 gcggaaaacg atggttca cacaagccaa agctaaaa; catcgagcgc ttatttta aagcaaaaca aaaatgcg caacgcaatg agagtga	gt teactgetta ca tgageegege	acceggetgg geegegtttt	aagtggcgac ataccgagaa	acgatgīgīt ggtcgctaaa	60 120 180 240 258
<210> 5586 <211> 201 <212> DNA <213> Enterobacter	cloacae				
<400> 5586 aagagttgto tgottgtg atgcaagcat gggaaaga ctgattaago gaatogat gtacgacaaa tacgggog	te eggtttacag ga ecatgeaage	cagattgacg	ctgtgctgca	atctgcgtcc	60 120 180 201
<210> 5587 <211> 204 <212> DNA <213> Enterobacter	cloacae				
<400> 5587 getgtteata gegteaag cetgeaatac etgatttt etgaeetgee tgteteea aaatggaaca aettgatg	gt gatetgtttg tg ggggatggat	gcaaagccgg	tgctttttgt	ttacccttta	60 120 180 204
<210> 5588 <211> 321 <212> DNA <213> Enterobacter	cloacae				
<400> 5588 ggagaccgtg gcatgagg tttacccac cggcagag ctgatctggc aaacccg ctggaagatc tcttcgag gcggtgcgca tgcacgac ttacaggtta acggctac	gg cggtaatggc ag ccgcgagccg ca gggcgttgaa ca gcagggcgag	gecatteata gaaagetggg acettgeegg	agccgggtga aagtgaagct agctggtaag	ttacaccaac gattgcgacg cgggctgaac	60 120 180 240 300 321
<210> 5589 <211> 942 <212> DNA <213> Enterobacter	cloacae				
<400> 5589 atacaggaat gcgaaat; tegttteace agaaagg ccaaatatte gcgggett tggctgttte gtcatac; atgcgccgcc gcggcag; aaagcgtgca ttgaatai	ga gcaggaagaa ga acaacettgo gce gggcaactgo aa cggcgcgtt:	tacacettet cttgaaaate gcagategttg ggeetggegt	ggcgggaact tccatccgtt tcacagccgt ccgcggacga	ttccgacacg tggtgatgaa tatggaaacc agaacagcgt	60 120 180 240 300 360

			2003			
tttcccggga gtcgagcaag ggctgcgatc ttcttgccct aactgggcac gcggcactcg gagtatggag atgtccattg tccggtatta ttgcgcgacg	cgacagaagc tggtgctgga tagagcaggt gttcggctat ctgccgggaa aatggcagga aacatgtaaa aattactgga	attetecege acactgtgat getggaggta tgaaggtege actgggggg tetgeaegeg agegetgttt aataaatget	teggtaeggg gegatgaatg gtgaaagaga aacacegece etgatgttt eegttttett actgeggega aatgetgaeg	aaatcgcgag gcccggcgcc ccgatatcag ttccgctgga cgggcacgac cgttctgcgc gcgccgcaac tcagccatcg	ctgggactgg gcgtaaaggg cgtctgtatc acatgttcag ccctcacggt cgacagtctc attgaaattc	420 480 540 600 660 720 780 840 900 942
<210> 5590 <211> 333 <212> DNA <213> Enter	obacter clo	pacae				
ctgctcttat gggaaaatga caccgctata agctatgaac	taacaggatg gcccggagcg attctgaagc tgaaaggcta	cagtgcttct ttccctgaat acagaaaatt	gaggagatac atggaacagc catataaacg aaagagggct	gtggggtgtc ctgtccaaaa tgtgcaggga gcttcgagcg ttgtctgttc	agegeageag teaggegget ettteaggge	60 120 180 240 300 333
<210> 5591 <211> 225 <212> DNA <213> Enter	robacter cl	oacae				
agecceatte ttgtgttttg	atcataacat cgtacaaccc	cagactgata	atgaagcata agttacaaga	agaccaagcg tcggcccgta acaagtgtgc ggtga	cageetgget	60 120 180 225
<210> 5592 <211> 477 <212> DNA <213> Enter	robacter cl	pacae				
attcagttta ggcgtaggag gggacggtcg ctcgtgggtg actcgcggag tctacggcga	agtetgtegg tgtttgtett ttgaggaegt tgeteggega gcaaaaaaat ataaceggae	ggcaatagat cagcgcggat gcaggccatt agacgttttg catctttgcg attattagcc	gacgttctgc gtagaacagg gccccgccac cgggtagcgg aagaatgagc tttttgcagc	atattgcccg aacaccagat tctccgcgcg accagcaccg accagcaccg tgagcagcca aaaaaaacgg gcgcggcgac	cgttaaccga tgatgcggta gctcgcaaaa cgacggcctg caccacaacc tgactgccct	60 120 180 240 300 360 420 477
<210> 5593 <211> 417 <212> DNA <213> Ente	robacter cl	oacae				
ctctttgctc ggcatcgcca aaccggctgg	ggccttgccg ttctttctgc cqctttcaga	cgaggaaaaa cggaacctat acggtcgcag	ataatggaaa ctgatgcgtc gcgctgcttt	ttggcggagc cagacgcggc	cggtactgct ctttattctc gaagcttggc taccgttttg cgggatggca	60 120 180 240 300

2000	
	360 417
<210> 5594 <211> 216 <212> DNA <213> Enterobacter cloacae	
agadatyatt taacccataa teatteedy dogatteegat atteeegtt tytyctegtt gacgataaat taacactato totacaggge ategigactg teaegggegg teaegeaaac	60 120 180 216
<210> 5595 <211> 204 <212> DNA <213> Enterobacter cloacae	
<400> 5595 cottataaaa actacggcat tgataatcat tttcaatatc atttaattaa ctataatgaa ccaactgctt acgoggcatt aacagctgtg cogocogaca ataatggaga ggattatgag ttatacactg coatcoctge ogtatgota cgacqeactg gaaccgcatt togacaagca gacgatggaa atccatcaca ctaa	60 120 180 204
<210> 5596 <211> 339 <212> DNA <213> Enterobacter cloacae	
<400> 5596 cgatcagtat caccgtotgo tgtcagoggo gggattatoc accagotgga ccagaacgat gcagaaggg oggataaggg oggataaggg oggataggg oggatatat gggggaaata gttcccgcag aaagtaggco gggtaagggo aagcogcac ccggcacata oggttacgaa cgcttataca gcggcagcca caggottaac ctgagocog ccagogggot gtcatcggot ttcaccagc cacggtgotg ttgcatggot gttccacaa tcgcagcco cagtcogta ccgcccgatt cccggatag	60 120 180 240 300 339
<210> 5597 <211> 201 <212> DNA <213> Enterobacter cloacae	
<400> 5597 cogatgaaco ogcataacgt toatotoogo tgototgoga gtgtagoogt gitaagagat gaagaaaato coattoatoa gggittigog aaacotgaca gigaaacaaa aaggaaagto tittitgiga cagitagata caattoacog totoactooo gocattogat icagggaagg gitgtatgot ogaaatgita a	60 120 180 201
<210> 5598 <211> 207 <212> DNA <213> Enterobacter cloacae	
<400> 5598 cctgactcac tttctttcc tgagtatacc ctttttgggcg atacggctat taaggcacag ccgcaagtct gggtcaattc ggcgaaatgt aaaataccgt caatgcttac attaatttat gttattaaaa acaacgcttt tatttatcgc attgataatt acaggaaaaa tattcaaaaa aaacgtaaga aaggtttatt cagataa	60 120 180 207

2087	
<211> 210 <212> DNA <213> Enterobacter cloacae	
<400> 5599 atcogteteg teettattat ggegageatt teeaegatat gteeaaeagt gecagaaaag tatgacagtt attttttat tggggaattt agagggttgg gggaggggat gtegggtge getgegetta ceaegaceta egggacegta ggeeegtgea agegaagege egeegggeaa tteaaaeaga etaeteette ggeageataa	60 120 180 210
<210> 5600 <211> 219 <212> DNA <213> Enterobacter cloacae	
<400> 5600 ctagtaagaa aaatoggogo aattotaaca gtocaggoaa acgtttgoga gootattoto ggogtgggga totttttto tgtgoggoot gtacaggoa acaaactga ototgttoac gaaaatgaaa coggttogg ogatotgott gcaacggoaa toccotttgo acatoatoaa actgaaacog gtttotgtaa ctgtttttgo agaaaataa	60 120 180 219
<210> 5601 <211> 294 <212> DNA <213> Enterobacter cloacae	
<400> 5601 ggtaaggacc gtaatgoggg gatgaaaatg gogctogoto agogogtgot gotcocogtt gtgogocatc acacaggcaa ottogoaggc gogacaaccg atacactgtt gagogttggo cataataaaa ogatcataa caacacctgt ttttggttca ataacottat tottotatt gtatogtat ttacocacag cagoatggag accaatgtt caaaatgocoa ggaaggogaa ctatttcoag tgaacctgtg goagatcaat ttaatcaag aagotgatga gtga	60 120 180 240 294
<210> 5602 <211> 216 <212> DNA <213> Enterobacter cloacae	
<400> 5602 egecteaceg geageagtgg ctttgattee aegececgta egttegatea geegegtetg aagaaactge tecagetgge fatttgeag getgacggeg ggetgggaaa tacceattae atetgetgee geagaaaage tgeegegtg aacgaceaga egaaaagtgg egaggtgee eagattgage gtegteatge aaagtteet ttatag	60 120 180 216
<210> 5603 <211> 480 <212> DNA <213> Enterobacter cloacae	
<400> 5603 ggagagaca agatgatteg tegatatte etgetteetg tatttgeget gaegteettt getggegear tggeegeace gttggatgge etgagegee etgatgttaa tggeeegge geogtagege egeaggaaaa acceageeg ceageaaac tgategtega eceacegetg gegggacege tgagtaaagg tgeggtett atteagtace gegtegaaa ectgegeatt gaacetgtat ttggaceega egegetgaaa gteacteege gtateggeea tatteacgtt gtggtggatg acceaceegt geactggget gataceage gegageegg gateeggt ggggtgeeg eegggaaaca eaagtgate atategtteg etgaeeega gatacegee ategaeeata aaacegttga gteacegtg eegceacaac eegoggttea teactttaa	60 120 180 240 300 360 420 480
<210> 5604	

<210> 5604 <211> 198

```
<212> DNA
<213> Enterobacter cloacae
<400> 5604
gtttattggc aatttaaaca gggtggacaa ctatgcttaa aagatgaaag actattcagc
                                                                     120
ttacagetgt togttgaatt atggagaatt gtaaatcoog aaaaattoog aatgtgttat
                                                                     180
attocactta aggatatato ttogaaaata ttgaacatta aatocacaaa agaacaaaag
                                                                     198
gattcactat ggttgtga
<210> 5605
<211> 849
<212> DNA
<213> Enterobacter cloacae
<400> 5605
coatcatogt tgctgaccog acgcataago coatcgacca taaaaccgtt gagttcaccg
tgccgccaca cgccgcggtt catcactttt aaggagcctg ttatgaaagc attgtctgta
                                                                      180
ttaacagogg ogotgotggo ggtttocaco agogogotgg cagagaogaa agocagogtg
gtgctggtgc acggggcgtt tgccgacggc agcagctgga ataaggtgat tacccggctg
                                                                      240
caaaaacacc ataacgaggt cattgcggta caacttccgc tcacgtctct gaaagatgat
                                                                      360
gtegecgeca egeagegtge tategecegg geteatggeg aegttgtget ggtegggeae
tcctggggeg ggtcggtaat cagcgaageg ggcaataatg cgcgggtgaa gtctctggtt
                                                                      420
                                                                      480
tacgttgccg cttttgcgcc ggattccggc cagtcgaccg cagatctggc agacagttat
cotgetcege cagggagege cagecteget aaaacgtcag aggggtattt atatetgeeg
                                                                      540
acaaaagcgg tcagegagaa ttttgcccct gacgtgaagg acgttgagcg cagegtgatt
                                                                      600
geogegacge aaageeetat taaggeegat gegtttgggg agaaagtege geatgeegee
                                                                      660
                                                                      720
tggcatgaca aaccgagctg gtatgtgatc agcaaaaatg accggatgat caatcctgag
cttgagcgcg caatggcgaa gaaaatcaac gccaacacca cggaggtagc ggcaagccat
                                                                      780
qtategatgg teagecagee ggaegtegtt accegtacga ttgaacagge gttategggt
                                                                      840
                                                                      849
caacagtga
<210> 5606
<211> 1233
<212> DNA
<213> Enterobacter cloacae
<400> 5606
agccattgcc ctcgcccgcg gcaacgccat ccctaccacc ggtgcatccg gttattaaaa
                                                                      60
ggagaaatga tgaaaactat ccatcttacc cagggccagg cacgaacacg gttaatcgcc
                                                                      120
cocgacgata tggtctcctg caatcttgct tttattgatt gcaagctgcc cggctcgcat
                                                                      180
ctcaaacaaa actattcctt catcggcccg ggtgtaaccc agtccagcga gcaggtcgtc
                                                                      240
                                                                      300
aatatteeeg ageegeaegg etttaaeatt ggegeggegg etatgeeaaa aggggtgaeg
                                                                      360
aataacetge atetgeattt cacegeagaa gtgtteetga teeatgaagg gaegtggegt
tttegetggg gegecaacgg egageatgaa getgaattta gegegeecae cateetetea
                                                                     420
                                                                      480
ataccgacct ggatcttccg cggtttcacc aacgtcagta aagaagatac ctgcggcatg
                                                                      540
gtatttaccg tgctcggcgg ggacaacacg ggcggcatca tctggcaccc gtcagtgctg
                                                                      600
gegactgcca gcgaatacgg tatgtatctc agcaaggata atatgctgat tgcgcaggag
ccaggtgaac caacgcccga toccgccgcg ctgctgacgc cgctgtcaga gcaatatatt
                                                                      660
gccagtctgc gtgactacag cgttgaggag atgcgccagc gtgcggtaac cggcgatgac
egeogetggt cagcacaggg actgetggat teggtgetge egggacaegg eggegaaatt
                                                                      780
                                                                      840
gogooggtta toggtttogg catttoacag gatogggatt cogotocogo tatcotgago
cogcacggtt tttccgtcga atggctgcgt cttgctgacg accacattgt cggtcgccat
                                                                      900
ctctgcccgg atattcaggt gatcatggtc tttaaaggcc agctggaggt gacctggaac
                                                                      960
gaggegggeg aagaagteag cattategee eeggaaegtt eggtgatete catteeggea
                                                                      1020
                                                                      1080
aacagctggc gccgctaccg cgcggttgat ggcaatgtgg agtttattct gacgacccgg
ggcgatcagc gtaagcgcct ctactgggac gaggcgatcc tgcacgaggc gagagaacac
                                                                      1140
 aategetgta tegateetga tggetaegtg geggatgeeg acateetgee agecaeggee
                                                                      1233
tgtcgggccg gtgcgatact ggagaaatgg tag
```

<210> 5607 <211> 603

```
<212> DNA
 <213> Enterobacter cloacae
 <400> 5607
 agaagaggtg agcgaatgag aaaacgcgac gcacttttgt cagcccgcag ctacctcacc
 attetgeteg getttetget gggatteget attgtegtet gggttgaaaa acagatgeeg
 acacgcgttg agagcagcgc agggatatcg ctgagtaacg attteccacc cttgcccgct
                                                                      180
 ccgcgtgaac tgacattega agaagecate tgggegeggg tggeetggea atattatgtg
                                                                      240
                                                                      300
 aacaacacgo agoogaatgg cotggocaac gogoacgacg gtgaaccotg gotcagootg
                                                                      360
 tggagcaccg gcagctatct ttttgcggtt gcagccgcca ggcagctcaa cgttcttact
                                                                      420
 tocgaggagt ttgatgaacg categoggoc geactggogg cootegoaag cottocacto
                                                                      480
 aateetcagg ggetgeegee geetattace atgeegacae aettgagace etgggeatae
 eggacgeete ggetategge atgggeegee tgettaaege eetgeaaaeg etgetgtgge
                                                                      540
                                                                      600
 gctatcctca gcacgetgge gcegtaegea atetgetega tegetggaag atgggegeee
                                                                       603
 tga
 <210> 5608
 <211> 1434
 <212> DNA
 <213> Enterobacter cloacae
 <400> 5608
 tacggacgag cetgtgaaac tgccgccggt gaccgcacaa tgcttaagac cttagcccgc
                                                                       60
 tggctggctg ccgccgtcct cattcttatt atcgccttcg ccctgttcag ctgcgaaagc
                                                                       120
 geagggtgge getggetgae caaaggegge tggeacaeca cogetegeat cagtageetg
                                                                       180
 accccacagg agegggagtg ggegggtate geetggeget attttgagaa taacacccaa
                                                                       240
                                                                       300
cctcagacag ggctggtcaa cggtagcgat aaacagccac gcgttacgct gtggcaaatg
 ggcgatacgc ttatcgccct gctggcagcc cgcgagctgg gtctgatcca ggcggccgag
                                                                       360
                                                                       420
tttgatgcac ggctgacgcg cctgctcgga acactcaatc gcctgacgct gaccgaaacc
                                                                       480
egcaegecag geagaeteta ttecageegt aeggeeaege ceategattt caeaggaaaa
 coggogoago goggatggto ggogaaagat atggogoggo tgatgotggo cotgogtoto
                                                                       540
 actgccgagc gagcacctga gtaccgggaa tatctggaaa aaatcatcct gegetggaat
                                                                       600
 ttttgtccgg tgatggataa agacggggag ctgtggtctg cgtccgagca gaacgaacag
                                                                       660
 ctgttggtac gcgacgaact gcggctgggt gaaagcgaat atgccgccag cgcgtttcgg
                                                                       780
 ctqtggggat tcccggcggg caaggcattt tccccgcctt cccagaacgt catcatgtac
                                                                       840
 cagogoagee tegeogttga egegegegat ccaagaacaa eetggeagee ategetgete
 tecaccetee eegegatget geeggggetg gagtttgget ggeaacegee eggtgtggeg
                                                                       900
                                                                       960
 toogatatto acaaaacgot gogogoacgg googaagcog tatggottag ccagaaaacg
 cgctgggage gtgagcgcg getaaccgca cgcgccgatt tttacctctc acaggccccc
                                                                       1020
 tggcacgtcg aggacaccgt ctgggggaat ggttacgcct ggaatacgtt gggcgatgac
                                                                       1080
 ggtaaaaget atcccegget ggcacaggtg accaccaaag cggtottcat gctctggacg
                                                                       1140
 ctgtgggaaa acgaatatac cgatgccctt atggctataa cccgacacct gaataacccg
 caacagggct ggtttgaggg ccgcgttgag gccaccggcg atatcaaccc gacgctaacc
                                                                       1260
  ctctcgacga acgccatggt gctggaagcg ctgctgtaca aacacaacgc cggaccgctg
  tttgaaaacg goottgtgaa gaatgatggo tattttgccc geogeacgtc ggatcettte
                                                                       1380
                                                                       1434
  aatcegcecg geototgtet geooggegaa egtgeettga gggeegeace atga
  <210> 5609
  <211> 189
  <212> DNA
  <213> Enterobacter cloacae
  <400> 5609
  ggaggtgcta tgttttctgt cggtgattat gtccaaccgc gtcagggcgg tccgaaactg
  aaagtgctcg aagtgaatgg tgaaaacatt gtggccgtgc aggccagcga tgagcagagc
  gagaaatatc acctgaaagc ggcggacgta gttctgtact ccgaagaagg tgactttggc
                                                                       180
  gtctgctaa
  <210> 5610
```

<sup>&</sup>lt;211> 1665

<sup>&</sup>lt;212> DNA

```
<400> 5610
tgccgatacc aatgcggtcg tcctcgaaag cctggcgtac attgcccacg gtcagatgct
                                                                      60
ttgtctggcc tgccctggcc ccgccactcc ccaaacctct tcagcaggag cgaagccatg
                                                                     120
aagetgaaat caatactett titteetett etggeeggge tigtggegtg etggetetea
                                                                     180
ctctctgcgg cacaggcagc ggctggactt cccgcttctg attacccacc gcgtagcggc
                                                                     240
                                                                     300
gaactcacgc ctcgcgagat gactattgcc aaaaacgcct ggcaatattt cgttgctaac
                                                                     360
tatcagocca caacoggoot ggtaaatgoo gttaataaat accootcaac cactatgtgg
                                                                     420
gacagegeet ettatatgge egegatgaeg geegeaaggg agetggggat tattgataaa
                                                                     480
gctgagttcg atcgcagaat gctgaaatta ctcgctaccc tgaacaaact ggatttattc
egcaacgaac tgcccaataa agcctataac accatcacag gtcagaaggt taactaccag
                                                                     540
aacaaacctg gegagattgg etteteggeg etggacateg geaggatgtt gatetggetg
                                                                      600
aaggtoatta aggagogota tooggaatac agcaacagca ttgataacgt gotgotggga
                                                                      660
tggaacttca ccaacgtcat caacccctgt ggaatgatgt acggagccta cetggaaaat
                                                                     780
ggccagccaa agtacgtgca ggaggggggg ctgggctacg aagagtatgg tgcagcgggc
                                                                      840
tttqcqctgt ggggctttgg cacctgtcag gccagccagc ctcagcccta cgagctggct
                                                                      900
gagatetaet gegtaatggt geettatgae tegegegate egegeettae eagecageat
aattacgtcg taacegaatc ctatgtgctt tacggcctcg aatttggttt cgacaaaccg
                                                                      960
acqqacaggg aaaacageee gegtgactac acceateegt ggatgaaaaa ettegeegae
                                                                      1080
agggtttacc aggctcagga gaatcgctac gccatcaccg gtattttatc tgctcgctct
gagcatcaac togatcagtc accotacttc gtctacgaca cogtotttag cgaeggettc
aactggaaca ccatcacega taaaggcgtg tacgttccca atacggccgc cgtctctctg
aaageggege teggaatgtg ggttetetgg aattegeett atacegaceg eetgetggae
gecattgaaa acgccaacga ggcgggcaaa ggctactatg aagggctgta cgaaaacggc
gaeggeecca teaaagaatt caeggeeaat aacaaeggea teatgettga ageattgetg
ttcaaaaaag agggcaaget gatgeagtte aacagegata ateccaaaga tecceaettt
                                                                      1440
geocettece tgtgggaaaa aaagetggtg gatetetttg agectaataa tgeetegege
aaccgtccat tootgaacag tacgcccgca gtgaagacat ggtgtgaaca aaccgggacc
                                                                      1560
                                                                      1620
actotgogoa ocaaacoogo ttgccaggoo tgtcaatgtg ctacotgtaa tacggacgag
                                                                      1665
cetgtgaaac tgeegeeggt gacegeacaa tgettaagae ettag
<210> 5611
<211> 225
<212> DNA
<213> Enterobacter cloacae
<400> 5611
gcgacctgtt gggatgtgac tgctgcaaaa gtcttacgtt tcattacccc tgattcctta
tcaacgtcct geccatttgc gegtgettca aacgectcag caagtgggtg ttttttatac
ttacaccacc tttgcatgcg tatgcaacac aaaaaattaa aattctcaca acaagatcga
                                                                      180
gatcacttta caaacatgaa accttttegt aacttcaaat attga
<210> 5612
<211> 969
<212> DNA
 <213> Enterobacter cloacae
<400> 5612
acgcategeg geogeactgg eggecetege aagcetteea etcaateete aggggetgee
                                                                      60
                                                                      120
geogectatt accatgeoga cacacttgag accetgggea taceggacge eteggetate
ggcatgggcc gcctgcttaa cgccctgcaa acgctgctgt ggcgctatcc tcagcacgct
ggegeegtae geaatetget egategetgg aagatgggeg eeetgattge caataacace
accagocagg cegeggtocc gotocaccat tgggcgctgg cgacggacga gccgagaaac
agettegget ategtettta tgcaageeat aegettegge tgategaeag egeggegga
                                                                      360
ctggcagtga cgaatccacc agaagggcag cagatgatcg acatcgacgg aataatggtg
                                                                      420
cccgacgagg ggctgcgtac gccgtggggt cgccaacctt cgcttatcag ccttccctat
                                                                      480
                                                                      540
 ttattaacgg ggcttgagct gggttttgat gcgcagagcg cagaaatcac atggcgcata
 atgcagatcc aacagcgtcg acatagcett egggteegca ageegeegat cageaccgat
 tacgeegage eegegeegga ttacgteaac gatetgeeca ategeeagee getgeaaaat
```

agegetetge ttgaegecae geeggageaa aeggegatga ettegaeeeg eaeegeettt

			2091			
gcctggtaeg c ctacaggtac c atcgttgatg c cagatgcttt c aagccatga	egggcaaggg ecgataccaa	ctggcagcgc tgcggtcgtc	gggcttaacc ctcgaaagcc	tcaacagcag tggcgtacat	cgtgaacgag tgcccacggt	780 840 900 960 969
<210> 5613 <211> 519 <212> DNA <213> Entero	obacter clo	acae				
<400> 5613 tggctatttt g cgaacgtgc t aacegcgtc t gtccatatgt g cagacgatct t gatttctgg a tttttcggc t gatgaagaga g cgccaggcgg a	ttgagggeeg tgeeggaaaa caceggagae teaagagett aaegeetgge tetggeggga teeteaeage	caccatgaaa tgataaacgg agaacagcac tttcgccatg gcgggagcag ggcaatgctc ctgggcgatg	ttttatcgcg cacttttttg tttgcccggg cttgccgttg agtgatgaag aggaccgtgc gcaattgccc	atetetttga aaacgttetg accagggegg acggtgeget gaetaggeet gegeetgega	egecageetg ggaaacgttt agatggecag gtttgtacee gecaeegega tecaetttge	60 120 180 240 300 360 420 480 519
<210> 5614 <211> 249 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5614 aacaaagcca caggatttac ctcagggcaa ataagcctta aatgtctga	egttactttc agctaattat	tttagcgcga ttacacagga	ccgatgcccg aatagttgtt	ccaggattaa tatttatatg	aagtggcaac tttgcgattt	60 120 180 240 249
<210> 5615 <211> 201 <212> DNA <213> Enter	obacter clo	pacae				
<400> 5615 tgctcatcaa acgctgtgtg tctgagcttg tggaagaaac	ggttgegtgg ggggccatat	cggggagctg tgtggegetg	tegecactgg	eggatgtget	cgatcagggc	60 120 180 201
<210> 5616 <211> 951 <212> DNA <213> Enter	obacter clo	oacae				
gacgatgcgg agccgctggg agttcgggac aaacgtaaat tttgcgaacg cgttacagtt tacggggata	tgacctgege atteactaeg gtegeetgtt taaaagagea acaaccagae tgacategeg ttggetatga acegettetg	actgotgtgo tgacaagaac ctccggtaat gtggatgact gcttaatctc tttgccggtg tgactggcat gacgtcagga	gttgccactg ggcgagccgg gaagacgtct atccctaaca agcctgcaat acggacacca gccaacactt aaccgtcgcc	gegeagagte tgeaggetgg tetetggege geteggacac acteacecta gegetacac teageetggt acacetattt	ggcgccgaag cgtgttcacc gctgagcttt cgcagagcag cagttactgg	60 120 180 240 300 360 420 480 540 600

```
aacaaaggcg actotatoat ttgccagatg ggctacagct gggttccgcg ttattacgat
                                                                     660
ctggacagca acgatatccg caaaaacaag aacgtggtat tgggcgggtg tggttatacc
                                                                     780
tttaagcage acttettegt gegegeeaeg gegttetggt tteeggaeag eagecageaa
                                                                     840
cagecetgga acggcgaeta cagetatagt tttggctatg egggttatac gecaggttea
                                                                      900
ttetetgite agtatgetaa etaeteegge accegttace eeggteacca gageggeage
                                                                      951
ggtaaattcc gggaaggcac cgtcagegtc atctggttct taccgcttta g
<210> 5617
<211> 981
<212> DNA
<213> Enterobacter cloacae
<400> 5617
ggagegcaca tgaccagatt geggggette ageceteaat tegactetat ecageagtte
                                                                      60
attttgacgc tgacgcacgt ggtgtgggag cagaaagata tcggccagct ggcggatttt
tacgccacgc cggtggtttt cactaccccc gaaaaacagc tgcatgagct ttcccagttt
atgegeetga egettgagge gatgeacage tteeegeage gageggtget gaeggaggat
attetgtgea gecagaacce gggggatgag tactatgegg egeagegtae egtageeege
                                                                      300
atteageace agggggaggg attttttggc cegeegaegg ggaaaaatgt etgggteege
                                                                      360
acctgggccg atcgcatctg tgttgatggt gccgtacgcc aggagtggct gcttcaggat
                                                                     420
                                                                     480
egtgeegega ttgtggegea actggggetg gatgteegeg attttgettt taacetggeg
accatgegee ageagettgg getggaatet gtgtetgetg agaegetgga egeeegetgg
                                                                      540
                                                                      600
gcgggeggge ccgagggcga egacgtggaa ggggegetgg ccggggtcgt tgagegetac
                                                                      660
ttaacgatgt gggegggegg taacagegge gtggtgeeeg gtetetatea eeeggeggeg
acqctqtacg cgccggggca ctgcctctgc accggcgaac aggaaattgg cgcacagctt
                                                                      780
tecagettate gegetteatt tgeegacage gaaacgcaac tteateacet gattgtgegt
aaagatoota atgagoogat togactttoa ttgogotggt ogttgttaac otggoatgac
                                                                      840
ggttacggca aatttggtge geegaeeegt aaacecatat caattacegg tateagteag
                                                                      900
cttgaattac gtgatggttt aattttccgt gaatacctgg ggatcgatga attagcgatt
                                                                      960
                                                                      981
tggtcgcaaa tatttaatta a
<210> 5618
<211> 183
<212> DNA
<213> Enterobacter cloacae
<400> 5618
gtcactgtag atcogggtca gcacgccttc ggggccaaat tgctgtttta tccagcgcgt
                                                                      60
gacetgaceg gtcgccgcat getgegtgge gageageatg egegaateet ggegeggatt
                                                                      120
attgattege egegttacea geageceate etceacegee teacgegtea tgtatteegg
                                                                      180
                                                                      183
<210> 5619
<211> 1257
<212> DNA
<213> Enterobacter cloacae
<400> 5619
aatacaagaa actttttagc atggagaacg cgacgcccca tgagccagat tgcgcctgtg
cttataaata aagacgttga aaaaccaacg acatggcgtt acatcgcgtc ggataaacgt
gatttacgta ttgattttat gcgcggtatc gccttagtga tgatggtggt ggcgcacacg
                                                                      180
gaagtgatgt cgatatttaa tatatttacc tgggaaaggt ttggtctggt caccggcgct
gagggttttg tgatcctttc aggatttatg ctgggaatgt taaaccgtgt aagattgcaa
                                                                      300
                                                                      360
aaaqcagtat tgttgactat atcctgggga ctttatctgc gtgcatggaa aatatatcgg
ataaatatca toattattot ttoattitta otgitaggat atotgeogtt tattaacgto
                                                                      420
                                                                      480
tttgaggtga cccattttac cgatcgttac tcaggtacaa cctggtcact gtatccggtg
acgccgcaaa ttaaagaaac ctggtttaac attgtcctct acctgcaaat tggccctcat
                                                                      540
                                                                      600
caaacgcaaa toottgggot ctatattitt ettetgetgt taageeecet gttttigggg
atgetecaga aaggataegt etactggetg etgggtttat egttgetegt etaeggegge
                                                                      660
tggcagatgt ggccggtacg cgctacgccg tctcagtttg aattcgcgtt tccgctgctg
                                                                      780
gootggoagt ttattttegt gotgggtatg tgcageggtt ggtacaaaga ggatttgate
```

			2093			
tettttgeee gt ettettgget tt eaeageetet eg ettgggeeg te aeetggtget gg eattegett at aegttegate te ggegtgetgt gg	tategecea geeggagga eagggtaet getgeeet tacetttat gtggegeea	gaaccatacc cttcaacgct taacgatatc gtatcgcctc tttgcatgtc qqactggata	aacccgttta ttttatcata tgtctgatgg gcaggctggt tacgtcgtat gtgaacacct	tgeegeeege eetgggegge tgaeegteta ttettattee ttetgataag teatteaege	actgctaatg aaaaaatggc tttggtgctg gctgggtcaa ccagttcgtc tgcggcgctg	840 900 960 1020 1080 1140 1200 1257
<210> 5620 <211> 381 <212> DNA <213> Enterol	bacter clo	acae				
<400> 5620 agggggatte contiguous to ctgaccgega to gtcactggca con accgttatge to ctggtggtgt to gcagccatgg to acccatcgcg to	aatageett cattggege aegegegge ggegggtat ggteggeet	cgcggtggcg actgggcgtg atcgcgtcgc tggttttgcc gataggtctg	ctatacgect gtcattgeca ggggegegeg geegegetge	ggtggacgcc gcgtagtgct ttttcctgat tgcaccagta	gettacegge ggegateetg tattgtcact catcataacg	60 120 180 240 300 360 381
<210> 5621 <211> 189 <212> DNA <213> Entero	bacter clo	oacae				
<400> 5621 atttataagg g ttgtctttaa c cagcaaatca c tatccttga	ctacccgac	gcaaatgaga	gctgtttttg	aacaactggt	tacgatagtg	60 120 180 189
<210> 5622 <211> 564 <212> DNA <213> Entero	bacter cle	pacae				
<400> 5622 actgogteag o ctgactgate t eggettgata t egcageggta a acgetgaece t catateegee g eggacaggee a gacggeaaaa c ctgtteaata a etttacegea a	ggtggeegg ttttaetta ageagateeg gaaegagea gegtagggea aggeggeggg setggetget	atgtagcacc cttccagggg ccgttttcac ttttgtctac gaatcgttac caatgcctt gcactttgat gaagaaattt	gaggtgacag aaaaccgagg gtcgagatcg gatgacggcg gaaggtacgg aactggcgct gactggatgt	agtategtea egtgggggat eeggggatgt aaaageagea egggtgacat acageatgaa atttgeagga	gcagcagcca ggtgcaggat tatcggcgat gcgcgtctgg agaaggtgtc cgtgaaggcg cagcacccgt	60 120 180 240 300 360 420 480 540
<210> 5623 <211> 183 <212> DNA <213> Entero	obacter cl	oacae				
<400> 5623 ctcaccccat o gggagtgtta o tgggaaaatc a tag	sttatttaga	ggtattaaat	attaatcctc	gtcaaatcag	gggaattgag	60 120 180 183

<210> 5624 <211> 186 <212> DNA <213> Enterobacter cloacae	
<400> 5624 ctottggata cgataatgca toatoottog caacgatgtt cegoogtgto acaggaco cacottogta thatcaccog goattattoa aaaagttoca egggacaggg caccgatoagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgtaagcgta	cat 120
<210> 5625 <211> 294 <212> DNA <213> Enterobacter cloacae	
<400> 5625 acateccage ogaatgaacg ottaattitg aacogggitg agaggiogeg getggig cagtaccage ataccateaa taccatgaat attgcogtic ceatificag coctotic cgcgittgaca tggocagaa agicotgoog cacciocitg ottitigiagi taacogg titicoatec tgaitogatga tgaitoggite gocatectot acggitiga taattoo gtgactcatg accigcaaca aggattoogg getggaaaaa agogtcatca giaa	cag 120 ggc 180
<210> 5626 <211> 543 <212> DNA <213> Enterobacter cloacae	
<400> 5626 ccacaattg aggtgtctgg ccccataata goggogatga aatcogoga acgogocaggatccc gtgtcttgcc ccagagatc atggctacc acctgaaaac goggaacccccggttgt tocatcgcgt ggccgccgc ggcttcgcgc cggcggggt catgccgc tgcaacatat cccgcagtacccagagatcaacaacaacacacacacacac	aac 120 ctg 180 aag 240 ggc 300 ctg 360 cag 420 ggc 480
<210> 5627 <211> 186 <212> DNA <213> Enterobacter cloacae	
<400> 5627 atactgtatt tatatacagt attgtatatt gatagcaaag atcaaggggg aacgagg gacgtcgtac gggtgcagga ggaagagggt tatattcaga atggcggcga ggcaaat gcggaaaggg tatttaatga aatgtttaag gaatataagt gcccatacgg caggtat cagtga	ctg 120
<210> 5628 <211> 438 <212> DNA <213> Enterobacter cloacae	
<400> 5628 cccatgagca ogttgccgtc cgtcatcagt cggttcgttg attactacgc cacgctg acccagccgc cttcggcgct ggcggggatt tatcggcgcg atgccacgct tatcgat tttggcgaac atagcgggt gttcgcgatc cagcgctatt tcacccactt gctggct	.ccc 120

```
240
gtccagcact gtcgctttac cgttgatgcg ccgttgcagc agggcgatcg ctttgtggtc
acctggatga tgcactggtc gcacccgcgt attgcccggg gtgcagtgcg acagctgccg
                                                                     300
                                                                     360
ggetgeteeg tggtagacat gegegaegat egeattgtte geeageggga ttactacgat
gccggagaga tgatttacga acatctcccg atactcggct gggccgtacg cggcgtgaag
                                                                     420
                                                                     438
cqqaqaqtqa aatcatga
<210> 5629
<211> 528
<213> Enterobacter cloacae
<400> 5629
tgecegeace ateagegtgg tgeagetgae tgeggaaege gtatgaageg ttaegggeag
gtatttetgt tggccategg ttttgatete taetggaege tggtggtget gtttegegag
                                                                      180
caggggctgg toatctggat cgcgctggcg gtgcttgcct ggctgttatt accgccatca
                                                                      240
cacegggtat acgcccttgt getggeggeg tegggtgege tgetggaege cetetgggeg
etgaegggge tgattgegtt caeaggegeg teeetgatge egetatggat ggtggegetg
                                                                      300
                                                                      360
tggctaatgt ttgccacegt ctggacgcac ctgacccgca cgaccacctt gccaggatgg
ttgctgacgg tgctggcgac tctgggcgga ccggtagcct acctgatcgg cgagcatctt
                                                                      420
ggggccatta cgtttcagga gccgaccttt atcgtcgtca gctggatgtt ccccggctgg
                                                                     480
                                                                      528
ctggtgctga tgctgttttt ccacctgttg atggggagac aacaatga
<210> 5630
<211> 468
<212> DNA
<213> Enterobacter cloacae
<400> 5630
tottcaccgc ctggaaaaag gagaaaaagc gttatgcaca ttattttaat tttactggtg
                                                                      60
                                                                      120
attgccggtg gcatggggct gtccgtggaa gccgggctgc tggggccgct gggcgcagag
gtgggcgacc tgtgggcggc gttcagcata tttagcgtgg gaacggggct aacgtttctg
                                                                      180
ctgatgctgt ttttcagccc ccgcaacagt ccctcatttt ttgcgcagcc ttcatggcac
                                                                      240
                                                                      300
etgttgggeg gegtgetegg eeeggtttae gteateatte teaceattge eaegeetgeg
                                                                      360
atoggcattg ccatgacgat gatoggcatt ctggcaggcc aggtttttaa aagcctgatt
                                                                      420
ategaccact atggeetget gggtacgeeg cacegeagga tegatacaaa acgcattatt
                                                                      468
qcqctqggat ttatcatcgc cgcgctcatt ctcgtggcgc aggggtaa
<210> 5631
<211> 279
<212> DNA
<213> Enterobacter cloacae
<400> 5631
aatgegeeag tagacgeeeg gageaagtae etgeacetea geatgaageg eggeggagge
                                                                      60
gtcgccgaac tggaacgtot gegegeette acgcagegte agegageeac cgcgcagace
                                                                      120
                                                                      180
gttcagcagg cggaagagca accategege gacgeggaeg ttgegeggga tategggtte
                                                                      240
aagegeaaag acgggategg teatgagegt teacteetge tgaggggatg gttatgeage
                                                                      279
ggcacgcgct tcagccacag cctgagcgcc tgccagtaa
<210> 5632
<211> 765
 <212> DNA
 <213> Enterobacter cloacae
<400> 5632
 agagggcctg aaatgggaac ggcaatattc atggtattga tggtatgcgg gtactggtac
 accagoogog acctotoaac coggittoaaa attaagogit cattoggotig ggatigtotat
                                                                      120
                                                                      180
 ttccttgtgg cgctgtatgg ctgcattttc gttttacagg gcgtgatcgc caccggcctg
 ctctggctgt tgttgttcgc cctctccgcc gccgataaca cgttccattt cacgtctgca
                                                                      240
 aaatatgccg actggcaaat tgattttatg aactggaget teetggggat teaggeceeg
                                                                      300
                                                                      360
 gtggtggtaa tgctgacctt cgcgatcctg ttctgtctct accgctcgaa ctgggccggg
```

agegegegge ggaattgaac aaategegge gecaatateg tgtategaac eccaaaageg etgttegate	agetgeteta ggatetatat tgettattee ataactacag ceatggattt	tcagtgcatg tgggatgatc gatgctgagc caaatggtat tcgcaaagtg	gaggaaggtg cataccgcca ggctaccgtg gccgagcatg atcatgctgg	aactggcgca cgctggagta acgggaaaaa atattacgct atcagatcga	cgtcacgetg tgaaaaaacg catgcagete cgattcagag	420 480 540 600 660 720 765
<210> 5633 <211> 660 <212> DNA <213> Enter	obacter clc	pacae				
<400> 5633 gcatttatct gagaacaata gcaatgttca gcgggcaagg atggcgcagg agcagtgaag aaagtccaga cataaagccc atggaatat agtaaaatcg cagcatctga	tgcacacgag gcaccgttgg ctcaaccgga ccaatatcaa tgaaaacat ccgttgccca tgaactcaag ctggcgtgaa acgatccgga	taaaaccctg cgtacaagec cgccagactc cgaagtogcc cgctcagaaa gaaaaagggc gctggaaaac ggaccacgag tgtgaaggct	aaaaggetge cagacgacaa ageteeggeg geegeeagge atggtegaeg gtggagetge cagegtggtg aaggtgetgt ctggecaacg	tagcogtatc gogcogcaca acgagaaagc tegcectgga atcaeggege cgacegaacc acgettttga cgaagettaa agcacacgc	agcagttgca aactcaaact gttgaaggac caaggcccaa egcgctgacc agacgccgcg caaaatgtat gagcgacgcc cgtcgttgag	60 120 180 240 300 360 420 480 540 600 660
<210> 5634 <211> 258 <212> DNA <213> Enter	obacter clo	pacae				
cacgggetga cegtaetacg cacgtagtca tttgeeggtt	ceggaacege acggggecag ccacgatecg	agetttette getgettatt	ctgtgcgtgg tcgctgttat	egtegetgge tttttagtea ttatecageg geagagatea	aaaaaaagcc cgtaggcaat	60 120 180 240 258
<210> 5635 <211> 573 <212> DNA <213> Enter	cobacter cl	oacae				
ttgcgctggg gtgattatga aacgggcaat ggcgcgctgg atggatgtac atggtgctcg cagctggcca ttttcagtga	atttatcatc ttattctggc taggcagcag tgaccgccct ccaaatggca cggtgcagcg tgagcatgct gccgtttcgg	gccgcgctca ggtgattggc cgtgggggta gctgatcttc gcttctgggc catcgggacc gattgataac	ttetegtgge ggegeaacge tteaaageg tttttgage gecetetgeg getgttgeea tttggetgge tgeetgagta	cgaaacaggc gegtgeeeta eggtageggt tgaacaatga	cgttatgaca	60 120 180 240 300 360 420 480 540 573
<210> 5636 <211> 198 <212> DNA <213> Enter	robacter cl	oacae				
<400> 5636						

			2097			
taccaccaca	ggccggaaac ttgaacattt	ggctcgcggc	ctgatcgtca ttaatcatgc tggcgtaaaa	attatgtcga	tcttctcgaa	60 120 180 198
<210> 5637 <211> 1131 <212> DNA <213> Enter	obacter clo	pacae				
aggggctcag aaccaatga aaccagtcag cgtcaggaga agctgggata atgaatatcg gataaaaaa cgtgactatg ctccccgaga gaattcaag acctatcgtc gagtcgata gaaaacagcg aatctggagc gaatttaca gatacatcat	gcataaatta gtaaggctt aaaacacgcg acctgocaa acccgaaagc gcgcgattt cccacgggg atttcagcgt attttggcga cgaacttcaa gtaccggtaa tcgcaccttcaa gtaccggtaa tcgcgccttt tgatcggcac tagacagat tagacagaat tagacagaagaat tagacaaaatt taaccgaaga	tgcattgata cacatttacc taccaccacc cacgctgttg tgaccgctat taccttcccg catcgaagg cctgctgctg gctgcacggc ccaccacccg cttcggaag cgccttttc catcagcac catcagcac cgccttcttc catcagcac cgtctcttga cgcttatgac cgcgttttate	gcagtgaaat acgttccggc cttaagcgca aacttcgcca atgatcaaca gccgtcgagc gcatcgaaa atcgtcggaa gagcataata aatatctta gtgsttggcgtg atgggctga ttcaccggcg atggagacgt cgtgaagacgt cgtgaagacgt caaccetaaca gataaaaggt	aacatgaact gttgctttga acctggcgcg accgctttaa tggagattat ttctgcaaac aagatcaacc aaggttcgt tgagcgtctc attgatacca aggttcgcta atttactgcg tccagaagat agcccgacct gcagccggct	taggatgcat tgaaaattat tgaaaattat tggcgatgagg ttcagtcgat gacgattgtg atcgtatgt atcgtatgt cepttttacc teattctgcg cagcaaagac gccggacggc tttcatgccg tgattacacc ctattcgaccg gaatcagcag ggccattgaa tgagcagtgg	60 120 180 240 300 420 480 540 660 720 780 900 960 1020 1080 1131
<210> 5638 <211> 210 <212> DNA <213> Enter	robacter cl	oacae				
caggtcatga gatcaggatg	gtcaccagga	aattatcgaa ggttaactac	acgetetttt geegtagagg aaaageeacg	atggcgaccg	catcatcatc	60 120 180 210
<211> 210 <212> DNA <213> Ente	robacter cl	oacae				
aagctgttat tegeceegea	atgatggage tgtcccaaag	ccttagagca ttttttggct	cataaacata gtctgtaaac	agaaaagttt	ttatttgaac tgacttaaac ccagaagcgg	60 120 180 210
<210> 5640 <211> 330 <212> DNA <213> Ente	robacter cl	oacae				
<400> 5640 aaaaccaaat atgggtctgt	tcgagggtat	gaaaatgaaa attogoggot	aaagtattag gaaactaccg	ctctggttgt ccaccgcage	tgccgctgct gcctgcggct	60 120

geggeagaae gtagageaga	aaaaaqcqca	aacggttcac ggccgctaaa ggctaaaaag agcagcgtaa	aaacaccaca	aaaaagcggc	aaaaccagcg	180 240 300 330
<210> 5641 <211> 219 <212> DNA <213> Ente	robacter cl	oacae				
tcaggccagc aaacgattca	tttctttaat cttcaaaaga	tgaagcactt gcggtattgt agaagtgaca tgaaaagttg	tgtcagtcat gaaaatgcac	geggaatetg	tcctgttgct	60 120 180 219
<210> 5642 <211> 231 <212> DNA <213> Ente	robacter cl	pacae				
ctttcgtata	aacagaagtt agggtggttg	ttatatatat aaacggctca ttttttgtgc tctcaggata	tttttttctta tattgcgtaa	taatcgacaa ggattgtatt	aagocatoca aagogocata	60 120 180 231
<210> 5643 <211> 462 <212> DNA <213> Ente	robacter cl	oacae				
caggcagcgt agggaaacat cgctttcaga gaggtcagcc agcagacaac ccttacgaat	agtatcaggg atagcgggta tgctcgtcgg agacaaagat gtgatgaatt tttggcatgc ttattcagtc	aggtgtaggt tattgtggag atggttegae gaatettttt attacateag aataggeeag gaataaaggt tattaatgat	tttaataatg aatcogcagg gcttatcttc gtatgggaaa cttaaactga aagacctatt	gctcccgtct tgcctcaaaa ttgaacatgc agtatggcct gtctgtttac cactggaaaa	ttggataaat gggaaggatg tgtgcgaaaa taagtcatcc gctaggtatt	60 120 180 240 300 360 420 462
<210> 5644 <211> 258 <212> DNA <213> Ente	robacter cl	oacae				
attaaatcac accagcaata	tggcctattt ttgtcgtatt aaaatattga ataagcagat	tttatttttg ggtaaagttc tgagatgtac gttggcattg	aaattacttc gatttaatga	gtgatgaacg atgcgaagga	tetegaatat agaaateete	60 120 180 240 258
<210> 5645 <211> 297 <212> DNA <213> Ente	robacter cl	.oacae				
<220>	-0					

<221>unsure

<220> <221>unsure <222>(208) <220> <221>unsure <222>(226) <400> 5645 ttagctgccc ttcaaccagc cgggcaagat gcccgctggc ggtcgacggc gcaacgtctg 60 cogcogcact cagtteagtg geogtecacg cacgeoogte cattagegea caaagcatet 120 teaegegega eggateggne attgeageeg ceaeegegge aategeettt teeageateg 180 egetgttate agagggttag etegtetnta acattegtee geccanggtg tggtgatete 240 agegggccac ttatcatcat ecctcageag attaaggtga tteecatggg cactgta 297 <210> 5646 <211> 339 <212> DNA <213> Enterobacter cloacae <400> 5646 tacttaagta ttotoattto atoggoaaac aacggagoca atgagatgaa cataacotoo caaccaaacc cagegagtaa ggaatttgat atccaegeca agetcaagge agcaaatteg cactggagtt atttacgage tgegcaacet catcagaatg attttgatta egaatttaac 180 240 accacattta ttgacggttt ggaattcgct atctacgaac gtgtaggtaa ttattttgtt ctggttgatt tcttcaagtc atatgaagaa gcatgtgatg atgctaaaaa aatcattgat 339 gaccatectg acattaagaa aatgttetet getatttaa <210> 5647 <211> 342 <212> DNA <213> Enterobacter cloacae <400> 5647 atogotggag tatttcacag caaaaaagtc gagttagatg ggatttgtta tgaaacctct gatatttgta totcagagtt atcccatctt gaatttagtg cgtttttaag tacggatggt 180 getgetacca ttgetatage aaaaaacgga actaatttta etggaettat geaactgaat 240 aacqactatt ctttattgt: ttatcatgat ggtaaaataa atatggaagg tctaattaaa gaaatggaat taaaaggtta tatgtatcag ggagcaatgg gcaatgatga tgttgccgct 300 342 gagtttcccg gtattctttt aattgcacca gagaagcttt aa <210 > 5648 <211> 363 <212> DNA <213> Enterobacter cloacae <400> 5648 ttgcaccaga gaagctttaa tatcaaccct atcgggaaat ctttccccgt tggggagggt 60 ttcccctttt ttttggagaa acccatgact ttaaatactt caatgcttaa caaagtatct 120 180 gcaaaacaaa tototgagaa ttttgcaaaa toatatocag atttactgga aggtgcagtt 240 ataacaaaaa ttgaaataag tggctgtcaa ggatcgcgtc gaaacgataa aatcgatttg 300 tottatgatg gagatgatat tacggatcaa aaaagcgtat ctaaaaacca attacgttgg attgacataa aagecettag etteeaaagt aegattaeca geagaatate eacecettig 360 363 ctc <210> 5649 <211> 663 <212> DNA

```
<400> 5649
                                                                      60
ttgaaattaa ctaaagatga tttcataaat ccctttagat ttaatattgc tcactttatt
cettttacge ctattagegt tgaaggtgat gaaacecagg actaetatea ggaacaattg
                                                                      120
                                                                      180
ataacagatc tggcagaaga agcaatgagg gtttatgaaa aaattagtaa aaataataat
ttgcgctcaa gtactattga ccgactgaag caaatgcaaa ataagatcat tagcttcatg
                                                                      240
tttatacata aagaggegge agtacttgea gaagetataa aacacataat gaataattta
                                                                      300
cotaaaggtg ccatttotga acctogogac gttgcggtgt tacagcagtg gttttatttc
                                                                      360
atgagtgatg cttcaatgtt aaagcgtatt atttcaggag agcaaaaggt tactgactgg
                                                                      420
ttggaatcta ttaccagatc atttaatcaa agetcacaaa cagaaccgaa egegetacag
                                                                      480
aacacaggta ttgaagctat tttagattca acaaatgtgt ttcaggttga acctgtcgta
                                                                      540
                                                                      600
gagaacgata taaaaaacag cacgttttca aacactgatt ctgtagctga acctgagaaa
tcagtttcgc aacaggaaga caatgctgaa aatggttttg atatcgagct caaaggctgg
                                                                      660
                                                                      663
taa
<210> 5650
<211> 633
<212> DNA
<213> Enterobacter cloacae
<400> 5650
gtaccccttt ttataaagag gtattctatg aaattagatc ttaaatcatc gccgcgccat
                                                                      60
attaagogtt tacagaatat agcaaaagtc attagogget taggogatgt aagagttgta
atagacgaca ataccaaagg accgtatttt gatcctgtca ataaagtttg tgttttacca
                                                                      180
                                                                      240
aacggcgatt atagcgatga tgactttgtc agtctgattg aaggttttac ctgtcatgaa
gotggteatg gtegetatac egteagtgag gtttacagtg acgeetttaa tagtgttete
                                                                      300
                                                                      360
atgteatetg aagggtttac acgettegat gacggaatga atgeagagtt tgagageete
getgagaaac gtaaagetta tageagggea aaacgtetta cegggettat aaatetgtte
                                                                      420
gatgatgtac agatggaaga gaaggttggt aacgattatc cggatgcaaa gcggcgqctt
                                                                      480
                                                                      540
geagecactt acgcactgat ggttaaagec ggaaggatga eteetgatat atettetegt
                                                                      600
coggaaaate etgteetatt tattgagtgg tatetgetta acteategeg agtacaatgt
cttaactgcg gagtgcagga acgcactttt ttt
<210> 5651
<211> 237
<212> DNA
<213> Enterobacter cloacae
<400> 5651
acattaacta aactaggatt tatctatatg aaaaacatca aatctatcgc cgctgcctct
                                                                      60
ttgttatccg ctgtgtcctt ctctggcctg gcacagaaca ttagtgttac tgacacaact
                                                                      120
                                                                      180
cttgatggeg ctgaagegea gattgegget aaggeaaaaag aggeaaaaac etectacaaa
                                                                      237
atcatttctg catatactgg taatcgtgtg cacatgaccg ctgttctggg tgaatag
<210> 5652
<211> 363
 <212> DNA
 <213> Enterobacter cloacae
<400> 5652
agacaagagg catcgacaat gcgtctggca tcatatgcta ttgcgttact tttcatcact
tcattgacgg gctgtaaacc ggaaaatgga aaggcttttg ttggaaattg ggtcgaggaa
                                                                       120
                                                                       180
acaaattcaa agatceegge taaaatttet attgeegaeg agaaateggg geaacgteat
 ttotatgogg taaaaataac ogatotoata tgggataaag aaacgggogt coattacaac
                                                                       240
                                                                       300
 acgaaaaaaa tcaatgccat gctggataaa gaaaatttcc tgtgggcgaa taatggggat
                                                                       360
 aacttcatca totttgacga toatottatg tataacggag atcgctacaa acgtgttgag
                                                                       363
 <210> 5653
```

## <213> Enterobacter cloacae <400> 5653 60 gtoccqcaac gagcqcaacc cttatccttt gttgccageg gtcaggccgg gaactcagag 120 gagactgcca gtgataaact ggaggaacgt ggggatgacg tcaagtcatc atggccctta cgagtagggc tacacacgtg ctacaatggc gcatacaaag agaagcgacc tcgcgagagc 180 195 aageggacet cataa <210> 5654 <211> 609 <212> DNA <213> Enterobacter cloacae <400> 5654 occcaaatgt ctaaaaataa agotogoagt aaagoootto atcaaacott tagtgaaatt attocagaga tggataaggo gotaaacaaa cagotottag aagttotgat gaaatataca 180 qaacqtqata atgaactgat tgttattttg aatgaggacg gcccaaatat cattgaactt aagtetetta ageetgtgte tttgttggee gaaaagettt etgettatte aagetattat 240 catgtggatg ttgtggagct cgtggtcaag aaaattgatt tcgaaggagc ttataagctt 300 cttaaagett ceceagatgt accaetttt aaaagettaa etgaactgga taaatatett 360 gttgaggagt ttgaaaaata cggattaaat tcatttcttg acgtggataa tctggattac 420 teacttgaaa aageeagtga acteaaaaat gageagttaa taaattgggt tteggacate 480 atttgcaaac gtgaaaaatt aactttacgt aagcgttttg atgtcgcagt aaaggcccac 540 tacgaaaatg tagaaaacat gtatgattct toaccacaga ggggtcgaag gacccgcgct 600 609 aageggtga <210> 5655 <211> 220 <212> DNA <213> Enterobacter cloacae <400> 5655 actttgggcc tgagagaagc tacactgaaa gaacagttit tggtttctgc ggtctcgtta 60 tacccaatta cotggtttaa goagttooco aaatggactt atacctooga toaaaccaac 120 ctccccaagt tggttttttt teegtttcca gaagccagaa gaattaccaa tggttacgaa 180 cacqqattcc ctataaaqat ttttttactc cqqaacaqac <210> 5656 <211> 855 <212> DNA <213> Enterobacter cloacae <400> 5656 tttcagatca cogccatcaa cagtgogacg tcactgacgg ttacgcctgc cgcgtctcag 120 gegttgageg gecagaagta eggeattett grtactgata gteteteagt egaeggeetg gegeagagea tgteteaact cateaacgag tacgacgaga acateggege etgggagaeg 180 240 ttegecacea ceteageaaa ecagaacate acegteacea teaacggege tegtgtaact attooggoga toggoaaact ggtocagaaa gggagcaatg gggoggttgg agtttotgac 300 ggegggaceg gagcaacgaa tgeegetgac getegeacaa aceteggttt aggaagtage 360 gcgactaagg acgtcggaac ggactccggt aatgtcatgc aagtgggggc ttttggggtt 420 480 ggtacatacc aggotocaag gccaaatgat gcaaactcat cgtttatcag tgatgctgac ggtaacacca gttgggctcc tgccaatggc tgtggctacc aaagctctta taacactcag 540 cgcatagcgc aaatgtgggt taccactggc ggagctggct attgccgttt tctgttaaac 600 acgaatooto aaactgcaaa aacagatgot cegtggacgg tatttcagto agcaggaaca 660 720 toggacatta actttaagaa agtgaccggg gatctggatc taaacgaatc gctgtcaaac 780

atogoggoaa tggattttaa gacettetae taeettgetg atgaagataa agteattege egeggegtta ttgeteagga actggaaaag ategateee aggtetteae aaegeggteg

840 855

<210> 5657 <211> 192

aagaaagtac tatgt

<212> DNA <213> Enter	212> DNA 213> Enterobacter cloacae						
ttattcattc	aggtgaatga tcaaaaataa	caggtatgag	attcatcctt	tttacaacaa atcagcgcgc ttttacatga	tggtgataaa	60 120 180 192	
<210> 5658 <211> 216 <212> DNA <213> Enter	obacter clo	pacae					
tcaatggaac aagcgtggtc	aggttgctga tctctgtgaa	taagttettt	gacaggetgg tcaaaagaga	cagetacaca tgagtggtca aatataattt	gattaagatt	60 120 180 216	
<210> 5659 <211> 297 <212> DNA <213> Enter	cobacter clo	pacae					
atggggateg egeaaaegge getaacetga	ctgcaccagg aaatgcatcg	gcagegtatg gatcegettt egcagettte	ggcgagcaga cacctgaacc ggtattgatt	teggetteee caggeateaa ggggageeat tetgegetea ttaagetgaa	tggatttttc taagcgatac gattgccaat	60 120 180 240 297	
<210> 5660 <211> 237 <212> DNA <213> Ente	robacter cl	oacae					
tctttcccga caaggtgtag	tccggttagt catcattgag	cttcccaaca cgccgcacga	ttacgcctgt agcgcggaac	aaaccgtggc ttattctctg gtatcgctaa gatggcaaaa	tgacctttca tggttcaagt	60 120 180 237	
<210> 5661 <211> 210 <212> DNA <213> Ente	robacter cl	oacae					
aagcatccga ttaaagaagc	ggccgatgaa gagatgcagg	gatgattcag	tgtcagaaaa cacagcgctc	gtcagatact aaacccgata tctggggcta	ccagaacgac	60 120 180 210	
<210> 5662 <211> 579 <212> DNA <213> Ente	robacter cl	oacae					
<400> 5662		asstsatoas	ntaaccaecc	· ctgagtcgta	catattttct	60	

240

420

480

540

qeaatcatct atattggcaa agataacttc accagtaacg aagtagcgaa aattcttatc gggcgatttt cactteegaa aaattattta aaggeaaaag ettttgetta taaccaaatt caaggtotgg ttagaaaggg attgttaaat aaagtaagaa aattaggtgo gtatcaatat ttatactcag ccacatotga attcaatgto gcaaaggaaa acgtagagtt aattgaggta teccaaaaaa geecetgtea acttatttea agtgetaeea gttatgaaca tageaatgta aacattcaaa taagaactct tattgaaaaa tacagcagcg agttggaaaa agtatcagga gtaaaggaga tttatgaaga attgataatt gccgtgccga gcagggaaaa tgaattcagg aaactttctc togaacaaga gaaaaagcaa attaagataa atgaacaaat attcttcacc acgaagctgc aaggatgccc gataaattct atggttcag <210> 5663 <211> 144 <212> PRT <213> Enterobacter cloacae <400> 5663 Cys Cys Arg Arg Leu Ser Gly Ser Ala Ser Pro Arg Trp Ser Leu Cys Leu Cys Trp Cys Ser Gly Cys Cys Arg Ala Cys Ser Pro Ser Phe Cys 25 30 Leu Gly Ser Pro Pro Gly Ala Ser Cys Ser Pro Ala Pro Ser Gly Cys 45 3.5 40 Ala Phe Ser Cys Arg Phe Cys Phe Ser Ala Pro Ala Ala Ser Cys Phe 60 55 Ile Leu Val Val Ala Leu Leu Phe Cys Leu Arg Phe Val Val Phe Pro 70 Val Leu Leu Phe Gly Ser Val Cys Leu Ala Trp Phe Leu Val Phe Ala 90 85 Phe Leu Val Ala Leu Trp Met Asp Gln Gly Val Val Ser Trp Leu Arg 110 100 His Val Leu Leu Ala Pro Gly Ser His Lys Asn Pro Val Thr Leu Val 115 Ile Thr Gly Leu Ile Leu Arg Ala Ile Val Trp Ser Val Met Leu Leu 135 130 <210> 5664 <211> 77 <212> PRT <213> Enterobacter cloacae <400> 5664 Ser Arg Thr Arg Gln Glu Arg Lys Ser Lys Thr Asp Arg Lys Lys Arg Asn Arg Lys Glu Gln Gly Ser Lys Thr Pro Gln Glu Glu Asn Pro Asn Lys Thr Lys Ala Asn Arg Arg Asp Ser Ser Gln Asn Thr Ser Arg Asp 45 35 40 Thr Lys Thr Thr Glu Ala Thr Pro Ile Gln Lys Asp Gly Asp Asn Ile 55 50 Ser Thr Lys Lys Thr Asn Arg Asp Lys Asn Arg Thr <210> 5665 <211> 163 <212> PRT <213> Enterobacter cloacae <400> 5665 Asn Pro Asn Gln Ser Glu Ala Leu Gly Gly Thr Ile Ala Arg Gly Met 10

Val Asn Thr Gln Thr Gly Gln Glu Glu Lys Lys Val Gly Thr Arg Arg

Ile Glu Arg Lys Lys Pro Pro Val Val Thr Gly Ala Glu Glu Lys Ala 40 Lys Gly Gln Asn Leu Ala Pro Lys Ala Glu Lys Ser Glu Ser Gly Ser 60 Pro Lys Glu Ser Arg Lys Ala Glu Lys Thr Glu Gln Ser Ile Gly Glu 75 Glu Ala Val Lys Thr Arg Gly Lys Ile Gln Arg Gln Gln Ile Gln Asp 85 90 Gly Gln Lys Ala Ala Ser Gln Val Asn Ala Gln Gln Ala Asn Glu Ile 105 110 100 Gly Leu Gly Lys Pro Glu Asp Phe Thr Gln Ile His Gln Ala Ala Arg 120 115 Ile Gly Lys Pro His Ile Thr Ser Pro Thr Phe Asn Val Gln Ala Met 135 140 Met Leu Ile Ala Pro Gly Leu His Leu Ala Thr Gly Arg Ile Arg Ala 150 155 Tyr Val Ser

<210> 5666 <211> 89 <212> PRT

<213> Enterobacter cloacae

<400> 5666

Ser Ser Gly Cys Arg Gln Glu Asn Arg Leu Ser Val Gly Asn Ser Ile 10 Gly Gln Asp Arg Arg Phe Leu Phe Lys Tyr Met Pro Glu Leu Glu Ser 25 3.0 Tyr Phe His Tyr Arg Tyr Leu Asp Val Ser Thr Leu Lys Glu Leu Ala 40 4.5 Arg Arg Trp Lys Pro Glu Ile Phe Asp Gly Phe Thr Lys Gln Gly Thr 55 60 5.0 His Gln Ala Met Asp Asp Ile Arg Glu Ser Val Ala Glu Leu Ala Tyr

70 Tyr Arg Glu Asn Phe Ile Lys Leu 85

<210> 5667 <211> 131 <212> PRT

<213> Enterobacter cloacae

<400> 5667

Pro Ala Thr Ala Gly Tyr Ala Arg Arg Val Glu Asn Asn Met Ser Ala Asp Glu Asn Asn Leu Ile Trp Ile Asp Leu Glu Met Thr Gly Leu Asp 25 20 Pro Glu Arg Asp Arg Ile Ile Glu Ile Ala Thr Leu Val Thr Asp Ala 40 4.5 Asn Leu Asn Ile Leu Ala Glu Gly Pro Thr Ile Ala Val His Gln Ser Asp Asp Gln Leu Ala Leu Met Asp Glu Trp Asn Val Arg Thr His Thr 75 7.0 Gly Ser Gly Leu Val Glu Arg Val Lys Ala Ser Thr Leu Gly Asp Arg 9.0 8.5 Glu Ala Glu Leu Ala Thr Leu Glu Phe Leu Lys Gln Trp Val Pro Ala

105 100 Gly Lys Ser Pro Ile Cys Gly Gln Gln His Trp Ser Gly Ser Ser Phe

```
Pro Val
<210> 5668
<211> 225
<212> PRT
<213> Enterobacter cloacae
<400> 5668
Pro Leu Pro Leu Ser Trp Gln Ser Val Val Lys Thr Ser Ala Thr Phe
                                 10
Phe Thr Asn Ile Thr Leu Gly Lys Leu Ser Leu Leu Phe Leu Ala Leu
                            25
Gly Val Ala Tyr Ala Ala Ile Arg Arg Thr Leu Leu Ile Val Tyr Pro
                                           4.5
                         40
Pro Ile Leu Ser Asp Gly Leu Phe Asn Phe Val Val Met Gln Thr Leu
                     55
                                    60
Phe Tyr Ile Pro Phe Phe Leu Ile Gly Ala Leu Ala Phe Ile His Pro
                                 75
                  70
Arg Leu Lys Ala Leu Phe Thr Thr Pro Ser Pro Trp Cys Ala Val Gly
                                 90
                                                95
              85
Ala Ala Leu Ala Phe Ala Ala Tyr Leu Leu Asn Gln Arg Tyr Gly Ser
                             105
          100
Gly Asp Ala Trp Met Tyr Glu Tnr Glu Ser Val Ile Thr Met Leu Met
                         120 125
       115
Gly Leu Tro Met Val Asn Val Val Phe Ala Leu Gly His Arg Leu Leu
                           140
    130
                   135
Asn Phe Lys Ser Ser Arg Val Thr Tyr Phe Val Asn Ala Ser Leu Phe
                       155 160
145
Ile Tyr Leu Val His His Pro Leu Thr Leu Phe Phe Gly Ala Tyr Ile
                                 170 175
              165
Thr Pro His Ile Ala Ser Asn Ala Leu Gly Phe Phe Thr Gly Leu Val
                  185 190
           180
Phe Val Val Gly Ile Ala Ile Val Leu Tyr Glu Ile His Leu Arg Ile
                       200
                                         205
       195
Pro Leu Leu Arg Phe Leu Phe Ser Gly Lys Pro Gln Val Lys Ala Gly
                      215
    210
225
<210> 5669
<211> 215
<212> PRT
<213> Enterobacter cloacae
<400> 5669
Arg Arg Phe Val Pro Val Gly Leu Pro Val Thr Asp Val Leu Phe Ala
Ala Val Ile Leu Ile Leu Pro Val Gly Tyr Ile Gly Glu Lys Gly Gly
           20
 Leu Gln Arg Val Phe Met Arg Pro Gln Ile Asp Val Ile His Gly Asp
                                            4.5
        35
                          4.0
 Ile Thr Thr Val Arg Val Asp Val Ile Val Asn Ala Ala Asn Ser Ser
                      55
                                        60
 Leu Met Gly Gly Gly Val Asp Gly Ala Ile His Arg Ala Ala Gly
                                     7.5
 65
                   70
 Pro Gln Leu Leu Glu Ala Cys Lys Thr Val Arg Gln Gln Gln Gly Glu
                                 90
```

Cys Pro Pro Gly His Ala Val Ile Thr Leu Ala Gly Asp Leu Pro Ala

Lys Ala Val Ile His Thr Val Gly Pro Val Trp His Gly Gly Asp Arg

100

```
115
His Glu Ala Glu Ile Leu Glu Gln Ala Tyr Arg Asn Cys Met Arg Leu
                              140
 130
                135
Ala Ala Asp Asn Gly Tyr Lys Thr Met Ala Phe Pro Ala Ile Ser Thr
                            155
               150
Gly Val Phe Gly Tyr Pro Lys Glu Ala Ala Ala Thr Ile Ala Val Asn
          165 170
                                   175
Thr Val Tyr Gln Tyr Leu Ser Leu Lys Pro Met Pro Glu Lys Val Ile
       180 185 190
Phe Val Cys Phe Asp Glu His Thr Ala Asp Leu Tyr Gln Arg Ile Leu
   195 200
                                      205
Thr Ala Arg Ser Gln Ala Phe
<210> 5670
<211> 308
<212> PRT
<213> Enterobacter cloacae
<400> 5670
Ser Pro Cys Ile Ile Ala Thr Leu Phe Ala Pro Glu Pro Ser Asp Val
                       10
Ile Pro Phe Pro Arg Ser Leu Glu Gln Ala Val Ala Ala Pro Phe Arg
                                        30
20
                         25
Asp Phe Phe Gly Arg Asn Asn Ala Trp Leu Ile Leu Leu Ile Val
                     4.0
                             4.5
35
Leu Tyr Lys Leu Gly Asp Ala Phe Ala Met Ser Leu Thr Thr Thr Phe
                55
                                  60
Leu Ile Arg Gly Val Gly Phe Asp Ala Gly Glu Val Gly Val Val Asn
               7.0
                               7.5
Lys Thr Leu Gly Leu Phe Ala Thr Ile Val Gly Ala Leu Tyr Gly Gly
                            90
                                   95
            8.5
Val Leu Met Gln Arg Leu Ser Leu Phe Arg Ala Leu Leu Ile Phe Gly
                       105 110
         100
Ile Leu Gln Gly Ala Ser Asn Ala Gly Tyr Trp Leu Leu Ser Ile Thr
             120 125
Asp Lys His Met Ile Ser Met Ala Thr Ala Val Phe Phe Glu Asn Leu
                   135 140
   130
Cys Gly Gly Met Gly Thr Ala Ala Phe Val Ala Leu Leu Met Thr Leu
                    155 160
                150
Cys Asn Lys Ser Phe Ser Ala Thr Gln Phe Ala Leu Leu Ser Ala Leu
                          170 175
             165
Ser Ala Val Gly Arg Val Tyr Val Gly Pro Val Ala Gly Trp Phe Val
                         185 190
         180
Glu Ala His Gly Trp Pro Thr Phe Tyr Leu Phe Ser Val Val Ala Ala
                       200
                                      205
      195
Val Pro Gly Ile Leu Leu Leu Val Cys Arg Gln Thr Leu Glu Tyr
                   215
                                   220
   210
Thr Gln Arg Thr Glu His Phe Met Pro Arg Thr Glu Tyr Gln Ala Ala
               230
                                235
Tyr Arg Phe Ala Leu Arg Leu Leu Met Ala Gly Cys Leu Ala Leu Val
             245
                            250 255
Val Trp Leu Ala Val Leu Ile Ile Asn Ala Thr Thr Thr Leu Ser Leu
                                          270
    260
                         265
Pro Phe Glu Thr Gln Leu Leu Asp Ala Gly Val Phe Leu Ala Ile Val
                                      285
 275
                    280
Gly Ile Leu Thr Gly Gly Met Leu Asp Phe Met Ser Leu Arg Lys Thr
                                   300
                   295
 290
Gln Met Thr
```

```
<210> 5671
<211> 335
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<400> 5671
Met Ala Asn Tyr Thr Val Asp Glu Phe Ile Ile Gln Leu Gly Phe Asn
Glu Thr Val Ser Lys Asn Leu Gln Lys Leu Glu Ser Arg Thr Leu Lys
       20
Val Ala Glu Arg Ile Glu Lys Asn Leu Asn Arg Ala Phe Thr Pro Lys
                     40
Gly Asp Phe Gly Arg Val Ile Ser Ser Ala Asn Asn Ala Ser Lys Gln
                 55
                                     60
Ile Asn Arg Ala Phe Ser Lys Ser Met Asn Phe Asp Glu Ala Gly Lys
              7.0
                      75
Ser Ser Val Lys Ser Val Glu Asn Ala Ala Lys Ala Ser Ala Lys Arg
           85 90
Ile Lys Asp Met Tyr Gln Asp Ala Tyr Gly Ala Lys Gly Lys Gly Arg
              105
                                 110
          100
Ser Asn Pro Pro Ala Ala Gly Lys Pro Gln Gly Arg Gly Ser Asp Leu
                  120 125
 115
Thr Ala Ala Asn Ser Ile Arg Ser Leu Ala Asn Thr Gln Phe Tyr Ser
                    135 140
 130
Asn Leu Thr Arg Arg Leu Glu Gly Met Gly Ser Thr Gly Gln Ala Arg
              150 155 160
145
Ala Met Lys Leu Arg Gln Gln Val His Gly Leu Arg Asp Asp Ala Leu
165 170 175
Ala Asn Pro Ser Ala Ser Leu Asn Gln Phe Arg Leu Ala Leu Arg Ala
         180 185 190
Ala Thr Asp Ser Ala Ser Lys Trp Ala Ser Gln Asn Arg Lys Gln Val
                     200 205
       195
Ser Asn Ala Glu Gly Leu Ser Ser Ser Phe Gly Arg Leu Val Ser Val
                    215 220
  210
Ser Ala Ala Leu Tyr Gly Thr Phe Glu Ala Val Arg Lys Val Val Glu 225 \phantom{\bigg|}230\phantom{\bigg|}235\phantom{\bigg|}235\phantom{\bigg|}
Thr Gly Val Ala Arg Glu Gly Val Asn Leu Ser Ala Glu Ala Val Phe
              245 250 255
 Lys Gly Gln Ser Lys Asn Ala Lys Thr Phe Ala Ala Gln Phe Ser Asp
          260 265 270
 Gln Ile Gly Gln Gly Val Thr Glu Thr Leu Lys Gln Tyr Thr Gly Phe
                        280 285
       275
 Ala Ala Gly Ala Gln Asn Ser Leu Gly Tyr Gln Gly Thr Gln Asp Phe
                     295
                                     300
Tyr Lys Asn Ala Ala Val Phe Gly Arg Ile Arg Gly Leu Asp Ala Glu
                310 315
 Gln Arg Thr Gly Ile Met Ile Pne Thr Ser Arg Ala Xaa Ser
                               330
              325
 <210> 5672
 <211> 390
 <212> PRT
 <213> Enterobacter cloacae
 <400> 5672
 Asn Lys Leu Asn Ser Gly Ile Arg Arg Val Leu Thr Gly Val Phe Lys
```

```
Val Ile Ile Arg Tyr Leu Val Arg Glu Thr Leu Lys Ser Gln Leu
                         25
Ala Ile Leu Phe Ile Leu Leu Leu Ile Phe Phe Cys Gln Lys Leu Val
      35
Arg Ile Leu Gly Ala Ala Val Asp Gly Glu Ile Pro Thr Asn Leu Val
                   55
  5.0
Leu Ser Leu Leu Gly Leu Gly Val Pro Glu Met Ala Gln Leu Ile Leu
                                75
                70
Pro Leu Ser Leu Phe Leu Gly Leu Leu Met Thr Leu Gly Lys Leu Tyr
                             90
          85
Thr Glu Ser Glu Ile Thr Val Met His Ala Cys Gly Leu Ser Lys Ala
        100
                         105
Val Leu Val Lys Ala Ala Met Val Leu Ala Leu Phe Thr Gly Ile Val
          120
                                       125
     115
Ala Ala Val Asn Val Met Trp Ala Gly Pro Thr Ser Ser Arg His Gln
  130
         135
                                   140
Asp Glu Val Leu Ala Glu Ala Lys Ala Asn Pro Gly Leu Ala Ala Leu
                     155
                                                160
       150
Ala Gln Gly Gln Phe Gln Gln Ala Thr Asp Gly Asn Ser Val Leu Phe
             165 170
Ile Glu Ser Val Asp Gly Asn Arg Phe Asn Asp Val Phe Leu Ala Gln
              185
                                          190
         180
Leu Arg Pro Lys Gly Asn Ala Arg Pro Ser Val Val Val Ala Asp Ser
                      200
                                       205
      195
Gly Gln Leu Ser Gln Arg Lys Asp Gly Ser Gln Val Val Thr Leu Asn
                                   220
                   215
  210
Lys Gly Thr Arg Phe Glu Gly Thr Ala Met Leu Arg Asp Phe Arg Ile
       230 235
225
Thr Asp Phe Gln Asn Tyr Gln Ala Ile Ile Val His Gln Ala Val Ala
             245 250 255
Leu Asp Pro Thr Asp Thr Glu Gln Met Asp Met Arg Thr Leu Met Asn
              265 270
          260
Thr Asp Thr Asp Arg Ala Arg Ala Glu Leu His Trp Arg Ile Thr Leu
                     280
                                      285
       275
Val Phe Thr Val Phe Met Met Ala Leu Met Val Val Pro Leu Ser Val
                    295 300
   290
Val Asn Pro Arg Gln Gly Arg Val Leu Ser Met Leu Pro Ala Met Leu
                310 315
Leu Tyr Leu Val Phe Phe Leu Leu Gln Thr Ser Ile Lys Ser Asn Gly
             325
                             330
                                              335
Gly Lys Gly Lys Ile Asp Pro Met Ile Trp Thr Trp Val Val Asn Gly
                          345 350
          340
Leu Tyr Leu Leu Leu Ala Val Gly Leu Asn Leu Trp Asp Thr Val Pro
                      360 365
       355
 Val Arg Arg Leu Arg Ala Arg Phe Thr Arg Lys Gly Ser Ser Pro Arg
                                    380
   370
 Gly Gly Arg Thr Ala Ser
                 390
<210> 5673
<211> 252
 <212> PRT
 <213> Enterobacter cloacae
<220>
 <221>UNSURE
 <222>(224)
<400> 5673
 Arg Glu Arg Thr Asn Gly Asp Thr Met Thr Leu Pro Ser Phe Ile Asn
              5
```

250

Ala Ser Pro Ala Leu Pro Ala Thr Gly Gln Ser Ala Gly Leu Asp Tyr 25 Gly Arg Ala Leu Ser Leu Arg Glu Met Ala Arg His Tyr Thr Glu Leu 35 40 Pro Lys Tyr Leu Leu Ala Pro Glu Val Ala Gly Leu Leu His Phe Val 60 55 Gln Asp Trp Gly Gln His Ala Phe Phe Asn Thr Leu Trp Asn Thr Gly 75 70 Ala Arg Leu Asn Glu Gly Leu Ala Leu Arg Arg Arg Asp Phe His Leu 90 8.5 Asn Glu Ser Ile Pro His Val Val Leu Arg Thr Ala Lys Gln Arg Arg 100 105 Ala Gly Gly Gly Arg Pro Arg Lys Gly Lys Ser Ala Asn Arg Val Val 115 120 125 Pro Leu Ser Asp Pro Ala Tyr Val Asp Glu Met Arg Arg Leu Phe Ala 130 135 140 Ser Thr Lys Glu Gln Phe Glu Asp Asp Pro Ile Thr Gly Glu Arg Arg 145 150 155 Ala Gln Pro Val Trp Asn Val Ser Asp Arg Thr Val Arg Asn Trp Leu 165 170 175 Val Arg Ala Thr Asp Ala Ala Asp Arg Asp Gly Val Arg Leu Ser Ile 185 180 Asp Val Ser Pro His Thr Phe Arg His Ser Phe Ala Met His Leu Leu 195 200 205 Tyr Gly His Val His Pro Lys Val Leu Gln Gly Leu Leu Gly His Xaa 215 220 210 Lys Phe Glu Ser Thr Glu Val Tyr Thr Lys Ile Phe Ala Leu Asp Val 225 230 235 240 Ala Ala Ser Gln Gln Leu Arg Phe Thr Leu Asp Thr

<210> 5674 <211> 317 <212> PRT

<213> Enterobacter cloacae

245

<220> <221>UNSURE <222>(313)

<400> 5674 Asn Ala Thr Gly Lys His Leu Pro Glu Gly Gly Val Cys Ile Leu Pro 10 Glu Leu Lys Met Ser Asn Ala Ala Met Lys Leu Asn Glu Thr Ser Ser 25 30 20 Asp Ala Tyr Glu Lys Leu Glu Ala Leu Leu Ser Pro Asp Val Ile Lys 45 4.0 Leu Lys His Tyr Val Asp Lys Gly Glu Tyr Leu Leu Val Leu Ala Lys 55 Asp Leu Phe Gly Ile Pro Glu Met Asp Pro Lys Met Ala Val Pro Val 75 80 7.0 65 Phe Lys Thr Lys Thr Ser Tyr Arg Ala Pro Leu Asn Lys Asp Tyr Ile 95 90 85 Pro Asn Pro Arg Ile Leu Glu Gln Val Val Lys Leu Leu Ile Ser Pro 105 100 Asp Ile Asp Leu Ser Val Cys Leu Lys Gly Glu Ser Gly Ser Gly Lys 125 120 115 Thr Glu Met Val Met Tyr Ile Ser His Met Met Asn Trp Pro Leu Thr 140 130 135 Ile Lys Gln Ile Asn Ser Asn Ile Arg Val Asp Glu Leu Glu Gly Glu 150 155

```
Arg Ser Leu Asn Gly Gly Asn Thr Gly Phe Val His Ser Asp Leu Val
        165
Thr Gly Phe Arg Asn Gly His Leu Ile Leu Leu Asp Glu Val Asp Lys
                          185
                                            190
       180
Ile Asp Pro Asp Thr Ala Ala Lys Leu His Met Pro Ile Glu Arg Lys
     195 200
                                         205
Pro Trp Ser Leu Ser Ala Asn Gly Gly Glu Val Ile Thr Ala Asn Gly
   210 215 220
Tyr Thr Arg Phe Ile Gly Thr Ala Asn Thr Asn Met Ser Gly Gly Ala
       230 235
Arg Arg Phe Val Ser Ser Gln Arg Gln Asp Ala Ala Phe Ile Lys Arg
          245 250 255
Phe Leu Ile Val Glu Met Glu Lys Pro Asp Lys Val Ala Leu Thr Asn
          260 265 270
Val Leu Thr Lys Arg Tyr Ser Ser Leu Pro Phe Gln Val Ile Glu Lys
                        280 285
Phe Val Arg Val Ala Ile Ala Val Asn Asp Ser Gly Thr Glu Asp Ser
                        300
  290
                    295
Val Met Asp Ile Arg Gln Leu Val Xaa Trp Val Gly Thr
                 310
<210> 5675
<211> 173
<212> PRT
<213> Enterobacter cloacae
<400> 5675
Val Leu Glu Val Lys Thr Ala Gln Met Gly His Glu Ser Thr Arg Phe
Thr Arg Leu Val Glu Asn Leu Asn Tyr Ala Val Glu Asn Leu Val Pro
                           25
       20
Thr Phe Gly Ser His Arg Ile Thr Gln Gln Gln Ser Ala Ala Leu Gly
                        40
   35
Arg Thr Ala Thr Gln Pro Ala Asn Gln Lys Ala Ile Ala Asn Leu Val
                    55
                                   60
Tyr Gly Gly Glu Trp Gly Lys Glu His Leu Gly Asn Gln Val Ala Gly
                 70
                                  75
65
Asp Gly Trp Lys Tyr Arg Gly Arg Gly Leu Lys Gln Ile Thr Gly Leu
                               90
Ser Asn Tyr Arg Ser Cys Gly Gln Ala Leu Lys Leu Asp Leu Val Thr
                           105 110
           100
His Pro Glu Leu Leu Glu Lys Asp Glu Tyr Ala Ala Arg Ser Ala Ala
                                         125
                       120
       115
Trp Phe Tyr Ala Ser Arg Gly Cys Leu Leu His Ser Gly Asp Val Glu
                                      140
                     135
  130
Arg Val Thr Leu Leu Ile Asn Gly Gly Arg Asn Gly Leu Asp Lys Arg
                                   155
               150
145
Arg Ala Leu Phe Asn Leu Ala Lys Ser Val Leu Val
              165
<210> 5676
<211> 115
<212> PRT
<213> Enterobacter cloacae
<400> 5676
```

Trp Arg Asn Cys Val Arg Ile Glu Thr Ser Leu Phe Thr Thr Pro Glu 10 Cys Met Lys Ala Ile Thr Leu Tyr Asp Val Ala Arg Val Ala Gly Val

4.0 Lys Lys Lys Lys Lys Val Arg Gln Ala Met Ala Ala Leu His Tyr 5.5 Val Pro Asn Arg Gly Ala Gln Gln Leu Ala Gly Lys Arg Thr Arg Thr 70 75 Leu Gly Leu Met Thr Ser Asp Leu Ala Leu His Ala Pro Ser Gln Ile 9.0 Ala Ser Ala Val Lys Ser Arg Leu His His Gly Ala Gly Arg Phe Arg Ala Lys Arg 115 <210> 5677 <211> 114 <212> PRT <213> Enterobacter cloacae <400> 5677 Phe Pro Glu Leu Thr Ser Leu Pro Val Arg Ile Thr Leu Met Val Ser 10 Gly Ile Val Val Asn Ala Leu Ala Thr Gly Met Tyr Ile Gly Ala Gly 25 30 20 Phe Gly Ala Gly Pro Arg Asp Gly Leu Met Thr Gly Ile His Ala Arg 45 40 Leu Gly Trp Ser Ile Arg Ser Val Arg Thr Ala Ile Glu Val Thr Val 55 Leu Ile Val Gly Tyr Leu Leu Gly Gly Ala Phe Gly Val Gly Thr Val 70 Leu Tyr Ala Leu Thr Ile Gly Pro Leu Ile Gln Leu Cys Leu Pro Trp 90 85 Phe Arg Gln Arg Pro Arg Ile Gln Lys Ala Ala Gln Pro Glu Arg Ile 105 100 Val <210> 5678 <211> 370 <212> PRT <213> Enterobacter cloacae <220> <221>UNSURE <222>(341) <400> 5678 Ser Leu His Ile Cys Val Lys Val Gly Phe Gln Cys Lys Lys Val Ile 1.5 10 Thr Met Asn Leu Leu Glu Lys Ile Ala Leu Val Gly Gln Arg Met Lys 30 2.0 Ser Glu Gln Ile Ser Leu Lys Glu Ser Leu Met Ala Ser Ser Arg Val 35 40 Ser Val Ser Asp Asp Ser Val Asp Gly Val Asp Arg Leu Ile Tyr Asn 55 60 His Cys Leu Asn Lys Lys Asn Leu Ser Asp Phe Phe Gly Lys Ser Arg 80 70 Val Thr Phe Asn Lys Ile Leu Ser Asp Leu Glu Glu Lys Glu Leu Val 85 90 95 Gly Ala Pro Ile Tyr Gln Asn Lys Asn His Leu Tyr Thr Arg Trp Asp 105 110 100 Val Gln Lys Ile Met Asp Ala Leu Gly Tyr Pro Lys Tyr Arg Asp His

```
Tyr Phe Ser Arg Ala Ile Val Thr Gln Asn His Lys Gly Gly Thr Gly
               135
Lys Ser Thr Thr Ser Val Ala Leu Ala Val Ala Ala Ala Leu Asp Leu
            150
                              155
Gln Leu Asn Ala Arg Val Leu Met Ile GIu Trp Asp Pro Gln Gly Ser
         165
                          170 175
Ile Gly Ser Ser Met Ile GIn Ser Val Ser Glu Asp Asp Val Phe Leu
      180
                       185
Thr Ala Ile Asp Ala Ile Leu Gly Ile Tyr Glu Glu Asn Ser Glu Tyr
      195
                     200
                        205
Lys Lys Tyr Leu Asp Ser Gly Phe Ser Glu Glu Glu Ile Ile Thr Asn
               215 220
Met Pro Phe Ser Thr His Leu Pro Asn Leu Asp Val Ile Thr Ala Phe
            230 235
Pro Thr Asp Ala Arg Phe Lys Asp Lys Tyr Trp Gln Cys Ser Arg Glu
           245 250 255
Glu Arg Thr Ser Leu Leu Leu Arg Phe Lys Glu Val Ile Leu Pro Val
        260 265
Leu Lys Gln Asn Tyr Asp Leu Ile Ile Ile Asp Thr Pro Pro Glu Asp
   275 280 285
Ser Pro Leu Ile Trp Ala Ala Asp Glu Ala Ala Asp Gly Ile Leu Val
 290 295 300
Ala Val Ser Pro Arg Glu Tyr Asp Tyr Ala Ser Thr Thr Asp Phe Met
305
      310
                             315
Leu Thr Ile Ser Glu Arg Cys Lys Gln Ser Pro Ser Lys Gly Asp Asn
           325
                          330
                                         335
Leu Lys Trp Phe Xaa Val Leu Ala Val Asn Val Asn Asp Lys Ser Pro
340 345 350
Tyr Glu Arg Ile VaI Leu Asp Lys Leu Ile Lys Thr Val Gln Gly Pro
            360
                                   365
370
```

<212> PRT <213> Enterobacter cloacae <220> <221>UNSURE

<210> 5679 <211> 352

<222>(344)

<400> 5679

Arg Leu Leu Asp Pro Gly Asn Phe Ala Thr Asn Ile Gln Ala Gly Ala 1 5 TO Ser Phe Gly Tyr Lys Leu Leu Trp Val Val Val Trp Ala Asn Leu Met 20 25 Ala Met Leu Ile Gln Met Leu Ser Ala Lys Leu Gly Ile Ala Thr Gly 4.0 Lys Asn Leu Ala Glu Gln Ile Arg Asp His Tyr Pro Arg Pro Ala Val 55 Trp Phe Tyr Trp Val Gln Ala Glu Ile Ile Ala Met Ala Thr Asp Leu 65 70 75 Ala Glu Phe Ile Gly Ala Ala Ile Gly Phe Lys Leu Ile Leu Gly Val 85 90 Ser Leu Leu Gln Gly Ala Val Leu Thr Gly Ile Ala Thr Phe Leu IIe 105 Leu Met Leu Gln Arg Arg Gly Gln Lys Pro Leu Glu Lys Val Ile Gly 115 120 Gly Leu Leu Phe Val Ala Ala Tyr Ile Val Glu Leu Ile Phe 130 135

```
Ser Gln Pro Asn Leu Ala Gln Leu Thr Lys Gly Met Val Ile Pro Ser
145
    150 155
Leu Pro Thr Ser Glu Ala Vai Phe Leu Ala Ala Gly Val Leu Gly Ala
                     170
           165
                                      175
Thr Ile Met Pro His Val Ile Tyr Leu His Ser Ser Leu Thr Gln Asn
        180
                       185
                                    190
Leu His Gly Gly Thr Ser Lys Glu Arg Tyr Ser Ala Ser Lys Trp Asp
   195
                  200 205
Val Ala Ile Ala Met Thr Ile Ala Gly Phe Val Asn Leu Ala Met Met
                 215 220
Ala Thr Ala Ala Ala Ala Phe His Phe Asn Gly His Thr Gly Val Ala
225
             230 235 240
Asp Leu Asp Gln Ala Tyr Leu Thr Leu Glu Pro Leu Leu Ser His Ala
       245 250 255
Ala Ala Thr Ile Phe Gly Leu Ser Leu Val Ala Ala Gly Leu Ser Ser
        260 265 270
Thr Val Val Gly Thr Leu Ala Gly Gln Val Val Met Gln Gly Phe Val
   275 280 285
Arg Phe His Ile Pro Leu Trp Val Arg Arg Ser Val Thr Met Leu Pro
 290 295 300
Ser Phe Val Val Ile Leu Met Gly Leu Asp Pro Thr Arg Ile Leu Val
305 310 315
Met Ser Gln Val Leu Leu Ser Phe Gly Ile Ala Leu Ala Leu Val Pro
 325 330 335
Leu Leu Ile Phe Asp Val Ile Xaa Pro Gly Met Glu Gly Ser Ala Leu
 340
              345
<210> 5680
<211> 357
<212> PRT
```

<213> Enterobacter cloacae

<220> <221>UNSURE <222>(354)

<400> 5680 Thr Asp Glu Arg Ile Leu Thr Met Ser Asn Val Phe Tyr Met Pro Pro 10 Val Thr Leu Met Gly Leu Asn Aia Ile Arg Leu Leu Gly Asp Glu Leu 20 25 3.0 Val Ser Arg Glu Leu Lys Lys Ala Leu Ile Val Thr Asp Arg Val Leu 40 45 Ala Asp Thr Gly Leu Val Asn Lys Leu Thr Asp Glu Leu Glu Ala His 5.5 60 Lys Ile Ser Tyr Ala Ile Phe Asp Gly Val Gln Pro Asn Pro Thr Glu 70 75 Lys Asn Ile Asp Asp Gly Leu Ala Leu Leu Ala Lys Ser Asn Ala Asp 8.5 90 Phe Val Ile Ser Phe Gly Gly Gly Ser Ser His Asp Thr Ala Lys Gly 100 105 110 Ile Ala Leu Val Ala Thr Asn Gly Gly His Ile Arg Asp Tyr Ser Lys 115 120 125 Gly Val His Leu Ser Lys Lys Pro Gln Leu Pro Leu Val Thr Val Asn 135 140 Thr Thr Ala Gly Thr Ala Ser Glu Met Thr Val Phe Ala Ile Val Thr 145 150 155 Asn Gln Glu Asp Glu Thr Lys Tyr Pro Val Val Asp Lys His Phe Thr 165 170 Pro Ile Ile Ala Val Asn Asp Ser Glu Leu Met Val Ala Met Pro Ala 185 190

```
Phe Leu Thr Ala Thr Thr Gly Met Asp Ala Leu Thr His Ala Ile Glu
 195
                        200
Ala Tyr Val Ser Thr Ala Ala Thr Pro Val Thr Asp Ala Cys Ala Ile
                                     220
Lys Ala Ile Glu Ile Ile Val Asn Asn Leu Lys Asp Val Val Asp Asp
                230
                     235
Gly Gln Asn Arg Glu Ala Arg Asp Ala Met Gln Tyr Gly Glu Tyr Leu
             245 250
Ala Gly Met Ala Phe Ser Asn Ala Ser Leu Gly Tyr Val His Ser Met
         260
                                            270
                         265
Ala His Gln Leu Gly Gly Val Tyr Asn Leu Ser His Gly Leu Cys Asn
      275 280 285
Ala Ile Leu Leu Gly Glu Val Ser Arg Phe Asn Ala Lys Lys Val Pro
 290 295 300
Asp Arg Phe Val Glu Ile Ala Arg Ala Met Gly Ile Asp Val Ser Thr
305
    310 315
Met Thr Gln Glu Gln Ala Ile Asn Ser Ala Ile Glu Ala Ile Glu Met
            325 330
Leu Ser Gln Lys Val Gly Thr Asn Gln Arg Leu Ala Asp Arg Ala Ser
 340
                          345
Arg Xaa Ser Pro
 355
<210> 5681
<211> 179
<212> PRT
<213> Enterobacter cloacae
<400> 5681
Gly Pro Lys Asp Leu Phe Pro Gln Lys Cys Asp Arg Val Met Ile Asp
                               10
Ala Ser Ser Val Val Ile Gly Asp Val Arg Met Ala Asp Asp Val Ser
    20
                           25
                                            3.0
Ile Trp Pro Leu Val Ala Ile Arg Gly Asp Val Asn Tyr Val Ala Ile
     35
                       40
                                        4.5
Gly Ala Arg Thr Asn Ile Gln Asp Gly Ser Val Leu His Val Thr His
  50
                    55
Lys Ser Ser Tyr Asn Pro Glu Gly Asn Pro Leu Ile Ile Gly Glu Asp
                7.0
                               75
                                                   80
Val Thr Val Gly His Lys Val Met Leu His Gly Cys Thr Ile Gly Asn
             8.5
Arg Val Leu Val Gly Met Gly Ser Ile Leu Leu Asp Gly Val Ile Val
        100
                          105
Glu Asp Asp Val Met Ile Gly Ala Gly Ser Leu Val Pro Gln Asn Lys
     115
                       120
                                        125
Arg Leu Glu Ser Gly Tyr Leu Tyr Leu Gly Ser Pro Ile Lys Gln Ile
                   135
                                     140
Arg Pro Leu Lys Glu Ala Glu Ile Glu Gly Leu Lys Tyr Ser Ala Asn
                                 155
Asn Tyr Val Lys Trp Lys Asn Asp Tyr Leu Asp Gln Asp Asn Gln Thr
                              170
Gln Pro
<210> 5682
<211> 66
<212> PRT
```

<400> 5682

<213> Enterobacter cloacae

Asn Ile Tyr Ala Tyr Asp Met Phe Tyr Gln Lys Gly Lys Thr Pro Phe

```
Leu Thr Trp Cys Glu Gln Gln Gly Ala Lys His Val Ala Asp Gly Leu
                                25
Gly Met Leu Val Gly Gln Ala Ala His Ala Val Leu Leu Trp His Gly
                            40
Val Leu Pro Ala Val Glu Pro Val Ile Glu Lys Leu Lys Lys Glu Leu
 50
Met Val
65
<210> 5683
<211> 119
<212> PRT
<213> Enterobacter cloacae
<400> 5683
Trp Ser Gly His Ala Gly Gly Ala Gly Gly Ser Cys Gly Ala Thr Leu
                                    1.0
Ala Trp Arg Val Thr Cys Cys Arg Thr Gly Asp Arg Lys Ala Glu Lys
           20
                                25
Gly Thr Asp Gly Met Asn Gln Ala Ile His Phe Pro Asp Arg Glu Ile
       35
                           40
Trp Asp Glu Asn Lys Gln Ala Val Cys Phe Pro Val Leu Val His Gly
 50
                   5.5
                                           60
Met Gln Leu Thr Cys Ala Iie Lys Gly Glu Thr Leu Leu Gln Arg Phe
                   7.0
                                       75
Gly Gly Ser Asp Pro Leu Ala Val Phe Cys Glu Asn Arg Trp Asp Leu
               85
                                  90
Glu Glu Glu Ala Ser Asp Leu Ile Arg Val Gln Glu Asp Asp Gln
           100
                                105
Gly Trp Val Trp Leu Ser
       115
<210> 5684
<211> 66
<212> PRT
<213> Enterobacter cloacae
<400> 5684
Ser Thr His Tyr Ala Gln Arg Lys Leu Gly Gly Arg Trp Gln Leu Arg
                                                        1.5
Gln Asn Phe Val Tyr Leu Val Ala Ile Phe Ala His Ile His Asn Leu
           20
                               25
                                                    30
Trp Ser Val Lys Ile Leu Ser Pro Gln Pro Val Ile Tyr Ala Leu Met
                           40
Ala Leu Ala Leu Leu Ala Trp Arg Tyr Lys Lys Phe Arg Gln Trp Leu
                        55
Arq
65
<210> 5685
<211> 174
<212> PRT
<213> Enterobacter cloacae
<400> 5685
Lys Gly Asp Asn Cys Ala Leu Arg Val Tyr Val Val Phe Tyr Pro Lys
Ile Ala Gly Asp Ser Gly Ile Met Ala Asp Lys Phe Gln Ile Leu Val
                               25
Leu Asn Gly Pro Asn Leu Asn Met Leu Gly Thr Arg Glu Pro Glu Lys
```

```
Tyr Gly Thr Leu Thr Leu Ser Glu Ile Val Asn Arg Leu Ser Thr Glu
                   55
                              60
Ala Ala Ser Leu Asn Val Asp Leu Asp His Phe Gln Ser Asn Ala Glu
             70
                             7.5
Tyr Ala Ile Ile Asp Arg Ile His Gln Ala Lys Asp Thr Val Asp Tyr
          85 90 95
Ile Leu Ile Asn Pro Ala Ala Phe Thr His Thr Ser Val Ala Ile Arg
      100 105 110
Asp Ala Leu Leu Ala Val Ser Ile Pro Phe Ile Glu Ile His Leu Ser
 115 120 125
Asn Val His Ala Arg Glu Pro Phe Arg His His Ser Tyr Leu Ser Asp
130 135 140
Ile Ala Ala Gly Val Ile Cys Gly Leu Gly Ala Asp Gly Tyr Ser Tyr
145 150 155
Ala Leu Gln Thr Ala Val Lys Arg Leu Ser Gln Ser His
<210> 5686
<211> 197
<212> PRT
<213> Enterobacter cloacae
<400> 5686
Gln Arg His Thr Pro Ala Ala Lys Asn Trp His Pro Tyr Cys Lys Thr
                       10
1
Cys Leu Thr Thr Gln Pro Leu Pro Ala Arg Tyr Phe Arg Thr Gly Gly
20
                         25
Asn Met Asn Leu Arg Arg Leu Lys Tyr Phe Val Lys Ile Val Asp Ile
35
                      4.0
Gly Ser Leu Thr Gln Ala Ala Glu Val Leu His Ile Ala Gln Pro Ala
                                   60
Leu Ser Gln Gln Val Ala Thr Leu Glu Gly Glu Met Asp Gln Gln Leu
                                75
               7.0
Leu Ile Arg Thr Lys Arg Gly Val Thr Pro Thr Glu Ala Gly Lys Ile
                             90
            85
Leu Tyr Thr His Ala Arg Thr Ile Leu Arg Gln Cys Glu Gln Ala Gln
       100
                                          110
Leu Ala Val His Asn Val Gly Gln Thr Leu Ser Gly His Val Ser Ile
    115
                      120
                                       125
Gly Leu Ala Pro Gly Thr Ala Ala Ser Ser Val Thr Met Pro Leu Leu
  130
                   135
                                   140
Gln Ala Val Arg Ala Glu Leu Pro Glu Val Leu Val Tyr Leu His Glu
                150 155
Asn Ser Gly Ser Val Leu Asn Asp Lys Leu Leu Asn Gly Gln Leu Asp
          165 170 175
Met Gly Gly Ala Val Arg Ser Leu Pro Gly Cys Arg Asp His Gln Pro
         180
                       185
Ala Ala Ala Glu
     195
<210> 5687
<211> 80
<212> PRT
<213> Enterobacter cloacae
<400> 5687
Leu Ile Asp Gln Pro Val Lys Val Thr Thr Glu Pro Asp Gly Ser Arg
                          10
Trp Val Glu Val His Glu Pro Leu Ser Arg Asn Arg Ala Glu Phe Glu
                          25
```

```
Ser Thr Asn Lys Val Pro Leu Pro Ile Ser Ala Ala Gln Arg Thr Gln
Leu Ile Ser Glu Gly Ala Gly Ala Glu Leu Glu Arg Arg Ser Gly Met
Pro Val Lys Leu Ala Met Thr Gly Ser Ala Ser Leu Ala Gly Pro
<210> 5688
<211> 114
<212> PRT
<213> Enterobacter cloacae
<400> 5688
Pro Cys Arg Cys Phe Arg Arg Cys Glu Gln Ser Tyr Arg Lys Cys Trp
                                  10
Phe Ile Cys Met Arg Thr Val Val Pro Cys Ser Met Thr Asn Cys Ser
          20
                               25
Thr Val Ser Trp Ile Trp Ala Val Leu Tyr Asp Arg Ser Pro Val Ala
                           40
                                              4.5
Gly Ile Thr Ser Gln Pro Leu Leu Asn Glu Asp Leu Tyr Leu Val Gly
                       55
Thr Arg Asp Cys Pro Gly Gln Ser Ile Asp Leu Thr Ala Val Ala Gln
                   70
                                       7.5
Met Asn Leu Phe Leu Ala Arg Asp Tyr Ser Ala Leu Arg Leu Arg Phe
            85
                                   90
Asp Glu Thr Pro Ser Leu Arg Pro Leu Asn Ala Asn Asn Phe Leu Leu
                               105
Glu
<210> 5689
<211> 164
<212> PRT
<213> Enterobacter cloacae
<400> 5689
Pro Val Tyr Thr Pro Leu Ala Leu Arg Asp Trp Phe Arg Ala Ala Pro
                                   10
Arg Asn Pro Leu Lys Pro Leu Pro Arg Leu Arg Leu Val Gln His Arg
                              25
Ala Asp Arg Glu Lys Ile Ser Arg Pro Ser Arg Arg Tyr Gln Glu Ala
                           40
Gly Leu Ala Asp Lys Arg Ser Lys Met Leu Thr Met Trp Val Thr Glu
                       55
                                           60
Asp Glu His Arg Arg Leu Leu Glu Arg Cys Glu Gly Lys Gln Leu Ala
                   70
                                       75
Ala Trp Met Arg Gln Thr Cys Leu Asp Glu Lys Pro Ala Arg Ala Gly
               85
                                   90
Lys Leu Pro Ser Ile Ser Pro Ala Leu Leu Arg Gln Leu Ala Gly Met
           100
                               105
Gly Asn Asn Leu Asn Gln Ile Ala Arg Gln Val Asn Ala Gly Gly Gly
       115
                                               125
Ser Gly His Asp Arg Val Gln Ile Val Ala Ala Leu Met Ala Ile Asp
  130
                                           140
Ala Gly Leu Glu Arg Leu Arg His Ala Val Leu Glu Lys Gly Ala Asp
145
                   150
                                       155
Asp Asp Arg
```

<210> 5690 <211> 232 <212> PRT <213> Enterobacter cloacae

<400> 5690

Trp Pro Ser Met Pro Asp Ser Ser Gly Cys Gly Met Pro Tyr Trp Lys 10 10 15 5 Arg Val Leu Met Met Ile Val Lys Phe His Pro Arg Gly Arg Gly Gly Gly Gly Gly Gly Fro Val Asp Tyr Leu Leu Gly Lys Asp Arg Gln Arg Asp 35 40 45 Gly Ala Ser Val Leu Gin Gly Lys Pro Asp Glu Val Arg Glu Leu Ile

Gly Ala Ser Val Leu Gln Gly Lys Pro Asp Glu Val Arg Glu Leu Ile 50 60 Asp Ala Ser Pro Tyr Ala Lys Lys Tyr Thr Ser Gly Val Leu Ser Phe

Asp Ala Glu Gln Asp Leu Pro Pro Gly Gln Arg Glu Lys Leu Met Ala Ser

85 90 95 Phe Glu Arg Val Leu Met Pro Gly Leu Asp Lys Asp Gln Tyr Ser Val 100 105 110

Leu Trp Val Glu His Arg Asp Lys Gly Arg Leu Glu Leu Asn Phe Leu 115  $$120\$ 

Ile Pro Asn Thr Glu Leu Leu Thr Gly Lys Arg Ile Gln Pro Tyr Tyr 130 135 140

Asp Arg Ala Asp Arg Pro Arg Ile Asp Ala Trp Gln Thr Ile Val Asn 145 150 150 155 160

Gly Arg Leu Gly Leu His Asp Pro Asn Ala Pro Glu Asn Arg Arg Val  $165 \\ 170 \\ 175$  Leu Val Ser Pro Ser Ala Leu Pro Glu Ala Lys Gln Glu Ala Ala Gln

180 185 190
Ala Ile Thr Ser Gly Leu Leu Ala Leu Ala Ser Ser Gly Glu Leu Lys
195 200 205

Thr Arg Gln Asp Val Thr Glu Ala Leu Glu Ser Ala Gly Phe Glu Val 210 215 220

Val Arg Thr Thr Gln Gly Arg Ile 225 230

<210> 5691

<211> 464 <212> PRT

<213> Enterobacter cloacae

<400> 5691

Arg Met Ala Gly Asn Ile Asp Ile Pro Pro Ile Arg Ala Asp Lys Cys 10 Leu Phe Phe Pro Thr Ile Asn Arg Glu Asn Ile Met Ser Val Val Pro 20 25 Val Ala Asp Val Leu Gln Gly Arg Val Ala Val Asp Gln Glu Val Thr 40 Val Arg Gly Trp Val Arg Thr Arg Arg Asp Ser Lys Ala Gly Ile Ser 60 Phe Leu Ala Val Tyr Asp Gly Ser Cys Phe Asp Pro Val Gln Ala Val 70 75 8.0 Ile Asn Asn Ser Leu Pro Asn Tyr Asn Asp Asp Val Leu His Leu Thr 90 Thr Gly Cys Ser Val Ile Val Thr Gly Val Val Val Ala Ser Pro Gly 105 100 110 Gln Gly Gln Ser Tyr Glu Ile Gln Ala Thr Ser Val Glu Val Thr Gly 115 120 Trp Val Glu Asp Pro Asp Thr Tyr Pro Met Ala Ala Lys Arg His Ser 135 140

Ile Glu Tyr Leu Arg Glu Val Ala Gln Leu Arg Pro Arg Thr Asn Leu 145 150 155 160

```
Ile Gly Ala Val Ala Arg Val Arg His Thr Leu Ala Gln Ala Leu His
           165
                   170
Arg Phe Phe Asp Glu Gln Gly Tyr Phe Trp Val Ser Thr Pro Leu Ile
        180
                    185
                                    190
Thr Ala Ser Asp Thr Glu Gly Ala Gly Glu Met Phe Arg Val Ser Thr
     195
                  200
                                 205
Leu Asp Met Glu Asn Leu Pro Arg Thr Pro Glu Gly Lys Val Asp Tyr
                215 220
Asp Lys Asp Phe Phe Gly Lys Glu Ala Phe Leu Thr Val Ser Gly Gln
   230 235 240
Leu Asn Gly Glu Thr Tyr Ala Cys Ala Leu Ser Lys Ile Tyr Thr Phe
      245 250 255
Gly Pro Thr Phe Arg Ala Glu Asn Ser Asn Thr Ser Arg His Leu Ala
   260 265 270
Glu Phe Trp Met Leu Glu Pro Glu Val Ala Phe Ala Asp Leu Asn Asp
   275 280 285
Val Ala Gly Leu Ala Glu Ala Met Leu Lys Tyr Val Phe Lys Ala Val
 290 295 300
Leu Glu Glu Arg Ala Asp Asp Met Lys Phe Phe Ala Glu Arg Val Asp
305 310 315
Asn Asp Ala Ile Ala Arg Leu Glu Arg Phe Val Ser Ala Asp Phe Ala
     325 330 335
Gln Val Asp Tyr Thr Asp Ala Val Ala Ile Leu Glu Lys Cys Gly Glu
340 345 350
Lys Phe Glu Asn Pro Val Tyr Trp Gly Val Asp Leu Ser Ser Glu His
355 360 365
Glu Arg Tyr Leu Ala Glu Lys His Phe Lys Ala Pro Val Val Lys
370 375 380
Asn Tyr Pro Lys Asp Ile Lys Ala Phe Tyr Met Arg Leu Asn Glu Asp
385 390 395
Gly Lys Thr Val Ala Ala Met Asp Val Leu Ala Pro Gly Ile Gly Glu
     405 410
Ile Ile Gly Gly Ser Gln Arg Glu Glu Arg Leu Asp Val Leu Asp Ala
       420 425 430
Arg Met Gln Glu Met Gly Leu Asn Pro Ala Asp Tyr Ser Trp Tyr Arg
435 440 445
Asp Leu Ser Ser Pro Thr Gly Ala Gly Arg Ile Arg Ala Tyr Leu Thr
 450 455
```

<210> 5692 <211> 189 <212> PRT

<213> Enterobacter cloacae

<400> 5692 Thr Thr Val Leu Pro Ala Gly Leu Gly Glu Asn Asn Thr Ile Ser Gly Leu Leu Phe Leu Trp Val Pro Thr Arg Lys Thr Asn Phe Ile His Gly 25 Glu Pro Leu Arg Gly Val Ile Thr Gln Ser Glu Asp Phe Arg Met Ala 40 45 Lys Lys Val Gln Ala Tyr Val Lys Leu Gln Val Ala Ala Gly Met Ala 55 Asn Pro Ser Pro Pro Val Gly Pro Ala Leu Gly Gln Gln Gly Val Asn 7.0 75 80 Ile Met Glu Phe Cys Lys Ala Phe Asn Ala Lys Thr Glu Ser Met Glu 85 90 Lys Gly Leu Pro Ile Pro Val Val Ile Thr Val Tyr Ala Asp Arg Ser 100 105 Phe Thr Phe Val Thr Lys Thr Pro Pro Ala Ala Val Leu Leu Lys Lys

```
Ala Ala Gly Ile Lys Ser Gly Ser Gly Lys Pro Asn Lys Asp Lys Val
   130
                      135
Gly Lys Ile Ser Arg Ala Gln Leu Gln Glu Ile Ala Gln Thr Lys Ala
Ala Asp Met Thr Gly Ser Asp Ile Glu Ala Met Thr Arg Ser Ile Glu
              165
                    170
Gly Thr Ala Arg Ser Met Gly Leu Val Val Glu Asp
<210> 5693
<211> 236
<212> PRT
<213> Enterobacter cloacae
<400> 5693
Glu Met Ala Lys Leu Thr Lys Arg Met Ser Val Ile Arg Asp Lys Val
                             10
Asp Ala Thr Lys Gln Tyr Asp Ile Asn Glu Ala Ile Ala Leu Leu Lys
           20
                          25
Glu Leu Ala Thr Ala Lys Phe Val Glu Ser Val Asp Val Ala Val Asn
     35
                    4.0
                                           45
Leu Gly Ile Asp Ala Arg Lys Ser Asp Gln Asn Val Arg Gly Ala Thr
 50
                     55
                                       60
Val Leu Pro His Gly Thr Gly Arg Ser Val Arg Val Thr Val Phe Ala
                  70
                             75
Gln Gly Ala Asn Ala Glu Ser Ala Lys Ala Ala Gly Ala Glu Leu Val
                                90
             85
Gly Met Glu Asp Leu Ala Asp Gln Ile Lys Lys Gly Glu Met Asn Phe
          100
                            105
Asp Val Val Ile Ala Ser Pro Asp Ala Met Arg Val Val Gly Gln Leu
       115
                         120
                                            125
Gly Gln Val Leu Gly Pro Arg Gly Leu Met Pro Asn Pro Lys Val Gly
                   135
Thr Val Thr Pro Asn Val Ala Glu Ala Val Lys Asn Ala Lys Ala Gly
                 150
                                    155
Gln Val Arg Tyr Arg Asn Asp Lys Asn Gly Ile Ile His Thr Thr Ile
              165 170
Gly Lys Val Asp Phe Asp Ala Asp Lys Leu Lys Glu Asn Leu Glu Ala
          180 185
                                               190
Leu Leu Val Ala Leu Lys Lys Ala Lys Pro Thr Gln Ala Lys Gly Val
                         200
                                         205
Tyr Ile Lys Lys Val Ser Ile Ser Thr Thr Met Gly Ala Gly Val Ala
 210
                     215
                                        220
Val Asp Gln Ala Gly Leu Ser Ala Ala Ala Asn
                  230
<210> 5694
<211> 105
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(98)
<400> 5694
Ser Glu Phe Arg Asn Met Ser Ser Gly Lys His Pro Gly Ala Lys Leu
Met Ala Leu Asn Leu Gln Asp Lys Gln Ala Ile Val Ala Glu Val Ser
                             25
Glu Val Ala Lys Gly Ala Leu Ser Ala Val Val Ala Asp Ser Arg Gly
```

```
Val Thr Val Asp Lys Met Thr Glu Leu Arg Lys Ala Gly Arg Glu Ala
                      55
Gly Val Tyr Met Arg Val Val Arg Asn Thr Leu Leu Arg Arg Val Val
                  70
                              75
Glu Gly Thr Gln Phe Glu Cys Leu Lys Asp Thr Leu Val Gly Leu His
            8.5
                              90
His Xaa Ala Ala Gln Gly Pro Ala Ile
<210> 5695
<212> PRT
```

<211> 128

<213> Enterobacter cloacae

<400> 5695

Arg Ser Thr Lys Met Ile Gln Glu Gln Thr Met Leu Asn Val Ala Asp Asn Ser Gly Ala Arg Arg Val Met Cys Ile Lys Val Leu Gly Gly Ser 25 His Arg Arg Tyr Ala Gly Val Gly Asp Ile Ile Lys Ile Thr Ile Lys 35 4.0 Glu Ala Ile Pro Arg Gly Lys Val Lys Lys Gly Asp Val Leu Lys Ala 55 Val Val Val Arg Thr Lys Lys Gly Val Arg Arg Pro Asp Gly Ser Val 70 8.0 Ile Arg Phe Asp Gly Asn Ala Cys Val Ile Leu Asn Asn Asn Ser Glu 85 90 Gln Pro Ile Gly Thr Arg Ile Phe Gly Pro Val Thr Arg Glu Leu Arg

100 105 Thr Glu Lys Phe Met Lys Ile Ile Ser Leu Ala Pro Glu Val Leu 115 120

<210> 5696 <211> 200 <212> PRT

<213> Enterobacter cloacae

<400> 5696 Gln Arg Asn Tyr Gln Val Ile Trp Ser Ser Thr Met Ala Lys Leu His Asp Tyr Tyr Lys Asp Glu Val Val Asn Lys Leu Met Thr Glu Phe Asn 25 3.0 Tyr Asn Ser Val Met Gln Val Pro Arg Val Glu Lys Ile Thr Leu Asn Met Gly Val Gly Glu Ala Ile Ala Asp Lys Lys Leu Leu Asp Asn Ala Ala Ala Asp Leu Thr Ala Ile Ser Gly Gln Lys Pro Leu Ile Thr Lys 70 75 Ala Arg Lys Ser Val Ala Gly Phe Lys Ile Arg Gln Gly Tyr Pro Ile Gly Cys Lys Val Thr Leu Arg Gly Glu Arg Met Trp Glu Phe Leu Glu 105 Arg Leu Ile Thr Ile Ala Val Pro Arg Ile Arg Asp Phe Arg Gly Leu 120 Ser Ala Lys Ser Phe Asp Gly Arg Gly Asn Tyr Ser Met Gly Val Arg 135 1.30 140 Glu Gln Ile Ile Phe Pro Glu Ile Asp Tyr Asp Lys Val Asp Arg Val 150 155 Arg Gly Leu Asp Ile Thr Ile Thr Thr Thr Gly Lys Ser Asp Glu Lys

```
Gly Arg Ala Leu Leu Ala Ala Phe Glu Phe Pro Val Pro Gln Val Lys
           180
                           185
Val Arg Phe Thr Glu Met Ala
       195
<210> 5697
<211> 119
<212> PRT
<213> Enterobacter cloacae
<400> 5697
Lys Leu Ser Leu Trp His Gln Lys Tyr Ser Lys Glu Arg Ile Met Ala
                                   10
Ala Lys Ile Arg Arg Asp Asp Glu Val Ile Val Leu Thr Gly Lys Asp
           20
                               25
Lys Gly Lys Arg Gly Lys Val Lys Asn Val Leu Ser Ser Gly Lys Leu
       35
                           4.0
                                              45
Val Val Glu Gly Ile Asn Leu Val Lys Lys His Gln Lys Pro Val Pro
 50
                       5.5
                                         60
Ala Leu Asn Gln Pro Gly Gly Ile Val Glu Lys Glu Ala Ala Ile Gln
                                      75
                  7.0
Val Ser Asn Val Ala Ile Phe Asn Ala Ala Thr Gly Lys Ala Asp Arg
            85
                                  90
Val Gly Phe Arg Phe Glu Asp Gly Lys Lys Val Arg Phe Phe Lys Ser
         100
                              105
Asn Ser Glu Thr Ile Lvs
      115
<210> 5698
<211> 352
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(278)
<220>
<222>(352)
<400> 5698
Leu Arg Leu Ala Leu Gly Gly Val Thr His Thr Asp Ser Phe Leu His
                                   10
Leu Lys Ile Lys Gly Asp Met Ile Ala Arg Ile Phe Ser Phe Leu Ser
His Arg Ser Val Arg Val Phe Ala Pro Met Lys Thr Met Lys Ile Ala
                           40
Val Ser Arg Glu Leu Val Ser Lys Val Ser Thr His Arg Glu Lys Val
                       5.5
                                          60
Met Leu Asp Asn Thr Asp Phe Thr Asp Val Ala Ala Val Val Ile Thr
                   7.0
                                       75
                                                          8.0
Val Val Glu Ser Tyr Ser Gly Ile Leu Ala Leu Leu Lys Arg Thr Gly
               85
                                  90
Phe Gln Leu Pro Val Phe Met Phe Ser Thr Glu Pro Gly Glu Val Pro
           100
                               105
Glu Gly Val Thr Ala Ile Ile Ser Gly Lys Ala Gln Glu Leu Leu Glu
       115
                           120
                                              125
Leu Glu Ser Ala Ala Cys Arg Tyr Glu Glu Asn Leu Leu Pro Pro Phe
  130
                       135
                                          140
Phe Asp Thr Leu Ser Gln Tyr Val Ala Met Gly Asn Ser Thr Phe Ala
```

```
150
                             155
Cys Pro Gly His Gln His Gly Ala Phe Phe Lys Lys His Pro Ala Gly
         165
                          170
Arg Gln Phe Tyr Asp Phe Phe Gly Glu Asn Val Phe Arg Ala Asp Met
        180 185
                                       190
Cys Asn Ala Asp Val Lys Leu Gly Asp Leu Leu Ile His Glu Gly Ser
            200
                                   205
     195
Ala Lys His Ala Gln Lys Phe Ala Ala Lys Val Phe Asn Ala Asp Lys
210
         215
                                220
Thr Tyr Phe Val Leu Asn Gly Thr Ser Ala Ala Asn Lys Val Val Thr
225
            230
                             235
Asn Ala Leu Leu Thr Arg Gly Asp Leu Val Leu Phe Asp Arg Asn Asn
                250
         245
His Lys Ser Asn His His Gly Ala Leu Ile Gln Ala Gly Ala Thr Pro
             265
       260
Val Tyr Leu Glu Ala Xaa Arg Asn Pro Phe Gly Phe Ile Gly Gly Ile
   275 280 285
Asp Glu His Cys Phe Asp Glu Ala Trp Leu Arg Glu Leu Ile Arg Asp
 290 295 300
Val Ala Pro Gln Lys Ala Ala Glu Ala Arg Pro Phe Pro Ser Gly Asp
305 310 315 320
His Ser Ala Pro His Leu Pro Met Ala Arg Ile Tyr Asn Ala Arg Ser
      325 330 335
Gly Glu Ser Thr Asn Ile Arg Ala Pro Leu Arg Leu Thr Ser Leu Xaa
        340 345
```

<210> 5699 <211> 177 <212> PRT

<213> Enterobacter cloacae

<400> 5699 Gln Glu Leu Asn Val Val Ile Gly Pro Phe Ile Asn Ala Gly Ala Val 10 Leu Leu Gly Gly Val Leu Gly Ala Val Leu Ser Gln Arg Leu Pro Glu 20 25 Arg Ile Arg Val Ser Met Pro Ser Ile Phe Gly Leu Ala Ser Leu Gly 40 45 Ile Gly Ile Leu Leu Val Val Lys Cys Ala Asn Leu Pro Val Met Val 55 Leu Ala Thr Leu Leu Gly Ala Leu Ile Gly Glu Phe Cys Tyr Leu Glu 70 75 Lys Gly Ile Asn His Ala Val Gly Lys Ala Lys Asn Leu Ile Ala Arg 90 Pro Gly Lys Ala Lys His Gly Thr His Clu Ser Phe Ile Gln Asn Tyr 100 105 110 Val Ala Ile Ile Ile Leu Phe Cys Ala Ser Gly Thr Gly Ile Phe Gly 115 120 125 Ser Met Gln Glu Gly Met Thr Gly Asp Pro Ser Ile Leu Ile Ala Lys 130 - 135 140 Ala Phe Leu Asp Phe Phe Thr Ala Thr Ile Phe Ala Thr Thr Leu Gly 145 150 155 160 Ile Ala Val Ala Ala Ser Leu His His Gly Pro Glu Gly Pro Arg Met 165 170 175

Arg

<sup>&</sup>lt;210> 5700

<sup>&</sup>lt;211> 172 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 5700
Ile Ile Thr Ser Met Arg Ser Asn Arg Phe Glu Ala Phe Ala Met Leu
Leu Ser Leu Pro Phe Leu Leu Ile Tyr Phe Ala Leu Ser Ala Leu Leu
       20
Val Arg Thr Asp Ile Arg Thr Gly Leu Leu Pro Asp Lys Phe Leu Cys
Pro Leu Leu Trp Thr Gly Leu Leu Tyr Gln Leu Cys Leu His Pro Asp
                     55
Phe Leu Pro Ser Ala Val Val Gly Ala Met Ala Gly Tyr Ala Gly Phe
                7.0
                                  75
Ala Val Ile Tyr Trp Gly Tyr Arg Leu Ile Cys Arg Arg Glu Gly Met
             85
                 90
                                    95
Gly Tyr Gly Asp Ile Lys Tyr Leu Ala Ala Leu Gly Ala Trp His Gly
         100 105 110
Trp Cys Val Leu Pro Val Leu Ala Leu Val Ala Ala Leu Met Ala Leu
     115 120 125
Leu Tyr Leu Val Ala Phe Ser Leu Phe Thr Pro Asp Lys Gln Ala Leu
 130 135 140
Lys Asn Pro Leu Pro Phe Gly Pro Phe Leu Ala Ala Gly Leu Cys
145 150 155
Val Gly Trp Glu Ser Leu Ile Asn Phe Pro Leu
       165
<210> 5701
<211> 173
<212> PRT
<213> Enterobacter cloacae
<400> 5701
Pro Asp Leu Arg Phe Asn Glu Trp Lys Arg Arg Asp Tyr Ile Met Lys
Gly Asp Val Lys Ile Ile Ser Tyr Leu Asn Lys Leu Leu Gly Asn Glu
         20
                           25
Leu Val Ala Ile Asn Gln Tyr Phe Leu His Ala Arg Met Phe Lys Asn
                       4.0
Trp Glv Leu Thr Arg Leu Asn Asp Val Glu Tvr His Glu Ser Ile Asp
                  5.5
Glu Met Lys His Ala Asp Lys Tyr Ile Glu Arg Ile Leu Phe Leu Glu
              70 75
Gly Ile Pro Asn Leu Gln Asp Leu Gly Lys Leu Gly Ile Gly Glu Asp
            8.5
                             90
Val Glu Glu Met Leu Arg Ser Asp Leu Arg Leu Glu Leu Glu Gly Ala
         100
                        105
Lys Asp Leu Arg Glu Ala Ile Ala Tyr Ala Asp Ser Val His Asp Tyr
                       120 125
Val Ser Arg Asp Met Met Ile Gln Ile Leu Ala Asp Glu Glu Gly His
                    135
                                     140
Ile Asp Trp Leu Glu Thr Glu Leu Asp Leu Ile Ser Lys Ile Gly Leu
                150 155
Gln Asn Tyr Leu Gln Ser Gln Ile Lys Val Glu Ser
              165
<210> 5702
<211> 391
<212> PRT
<213> Enterobacter cloacae
<400> 5702
```

Ser Ala Thr Lys Ser Gly Thr Gly Thr Gly Arg Thr Thr Met Ile Lys

10 Ser Thr Asp Arg Lys Leu Val Val Gly Leu Glu Ile Gly Thr Ala Lys Val Ala Ala Leu Val Gly Glu Val Leu Pro Asp Gly Met Val Asn Ile 35 4.0 Ile Gly Val Gly Ser Cys Pro Ser Arg Gly Met Asp Lys Gly Gly Val Asn Asp Leu Glu Ser Val Val Lys Cys Val Gln Arg Ala Ile Asp Gln 7.0 75 Ala Glu Leu Met Ala Asp Cys Gln Ile Ser Ser Val Tyr Leu Ala Leu 90 Ser Gly Lys His Ile Ser Cys Gln Asn Glu Ile Gly Met Val Pro Ile 100 105 110 Ser Glu Glu Glu Val Thr Gln Glu Asp Val Glu Asn Val Val His Thr 115 120 125 Ala Lys Ser Val Arg Val Arg Asp Glu His Arg Val Leu His Val Ile 130 135 140 Pro Gln Glu Tyr Ala Ile Asp Tyr Gln Glu Gly Ile Lys Asn Pro Val 150 155 160 Gly Leu Ser Gly Val Arg Met Gln Ala Lys Val His Leu Ile Thr Cys 165 170 175 His Asn Asp Met Ala Lys Asn Ile Val Lys Ala Val Glu Arg Cys Gly 180 185 190 Leu Lys Val Asp Gln Leu Ile Phe Ala Gly Leu Ala Ala Ser Tyr Ser 195 200 205 Val Leu Thr Glu Asp Glu Arg Glu Leu Gly Val Cys Val Val Asp Ile 210 215 220 Gly Gly Gly Thr Met Asp Met Ala Val Tyr Thr Gly Gly Ala Leu Arg 225 230 235 His Thr Lys Val Ile Pro Tyr Ala Gly Asn Val Val Thr Ser Asp Ile 245 250 Ala Tyr Ala Phe Gly Thr Pro Pro Ser Asp Ala Glu Ala Ile Lys Val 260 265 270 Arg His Gly Cys Ala Leu Gly Ser Ile Val Gly Lys Asp Glu Ser Val 275 280 Glu Val Pro Ser Val Gly Gly Arg Pro Pro Arg Ser Leu Gln Arg Gln 295 Thr Leu Ala Glu Val Ile Glu Pro Arg Tyr Thr Glu Leu Leu Asn Leu 305 310 315 320 Val Asn Glu Glu Ile Leu Gln Leu Gln Glu Gln Leu Arg Gln Gln Gly 325 330 Val Lys His His Leu Ala Ala Gly Ile Val Leu Thr Gly Gly Ala Ala 340 345 350 Gln Ile Glu Gly Leu Ala Ala Cys Ala Gln Arg Val Phe His Thr Gln 360 365 Val Arg Ile Gly Ala Pro Leu Asn Ile Thr Gly Leu Thr Asp Phe Leu 380 Thr Arg Gly Gly Val Lys Arg 385 390

<210> 5703 <211> 85 <212> PRT

<213> Enterobacter cloacae

<400> 5703

Ala Arg Arg Ser Trp Gln Leu Thr Leu Thr Asn Gly Ile Lys Leu Asn 1 0 155
Leu Gly Arg Gly Asp Thr Met Lys Arg Leu Ala Arg Phe Val Glu Leu 20 25 30
Tyr Pro Val Leu Gln Gln Gln Ala Gln Thr Asp Gly Lys Arg Ile Ser

Tyr Val Asp Leu Arg Tyr Asp Ser Gly Ala Ala Val Gly Trp Glu Pro 5.5 Ala Pro Val Glu Glu Pro Asn Gln Gln Asn Gln Ala Gln Val Gln 7.0 Ala Glu Gln Gln <210> 5704 <211> 219 <212> PRT <213> Enterobacter cloacae <400> 5704 Ile Tyr Leu Glu Val Phe Met Ala Val Ala Ala Asn Lys Arg Ser Val 10 Met Thr Leu Phe Ser Gly Pro Thr Asp Ile Tyr Ser His Gln Val Arg 20 25 30 Ile Val Leu Ala Glu Lys Gly Val Ser Phe Glu Ile Glu His Val Glu 40 4.5 Lys Asp Asn Pro Pro Gln Asp Leu Ile Asp Leu Asn Pro Ser Gln Ser 55 60 Val Pro Thr Leu Val Asp Arg Glu Leu Thr Leu Trp Glu Ser Arg Ile 70 75 Ile Met Glu Tyr Leu Asp Glu Arg Phe Pro His Pro Pro Leu Met Pro 90 Val Tyr Pro Val Ala Arg Gly Glu Ser Arg Leu Tyr Met Gln Arg Ile 100 105 110 Glu Lys Asp Trp Tyr Ser Leu Met Asn Val Ile Val Asn Gly Ser Ser 115 1.2.0 125 Ser Glu Ala Asp Ala Ala Arg Lys Gln Leu Arg Glu Glu Leu Leu Ala 130 135 140 Ile Ala Pro Val Phe Gly Gln Lys Pro Phe Phe Leu Ser Asp Glu Phe 150 155 Ser Leu Val Asp Cys Tyr Leu Ala Pro Leu Leu Trp Arg Leu Pro Thr 165 170 175 Leu Gly Val Glu Phe Ser Gly Pro Gly Ala Lys Glu Leu Lys Gly Tyr 180 185 190 Met Thr Arg Val Phe Glu Arg Asp Ser Phe Leu Ala Ser Leu Thr Glu 195 200 205 Pro Glu Arg Glu Met Arg Leu Gly Arg Gly 210 215 <210> 5705 <211> 72 <212> PRT <213> Enterobacter cloacae <400> 5705 Asn Ala Ser Arg Pro Arg Leu Met Thr Val Glu Met Ser Gln Leu Ser 1.0 Pro Arg Arg Pro Tyr Met Leu Arg Ala Phe Tyr Glu Trp Leu Leu Asp Asn Gln Leu Thr Pro His Leu Val Val Asp Val Thr Leu Pro Gly Val 35 4.0 Leu Val Pro Met Glu Tyr Ala Arg Asp Gly Gln Ser Ser Pro Arg Arg 55 Trp Gln Asp Pro Arg Leu Ala Leu 7.0

<210> 5706

```
<211> 111
<212> PRT
<213> Enterobacter cloacae
<400> 5706
Tyr Thr Glu Ile Ala Phe Arg Lys Thr Cys Ile Glu Pro Gln Ser Arg
Cys Leu Leu Thr Arg Ile Lys Gly Val Ile Met Glu Lys Asn Ser Glu
       20
                          25
                                              3.0
Val Ile Gln Thr His Pro Leu Val Gly Trp Asp Ile Ser Thr Val Asp
    35
                       40
                                        45
Ser Tyr Asp Ala Leu Met Leu Arg Leu His Tyr Gln Thr Pro Asn Gln
 50
                    55
Leu Asn Arg Asp Glu Ala Glu Val Gly Gln Thr Leu Trp Leu Thr Thr
                 70
                                7.5
Asp Val Ala Arg Gln Phe Ile Ser Ile Leu Glu Ala Gly Ile Ala Lys
             85 90 95
Ile Glu Ser Gly Asp Tyr Gln Glu Asn Glu Tyr Lys Arg His
         100
<210> 5707
<211> 233
<212> PRT
<213> Enterobacter cloacae
<400> 5707
Gln Ser Val Ser Lys Glu Lys Pro Met Lys Tyr Asp Leu Ile Ile Ile
                                10
Gly Ser Gly Ser Val Gly Ser Ala Ala Gly Tyr Tyr Ala Thr Gln Ala
                            25
                                              3.0
Gly Leu Asn Val Leu Met Ile Asp Ala His Arg Pro Pro His Ser Glu
 35
                        40
                                          4.5
Gly Ser His His Gly Asp Thr Arg Leu Ile Arg His Ala Tyr Gly Glu
                                       60
Gly Glu Arg Tyr Val Pro Leu Val Leu Arg Ala Gln Thr Leu Trp Asp
                 70
                                   75
Glu Leu Ala Ala Leu Thr Glu Glu Arg Ile Phe Glu Arg Thr Gly Val
             8.5
                               90 95
Val Asn Leu Gly Pro Ala Ser Ser Thr Phe Leu Ala Thr Val Glu Glu
         100 105
Ser Ala Lys Ala Tyr Arg Leu Asp Val Glu Arg Leu Asp Ala Asn Gly
      115
                        120
                                           125
Ile Met Ala Arg Trp Pro Glu Ile Ser Val Pro Glu Asp Tyr Ile Gly
 130
                    135
                                       140
Leu Phe Glu Ala Asn Ser Gly Val Leu His Ser Glu Thr Ala Ile Asn
                 150
                                   155
Thr Trp Ile Asp Leu Ala Ala Lys Ala Gly Cys Ala Gln Leu Phe Asn
              165
                                170
Cys Pro Val Thr Gly Ile Thr His His Ala Glu Gly Ser Thr Val Thr
          180
                            185
                                              190
Thr Ser Glu Gly Glu Tyr Thr Ala Thr Arg Leu Leu Val Ser Ala Gly
      195
                        200
                                       205
Thr Trp Val Thr Lys Leu Leu Pro Asp Leu Pro Ile His Pro Val Arg
 210
          215
Lys Val Phe Ser Trp Val Pro Val
                 230
<210> 5708
<211> 158
<212> PRT
<213> Enterobacter cloacae
```

```
<400> 5708
His Leu Phe Asp Val Ala Leu Lys Phe Arg Val Leu Ile Leu Tyr Glu
Val Val Leu Leu Arg Val Tyr Glu Ala Lys Ala Lys Thr Arg Ser Tyr
          20
Leu Met Ala Thr Val Asn Gln Leu Val Arg Lys Pro Arg Ala Arg Lys
                         40
Val Ala Lys Ser Asn Val Pro Ala Leu Glu Ala Cys Pro Gln Lys Arg
                     55
Gly Val Cys Thr Arg Val Tyr Thr Thr Thr Pro Lys Lys Pro Asn Ser
                  7.0
65
                                    7.5
Ala Leu Arg Lys Val Cys Arg Val Arg Leu Thr Asn Gly Phe Glu Val
            85
                                90
Thr Ser Tyr Ile Gly Gly Glu Gly His Asn Leu Gln Glu His Ser Val
          100
                            105
                                              110
Ile Leu Ile Arq Gly Gly Arg Val Lys Asp Leu Pro Gly Val Arg Tyr
    115
                        120
                                           125
His Thr Val Arg Gly Ala Leu Asp Cys Ser Gly Val Lys Asp Arg Lys
 130 135
                            140
Gln Ala Arg Ser Lys Tyr Gly Val Lys Arg Pro Lys Ala
                 150
<210> 5709
<211> 137
<212> PRT
<213> Enterobacter cloacae
<400> 5709
Gln Arg Ser Asn Pro Met Pro Arg Arg Val Ile Gly Gln Arg Lys
1 5
                                10
Ile Leu Pro Asp Pro Lys Phe Gly Ser Glu Leu Leu Ala Lys Phe Val
       20
                            25
                                               30
Asn Ile Leu Met Val Asp Gly Lys Lys Ser Thr Ala Glu Ala Ile Val
    35
                         40
Tyr Ser Ala Leu Glu Thr Leu Ala Gln Arg Ser Gly Lys Asn Glu Leu
                     55
Glu Ala Phe Glu Val Ala Leu Asp Asn Val Arg Pro Thr Val Glu Ile
                 70
                                   75
Lys Ser Arg Arg Val Gly Gly Ser Thr Tyr Gln Val Pro Val Glu Val
                         90 1
             8.5
Arg Pro Val Arg Arg Asn Ala Leu Ala Met Arg Trp Ile Val Glu Ala
          100 105
Ala Arg Lys Arg Gly Asp Lys Ser Met Ala Leu Arg Leu Ala Asn Glu
                  120
      115
Leu Ser Asp Ala Ala Glu Asn Lys Gly
<210> 5710
<211> 113
<212> PRT
<213> Enterobacter cloacae
<400> 5710
Thr Phe Val Phe Arg Ser Ile Arg Lys Phe Val Arg Gln Thr Gln Ser
                                10
His Gly Phe Ile Thr Ala Phe Thr Ser Ser Phe Asn Asp Pro Thr His
                          25
                                               3.0
Cys Gln Ser Ile Thr Thr Asn Arg Thr Asn Phe Asn Trp Asn Leu Ile
    35
                                        4.5
                       4.0
Ser Arg Thr Thr Asn Ala Ala Arg Leu Asn Phe Tyr Ser Arg Ala His
```

```
2129
Val Val Glu Ser Asp Phe Glu Gly Phe Gln Phe Ile Phe Thr Arg Thr
                                75
                 70
Leu Ser Gln Gly Leu Gln Arg Ala Val Tyr Asp Cys Phe Cys Gly Arg
             85
                              90
Phe Phe Thr Ile Tyr His Gln Asp Ile Tyr Lys Phe Cys Gln Gln Phe
<210> 5711
<211> 185
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(165)
<400> 5711
Lys Leu Tyr Ala Arg Glu Ala Phe Met Pro Arg Arg Gln Ile Leu Ser
                        10
Ser Glu Glu Glu Arg Leu Leu Val Ile Pro Asp Asp Glu Ile Ile
20
                        25
Leu Thr Arg Met Cys Phe Leu Asn Glu Pro Asp Ile Ala Leu Ile Asn
35
                     40
                                         45
Lys His Arg Arg Pro Ala Asn Arg Leu Gly Phe Ala Val Leu Leu Cys
                   5.5
Tyr Leu Arg Gly Pro Gly Phe Ile Pro Asp Lys Ser Ser Ala Pro His
                70
                                  7.5
Asn Gly Val Val Ser Arg Val Ala Ser Arg Leu Lys Leu Gln Pro Asp
             85
                              90
Leu Trp Pro Glu Tyr Ala Ser Arg Glu Gln Thr Arg Trp Glu His Leu
         100
                          105 110
Thr Glu Leu Tyr Arg Tyr Leu Glu Leu Ser Pro Phe Ser Arg Ser Met
 115 120 125
Gln Lys Glu Cys Ile Arg His Leu Gln Pro Tyr Ala Met Arg Thr Asp
 130 135 140
Lys Arg Phe Met Leu Ala Gly Arg Asn Ala His Leu Gly Tyr Ile Asn
145 150 155
Asn Asn Val Tyr Xaa Pro Leu Leu Leu Lys Val Ile Gln Thr Asp Ala
    165
                              170
Leu Pro Lys Ser Phe Thr Leu Arg
         180
<210> 5712
<211> 212
<212> PRT
<213> Enterobacter cloacae
<400> 5712
Phe Arg Thr His Val Ile Ile Arg Thr Ser Ile Ser Tyr Gly Lys Phe
Pro Met Ser Arg Val Phe Ala Tyr Cys Arg Val Ser Thr Leu Glu Gln
                           25
Thr Thr Glu Asn Gln Arg Arg Glu Ile Glu Ala Ala Gly Phe Ala Ile
      3.5
                       4.0
Arg Ser Gln Arg Leu Ile Glu Glu His Ile Ser Gly Ser Val Ala Ala
                   55
                                   60
Ser Glu Arg Pro Gly Phe Ile Arg Leu Leu Asp Arg Met Glu Asn Gly
                                  75
```

```
Asp Val Leu Ile Val Thr Lys Leu Asp Arg Leu Gly Arg Asn Ala Met
              85
                                90
Asp Ile Arg Lys Thr Val Glu Gln Leu Ala Ala Leu Asp Ile Arg Val
          100
His Cys Leu Ala Leu Gly Gly Val Asp Leu Thr Ser Pro Ala Gly Lys
                        120
                                          125
Met Thr Met Gln Val Ile Ser Ala Val Ala Glu Phe Glu Arg Asp Leu
  130
                    135
                                       140
Leu Leu Glu Arg Thr Tyr Ser Gly Ile Ala Arg Ala Lys Ala Ala Gly
               150 155
Lys Arg Phe Gly Arg Pro Pro Ile Leu Ser Glu Glu Gln Lys Gln Thr
          165 170 175
Val Thr Glu Arg Leu Asn Ala Gly Ile Ser Ile Ser Ala Ile Ala Arg
       180 185 190
Glu Phe Asn Thr Thr Arg Gln Ile Ile Leu Arg Val Lys Ala Gly Leu
  195 200
Leu Gln Glu
  210
<210> 5713
<211> 134
<212> PRT
<213> Enterobacter cloacae
<400> 5713
Ser Pro Phe Ala Gly Leu Arg Leu Phe Gly Glu Lys Ser Asp Ser Val
                              10
Ile Cys Gly His Ser Asn Cys Gly Ala Met Lys Ala Ile Ala Asp Asn
                           2.5
Ala Asp Leu Glu Pro Met Pro Ala Val Ser His Trp Leu Arg Tyr Ser
          40
Asp Ala Ala Lys Ala Val Val Glu Lys Lys Thr Trp Asp Lys Pro Ile
                  5.5
Asp Lys Val Asn Ala Met Val Gln Glu Asn Val Phe Ala Gln Leu Ser
                 70
                                   7.5
Asn Ile Lys Thr His Pro Ser Val Ala Val Gly Leu Arg Asn Asn Ala
              85
                               90
Ile Arg Leu His Gly Trp Val Tyr Asp Ile Glu Ser Gly Lys Ile Leu
                          105
                                  110
Ala Leu Asp Lys Asn Thr Lys Ser Phe Val Ser Leu Ser Glu Asn Pro
    115
                         120
Glu Val Phe Phe Glu
   130
<210> 5714
<211> 303
<212> PRT
<213> Enterobacter cloacae
<400> 5714
Gly Val Glu Leu Phe Gly Ser Ala Ala Pro Leu Val Lys Thr Glu Ala
Asp Phe Tyr Cys Pro Ile Pro Tyr Glu Pro Leu Ser Val Leu Thr Asp
          20
Cys Val Val Ala Ser Glu Ile Asp Lys Gly Pro Asp Gly Leu Leu Asp
       35
                         40
                                           4.5
Arg Ile Phe Ala Leu Met Val Lys Giu Leu Glu Leu Ala Asp Pro Arg
 50
                     55
Trp Cys Gln Ala Ile Ala Leu Gly Thr Leu Asn Ala Asp Thr Leu Arg
                 70
```

Asp Ala Trp Phe Glu Asp Arg Lys Lys His Gly Pro Phe Thr Trp Ala

```
Glu Ala Asn Leu Lys Glu Val Glu Arg Asn Lys Arg Glu Lys Arg Thr
      100
                    105
Val Ala Trp Arg Tyr Thr Val Leu Arg Leu His Glu Val Val Gln Ala
     115
                   120
Ile Val Pro Ser Leu Asn Glu His Asp Arg Glu Arg Phe Lys Ser Gly
        135
                       140
Leu Glu Arg Val Phe Ile Asp Asn Tyr Ala Ala Ile Pro Pro Gln Ser
145 150 155 160
Ile Arg Arg Leu Leu Ala Leu Arg Glu Ala Gly Ile Ile Ser Val Val
        165 170 175
Ala Leu Gly Asp Asp Tyr Asp Leu Asp Ile Gly Ser Asp Gln Thr Val
     180 185 190
Ile Thr Thr Ala Lys Lys Ser Tyr Arg Phe Asp Val Phe Ile Asp Ala
   195 200 205
Arg Gly Gln Lys Pro Leu Arg Asn Lys Asp Ile Pro Phe Pro Thr Leu
 210 215 220
Arg Lys Gln Leu Ala Gly Thr Gly Asp Asp Val Pro Asp Val Gly Glu
   230 235
Asp Tyr Thr Leu Leu Ala Pro Ala Ser Leu Arg Gly Arg Ile Ala Phe
          245 250
Gly Ala Ile Pro Trp Leu Met His Asp His Pro Phe Val Gln Gly Leu
       260 265 270
Ser Glu Cys Ala Glu Ile Gly Lys Ala Met Ala Lys Ala Ala Gly Lys
275 280 285
Pro Ala Ser Gly Val Arg Arg Lys Leu Pro Tyr Met Glu Phe
                 295
```

<210> 5715 <211> 127 <212> PRT

<213> Enterobacter cloacae

<400> 5715 Asn Cys Phe Leu Ile Pro Leu Ile Gln Glu Asn Asp Thr Met Leu Asp 10 Trp Asn Asn Tyr Arg Ser Glu Leu Met Gln Arg Leu Gly Glu Leu Gly 20 2.5 3.0 Lys Leu Thr Pro Glu Thr Met Lys Gly Val Val Ala Leu Gly Asn Ala 35 4.0 Gly Asn Lys Thr Asp Leu Leu Gly Ala Lys Val Arg Glu Leu Ile Ala 55 Leu Ala Cys Ala Val Thr Thr Arg Cys Asp Gly Cys Ile Ala Phe His 70 Ala Asp Ala Ala Val Lys Ala Gly Ala Thr Asp Ala Glu Ile Ala Glu 8.5 90 Ala Leu Gly Val Ala Ile Asn Leu Asn Ala Gly Ala Ala Val Ile Ser

The Ser Pro His Leu Ser Thr Ala Arg Asp Glu Val Ala Ala Pro 115 120 125

<210> 5716 <211> 119 <212> PRT

<213> Enterobacter cloacae

```
Leu Thr Met Met Ala Ala Glu Lys Gly Ile Asp Leu Asp Gly Ile Glu
      35
                         40
Leu Asp Leu Asn Phe Asp Ile Asn Leu Asn Gly Phe Leu Gly Leu Asp
Ser Asn Val Arg Lys Gly Ala Lys Ser Ile Arg Val Asp Val His Leu
                  70
Thr Ser Asn Thr Ala Ser Arg Glu Glu Leu Glu Ala Leu Val Ser Glu
                                90
              85
Met Gln Lys Asn Ser Pro Ile His Asp Thr Leu Ala Asn Pro Val Glu
         100
               105 110
Met Ile Thr Arg Leu Ala
      115
<210> 5717
<211> 208
<212> PRT
<213> Enterobacter cloacae
<400> 5717
Gln Gln Tyr Asn Leu Ser Thr Ser Arg Leu Tyr Gly Val Ile Met Thr
                                1.0
Thr Met Thr Arg Glu Arg Leu Leu Ser Glu Ala Glu His Leu Met Arg
          20
                       25
Glu Lys Gly Tyr Ser Ala Pne Ser Tyr Ala Asp Leu Ser Lys Ile Val
                  40
                                  4.5
Gly Ile Thr Lys Ala Ser Ile His His His Phe Pro Thr Lys Asp Ile
                     55
Leu Gly Glu Gln Val Val Ile Gln Ala Phe Ser Asp Thr Gln Arg Val
                  7.0
                                 7.5
Phe Glu Gln Ile Glu Ala Thr Glu Lys Ser Ala Glu Arg Arg Ile Ala
             8.5
                                90
Ala Tyr Ile Asp Ile Phe Ala Gln Ser His Lys Ala Ser Leu Leu Pro
          100
                            105
Leu Cys Cys Ala Leu Ser Ala Glu Thr Ala Asn Leu Pro Gln Ala Ile
                                          125
Thr Val Gln Thr Ser Leu Tyr Phe Asp Met Gln Ile Glu Trp Leu Thr
                  135
Lys Val Val Arg Ala Gly Met Glu Ser Gly Glu Phe Ser Ser His Ala
                 150
                                    155
                                                       160
Glu Pro Ser Asp Ile Ala Leu Met Ile Ile Asn Val Cys Glu Gly Ser
             165
                                170
Ser Val Val Ala His Ala Thr Ala Arg Pro Glu Val Phe Ala Asn Ser
          180 185
Leu Lys Tyr Ile Lys Leu Leu Leu Asn Thr Pro His Ser Gly Glu
<210> 5718
<211> 262
<212> PRT
<213> Enterobacter cloacae
<400> 5718
Ser Arg Leu His Arg Arg Ile Ala Pro Phe Glu Asp His Ala Ile Ser
Ala Thr Leu Lys Glu Ser Leu Thr Lys Gln Gly Val Glu Phe Leu Thr
                             25
                                                30
Gly Ala Asp Leu Lys Gln Val Lys Val Gly Gly Asp Leu Val Ile Cys
       35
                         40
Thr Val Ile Val Gly Glu Asp Thr His Val Ile Thr Ala Glu Lys Ile
  50
                     55
Leu Ile Ala Thr Gly Arg Arg Pro Val Thr Glu Lys Leu Asn Leu Asp
```

```
75
Ala Val Asn Val Ser Val Gly Ala Arg Gly Gln Val Ile Val Asp Lys
             85
                               90
His Leu Met Thr Ser Asn Pro Arg Ile Trp Ala Ala Gly Asp Val Thr
          1.00
                           105
Gly Glu Ala Gln Phe Val Tyr Val Ala Val Glu Gln Gly Arg Leu Ala
      115
                        120
                                       125
Ala Ser Asn Ala Leu Gly Gly Glu Leu Ser Ser Leu Asp Tyr Asn Ala
                    135
                                  140
Leu Pro Arg Val Thr Phe Thr Ser Pro Glu Leu Ala Ser Val Gly Leu
                150
                       155
Thr Pro Leu Gln Ala Glu Glu Arg Gly Ile Pro Tyr Glu Ile Arg Glu
                     170
           165
                                      175
Leu Pro Val Ala Phe Val Leu Arg Ala Ile Val Ser Arg His Ser Asp
        180 185 190
Gly Leu Ile Arg Leu Val Ser Asp Ser Gln Thr Gly Thr Ile Leu Gly
    195 200
                            205
Val His Met Val Ser Glu Ser Ala Gly Asp Val Ile Ala Ala Ala Thr
 210 215 220
Tyr Ile Ile Ser Ala Asn Met Thr Val His Gln Leu Ala Asn Ile Trp
225 230 235 240
Ser Pro Glu Phe Thr Met Thr Glu Ser Leu Lys Asn Val Ala Lys Thr
      245
                              250
Ser Pro Ile Thr Asn
         260
<210> 5719
<211> 83
<212> PRT
<213> Enterobacter cloacae
<222>(25)
<400> 5719
Gly His Met Ser Gln Gln Leu Thr Phe Ala Asp Ser Glu Phe Ser Ser
1 5
                             10
Lys Arg Arg Leu Thr Arg Lys Glu Xaa Phe Leu Ser Arg Met Asp Thr
         20
                           2.5
Leu Leu Pro Trp Pro Gln Leu Leu Gly Asn Ile Glu Pro Val Tyr Pro
 35
                       4.0
Lys Thr Gly Asn Gly Arg Arg Pro Tyr Ser Leu Glu Thr Met Ser Arg
                    55
                                    60
Asn Pro Cys Leu Gln Leu Trp Tyr Asn Leu Gly Asp Glu Thr Met Glu
                7.0
Asp Ala Leu
<210> 5720
<211> 166
<212> PRT
<213> Enterobacter cloacae
<400> 5720
Arg Glu Pro Ser Met Asn Ser Leu Leu Tnr Leu Ala Lys Asp Leu Glu
                                               15
Gln Lys Ser Lys Ala Gln Gln Gln Thr Thr Gly Glu Met Leu Lys Ala
                        25
                                            30
Ala Phe Ser Glu His Glu Lys Ser Val Arg Ala Glu Leu Ser Glu Ser
       3.5
                       4.0
```

Glu Lys Arg Ile Ser Ala Ala Ile Leu Asp His Asp Arg Lys Leu Ser Ser Ala Met Ser Gln Arg Thr Lys Gly Met Leu Arg Met Val Ser Gln Thr Trp Leu Thr Ile Val Leu Val Ser Ala Leu Leu Ile Ala Ser Ser 85 90 Ala Gly Ile Leu Trp Trp Gln Gly Gln Gln Ile Leu Glu Asn Tyr Thr 105 110 Thr Ile Arg Glu Gln Lys Ser Thr Gln Ala Met Leu Ser Glu Arg Asn 115 120 125 Ser Gly Val Gln Leu Ser Thr Cys Gly Glu Gln Arg Arg Cys Val 130 135 140 Arg Val Asn Pro Glu Ala Gly Gln Phe Gly Glu Asp Ser Ser Trp Met 145 150 155 Ile Leu Ala Gly Lys 165

<210> 5721

<211> 73

<212> PRT <213> Enterobacter cloacae

<400> 5721

His Met Thr Glu Leu Glu Lys Gln Leu Leu Ser Ala Leu Glu Gln Leu I 5 10 15 Gln Gln Asp Tyr Ser Lys Arg Leu Asp Glu Trp Glu Asn Ala Phe Ala 20 25 30 Glu Trp Arg Thr Met Ser Gly Leu Ile Gln Arg Glu Asn Ala Ala Leu 35 40 45 Asn Glu Arg Val Thr Val Leu Ser Arg Gln Val Gln Ser Leu Ser Glu 50 50 50 50

Gln Leu Arg Arg Leu Ser Lys Gly

65

<210> 5722

<211> 287

<212> PRT <213> Enterobacter cloacae

<400> 5722

Pro Thr Leu Pro Ser Thr Asp Gly Gly Arg Asn Ile Arg Leu Lys Gly 1.0 Ala Ile Tyr Glu Gln Ser Phe Asn Ala Gly Glu Gly Leu Arg Ala Glu 20 25 30 Ile Glu Ser Ala Ala Ala Asp Tyr Arg Arg Asp Ala Glu Ser Arg Ile 40 4.5 Gln Arg Ala Arg Glu Val Cys Gln Ser Gly Thr Glu Arg Lys Arg Glu 55 Glu Asn Gln Arg Arg His Pro Arg Pro Arg Pro Glu Ala Val Leu Ser 70 75 His Glu Pro Ala His Glu Arg Asp Ala Ala His Gly Gln Pro Asp Val 90 95 Ala Asp His Arg Ser Gly Leu Arg Ala Ala Asp Ser Val Glu Arg Gly 100 105 110 His Ser Val Val Ala Gly Ala Ala Asp Thr Arg Glu Leu Tyr Asp His 115 125 Pro Gly Ala Glu Glu His Ala Gly His Ala Val Arg Glu Glu Gln Arg 130 135 140 Arg Thr Ala Leu Asp Leu Arg Arg Ala Glu Thr Pro Leu Arg Glu Gly 150 155 Glu Pro Gly Ser Gly Thr Val Arg Arg Gly Leu Glu Leu Asp Asp Thr

```
170
              165
Gly Gly Glu Ile Ala His Asp Gly Ala Gly Lys Thr Val Ala Glu Arg
                            185
          180
Ile Arg Ala Ala Thr Ala Gly Leu Leu Glu Lys Ala Gly Arg Val Gly
                        200
       195
                                          205
Glu Arg Leu Arg Gly Met Ala Asp Asp Val Trp Ser Tyr Ser Thr Gly
                                       220
                     215
Glu Arg Gly Ala Glu Arg Ala Arg His Gly Leu Glu Gln Ala Gly Ala
           230
                                   235
Glu Phe Glu Arg Ala Ala Ala Pro Val Val Glu Arg Leu Asn Ala Ile
           245
                               250
Glu Thr His Arg Gln Gln Glu Arg Ala Val Gln His Gln Lys Ala Leu
        260 265
Glu Leu Glu Arg Ser Gln Trp Gln His His Gly Pro Ser Leu
                         280
```

<210> 5723 <211> 209 <212> PRT

<213> Enterobacter cloacae

<400> 5723 Trp Arg Gln Phe Phe Ser Phe Cys Leu Arg Phe Val Glu Asn Pro Lys 10 Met Leu Lys Lys Leu Phe Phe Pro Leu Val Ala Leu Phe Met Leu Ala 30 20 25 Gly Cys Ala Thr Pro Pro Thr Thr Ile Asp Val Ser Pro Lys Ile Thr 35 40 4.5 Leu Pro Gln Gln Asp Pro Ser Leu Met Gly Val Thr Val Ser Ile Asn 50 55 60 Gly Ala Asp Gln Arg Gln Asp Gln Ala Leu Ala Lys Val Thr Arg Asp 70 75 Asn Gln Gln Val Thr Lea Thr Ala Ser Arg Asp Leu Arg Phe Leu Leu 85 90 95 Gln Glu Val Leu Glu Lys Gln Met Thr Ser Arg Gly Tyr Met Ile Gly 100 105 110 Pro Ser Gly Ala Val Asp Leu Gln Ile Ile Val Asn Asn Leu Tyr Ala 120 125 115 Asp Val Ser Gln Gly Asn Val Arg Tyr Asn Ile Ala Thr Lys Ala Asp 135 140 Ile Ala Ile Ile Ala Thr Ala Lys Asn Gly Asn Lys Met Asn Lys Asn 150 155 Tyr Arg Ala Ser Tyr Ser Val Glu Gly Ala Phe Gln Ala Ser Asn Lys 170 175 165 Asn Ile Ala Asp Ala Val Asn Ser Val Leu Thr Asp Thr Ile Ala Asp 180 185

```
<210> 5724
<211> 124
<212> PRT
<213> Enterobacter cloacae
```

195

Met Ala Gln Asp Thr Ser Ile His Asp Phe Ile Lys Gln Asn Ala Arg

```
Gly Phe Ala Ser Gly Leu Pro Leu Ala Leu Thr Ser Gly Thr Leu Gln
Ala Trp Met Thr Val Glu Asn Ile Asp Leu Lys Thr Ile Gly Phe Phe
Ser Leu Val Gly Gln Ala Tyr Val Phe Lys Phe Leu Trp Ser Pro Val
                   70
Met Asp Arg Tyr Thr Pro Pro Phe Leu Gly Arg Arg Arg Gly Trp Leu
               8.5
                                   90
Ala Met Thr Gln Ala Leu Leu Leu Leu Ala Ile Ala Ala Pro Val Ser
         100 105
Leu Ser Cys Glu Gln Ser Gly Ser Pro Lys Gly
<210> 5725
<211> 79
<212> PRT
<213> Enterobacter cloacae
<400> 5725
Arg Cys Arg Arg Ser Asp Phe Met Met Ile Arg Glu Gln Ile Glu Glu
                               10
Lys Leu Arg Ala Ala Phe Asn Pro Val Phe Leu Glu Val Val Asp Glu
                              2.5
Ser Tyr Arg His Asn Val Pro Ala Gly Ser Glu Ser His Phe Lys Val
        35
                           4.0
Val Leu Val Ser Asp Arg Phe Thr Gly Glu Arg Phe Leu Asn Arg His
                       55
Arg Ser Ile Cys Leu His Cys Arg Val Pro Val Arg Ala Met Leu
<210> 5726
<211> 255
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(253)
<400> 5726
Thr Ala Pro Val His Ser Gly Ala Val Leu Thr Phe Leu Lys Thr Leu
                                   1.0
Arg Lys Arg Arg Tyr Phe Glu Phe Tyr Glu Ala Ser Asn Met Val Pro
                               25
            20
                                                   30
Val Val Ala Leu Val Gly Arg Pro Asn Val Gly Lys Ser Thr Leu Phe
        35
                           4.0
Asn Arg Leu Thr Arg Thr Arg Asp Ala Leu Val Ala Asp Phe Pro Gly
  50
                                            60
Leu Thr Arg Asp Arg Lys Tyr Gly Arg Ala Glu Val Glu Gly Arg Glu
                    70
                                       75
                                                           8.0
Phe Ile Cys Ile Asp Thr Gly Gly Ile Asp Gly Thr Glu Asp Gly Val
                                    90
                85
Glu Thr Arg Met Ala Glu Gln Ser Leu Leu Ala Ile Glu Glu Ala Asp
            100
Val Val Leu Phe Met Val Asp Ala Arg Ala Gly Leu Met Pro Ala Asp
        115
                                               125
Ser Ala Ile Ala Lys His Leu Arg Ser Arg Glu Lys Pro Thr Phe Leu
                       135
Val Ala Asn Lys Thr Asp Gly Ile Asp Ala Asp Gln Ala Ile Ala Asp
                   150
                                      155
Phe Trp Ser Leu Gly Leu Gly Asp Ile Tyr Pro Ile Ala Ala Ser His
```

```
165
                              170
Gly Arg Gly Val Thr Ser Leu Leu Glu Thr Val Leu Leu Pro Trp Val
        180
                        185
                                           190
Asp Glu Val Asn Pro Pro Glu Glu Val Asp Glu Asp Ala Glu Tyr Trp
    195 200
                                      205
Ala Gln Phe Glu Ala Gly Glu Glu Glu Glu Glu Pro Glu Asp Asp
 210 215
                          220
Phe Asn Pro Gln Asp Leu Pro Ile Lys Leu Ala Ile Val Gly Arg Pro
225 230 235
Asn Val Gly Lys Ser Thr Leu Thr Asn Arg Ile Phe Xaa Arg
                         250
             245
<210> 5727
<211> 202
<212> PRT
<213> Enterobacter cloacae
<400> 5727
Leu Phe Ser Arg Gly Cys Ser Tyr Val Val Lys Thr Phe Gly Ala Ala
                             10
Ile Val Gly Gly Asp Asn Gly Arg Val Ser Ala Val Leu Met Gln Gln
                         25
Gly Gln Met Ile Trp Gln Gln Arg Ile Ser Gln Ala Thr Gly Ser Thr
     35
                      4.0
                                       45
Glu Ile Asp Arq Leu Ser Asp Val Asp Thr Thr Pro Val Ile Val Asp
                   55
Gly Val Val Tyr Ala Leu Ala Tyr Asn Gly Asn Leu Thr Ala Leu Asp
                70
                          75
Leu Arg Ser Gly Gln Ile Met Trp Lys Arg Glu Leu Gly Ser Val Asn
             8.5
                             90
Asp Phe Ile Val Asp Gly Asn Arg Ile Tyr Met Val Asp Gln Asn Asp
         100
                          105 110
Arg Leu Leu Ala Leu Ser Thr Glu Gly Gly Val Thr Leu Trp Thr Gln
    115
                      120
Ser Asp Leu Leu His Arg Leu Leu Thr Ala Pro Ala Leu Tyr Asn Gly
                 135 140
 130
Ser Leu Val Val Gly Asp Ser Glu Gly Tyr Met His Trp Ile Asp Pro
145 150
                                 155
Glu Asn Gly Arg Phe Val Ala Gln Gln Lys Val Asp Ser Ser Gly Phe
           165 170 175
Leu Thr Glu Pro Val Val Ala Asp Gly Lys Leu Leu Ile Gln Ala Lys
         180 185
Asp Gly Thr Leu Tyr Ala Ile Thr Arg
     195
<210> 5728
<211> 154
<212> PRT
<213> Enterobacter cloacae
<400> 5728
Val Ile Val Thr His His Pro Ser Leu Leu Cys Leu Lys Asn Ser Arg
1
                             1.0
Val Gln Pro Pro Lys Ser Thr Ala Lys Thr Tyr Asn His Thr Ile Lys
                          25
          20
Pro Ser Asp Phe Gln Met Cys Arg Thr Asp Lys Phe Gln Leu Ser Val
      35
                      40
                                        45
Leu Asn Thr Ile Ile Phe Thr Ile Asp Ala Pro Ile Lys Thr Gly Leu
                                  60
Ser Ile Asn His Leu Ser Ile Ile Ser Gly Tyr Ser Lys Trp His Leu
```

7.0

7.5

```
Gln Lys Ile Phe Lys His His Phe Gly Met Ser Leu Gly Thr Tyr Ile
                                   90
Arg Arg Lys Arg Ile Glu Tyr Ala Ala His Glu Ile Ile Asn Lys Lys
           100
                              105
Cys Lys Ile Ile Asp Val Val Ile Asp Phe Asn Phe Ser Asn Gln Ser
                          120
       115
Ser Phe Cys Arg Thr Phe Lys Ser Ile Tyr Gly Val Ser Pro Lys Glu
 130
                   135
Phe Lys Ser Glu His Ile Asn His Leu
                  1.50
<210> 5729
<211> 64
<212> PRT
<213> Enterobacter cloacae
<400> 5729
Lys Gly Lys Trp Val Ser Phe Arg Glu Trp Arg Ala Arg Val Arg Phe
              5
Leu Asn Ser Leu Pro Leu Leu Arg Thr Glu Lys Thr Ile Gln Glu Ile
           20
                              2.5
                                                  3.0
Ser Tyr Leu Leu Gly Tyr Ser Asn Thr Ser Ser Phe Ile Ile Met Phe
                       40
                                       4.5
Glu Lys Leu Ser Gly Thr Thr Pro Glu Lys Tyr Arg Lys Asn Ile
<210> 5730
<211> 120
<212> PRT
<213> Enterobacter cloacae
<400> 5730
Ser Cys Leu Phe Leu Cys Phe Phe Cys Pro Phe Met Leu Ile Ile Phe
                                  10
Asn Thr Met Cys Val Ile Ile Ile Ala Thr Glu Leu Glu Lys Arg Cys
 20
                              25
                                                  30
Ile Met Lys Asn Val Leu Ser Leu Ser Leu Leu Leu Phe Ile Ser Ser
       35
                           40
                                              4.5
Gly Tyr Ala Ala Ser Glu Val Thr Tyr Leu Asn Pro Thr Pro Gln Gly
                       55
Ala Val Arg Ile Gly Glu Val Ser Phe Phe Lys Ala Gly Ser Ala Thr
                                      75
                   7.0
Gln Ser Glu Val Ile Gly Ser Leu Ser Lys Lys Ala Asp Ser Leu Gly
               8.5
                                   90
Gly Thr His Phe Glu Ile Ser Ser Leu Asn Ser Ser Asp Asn Thr Tyr
           100
Ala Thr Ala Ile Val Tyr Lys
       115
<210> 5731
<211> 72
<212> PRT
<213> Enterobacter cloacae
<400> 5731
Thr Leu Gly Thr Val Leu Phe Leu Cys Phe Ser Ile Gly Leu Ala Ile
                                  10
Thr Met Val Ala Ile Gly Ala Val Ala Ala Val Ser Val Glu Gln Ala
           20
                               25
                                                  30
Ser Lys Arg Trp Asp Gly Leu Asp Val Leu Ala Arg Arg Ala Pro Tyr
        35
```

```
Phe Ser Ser Ala Leu Ile Ala Leu Gly Gly Ile Tyr Met Gly Tyr His
Gly Trp Leu Gly Ile Thr Asn
<210> 5732
<211> 104
<212> PRT
<213> Enterobacter cloacae
<400> 5732
Pro Asp Phe Asp Leu Pro Asn Thr Thr Trp Gln Pro Thr Lys Leu Asp
          5
                                10
Leu Glu Asn Ile Leu Glu Pro Ser Pro Arg Arg Ile Trp Pro Asp Ala
         20
                      25
                                               3.0
Tyr Glu Arg Leu Leu Glu Thr Ile Arg Gly Ile Gln Ala Leu Phe
                      40
                                           45
   35
Phe His Arg Asp Glu Val Glu Glu Ala Trp Lys Trp Val Asp Ser Ile
                   55
                                      60
Thr Glu Ala Trp Ala Ala Asp Gln Asp Ala Pro Lys Pro Tyr Gln Ala
                          7.5
               7.0
Gly Thr Trp Gly Pro Val Ala Ser Val Ala Met Ile Thr Arg Asp Gly
             8.5
                                90
Arg Ser Trp Asn Glu Phe Glu
<210> 5733
<211> 295
<212> PRT
<213> Enterobacter cloacae
<400> 5733
Ile Arg Gly Ala Phe Met Asn Pro Thr Leu Leu Arg Val Thr Gln Arg
                               10
Ile Val Glu Arg Ser Lys Glu Thr Arg Ala Ala Tyr Leu Ala Arg Ile
                            25
                                               30
Glu Gln Ala Lys Ser Glu Tnr Val His Arg Ser Gln Leu Ala Cys Gly
                         40
                                           45
Asn Leu Ala His Gly Phe Ala Ala Cys Gln Pro Gly Asp Lys Asp Ala
                   55
Leu Lys Ser Met Leu Arg Asn Asn Ile Ala Ile Ile Thr Ser Tyr Asn
                 7.0
                                    75
Asp Met Leu Ser Ala His Gln Pro Tyr Glu Val Tyr Pro Ser Ile Ile
                                90
              8.5
Arg Asn Ala Leu His Ser Val Asn Ala Val Gly Gln Val Ala Gly Gly
          100
                            105
Val Pro Ala Met Cys Asp Gly Val Thr Gln Gly Gln Asp Gly Met Glu
       115
                         120
                                           125
Leu Ser Leu Leu Ser Arg Glu Val Ile Ala Met Ser Ala Ala Val Gly
  130
                     135
                                        140
Leu Ser His Asn Met Phe Asp Gly Ala Leu Tyr Leu Gly Val Cys Asp
                 150
                                    155
Lys Ile Val Pro Gly Leu Val Met Ala Ala Leu Ser Phe Gly His Leu
              165
                                170 175
Pro Ala Ile Phe Val Pro Ser Gly Pro Met Ala Ser Gly Leu Pro Asn
          180
                             185
                                               190
Lys Glu Lys Val Arg Ile Arg Gin Leu Tyr Ala Glu Gly Lys Ala Asp
       195
                      200
                                           205
Arg Gln Ala Leu Leu Glu Ala Glu Ala Ala Ser Tyr His Ala Pro Gly
                     215
                                220
Thr Cys Thr Phe Tyr Gly Thr Ala Asn Thr Asn Gln Met Val Val Glu
```

```
235
Tyr Met Gly Met Gln Leu Pro Gly Ser Ser Phe Ile Gln Pro Asp Ala
            245
                                 250
Pro Leu Arg Lys Ala Leu Thr Glu Ala Ala Ser Arg Gln Val Thr Arg
           260
                   265
                                          270
Leu Thr Gly Asn Gly Asn Glu Trp Met Pro Met Gly Lys Met Val Asp
    275
                  280
Glu Lys Val Ile Val Lys Arg
   290
<210> 5734
<211> 129
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<221>UNSURE
<222>(94)
<400> 5734
Gln Asn Gly Arg His Met Leu Thr Cys Tyr Ala Leu Asn His Xaa Arg
Thr Lys Thr Gln Leu Ala Thr Ala Ala Gly Val Lys Leu Gln Ser Ile
          20
                              2.5
Tyr Asn Trp Lys Glu Leu Val Pro Glu Thr Arg Ala His Arg Leu Glu
 35
                          4.0
                                             4.5
Thr Thr Phe Gly Arg Val Leu Thr Phe His Lys Thr Ile Phe Glu Pro
                      55
His Arg Lys Ala Gln Thr Thr Gly Lys Lys Asn Thr Ser Pro Pro Pro
                                      75
                  7.0
Arg Asp Ser Asn Leu Trp Lys Phe Gln Pro Thr Pro Ser Xaa Ala Phe
              85
                                  90
Cys Leu Ala Gly Ala Ala Glu Leu Arg Glu Gly Leu Ser Pro Glu Gly
           100
                            105
                                                 110
Asn Pro Ala Gln Ile Thr Pro Pro Arg Gly Gly Pro Pro Ser Pro Gly
                          120
Trp
<210> 5735
<211> 141
<212> PRT
<213> Enterobacter cloacae
<400> 5735
Asn Cys Leu Thr Met Lys Asn Met Asn Ser Leu Gly Gln Arg Ile Leu
                                 1.0
Ala Arq Arq Lys Glu Leu Lys Leu Thr Gln Arq Glu Ala Ala Lys Leu
           20
                              25
                                                  3.0
Ala Gly Val Ala His Val Thr Ile Ser Gln Trp Glu Arg Asp Glu Thr
                          40
                                             4.5
Gln Pro Val Gly Ala Arg Leu Phe Ala Leu Ala Lys Ala Leu Ser Cys
                      55
Thr Pro Thr Trp Leu Met Phe Gly Asp Asp Gln Ala Pro Val Pro
                   70
                                      75
Ala Glu Asp Ile Gln Leu Ala Pro Gln Leu Ser Asp Lys His Arg Glu
                                  90
```

```
Leu Ile Asp Leu Tyr Asp Ser Leu Pro Glu Ser Glu Gln Glu Ala Gln
                       105
Leu Glu Gln Leu Arg Ala Arg Val Lys Asn Phe Asn Lys Leu Phe Glu
                      120
    115
Glu Leu Leu Lys Ala Arg Gln Arg Gln Ser Lys Lys
                  135
<210> 5736
<211> 420
<212> PRT
<213> Enterobacter cloacae
<221>UNSURE
<222>(15)
<400> 5736
Asn Gly Leu Gly Asp Ser Cys Pro Gly Leu Met Glu Lys Gly Xaa Trp
                            1.0
Ile Ser Gly Glu Leu Phe Val Pro Leu Pro Gly Tyr Leu Phe Gly Tyr
        2.0
                        25
His Leu Glu Ser Gly Asp Ile Met Lys Met Lys Cys Asn Asn Arg Leu
                      40 45
Leu Arg Leu Ser Ala Ser Leu Thr Leu Ile Ser Leu Val Val Thr Ala
                   55
50
Ala Asn Ala Asn Asn Gly Gln Ala Gly Ile Ser Pro Val Ala Ala Met
                              75
Thr Met Lys Glu Ser Ile Leu Phe Ala Leu Asp Arg Asp Pro Ser Val
           8.5
                90
Ser Gln Gln Ala Ala Gln Leu Gly Ile Gly Gln Ala Gln Ile Asp Glu
        100 105 110
Ala Arg Ser Gly Trp Met Pro Gln Ile Ala Leu Asn Gly Arg Thr Gly
 115 120
                                     125
His Ser Gln Thr Thr Asp Ser Ser Gly Ser Leu Arg Asn Ser Ala Ala
 130 135
Trp Gly Leu Ser Leu Thr Gln Leu Val Tyr Asp Phe Gly Lys Thr Asn
145 150 155
Asn Ser Ile Ser Gln Ser Ser Ala Gln Arg Asp Ser Tyr Arg Tyr Gln
                           170
            165
Leu Met Ser Thr Met Ser Ala Val Ala Glu Lys Thr Ala Leu Ser Tyr
       180 185 190
Val Glu Val Lys Arg Tyr Ser Asp Leu Leu Gln Ala Ala Lys Glu Asn
      195 200 205
Val Gln Ala Leu Lys Asn Val Glu Gln Leu Ala Lys Leu Arg Ala Asp
   210
                   215
                                    220
Ala Gly Val Ser Ser Thr Ser Asp Glu Leu Gln Thr Arg Thr Arg Ile
                230
                                235
225
Ala Gly Met Gln Ala Thr Val Glu Gln Tyr Asn Ala Ser Leu Asn Ser
                           250
             245
Ala Arg Ala Arg Leu Ala Val Leu Thr Gly Ile Gln Ala Glu Arg Tyr
          260
                          265
Ser Pro Val Pro Gly Gly Leu Ala Val Glu Pro Asp Ser Leu Asn Arg
                    280
      275
                                       285
Ile Asp Tyr Ser Leu Ile Pro Thr Val Met Ala Ala Gln Asn Met Glu
                                   300
                    295
Arg Ser Ala Gln Tyr Gly Val Glu Thr Ala Lys Ser Gln His Trp Pro
                310
                                 315
Thr Leu Ser Leu Lys Gly Gly Arg Thr Arg Tyr Glu Ser Asp Asn Arg
             325
                             330
Ala Tyr Trp Asp Asp Gln Ile Gln Leu Asn Ile Asp Ala Pro Leu Tyr
          340
                          345
```

```
Gln Gly Gly Ala Val Ser Ala Arg Val Arg Gln Ala Glu Gly Ala Arg
                        360
      355
Ala Met Ala Ser Ser Gln Val Asp Gln Ala Arg Phe Asp Val Leu Gln
                                       380
 370 375
Lys Ile Leu Arg Arg Thr Gly Arg Leu Asp Arg Gly Ala Trp Thr Asn
385 390 395
Gly Ser Arg Glu Thr Ser Ala Gly Lys Cys Val Ala Arg Pro Arg Cys
         405 410 415
Leu Gln Lvs
          420
<210> 5737
<211> 399
<212> PRT
<213> Enterobacter cloacae
<221>UNSURE
<222>(386)
<400> 5737
Arg Ser Gly Gly Val Thr Gln Gln Ser Lys Thr Ser His Trp Ser Thr
                                 10
Ile Met Ser Ile Ser Leu Lys Lys Ser Gly Met Leu Lys Leu Gly Leu
           20
                             25
Ser Leu Val Ala Met Thr Val Ala Ala Ser Val Gln Ala Lys Thr Leu
   3.5
                        40
Val Tyr Cys Ser Glu Gly Ser Pro Glu Gly Phe Asn Pro Gln Leu Phe
                      5.5
 50
Thr Ser Gly Thr Thr Tyr Asp Ala Ser Ser Val Pro Ile Tyr Asn Arg
                  70
                                    7.5
Leu Val Glu Phe Lys Thr Gly Thr Thr Glu Val Ile Pro Gly Leu Ala
             85
                                9.0
Glu Lys Trp Asp Ile Ser Glu Asp Gly Lys Thr Tyr Thr Phe His Leu
           100
Arg Gln Gly Val Lys Trp Gln Asp Ser Lys Glu Phe Lys Pro Thr Arg
       115
                         120
Asp Phe Asn Ala Asp Asp Val Val Phe Ser Phe Asp Arg Gln Lys Asn
                     135
                                        140
   130
Ala Gln Asn Pro Tyr His Lys Val Ser Gly Gly Ser Tyr Glu Tyr Phe
                  150
                                     155
145
Glu Gly Met Gly Leu Pro Asp Leu Ile Ala Glu Val Lys Lys Val Asp
                                 170
              165
Asp Lys Thr Val Gln Phe Val Leu Thr Arg Pro Glu Ala Pro Phe Leu
                                                190
           180
                             185
Ala Asp Leu Ala Met Asp Phe Ala Ser Ile Leu Ser Lys Glu Tyr Ala
                         200
                                            205
       195
Asp Asn Met Leu Lys Ala Gly Thr Pro Glu Lys Val Asp Leu Asn Pro
                     215
                                        220
Ile Gly Thr Gly Pro Phe Gln Leu Leu Gln Tyr Gln Lys Asp Ser Arg
                                     235
225
                  230
Ile Leu Tyr Lys Ala Phe Pro Gly Tyr Trp Gly Thr Lys Pro Gln Ile
                                 250
              245
Asp Arg Leu Val Phe Ser Ile Thr Pro Asp Ala Ser Val Arg Tyr Ala
                                                270
           260
                             265
Lys Leu Gln Lys Asn Glu Cys Gln Val Met Pro Tyr Pro Asn Pro Ala
       275
                                            285
Asp Ile Ala Arg Met Lys Gln Asp Lys Asn Ile Asn Leu Leu Glu Gln
                      295
                                        300
Ala Gly Leu Asn Val Gly Tyr Leu Ser Phe Asn Thr Glu Lys Lys Pro
                  310
                                    315
```

Phe Asp Asp Val Lys Val Arg Gln Ala Leu Thr Tyr Ala Val Asn Lys 325 330 Glu Thr Ile Ile Lys Ala Val Tyr Gln Gly Ala Gly Val Ala Ala Lys 345 340 Asn Leu Ile Pro Pro Thr Met Trp Gly Tyr Asn Asn Asn Leu Lys Asp 360 365 355 Tyr Thr Tyr Asp Pro Glu Lys Thr Glu Thr Val Ala Glu Lys Asn Arg 375 380 Pro Xaa Thr Arg Leu Tyr Arg Gln Pro Val Cys Asp Ala Gly 385 390 <210> 5738 <211> 112 <212> PRT <213> Enterobacter cloacae <400> 5738 Met Ala Ile Ala Asp Leu Asp Lys Gln Pro Asp Ser Val Ser Ser Val 10 - 5 Leu Lys Val Phe Gly Ile Leu Gln Ala Leu Gly Glu Glu Arg Glu Ile 25 30 20 Gly Ile Thr Glu Leu Ser Gln Arg Val Met Met Ser Lys Ser Thr Val 40 4.5 Tyr Arg Phe Leu Gln Thr Met Lys Ser Leu Gly Tyr Val Ala Gln Glu 50 55 Gly Glu Ser Glu Lys Tyr Ser Leu Thr Leu Lys Leu Phe Glu Leu Gly 75 70 Ala Arg Ala Leu Gln Asn Val Asp Leu Ile Arg Ser Ala Asp Ile Gln 85 90 Met Arg Glu Leu Ser Arg Leu Thr Lys Glu Thr Ile His Leu Gly Ala <210> 5739 <211> 329 <212> PRT <213> Enterobacter cloacae <400> 5739 Asn Ser Tyr Ser Glu Asn Asn Phe Thr Leu Ser His Ser Phe Pro Met 10 1.5 Gln Lys Asn Val Ser Asp Gly Leu Pro Leu Pro Gln Arg Tyr Gly Ala 25 3.0 Ile Ala Thr Ile Val Ile Gly Ile Ser Met Ala Val Leu Asp Gly Ala 3.5 4.0 Ile Ala Asn Val Ala Leu Pro Thr Ile Ala Lys Asp Leu Asn Ala Ser 5.5 Pro Ala Ser Ser Ile Trp Ile Val Asn Ala Tyr Gln Ile Ala Ile Val 70 75 Ile Ser Leu Leu Ser Leu Ser Phe Leu Gly Asp Met Phe Gly Tyr Arg 8.5 90 Arg Val Tyr Gln Cys Gly Leu Val Val Phe Thr Leu Thr Ser Leu Phe 105 110 100 Cys Ala Leu Ser Asp Ser Leu His Thr Leu Thr Leu Ala Arg Ile Ala 125 120 Gln Gly Phe Gly Gly Ala Ala Leu Met Ser Val Asn Thr Ala Leu Ile 130 135 140 Arg Leu Ile Tyr Pro His Arg His Leu Gly Arg Gly Met Gly Ile Asn 150 155 Ser Phe Ile Val Ala Val Ser Ser Ala Ala Gly Pro Thr Ile Ala Ala 170 165

Ala Ile Leu Ser Val Ala Ser Trp Gln Trp Leu Phe Ala Ile Asn Val

```
185
Pro Leu Gly Ile Val Ala Ile Phe Phe Ala Leu Arg Tyr Leu Pro Glu
                    200
                            205
 195
Asn Gly Pro Lys Asn Thr Met Pro Arg Phe Asp Leu Pro Ser Ala Val
                            220
 210
                 215
Met Asn Ala Leu Thr Phe Gly Leu Leu Ile Thr Ala Leu Ser Gly Phe
225 230
                             235
Ala Gln Gly Gln Ser Leu Ser Leu Ile Ala Ala Glu Ile Val Ala Met
         245
                        250 255
Leu Ile Ile Gly Phe Phe Phe Val Arg Arg Gln Leu Ala Leu Pro Val
      260 265 270
Pro Leu Leu Pro Val Asp Leu Leu Arg Ile Pro Leu Phe Ser Leu Ser
 275 280 285
Ile Cys Thr Ser Ile Cys Ser Phe Cys Ala Gln Met Leu Ala Leu Val
 290 295 300
Ala Leu Pro Phe Phe Leu Gln Ser Val Thr Gly Arg Ser Val Val Ser
305 310
                              315
Ser Pro Ala Val Glu Val Tyr Leu Pro
            325
<210> 5740
<211> 237
<212> PRT
<213> Enterobacter cloacae
<400> 5740
Asn Asp Ile Ser Ser Gln Pro Gly Ser Lys Met Lys Ile Leu Ile Val
                        10
Glu Asp Glu Ile Lys Thr Gly Glu Tyr Leu Ser Lys Gly Leu Thr Glu
                                       30
20
                     2.5
Ala Gly Phe Val Val Asp His Ala Asp Asn Gly Leu Thr Gly Tyr His
35
                  40
                                 4.5
Leu Ala Met Thr Ala Glu Tyr Asp Leu Val Ile Leu Asp Ile Met Leu
                  55
                        60
 50
Pro Asp Val Asn Gly Trp Asp Ile Ile Arg Met Leu Arg Thr Ala Gly
                             75
      70
Lys Gly Met Pro Val Leu Leu Thr Ala Leu Gly Thr Ile Glu His
                           90 95
          85
Arg Val Lys Gly Leu Glu Leu Gly Ala Asp Asp Tyr Leu Val Lys Pro
        100 105 110
Phe Ala Phe Ala Glu Leu Leu Ala Arg Val Arg Thr Leu Leu Arg Arg
                     120 125
      115
Gly Asn Thr Met Ile Thr Glu Ser Gln Phe Lys Val Ala Asp Leu Ser
  130
                  135 140
Ile Asp Leu Val Ser Arg Lys Val Ser Arg Ala Gly Asn Arg Ile Val
               150 155
Leu Thr Ser Lys Glu Phe Ser Leu Leu Glu Phe Phe Ile Arg His Gln
            165 170 175
Gly Glu Val Leu Pro Arg Ser Leu Ile Ala Ser Gln Val Trp Asp Met
         180 185 190
Asn Phe Asp Ser Asp Thr Asn Ala Ile Asp Val Ala Val Lys Arg Leu
      195 200 205
Arg Ala Lys Ile Asp Asn Asp Tyr Glu Thr Lys Leu Ile Gln Thr Val
                      220
 210 215
Arg Gly Val Gly Tyr Met Leu Glu Val Pro Asp Ala
               230
<210> 5741
<211> 114
```

<211> 114 <212> PRT

<213> Enterobacter cloacae

```
<400> 5741
Ser Arg Gln Ser Gly Ala Trp Ala Thr Cys Trp Arg Ser Arg Met His
Ser Lys Pro Ser Arg Arg Pro Phe Ser Leu Ala Leu Arg Leu Thr Phe
       20
                             25
Phe Ile Ser Leu Ser Thr Ile Leu Ala Phe Ile Ala Phe Thr Trp Phe
       35
                         4.0
Met Leu His Ser Val Glu Asn His Phe Ala Glu Gln Asp Val Ser Asp
  50 55
                                         60
Leu Gln Gln Ile Ser Thr Thr Leu Asn Arg Ile Leu Gln Ser Pro Val
                                     75
        70
Asp Pro Asp Asp Lys Lys Ile Ser Lys Ile Lys Glu Ser Ile Ala Ser
         8.5
                   90 95
Tyr Arg Asn Val Ala Leu Leu Leu Leu Asn Pro Arg Gly Gly Ser Ala
           100
                             105
Len
<210> 5742
<211> 201
<212> PRT
<213> Enterobacter cloacae
<400> 5742
Ile Ile Leu Gly Cys His Gly Glu Met Ile Ser Gly Lys Thr Ile Ile
                                  10
Ser Val Ile His Tyr Glu Pro Cys Leu Cys Lys Pro Phe Ala Glu Ile
                              25
           20
Phe Thr Cys Phe Asn Phe Val Phe Asp Asp Gln Tyr Phe His Leu Ala
                          40
       35
Pro Arg Leu Ala Ala Asn Val Ile Leu Leu Arg Pro Arg Ser Leu Ser
                      55
                                         60
 50
Thr Asp Tyr Ser Lys Asn Asp Asn Ile Val Ile Ile Leu Ser Pro Gly
                                      75
                   70
65
Lys Gln Arg Ala Leu Gly Lys Val Pro Leu Ser Ile Leu Trp Thr Ser
                                  90
               85
Phe Glu Pro Phe Thr Arg Ser Ala Trp Thr Arg Ser Val Met Phe Lys
                             105
                                                 110
           100
Leu Lys Leu Leu Ser Ile Ser Thr Ile Phe Ile Leu Ala Gly Cys Val
                                           125
                           120
Ser Leu Ala Pro Glu Tyr Gln Arg Pro Ala Ala Pro Val Pro Gln Gln
                       135
                                          140
    130
Phe Ser Leu Ser His Asn Ser Leu Thr Pro Ala Val Asn Gly Tyr Gln
                   150
                                      155
                                                         160
Asp Thr Glv Trp Arg Asn Phe Phe Val Asp Pro Gln Val Thr Arg Leu
                                  170
                                                     175
               165
Ile Gly Glu Ala Leu Thr Asn Asn Arg Asp Leu Arg Met Ala Ala Leu
                                                 190
           180
                              185
Asn Val Glu Glu Ala Arg Ala Gln Phe
                           200
<210> 5743
```

```
<211> 432
```

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;400> 5743

Phe Ser Phe Ile Val Arg Val Glu Ser Ala Val Ser Leu Ser Leu Trp 10 Gln Gln Cys Leu Ala Arg Leu Gln Asp Glu Leu Pro Ala Thr Glu Phe

```
Ser Met Trp Ile Arg Pro Leu Gln Ala Glu Leu Ser Asp Asn Thr Leu
     35
                    40
Ala Leu Tyr Ala Pro Asn Arg Phe Val Leu Asp Trp Val Arg Asp Lys
       55
                                   60
Tyr Leu Asn Asn Ile Asn Gly Leu Leu Asn Asp Phe Cys Gly Ser Asp
      70 75
Ala Pro Gln Leu Arg Phe Glu Val Gly Thr Lys Pro Val Thr Gln Thr
         85 90 95
Val Arg Glu Val Val Asn Val Ala Ala Pro Ala Gln Ala Ala Pro Ala
             105 110
        100
Pro Ala Pro Arg Val Ala Pro Ala Arg Gln Gly Trp Asp Asn Val Pro
     115 120 125
Ala Pro Ala Glu Pro Thr Tyr Arg Ser Asn Val Asn Val Lys His Thr
                   135 140
  130
Phe Asp Asn Phe Val Glu Gly Lys Ser Asn Gln Leu Ala Arg Ala Ala
     150 155 160
Ala Arg Gln Val Ala Asp Asn Pro Gly Gly Ala Tyr Asn Pro Leu Phe
                170 175
          165
Leu Tyr Gly Gly Thr Gly Leu Gly Lys Thr His Leu Leu His Ala Val
         180
             185
Gly Asn Gly Ile Met Ala Arg Lys Pro Asn Ala Lys Val Val Tyr Met
                      200 205
  195
His Ser Glu Arg Phe Val Gln Asp Met Val Lys Ala Leu Gln Asn Asn
                 215
                                   220
Ala Ile Glu Glu Phe Lys Arg Tyr Tyr Arg Ser Val Asp Ala Leu Leu
               230
                                235
Ile Asp Asp Ile Gln Phe Phe Ala Asn Lys Glu Arg Ser Gln Glu Glu
                            250
             245
Phe Phe His Thr Phe Asn Ala Leu Leu Glu Gly Asn Gln Gln Ile Ile
                         265
                              270
         260
Leu Thr Ser Asp Arg Tyr Pro Lys Glu Ile Asn Gly Val Glu Asp Arg
                   280
      275
Leu Lys Ser Arg Phe Gly Trp Gly Leu Thr Val Ala Ile Glu Pro Pro
                                    300
290
                   295
Glu Leu Glu Thr Arg Val Ala Ile Leu Met Lys Lys Ala Asp Glu Asn
               310
                                315
Asp Ile Arg Leu Pro Gly Glu Val Ala Phe Phe Ile Ala Lys Arg Leu
                             330
                                              335
Arg Ser Asn Val Arg Glu Leu Glu Gly Ala Leu Asn Arg Val Ile Ala
                                          350
                          345
         340
Asn Ala Asn Phe Thr Gly Arg Ala Ile Thr Ile Asp Phe Val Arg Glu
      355
                       360
                                       365
Ala Leu Arg Asp Leu Leu Ala Leu Gln Glu Lys Leu Val Thr Ile Asp
                   375
                                    380
Asn Ile Gln Lys Thr Val Ala Glu Tyr Tyr Lys Ile Lys Val Ala Asp
              390
                                395
Leu Leu Ser Lys Arg Arg Ser Arg Ser Val Ala Arg Pro Arg Gln Met
            405
                          410
Ala Met Ala Leu Ala Lys Gln Leu Ser Asn His Ser Leu Pro Glu Ile
```

<210> 5744

<sup>&</sup>lt;211> 96

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;400> 5744

Phe Asn Lys Arg Gly Ser Gly Ser Ser Val Val Lys Ile Gln Met Ala 1 1 5 15 Leu Thr Thr Leu Leu Arg Phe Glu His Glu Thr Val Met Pro Pro Glu

```
Met Lys Phe Ser Lys Arg Glu Arg Glu Ile Leu Lys Trp Thr Ala Glu
                          4.0
Gly Lys Thr Ser Ala Glu Ile Ala Ile Ile Leu Ser Ile Ser Glu Asn
Thr Val Asn Phe His Gln Lys Asn Met Gln Lys Lys Phe Asn Ala Pro
                  7.0
                                      75
Asn Lys Ile Gln Ile Ala Cys Tyr Ala Ala Ala Thr Gly Leu Ile
<210> 5745
<211> 154
<212> PRT
<213> Enterobacter cloacae
<400> 5745
Thr Gln Leu Ala Val Ser Ser Val Ile Pro Ile Leu Glu Thr Phe Pro
                                  1.0
Leu Ile Asn Val Leu Leu Val Asp Asp His Glu Leu Val Arg Ala Gly
        20
                               25
                                                  3.0
Ile Arg Arg Ile Leu Glu Asp Ile Lys Gly Ile Lys Val Ala Gly Glu
                           40
                                              4.5
Ala Cys Cys Gly Glu Asp Ala Val Lys Trp Cys Arg Ala Asn Ser Ala
                    55
                                         60
Asp Val Val Leu Met Asp Met Asn Met Pro Gly Ile Gly Gly Leu Glu
                   7.0
                                      75
Ala Thr Arg Lys Ile Ala Arg Met Phe Val Asp Thr Leu Val Ile Met
               8.5
                           90
Leu Thr Val His Thr Glu Asn Pro Leu Pro Ala Arg Val Met Gln Ala
           100
                              105
Gly Ala Ala Gly Tyr Leu Ile Lys Ser Ala Ala Pro Gln Gly Ser Gly
       115
                          120
                                    125
Gln Cys Asp Pro Pro Pro Tyr Thr Pro Gly Gln Gly Tyr Ile Pro Ser
                    135
 130
Glu Tyr Ala Gln Gln Asn Gly Ser Glu Ser
<210> 5746
<211> 75
<212> PRT
<213> Enterobacter cloacae
<400> 5746
Met Ser Thr Pro Glu Phe Ala Thr Ala Glu Asn Asn Gln Glu Leu Ala
                                   10
Gln Glu Val Asn Cys Leu Lys Ser Leu Leu Thr Leu Met Leu Gln Ala
            20
Met Gly Gln Ala Asp Ala Gly Arg Val Ile Ile Lys Met Glu Lys Gln
                          40
Ile Ala Gln Met Glu Asp Gln Ala Giu Ser Ala Val Phe Ala Asn Thr
 50
                       55
Val Lys Gln Ile Lys Gln Ala Tyr Arg Gln
                   70
<210> 5747
<211> 122
<212> PRT
<213> Enterobacter cloacae
<400> 5747
His Gly Ser His Ala Ile Ser Leu Tyr Ser Gln His Ala Phe Asp Pro
```

Arg Gln Glu Thr Leu Ile Leu Thr Glu Thr Val Thr Thr Met Ser Lys 25 20 Ala Ile Met Gln Gln Thr Tyr Asn Phe Glu Ala Leu His Asp Lys Gly 4.0 Leu Ala Glu His Phe Leu Asn Ala Gly Lys His Leu Ser Gly Glu Val 55 Glu Val Leu Gly Ser Ala Ile Arg Cys Ile Met Leu Thr Gly Asp Asn 70 75 Leu Ser Asn Lys Glu Ile Ile Leu Gln Leu Ile His Ala Leu Glu Ile 85 90 Thr Glu Glu Pro Glu Ala Cys Asp Val Ile Arg Asn Thr Leu Glu Ile 100 105 Val Val Gly Phe Thr Arg Asp Asp Ile <211> 296 <212> PRT <213> Enterobacter cloacae <400> 5748 Val Val Gln Ile Lys Pro Phe Ile Pro His Arg Lys Val Gly Leu Asp Lys Leu Tyr Leu Ile Arg Val Trp Phe Ser Asp Ala Arg Val Phe Arg 2.5 3.0 Asp Glu Val Cys Ala Val Lys Asn Asn Pro Gln Gly Phe Ser Asp Ala 40 3.5 Glu Ile Asp Ile Leu Gln Ala Leu His Lys Arg Glu Ile Phe Ala Ala 5.0 5.5 60 Tyr Gln Ile Ile Thr Asp Gly Asp Lys Lys Gly Val Gly Phe Glu Ile 7.0 75 Leu Leu Arg Trp His Lys Asn Gly Gln Val Leu Lys Ala Ala Gln Phe 9.0 Leu Gly Gly Val Lys Asn Gly Glu Ile Trp Leu Lys Leu Thr Ala Leu 105 110 100 Val Ile His Ala Ala Val Ser Gly Ile Asn Arg Tyr Asn Gly Lys Tyr 125 115 120 Tyr Phe Ser Val Asn Ile Pro Pro Pro Leu Ala Thr Gly Asn Ala Leu 135 140 Pro Gly Met Ala Lys Lys Ala Val Glu Met Leu Leu Lys Pro Gln Trp 150 155 160 145 Ala Gly Lys Leu Val Phe Glu Leu Ala Glu Ala Ile Asp Val Thr Lys 165 170 Asp Pro Asn Ile Pro Val Thr Leu Gln Arg Leu Arg Ala Glu Gly Cys 180 185 Arg Leu Phe Leu Asp Asp Cys Phe Ser Arg Asp Tyr Ala Met Leu Pro 195 200 Ile Arg Gln Ile Asn Val Asp Gly Leu Lys Leu Asp Arg Asp Ile Val 215 220 210 Glu His Phe Val Ala Asn Asp Asn Asp Tyr Ser Ile Ile Lys Ala Ile 230 235 Gln Ile Tyr Ser Asp Met Thr Gly Arg Glu Cys Val Ala Glu Gly Val 245 250

Asp Ser Glu Glu Lys Phe Lys Lys Leu Val Ala Leu Gly Val Lys Arg 265

Phe Gln Gly Tyr Tyr Leu Ser Arg Ala Val Lys Glu Glu Glu Leu Asp

280

Arg Met Val Arg Leu Phe Ser 290 295

260

```
<210> 5749
<211> 186
<212> PRT
<213> Enterobacter cloacae
<400> 5749
Thr Asn Val Ile His Ala Thr His Ala Ala Gln Phe Ala Lys Ile Phe
                                 10
Gly Val Lys Val Asp Asp Phe Ser Pro Ser Leu Ala Ala Glu Ile Ser
          20
                             25
Ala Met Phe Glu Ala Ile Ala Asn Gly Arg Asn His Ser Ser Val Tyr
                                            45
                         4.0
Glu Tyr Pro Leu Leu Thr Glu Val Gln Ala Gly Ser Phe Cys Pro Val
                                        60
        55
Asn Thr Tyr Thr Glu Arg Asp Ala Lys Glu Trp Val Ser Thr Thr Val
                                    75
                  70
Lys Ala Ser Asp Ser Ala Phe Trp Leu Glu Val Ser Gly His Ser Met
             85
                                90
Thr Ala Pro Pro Gly Val Lys Pro Ser Phe Pro Glu Gly Met Leu Ile
           100
                            105 110
Leu Ile Asp Pro Glu Gln Asp Val Glu Pro Gly Asp Phe Cys Val Ala
       115
                        120 125
Gly Ile Phe Asn Asp Ser Glu Val Thr Phe Lys Lys Tyr Val Arg Glu
 130 135 140
Asp Gly Lys Pro Trp Leu Glu Pro Leu Asn Pro Ser Pro Arg Tyr Gln
                  150 155
145
Ala Ile Glu Cys Asn Glu Asn Cys Arg Ile Ile Gly Lys Val Val Lys
                   170
              165
Ala Gln Trp Pro Glu Asn Ile Phe Glu
           180
<210> 5750
<211> 156
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(133)
<220>
<221>UNSURE
<222>(135)
<220>
<221>UNSURE
<222>(156)
<400> 5750
Lys Ser Ser Gly Arg Arg Trp Leu Phe Gly Cys Cys Arg Ala Gly Ala
                                 10
Val Arg Leu Phe Leu Cys Arg Cys Val Ala Gly Phe Val Leu Leu Gly
                              25
           20
Gly Pro Phe Pro Ala Ala Val Pro Arg Leu Leu Leu Arg Val Leu Leu
                          40
 Phe Arg Arg Cys Pro Arg Trp Ser Arg Leu Arg Leu Ala Cys Ala Gly
                                        60
   50
 Phe Arg Val Ala Val Phe Val Arg Arg Ala Ser Phe Gly Phe Ala Phe
                                     75
                   70
 Cys Ser Cys Pro Ser Val Leu Ser Arg Phe Arg Trp Cys Val Leu Trp
```

90

8.5

```
Ala Leu Arg Arg Leu Lys Arg Gly Met Glu Gln Ala Gln Pro Leu Ser
                              105
                                                  110
           100
Thr Phe Leu Phe Asn Ser Leu Met Pro Gln Val Asp Leu Ser Thr Pro
    115
                                              125
                       120
Val Arg Arg Ala Xaa Leu Xaa Thr Leu Ala Leu Pro Leu Ile Ser His
        135
                                       140
  130
Val Pro Gly Glu Thr Leu Arg Ile Tyr Leu Arg Xaa
                  150
<210> 5751
<211> 110
<212> PRT
<213> Enterobacter cloacae
<400> 5751
Phe Phe Leu Ser Ala Leu Gly Gly Glu Asn Leu Arg Val Val Asp Gly
                                   10
Phe Leu Asp Val Val Ala Leu Ala Leu Phe Val Phe Phe Phe Ala Val
            20
                               25
                                                  30
Ala Ser Leu Gly Ser Ser Ser Ser Ala Val Leu Phe Leu Leu Phe
                           4.0
                                               45
        35
Arg Val Ser Phe Phe Val Phe Cys Cys Phe Asp Gly Val Arg Ala Gly
 50
                       55
Leu Val Ser Ala Trp Arg Ala Leu Val Ser Ala Leu Pro Phe Leu Ser
65
                   7.0
                                       75
Val Gly Arg Pro Leu Val Ser Leu Phe Val Pro Ala Arg Arg Cys Cys
                                   90
               85
Pro Gly Phe Ala Gly Ala Phe Cys Gly Leu Cys Gly Val
            100
                               105
<210> 5752
<211> 65
<212> PRT
<213> Enterobacter cloacae
<400> 5752
Gly His Arg Asn Ser Gly His Trp Cys Gly Thr Ser Ser Arg Ser Leu
                                   1.0
Leu Gln Ile Pro Gly Cys Leu Ser Met Phe Ala Leu Val Asp Val Asn
                               25
            20
Ser Phe Tyr Ala Ser Cys Glu Thr Val Phe Arg Pro Asp Leu Arg Gly
                           40
Lys Pro Val Val Val Leu Ser Asn Asn Asp Leu Ser Gly Glu Lys Cys
    50
                       5.5
65
<210> 5753
<211> 86
<212> PRT
<213> Enterobacter cloacae
<400> 5753
Ser Gly Asp Lys Met Tyr Ile Ser Glu Ile Gln Ile Glu Asn Phe Arg
                                   10
                                                       1.5
Leu Phe Asp Ser Ala Glu Lys Ala Phe Val Leu Ser Leu Asn Pro Gly
                                                   3.0
Leu Thr Ala Leu Val Gly Glu Asn Asp Ala Gly Lys Thr Ala Val Ile
                            40
Asp Ala Leu Arg Leu Val Leu Gly Thr Arg Asp Gln Glu Met Leu Arg
```

```
Ile Asp Met Leu Ile Met His His Trp Gly Glu Ala Lys Ser Arg Thr
                                       75
Ser Pro Phe Arg Ser
               85
<210> 5754
<211> 275
<212> PRT
<213> Enterobacter cloacae
<400> 5754
Gly Tyr Asn Met Ala Phe Lys Phe Lys Thr Phe Ala Ala Val Gly Ala
Leu Ile Gly Ser Leu Ala Leu Val Gly Cys Gly Gln Asp Glu Lys Asp
                              25
                                                  3.0
           20
Pro Asn His Ile Lys Val Gly Val Ile Val Gly Ala Glu Gln Gln Val
                       40
                                            4.5
Ala Glu Ala Ala Gln Lys Ile Ala Lys Glu Lys Tyr Gly Leu Asp Val
                                          60
                       55
Glu Leu Val Thr Phe Asn Asp Tyr Val Leu Pro Asn Glu Ala Leu Ser
                   70
                                      75
Lys Gly Asp Ile Asp Ala Asn Ala Phe Gln His Lys Pro Tyr Leu Asp
                                  90
Gln Gln Ile Lys Asp Arg Gly Tyr Lys Leu Val Ala Val Gly Asn Thr
           100
                            105
Phe Val Tyr Pro Ile Ala Gly Tyr Ser Lys Lys Ile Lys Ser Leu Asp
      115
                           120
                                              125
Glu Leu Gln Pro Gly Ser Gln Val Ala Val Pro Asn Asp Pro Thr Asn
                       135
  130
Leu Gly Arg Ser Leu Leu Leu Gln Lys Val Gly Leu Ile Lys Leu
145
                   150
                                      155
Lys Glu Gly Val Gly Leu Leu Pro Thr Val Leu Asp Val Thr Glu Asn
                                   170
               165
Pro Lys Asn Leu Lys Ile Val Glu Leu Glu Ala Pro Gln Leu Pro Arg
                               185
          180
Ser Leu Asp Asp Ala Gln Ile Ala Leu Ala Val Ile Asn Thr Thr Tyr
                           200 205
        195
Ala Ser Gln Ile Gly Leu Thr Pro Ala Lys Asp Gly Ile Phe Val Glu
                       215
                                           220
    210
Asp Lys Asp Ser Pro Tyr Val Asn Leu Ile Val Thr Arg Glu Asp Asn
                    230
                                       235
225
Lys Asp Ala Glu Asn Val Lys Lys Phe Ile Gln Ala Tyr Gln Ser Glu
                                   250
                245
Glu Val Tyr Gln Glu Ala Asn Lys Val Phe Asn Gly Gly Ala Val Lys
                               265
            260
Gly Trp
        275
<210> 5755
<211> 310
<212> PRT
<213> Enterobacter cloacae
<400> 5755
Asn Ser Arg Arg Gly Ser Ser Ser Pro Val Val Lys Thr Pro Val Arg
                                   10
Gly Val Ala Ser Leu Lys Ser Asn Pro Asp Gly Ala Ser Cys Leu Gly
                                                   30
            20
                               25
Pro Met Ala Gly Leu Glu Lys Gln Arg Glu Gln Tyr Ser His Ala Val
                           40
```

Gln Ala Leu Ser Asp Pro Asp Arg Thr Arg Leu Val Leu Val Ala Arg

```
Leu Gln Lys Ser Thr Leu Gln Glu Val Ala Arg Thr His Asp Glu Leu
             70
                               75
Ala Ala Ile Gly Leu Lys Asn Gln Tyr Leu Val Ile Asn Gly Val Leu
            85
                            90
Pro Glu Thr Glu Ala Val Asn Asp Thr Leu Ala Ala Ala Ile Trp Gly
      100 105
                                         110
Arg Glu Gln Glu Ala Leu Ala Ser Leu Pro Ala Gly Leu Asp Ala Leu
   115 120 125
Pro Thr Asp Thr Leu Phe Leu Gln Pro Val Asn Met Val Gly Val Ser
 130 135 140
Ala Leu Arg Gly Leu Leu Thr Ser Gln Pro Glu Thr Ala Ser Phe Ala
145 150 155
Glu Val Ser Ala Leu Gln Lys Pro Ala Ile Ser Ser Leu Ser Ala Leu
          165 170 175
Val Asp Glu Ile Ala Leu Asn Glu His Gly Leu Ile Met Leu Met Gly
             185 190
       180
Lys Gly Gly Val Gly Lys Thr Thr Met Ala Ala Ala Ile Ala Val Arg
          200 205
Leu Ala Glu Met Gly Phe Asp Val His Leu Thr Thr Ser Asp Pro Ala
        215 220
 210
Ala His Leu Ser Thr Thr Leu Asn Gly Ser Leu Asn Asn Leu Gln Val
             230 235 240
Ser Arg Ile Asp Pro His Asp Glu Thr Glu Arg Tyr Arg Gln His Val
            245 250 255
Leu Glu Thr Lys Gly Arg Asp Leu Asp Glu Ala Gly Lys His Leu Leu
         260
             265
Glu Glu Asp Leu Arg Ser Pro Cys Thr Glu Glu Ile Ala Val Phe Gln
     275 280 285
Ala Phe Ser Arg Val Ile Arg Glu Ala Gly Lys Arg Phe Val Val Met
His Thr Ser Ser Pro Ser
305
<210> 5756
<211> 61
<212> PRT
<213> Enterobacter cloacae
<400> 5756
Asn Arg Asn Thr Thr Ser Ala Glu Lys Val Glu Asn Val Val Lys Pro
                             10
Pro Gln Lys Pro Val Val Ile Arg Thr Phe His Ile Gly Ser Met Leu
          20
                         25
Val Met Arg Leu Asn Gln Ala Ser Pro Ile Pro Ile Ile Asn Ala Pro
 35
                      40
Ile Arg Phe Ala Ala Ser Val Pro Ile Gly Met Ala
   50
                   55
<210> 5757
<211> 315
<212> PRT
<213> Enterobacter cloacae
<400> 5757
Cys Arg Gly Leu Asn Arg Met Leu Lys Ser His Arg Ala Thr Leu Pro
                                           1.5
Val Pro Pro Pro Ile Lys Thr Ala Ile Ser Ser Cys Asn Thr Val Asn
                         25
                                          30
Thr Cys Tyr Leu Leu Cys Lys Cys Val Glu Cys Asn Ala Val Phe Asp
       35
                       4.0
```

```
Arg Glu Thr Ile Met Tyr Val Ala Val Gly Gln Phe Ala Val Thr Pro
                  5.5
Asp Trp Asn Glu Asn Ala Glu Lys Cys Val Ser Leu Met His Ala Ala
                                75
             70
Lys Gln Lys Gly Ala Ser Leu Leu Val Leu Pro Glu Ala Leu Leu Ala
                             90
            85
Arg Asp Asp Gly Asp Pro Asp Leu Ser Val Lys Ser Ala Gln Thr Leu
                                          110
       100
                         105
Glu Gly Ala Phe Leu Lys Arg Leu Leu Ala Glu Ser Val Gly Asn Thr
                      120
Leu Thr Thr Ile Leu Thr Val His Ile Pro Ser Ser Pro Gly Arg Ala
      135
                                   140
Val Asn Thr Leu Val Ala Ile Arg Glu Gly Ala Ile Val Ala Ser Tyr
145 150 155
Ala Lys Leu His Leu Tyr Asp Ala Phe Ser Val Gln Glu Ser Arg Leu
       165 170 175
Val Asp Pro Gly Ser Val Ile Pro Pro Leu Ile Glu Val Glu Gly Phe
     180 185 190
Lys Val Gly Leu Met Thr Cys Tyr Asp Ile Arg Phe Pro Glu Leu Ala
 195 200
                           205
Leu Asn Leu Ala Leu Gln Gly Ala Glu Val Leu Val Leu Pro Ala Ala
 210 215 220
Trp Val Lys Gly Pro Leu Lys Glu His His Trp Ala Thr Leu Leu Ala
225 230 235
Ala Arg Ala Leu Asp Thr Thr Cys Tyr Val Val Ala Ala Gly Glu Cys
       245 250 255
Gly Asn Lys Asn Ile Gly Gln Ser Arg Val Val Asp Pro Leu Gly Val
             265 270
         260
Thr Val Val Ala Ala Ala Glu Thr Pro Ala Leu Leu Leu Thr Glu Ile
 275 280 285
Ile Ser Ala Arg Ile Ala Leu Ala Arg Gln Gln Leu Pro Val Leu Arg
 290 295
Asn Arg Arg Pne Ala Pro Pro Gin Leu Met
               310
<210> 5758
<211> 132
<212> PRT
<213> Enterobacter cloacae
<400> 5758
Gln Val Leu Thr Val Leu Gln Leu Leu Ile Ala Val Phe Ile Gly Gly
                           1.0
Gly Thr Gly Ser Val Ala Arg Trp Leu Leu Ser Met Arg Phe Asn Pro
                         25
         20
Leu His Gln Ala Ile Pro Met Gly Thr Leu Ala Ala Asn Leu Ile Gly
                    4.0
Ala Phe Ile Ile Gly Met Gly Leu Ala Trp Phe Asn Arg Met Thr Asn
                  55
 50
Ile Asp Pro Met Trp Lys Val Leu Ile Thr Thr Gly Phe Cys Gly Gly
Leu Thr Thr Phe Ser Thr Phe Ser Ala Glu Val Val Phe Leu Phe Gln
                             90
            8.5
Glu Gly Arg Met Gly Trp Ala Leu Thr Asn Ile Ala Val Asn Met Leu
                       105 110
         100
Gly Ser Phe Ala Met Thr Ala Ile Ala Phe Trp Leu Phe Ser Ser Ala
```

120

Ser Gly His 130 <210> 5759 <211> 152

<212> PRT <213> Enterobacter cloacae <400> 5759 Leu His Met Asn Ile Leu lle Thr Thr Thr Ala Phe Thr Ala Leu Phe 10 Cys Gly Ala Ala Phe Ala Gln Ser Ser Asp Ile Ala His Glu Ala His 20 25 Arg Phe Val Asn Asn Ala Ser Ala Val Ser His Val Asn Ser Ser Thr 40 4.5 His Glu Asn Leu Pro Asp Arg Val Asn Lys Asn Asn Thr Pro Ser Phe 50 55 60 Ser Glu Met Asn Glu His Glu Arg Ala Ile Val Ala His Ser Phe Met 7.5 70 Asn Asn Ser Ala Ser Tyr Ala His Gln Lys Met Ile Glu Glu His Lys 95 85 90 Lys Met Leu Ser Gly Ser Asp Ala Asn Ser Lys Thr Ser Ser Ser Ser 100 105 110 Phe Asn Glu Leu Asn Ala Gly Glu Lys Ala Ala Leu Val His Glu Gln 115 120 125 Val Asn Asn Ala Gly Ala Glu Ala His Gln Thr Gln Ala Arg Lys Leu 135 130 Arg Gly Leu Tyr Ser Thr Arg 145 <210> 5760 <211> 279 <212> PRT <213> Enterobacter cloacae <400> 5760 Thr Pro Pro Cys Thr Leu Val Leu Pro Ala Gly Trp Gly Arg Pro Ile 10 Ala Gly Ala Gly Gly Arg Met Gly Arg Gln Leu Ile Gln Ala Ala Leu 25 2.0 Gln Met Asp Gly Val Ala Leu Gly Ala Ala Leu Glu Arg Glu Gly Ser 35 4.0 Ser Leu Leu Gly Ala Asp Ala Gly Glu Leu Ala Gly Ala Gly Lys Thr 5.0 55 Gly Val Thr Val Gln Ser Ser Leu Glu Ala Val Lys Glu Asp Phe Asp 70 75 65 Val Phe Ile Asp Phe Thr Arg Pro Glu Gly Thr Leu Ala His Leu Ala 85 9.0 Phe Cys Arg Gln His Gly Lys Gly Met Val Ile Gly Thr Thr Gly Phe 100 105 110 Asp Asp Ala Gly Lys Gln Ala Ile Gln Asp Ala Ala Thr Asp Ile Ala 115 120 Ile Val Phe Ala Ala Asn Phe Ser Val Gly Val Asn Val Met Leu Lys 135 130 140 Leu Leu Glu Lys Ala Ala Lys Val Met Gly Asn Tyr Thr Asp Ile Glu 155 1.60 150 Ile Val Glu Ala His His Arg Tyr Lys Val Asp Ala Pro Ser Gly Thr 170 175 165 Ala Leu Ala Met Gly Glu Ala Ile Ala His Ala Leu Asp Arg Asp Leu 185 190 180 Lys Glu Cys Ala Val Tyr Thr Arg Glu Gly His Thr Gly Glu Arg Val 205 195 Pro Gly Thr Ile Gly Phe Ala Thr Val Arg Ala Gly Asp Ile Val Gly 215 Glu His Thr Ala Met Phe Ala Asp Ile Gly Glu Arg Val Glu Ile Thr

235 230 His Lys Ala Ser Ser Arg Met Thr Phe Ala Asn Gly Ala Val Arg Ala 250 245 Ala Leu Tro Leu Asn Ala Lys Glu Lys Gly Leu Phe Asp Met Arg Asp 265 260 Val Leu Asp Leu Asn Asn Leu 275 <210> 5761 <211> 130 <212> PRT <213> Enterobacter cloacae <400> 5761 Tyr Ala Asn Lys Val Ser Glu Tyr Ser Leu Glu Gly Val Leu Ile Lys 1.0 Ser Ala Leu Leu Val Leu Glu Asp Gly Thr Gln Phe Ile Gly Arg Ala 20 25 30 Ile Gly Ala Thr Gly Ser Ala Val Gly Glu Val Val Phe Asn Thr Ser 35 40 4.5 Met Thr Gly Tyr Gln Glu Ile Leu Thr Asp Pro Ser Tyr Ser Arg Gln 60 5.0 5.5 Ile Val Thr Leu Thr Tyr Pro His Ile Gly Asn Val Gly Thr Asn Ala 75 7.0 Ala Asp Glu Glu Ser Ser Gln Val His Ala Gln Gly Leu Val Ile Arg 95 85 90 Asp Leu Pro Leu Ile Ala Ser Asn Phe Arg Asn Thr Glu Asp Leu Ser 100 105 110 Ser Tyr Leu Lys Arg His Asn Ile Val Ala Ile Ala Asp Ile Asp Thr 115 120 Arg Lys 130 <210> 5762 <211> 423 <212> PRT <213> Enterobacter cloacae <220> <221>UNSURE <222>(417) <400> 5762 Cys Met Glu Phe Ser Val Lys Ser Gly Ser Pro Glu Lys Gln Arg Ser 10 Ala Cys Ile Val Val Gly Val Phe Glu Pro Arg Arg Leu Ser Pro Ile 20 25 Ala Glu Gln Leu Asp Lys Ile Ser Asp Gly Tyr Ile Ser Ala Leu Leu 40 Arg Arg Gly Glu Leu Glu Gly Lys Pro Gly Gln Thr Leu Leu His 60 50 His Val Pro Asn Val Leu Ser Glu Arg Ile Leu Leu Ile Gly Cys Gly 7.0 75 Lvs Glu Arg Glu Leu Asp Glu Arg Gln Tyr Lys Gln Val Ile Gln Lys 90 Thr Ile Asn Thr Leu Asn Asp Thr Gly Ser Met Glu Ala Val Cys Phe 110 100 105 Leu Thr Glu Leu His Val Lys Gly Arg Asn Thr Tyr Trp Lys Val Arg 120 125 Gln Ala Val Glu Thr Ala Lys Glu Ser Leu Tyr Ser Phe Asp Gln Leu 135 140

```
Lys Thr Thr Lys Ser Glu Pro Arg Arg Pro Leu Arg Lys Met Val Phe
      150
                   155
Asn Val Pro Thr Arg Arg Glu Leu Thr Ser Gly Glu Arg Ala Ile Gln
       165
                          170
His Gly Leu Ala Ile Ala Ala Gly Ile Lys Ala Ala Lys Asp Leu Gly
  180 185
                           190
Asn Met Pro Pro Asn Ile Cys Asn Ala Ala Tyr Leu Ala Ser Gln Ala
 195 200 205
Arg Gln Leu Ala Asp Ala Tyr Ser Lys Asn Val Ile Thr Arg Val Ile
 210 215 220
Gly Glu Gln Gln Met Lys Glu Leu Gly Met His Ser Tyr Leu Ala Val
225 230 235
Gly Asn Gly Ser Gln Asn Glu Ser Leu Met Ser Val Ile Glu Tyr Lys
         245 250 255
Gly Asn Pro Ser Glu Asp Ala Arg Pro Ile Val Leu Val Gly Lys Gly
        260
            265 270
Leu Thr Phe Asp Ser Gly Gly Ile Ser Ile Lys Pro Ser Glu Gly Met 275 280 285
Asp Glu Met Lys Tyr Asp Met Cys Gly Ala Ala Ala Val Tyr Gly Val
 290 295
                     300
Met Arg Met Val Ala Glu Leu Gln Leu Pro Ile Asn Val Ile Gly Val
              310
                             315
305
Leu Ala Gly Cys Glu Asn Met Pro Gly Gly Arg Ala Tyr Arg Pro Gly
           325
                          330 335
Asp Val Leu Thr Thr Met Ser Gly Gln Thr Val Glu Val Leu Asn Thr
        340
                       345
Asp Ala Glu Gly Arg Leu Val Leu Cys Asp Val Leu Thr Tyr Val Glu
                     360 365
     355
Arg Phe Glu Pro Glu Ala Val Ile Asp Val Ala Thr Leu Thr Gly Ala
                 375
                                380
 370
Cys Val Ile Ala Leu Gly His His Ile Thr Gly Leu Met Ser Asn His
385
              390 395 400
Asn Pro Val Pro His Gly Pro Ile Gly Ala Phe Val Thr Thr Ala Val
                        410
           405
Xaa Gly Pro Gln Tyr Trp Val
```

420 <210> 5763 <211> 701 <212> PRT

<213> Enterobacter cloacae

<220> <221>UNSURE <222>(86)

<400> 5763 Pro Pro Gly Ala Ala Phe Ala Ala Ser Thr Thr Glu Asp Thr Val Val 1.5 1 Val Asp Gly Gly Phe Asp Asn Thr Gln Asp Leu Ser Ala Ser Gln Asp 25 30 Gln Asp Tyr Ser Val Lys Thr Thr Thr Thr Gly Thr Lys Leu Leu Leu 40 Val Pro Arg Asp Ile Pro Gln Ser Val Ser Val Ile Ser Gln Gln Arg 5.5 Met Ala Asp Gln Asn Leu Gln Ser Ile Gly Gln Val Leu Thr Asn Thr 7.0 75 Thr Gly Ile Thr Ala Xaa Val Gln Asp Ser Asp Arg Thr Val Phe Tyr 85 90 Ser Arg Gly Phe Phe Val Ser Asn Tyr Ala Tyr Asp Asp Leu Pro Thr 110

Ser Ile Ser Glu Val Trp Asn Phe Gly Asp Thr Ala Ala Asp Thr Ala 120 115 Ile Tyr Asp Arg Ile Glu Val Val Arg Gly Ala Thr Gly Leu Met Ser 135 140 1.30 Gly Thr Gly Asn Pro Ala Ala Tyr Val Asn Met Val Arg Lys His Ala 150 155 160 145 Asp Ser Pro Glu Phe Lys Gly Asn Val Ser Ala Ser Tyr Gly Ser Trp 165 Asp Lys Gln Arg Tyr Val Leu Asp Leu Gln Ala Pro Leu Val Glu Ser 185 180 Gly Lys Val Arg Gly Arg Leu Ile Thr Gly Tyr Gln Asp Asn Asp Ser 195 200 205 Phe Val Asp Asn Tyr His Tyr Arg Lys Lys Phe Leu Tyr Gly Val Met 215 220 Asp Ala Asp Val Thr Asp Ser Thr Thr Leu Ser Val Gly Tyr Glu Tyr 225 230 235 240 Gln Glu Ser His Thr Ala Asp Pro Thr Trp Gly Gly Leu Pro Thr Trp 245 250 255 Tyr Ser Asp Gly Ser Lys Asn His Tyr Asn Arg Ser Gln Thr Val Ala 260 265 270 Pro Asp Trp Ala Tyr Ser Asp Lys Asp Ser Thr Arg Ile Phe Ala Asn 275 280 285 Leu Thr Gln Arg Phe Asp Asn Gly Trp Glu Ala His Ile Asn Gly Met 295 300 His Ala Glu Thr Asn Phe Asp Ser Lys Leu Met Tyr Met Ser Gly Tyr 305 310 315 Pro Asp Lys Glu Thr Gly Ala Gly Leu Val Gly Tyr Gly Gly Trp Asn 330 335 325 Arg Gly Glu Arg Lys Gln Asp Ala Val Asp Ala Phe Leu Arg Gly Gly 345 350 340 Phe Asp Leu Phe Gly Arg Gln His Glu Met Met Phe Gly Gly Ser Phe 355 360 365 Ser Arg Gln Arg Asn His Tyr Asp Asn Ser Met Pro Asp Ala Val Tyr 370 375 Gly Met Val Asp Val Gly Asn Phe Lys Asn Trp Asn Gly Asn Ile Ala 390 395 Asp Pro Gln Trp Thr Pro Trp Lys Leu Tyr Ser Lys Asp Asp Ile Arg 405 410 415 Gln Ser Ser Ala Tyr Ser Ser Ala Arg Phe Ser Leu Ala Asp Pro Leu 425 430 420 His Leu Ile Leu Gly Ala Arg Tyr Thr Gln Tyr Asn Ile Arg Tyr Asn 435 440 Pro Ala Gly Ser Pro Asn Thr Arg Leu Glu Ser Thr Lys Asp Asp Val 455 460 Thr Pro Tyr Ala Gly Leu Val Tyr Asp Ile Asn Glu Asp Trp Ser Thr 470 475 Tyr Val Ser Tyr Thr Ser Ile Phe Gln Pro Gln Asp Asn Arg Asp Ala 490 485 Ser Gly Arg Tyr Leu Asp Pro Thr Thr Gly Lys Ser Tyr Gln Ala Gly 505 510 500 Val Lys Ala Asp Trp Phe Asn Thr Arg Leu Asn Asn Ser Leu Ala Ile 520 525 515 Phe Arg Ile Glu His Asp Asn Val Ala Ser Asn Thr Tyr Thr Tyr Leu 535 540 530 Pro Ser Gly Glu Ser Ile Tyr Glu Ser Leu Asp Gly Val Val Ser Lys 555 550 Gly Val Glu Phe Glu Leu Asn Gly Ala Leu Thr Asp Asn Trp Gln Leu 570 565 Thr Phe Gly Ala Thr Arg Tyr Ile Ala Glu Asp Lys Asn Gly Asn Ala 590 585 Val Ser Ser Asp Gln Pro Arg Thr Thr Met Lys Leu Phe Thr Arg Tyr

<400> 5765

```
600
Gln Leu Pro Met Leu Pro Glu Leu Thr Val Gly Gly Val Asn Trp
                                       620
  610
                    615
Gln Asn Lys Val Trp Thr Asp Val Glu Gly Gly Pro Ala Gly Arg Ser
                                   635
                 630
Arg Ala Glu Gln Gly Ser Tyr Gly Leu Val Asn Leu Phe Ser Arg Tyr
             645
                            650
Gln Val Thr Lys Asp Phe Ala Val Gln Ala Asn Val Asn Asn Leu Phe
          660
                            665 670
Asp Lys Glu Tyr Tyr Asp Tyr Val Gly Ser Tyr Ala Val Tyr Gly Ala
               680
     675
Pro Leu Asn Val Ser Val Ser Ala Ser Tyr Asp Phe
   690
                    695
<210> 5764
<211> 164
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(115)
<400> 5764
Trp Thr Leu Ser Met Ser Asn Thr Leu Gln Pro Arg Arg Ala Arg Ala
                               10
1
Ser Tyr Ser Met Asp Phe Lys Leu Ala Leu Val Glu Lys Ser Tyr Gln
                            25
                                               3.0
       20
Pro Gly Ala Cys Val Ala Arg Leu Ala Arg Asp Asn Gly Ile Asn Asp
       35
                        40
                                          45
Asn Leu Leu Phe Thr Trp Arg Gln Arg Tyr Arg His Leu Leu Pro Asp
                   55
                                       60
Glu Ile Gln Arg Ser Ile Arg Glu Gln Asp Ser Val Ile Pro Val Val
                                   75
                 7.0
Leu Pro Asp Met Ala Leu Ser His His Ala Glu Pro His Tyr Glu Thr
                               90
              8.5
Ala Ala Pro Ala Cys Arg Glu Ala Met Thr Cys Asp Val Thr Val Gly
                            105 110
          100
Gly Gly Xaa Leu Arg Leu Ser Gly Gly Phe Ile Thr Leu His Phe Leu
                        120 125
       115
Lys Thr Leu Ile Arg Ala Pro Asp Arg Gly Gly Ser Arg Met Ile Pro
                    135
                             140
Leu Thr Val Arg Ala Leu Arg Ile Leu Ala Gly Leu Pro Gly Phe Pro
145
                  150
                                   155
Lvs Asn Ala
<210> 5765
<211> 242
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(183)
<220>
<221>UNSURE
<222>(217)
```

```
Ile Ser Pro Pro Val Asn Thr Leu Ala Leu Gly Tyr Ala Ala Phe Arg
                           10
Phe Gly Arg Arg Glu Ala Asp Ser Lys Arg Thr Phe Gly Tyr Leu Arg
                                       3.0
                        25
Phe Glu Val Ile Ala Gly Phe Phe Asn Ala Leu Thr Leu Phe Ala Ile
 35
                     40
Val Ala Trp Ile Ala Tyr Glu Ala Trp Glu Arg Leu Gln Ala Pro Pro
                 55
Ala Ile Leu Ala Gly Pro Met Leu Ile Val Ala Ile Val Gly Leu Leu
65 70
                              7.5
Val Asn Val Leu Val Leu Trp Ile Met Thr Arg Gly Glu Thr Asp His
       85
                           90
Val Asn Val Lys Gly Ala Ile Leu His Val Met Gly Asp Leu Leu Gly
        100 105
Ser Val Gly Ala Ile Val Ala Ala Ile Val Ile Tyr Tyr Thr Gly Trp
                                    125
      115 120
Thr Pro Ile Asp Pro Ile Leu Ser Val Leu Val Ala Ala Leu Val Leu
 130 135 140
Arg Ser Ala Trp Lys Leu Leu Ala Lys Ser Leu His Ile Leu Leu Glu
145 150 155 160
Gly Ala Pro Glu Asn Ala Ser Pro Asp Lys Val Lys Gln Arg Leu Ile
     165 170 175
Asn Ser Val Gln Gly Leu Xaa Ala Val Ser His Ile His Val Trp Gln
        180 185 190
Ile Thr Ser Gly Arg Ile Met Ala Thr Leu Glu Val Arg Ala Lys Glu
195 200 205
Asp Val Asp Val Lys Asp Val Val Xaa Leu Val Lys Gln Glu Leu Tyr
210 215 220
Glu His Phe Lys Asn Arg Thr Arg Asn Cys Gly His Arg Leu Glu Leu
                              235
             230
Arg
```

<210> 5766 <211> 130 <212> PRT <213> Enterobacter cloacae

<400> 5766

Cys Thr Thr Asn Ser Gly Gly Arg Thr Ile Met Ser Asn Thr Ser Asp 10 Cys Gly Asn Val Arg Asn Cys Ser Ala Thr Asp Tyr Gly Thr Glu Pro 30 20 25 Asp Leu Ser Met Leu Ser Gln Asn Glu Ile Gly Leu Leu Ser Glu Ile 40 Phe His Leu Leu Gly Asp Gln Ser Arg Leu Arg Ile Leu Leu Tyr Cys 55 Met Arg Gly Ser Val Ser Val Gly Asp Ile Ala Glu Ser Leu Gln Leu 70 7.5 Ser Gln Ser Leu Val Ser His His Leu Arg Leu Leu Arg Gly Ala Arg 85 90 Leu Val Arg Gly Glu Arg Lys Gly Lys Tyr Ile Phe Tyr Ser Ile Met

100 110 110 Asp Gln His Val Ser His Val Leu Gln Asp Met Ala Phe His Ile Ala 115 120 125

130

<210> 5767 <211> 95 <212> PRT

## <213> Enterobacter cloacae

<400> 5767 Lys Thr Val Asn Val Asp Trp Phe Ile Ala Glu Arg Ser Gly Lys Val 1.0 Arg Ile Leu Lys Glu His Pro Arg Lys Asn Lys Ala Ala Ile Ile Leu 20 25 Glu Tyr Leu Lys Ala Ser Ile Arg Ala Lys Val Glu His Pro Phe Arg 35 40 4.5 Val Ile Ile Arg Gln Phe Gly Phe Ile Lys Ala Arg Tyr Lys Gly Leu 55 60 Met Lys Asn Asp Ser Gln Leu Ala Met Leu Phe Thr Leu Ala Asn Leu 70 75 Phe Lys Val Asp Gln Met Ile Arg Arg Gln Thr Lys Ser Ala

<210> 5768

<211> 145 <212> PRT

<213> Enterobacter cloacae

<400> 5768

Pro Ala Thr Ile Val Ile Val Ser Leu Pro Asp Thr Tyr Ser Ser Val 1 5 10 15

Arg Glu Ala Ile Phe Val Pro Phe Gln Arg Thr Gly Val Asn Met Gln 20 25 30 Lys Ile Val Ile Val Ala Asn Gly Ala Ala Tyr Gly Ser Glu Ser Ile

Arg Asn Ser Leu Arg Gln Ala Ile Ala Gln Arg Glu Lys Glu Arg Glu

Arg Asn Ser Leu Arg Gin Ala ile Ala Gin Arg Giu bys Giu Arg Giu 50 60 Gin Giu Gin Arg His Lys Lys Lys Thr Asp Ala Val Thr Ala Gly Gly

70 -75  $-80^\circ$  Cys Arg Arg Gly Lys Asn Pro Gln Arg Ala Thr Thr Ile Asn Lys Ser -85 -90 -95

Arg Arg Ser Arg Pro Arg Lys Thr Asn Arg Thr Asn Arg Ala Lys Pro

Glu Pro Thr Gly Glu Ala Lys Pro Gly Ser Arg Arg Lys Lys Glu Arg 115 \$120\$

Lys Lys Glu Arg Arg Arg Ser Arg Gln Lys Gly Arg Asn Pro Ala Gly 130 135 140

145

<210> 5769

<211> 170 <212> PRT

<213> Enterobacter cloacae

<400> 5769

Met Leu Gly Lys Gln Val Ala Gln Cys Val Pro Ala Gly Ser Thr Leu 1 5 10 10 15 Phe Leu Asp Ala Gly Ser Thr Leu Leu Ala Val Ala Ser Phe Leu Gln 20 25 30 30 30 35 40 45 Ser Asp Arg Glu Gly Ile Asp Leu Leu Gly Gly Lys Trp Asp 50 55 60

Gln Lys Gln Arg Leu Phe Ala Gly Ser Ala Thr Leu Ser Leu Leu Ser 65 70 75 80

Arg Tyr Arg Ala Asp Ile Ala Ile Leu Gly Ala Cys Ala Ile His Ala
85 90 95

```
Glu Leu Gly Leu Ser Ala Ser Gln Glu Ala Asp Ala Glu Val Lys Arg
      100
               105
Ala Met Leu Ala Ala Ser Gln Ala His Trp Val Val Ala Asp His Leu
  115
           120
Lys Leu Asn Gln Cys Glu Pro Tyr Leu Val Ser Gly Leu Ser Glu Ile
 130 135 140
His Gln Leu Phe Leu Asp Arg Pro Trp Ala Glu Leu Gly Asp His Ser
145 150 155
Ala Val Gln Val Thr Val Cys Ala His
             165
<210> 5770
<211> 381
<212> PRT
<213> Enterobacter cloacae
<400> 5770
Ile Val Pro Gly Gln Ser Ser Gly Thr Ile Ala Pro Cys Arg Leu Pro
                                10
Phe Ala His Ile Asn Val Glu Lys Val Met Asn Lys Val Lys Thr Met
                             25
          2.0
Asn Ile Ala Leu Ile Gly Tyr Gly Phe Val Gly Lys Thr Phe His Ala
      35
                         4.0
Pro Leu Ile Gln Ser Val Asp Gly Leu Lys Leu Ala Val Ile Ser Ser
50
Arg Asp Glu Glu Lys Val Lys Arg Asp Leu Pro Asp Val Leu Val Val
       7.0
                                    7.5
Ala Thr Pro Glu Glu Ala Ile Gln His Pro Asp Ile Asp Leu Val Val
                                 90
              8.5
Ile Ala Ser Pro Asn Ala Thr His Ala Pro Leu Ala Thr Leu Ala Leu
           100
                             105
Asn Ala Gly Lys His Val Val Val Asp Lys Pro Phe Thr Leu Asp Met
       115
                         120
                                           125
Gln Glu Ala Arg Asp Leu Ile Ala Leu Ala Glu Glu Lys Gln Leu Leu
 130
                     135
                                        140
Leu Ser Val Phe His Asn Arg Arg Trp Asp Ser Asp Phe Leu Gly Ile
                                    155
145
                  150
Lys Gln Val Ile Ala Gln Gly Ser Ile Gly Lys Val Lys His Phe Glu
                                 170 175
              165
Ser His Ile Asp Arg Phe Arg Pro Glu Val Arg Val Arg Trp Arg Glu
                            185 190
           180
Gln Asn Val Pro Gly Ser Gly Leu Trp Phe Asp Leu Gly Pro His Met
                          200
                                           205
 195
Ile Asp Gln Thr Leu Gln Leu Phe Gly Leu Pro Gln Ser Val Gln Gly
                     215
Asn Ile Ala Thr Leu Arg Asp Gly Ala Glu Ile Asn Asp Trp Ala His
                  230
                                                      240
Val Val Leu Asn Tyr Pro Glu His Lys Val Val Leu His Cys Ser Met
               245
                                 250
Leu Val Ala Gly Gly Val Ser Arg Phe Thr Ile His Gly Asn Lys Ala
                                               270
           260
                             265
Ser Val Val Lys Ala Arg Ile Asp Gln Gln Glu Ala Gln Leu Leu Ala
       275
                         280
                                            285
Gly Val Ile Pro Gly Ser Glu Ser Trp Gly Glu Asp Ser Asp Ala Met
                     295
                                        300
Val Leu Leu Asn Ala Gln Arg Glu Ala Ser Ala Ile Pro Ala Pro Lys
                 310
                                     315
305
Gly Asp Gln Arg Gln Tyr Tyr Ile Asn Val Arg Asp Ala Leu Asn Gly
              325
                                330
Lys Ile Asp Asn Pro Val Pro Pro Val Glu Ala Leu Ala Val Met Ala
```

345

```
Val Leu Glu Ser Ala Val Lys Ser Ser Glu Thr Gly Thr Thr His Glu
                    360
Leu Asp Leu Thr Ala His Asp Arg Ala Gln Leu Gln
          375
<210> 5771
<211> 254
<212> PRT
<213> Enterobacter cloacae
<400> 5771
Thr Val Lys Pro Lys Ser Pro Arg Leu Phe Ala Ile Ser Thr Pro Ala
                              10
Ala Leu Ala Lys Ser Lys Arg Lys Lys Glu Arg Ile Met Ser Thr Pro
                           25
                                            3.0
Ala Asn Phe Asn Gly Ala Arg Pro Val Ile Asp Val Asn Asp Ala Val
                      4.0
                                       4.5
Met Leu Leu Ile Asp His Gln Ser Gly Leu Phe Gln Thr Val Gly Asp
                                  60
                 5.5
Met Pro Met Pro Glu Leu Arg Ala Arg Ala Ala Ala Leu Ala Lys Ile
                                75
                7.0
Ala Ser Leu Ala Lys Ile Pro Val Ile Thr Thr Ala Ser Val Pro Gln
             85
                              90
Gly Pro Asn Gly Pro Leu Ile Pro Glu Ile His Ala Asn Ala Pro His
                         105 110
       100
Ala Gln Tyr Val Ala Arg Lys Gly Glu Ile Asn Ala Trp Asp Asn Pro
                                  125
 115
                       120
Glu Phe Val Ala Ala Val Lys Ala Thr Gly Arg Lys Thr Leu Ile Ile
                    135
Ala Gly Thr Ile Thr Ser Val Cys Met Ala Phe Pro Ser Ile Ser Ala
              150 155 160
Val Ala Asp Gly Tyr Lys Val Phe Ala Val Ile Asp Ala Ser Gly Thr
                  170 175
           165
Tyr Ser Lys Met Ala Gln Glu Ile Thr Leu Ala Arg Val Val Gln Ala
         180
                           185 190
Gly Val Val Pro Met Asp Thr Ala Ala Val Ala Ser Glu Ile Gln Arg
      195 200
                                         205
Thr Trp Asn Arg Glu Asp Ala Gly Glu Trp Ala Glu Val Tyr Thr His
                 215 220
Ile Phe Pro Val Tyr Gln Leu Leu Ile Glu Ser Tyr Ser Lys Ala Gln
225 230 235
Asp Val Val Lys Asn Ser Glu Val Leu Asp Ser Gln Arg
             245
<210> 5772
<211> 194
<212> PRT
<213> Enterobacter cloacae
<400> 5772
Arg Ala Val Asp Asp Gly Gly Pro Ser His Phe Ala Arg Gly Val Pro
Leu Gln Arg Phe Ser Gln Lys Ala Gly Glu Leu Lys Met Met Gln Leu
          20
Trp Phe Asn Leu Pro Ala Lys Asp Lys Trp Gly Thr Pro Gly Tyr Gln
  35
                        40
Ser Ile Thr Gln Ala Asp Ile Pro Val Val Thr Leu Pro Asp Asn Ser
                  55
Gly Thr Leu Arg Val Ile Ala Gly Arg Phe Gly Glu Val Thr Gly Pro
                70
Ala His Thr Phe Ser Pro Leu Asn Val Trp Asp Leu Ala Leu His Gln
```

Gly Ser His Leu Thr Leu Asn Gln Pro Glu Gly Trp Ser Thr Ala Leu 100 105 Val Val Val Glu Gly Ser Val Thr Val Asn Gly Thr Thr Pro Ala Gly 115 120 125 Glu Ala Gln Leu Val Val Leu Ser Gln Ser Gly Asp Lys Leu His Leu 135 140 Glu Ala Ser Ser Asp Ala Lys Val Leu Leu Met Ala Gly Glu Pro Leu 150 155 Asn Glu Pro Ile Val Gly Tyr Gly Pro Phe Val Met Asn Ser Lys Thr 165 170 175 Glu Ile Ala Glu Ala Ile Arg Asp Phe Asn Ser Gly Arg Phe Gly Gln <210> 5773 <211> 124 <212> PRT <213> Enterobacter cloacae <400> 5773 Ser Ala Arg Val Trp Arg Phe Val Val Lys Arg Leu Gly Pro Glu Gln 10 Arg Ala Glu Leu Val Leu Asn Ala Leu Val Ala Ile Arg Phe Leu Lys 25 20 Pro Gln Met Pro Lys Ser Trp His Phe Leu Ala His Gly Met Ser Trp 45 3.5 Thr Pro Ala Ile Gly Asp Ala Ala Ser Val Asn Leu Ser Asp Thr Glu 5.5 Glu Glu Val Asn Leu Leu Val Val Glu Pro Gly Glu Asn Ala Ala Leu 7.0 7.5 Cys Leu Leu Ala Gln Pro Gly Val Asn Ile Ala Gly Arg Val Met Gln 90 95 Leu Gly Asp Ala Ile Lys Val Met Asn Asp Arg Leu Lys Pro Gln Leu 105 100 Arg Val Asp Ser Phe Ser Leu Glu Gln Ala Val <210> 5774 <211> 324 <212> PRT <213> Enterobacter cloacae <400> 5774 Thr Ala Arg Gln Phe Pro Gln Met Val Arg Phe Thr Pro Ser Pro Leu 10 His Asp Gly Leu His Leu Thr Ala Pro Asp Gly Ser Ser Val Val Ile 25 Arg Phe Ala Asp Phe Ala Pro Leu Asp Ala Pro Thr Glu Val Tro Gly 40 Asn His Phe Thr Ala Arg Ile Ala Pro Asp Asn Ile Asn Gln Trp Leu 55 Ser Gly Phe Phe Ser Arg Asp Val Gln Leu Arg Trp Val Gly Pro Ala 70 7.5 Leu Thr Arg Arg Val Lys Arg His Asp Ala Val Pro Leu Ser Phe Ala 90 8.5 Asp Gly Phe Pro Phe Leu Leu Thr Ser Glu Ala Ser Leu Arg Asp Leu 110 100 105 Gln Lys Arg Cys Lys Ala Ser Val Gln Met Glu Gln Phe Arg Pro Asn 120

Leu Val Val Thr Gly Ala Glu Ala Trp Asp Glu Asp Thr Trp Lys Val 140 130 135 Ile Arg Ile Gly Ser Val Ile Phe Asp Val Val Lys Pro Cys Ser Arg 145 150 155 Cys Ile Leu Thr Thr Ile Ser Pro Glu Lys Gly Gln Lys His Pro Ser 165 170 Gly Glu Pro Leu Lys Thr Leu Gln Ser Phe Arg Thr Ala Gln Asp Lys 180 185 190 Gly Asp Val Asp Phe Gly Gln Asn Leu Ile Pro Arg Ser Ser Gly Val 195 200 205 Ile Arg Val Gly Asp Glu Ile Glu Ile Leu Thr Arg Gly Pro Ala Arg 210 215 220 Val Tyr Gly Ala Gly Gln Glu Glu Met Val Asp Val Val Thr Asn 225 230 235 Val Ala Ser Ala Val Asp Ile His Trp Glu Gly Lys Val Ile Arg Gly 245 250 255 Asn Asn Gln Gln Val Leu Leu Glu Gln Leu Glu Gln Ala Gly Ile Arg 260 265 270 Val Pro Tyr Ser Cys Arg Ala Gly Ile Cys Gly Cys Cys Arg Ile Lys 275 280 285 Leu Val Asp Gly Glu Val Ser Ala Leu Lys Lys Ser Ala Ile Gly Gly 290 295 300 Asp Gly Thr Ile Leu Cys Cys Ser Cys Val Pro Lys Thr Ser Val Gln 315 305 310 Leu Glu Ala

<210> 5775 <211> 264 <212> PRT <213> Enterobacter cloacae

210

215

<400> 5775 Asn Arg Gly His Arg Tyr Ser Pro Val Leu Ala Ile Val Leu Leu Val 1.0 1 Arg Ser Leu Leu Tyr Glu Pro Phe Gln Ile Arg Ser Gly Ser Met Ile 25 30 Pro Thr Leu Leu Ile Gly Asp Phe Ile Leu Val Glu Lys Phe Ala Tyr 40 45 Gly Ile Lys Asp Pro Ile Tyr Gln Lys Thr Leu Ile Glu Thr Gly His 5.5 Pro Lys Arg Gly Asp Ile Val Val Phe Lys Tyr Pro Glu Asp Pro Arg 70 75 Leu Asp Tyr Ile Lys Arg Ala Val Gly Leu Pro Gly Asp Lys Val Thr 85 90 Tyr Asp Pro Val Ala Lys Glu Val Thr Ile Gln Pro Gly Cys Ser Ser 100 105 110 Gly Thr Ala Cys Glu Asn Ala Leu Pro Val Thr Tyr Ser Asn Val Glu 120 125 115 Pro Ser Asp Phe Val Gln Tnr Phe Ala Arg Arg Asn Gly Gly Glu Ala 135 140 130 Thr Ser Gly Pne Phe Gln Val Pro Lys Gly Glu Thr Lys Glu Asn Gly 145 150 155 Ile Arg Leu Val Glu Arg Lys Glu Thr Leu Gly Asp Val Thr His Arg 165 170 Ile Leu Thr Val Pro Ile Ala Gin Asp Gin Leu Ala Met Tyr Tyr Gin 185 190 180 Gln Pro Gly Gln Gln Leu Ala Thr Trp Ile Val Pro Pro Gly His Tyr 195 200 205 Phe Met Met Gly Asp Asn Arg Asp Asn Ser Ala Asp Ser Arg Tyr Trp

220

Gly Phe Val Pro Glu Ala Asn Leu Val Gly Lys Ala Thr Ala Ile Trp 230 Met Ser Phe Glu Lys Gln Glu Gly Glu Trp Pro Thr Gly Val Arg Leu 245 Asn Arg Ile Gly Gly Ile His 260

<210> 5776 <211> 177 <212> PRT

<213> Enterobacter cloacae

<400> 5776

Thr Gly Cys Arg Arg Thr Gly Val Lys Asn Ala Gly Ala Gly Met Ser Ile Asp Lys Thr Tyr Cys Gly Phe Ile Ala Ile Val Gly Arg Pro Asn 30 25 Val Gly Lys Ser Thr Leu Leu Asn Asn Leu Leu Gly Gln Lys Ile Ser 40 4.5 35 Ile Thr Ser Arg Lys Ala Gln Tar Thr Arg His Arg Ile Val Gly Ile 55 His Thr Glu Gly Ala Tyr Gln Ala Ile Tyr Val Asp Thr Pro Gly Leu 70 7.5 His Met Glu Glu Lys Arg Ala Ile Asn Arg Leu Met Asn Lys Ala Ala 8.5 90 Ser Ser Ser Ile Gly Asp Leu Glu Leu Val Ile Phe Val Val Glu Gly 100 Thr Arg Trp Thr Pro Asp Asp Giu Met Val Leu Asn Lys Leu Arg Asp 115 120 125 Gly Lys Thr Pro Val Ile Leu Ala Val Asn Lys Val Asp Asn Val Gln 130 135 Glu Lys Ala Asp Leu Leu Pro His Leu Gln Trp Leu Gly Ser His Met 145 150 155

Asn Phe Leu Asp Ile Val Ser Leu Ser Ala Asp Thr Gly Leu Asn Val

<210> 5777 <211> 267 <212> PRT <213> Enterobacter cloacae

165

<400> 5777

Asn Ile Pro Pro Lys Phe Lys Val Gly Pro Ala Arg Val Pro Arg His 15 Thr Lys Pro Arg Trp Phe Ser Gln Val Gly Phe Val Cys Cys Ile Phe 20 25 Asp Ala Phe Ile Tyr Trp Tyr Arg Met Asn Pro Ile Val Ile Asn Arg 35 40 Leu Gln Arg Lys Leu Gly Tyr Thr Phe His His Gln Glu Leu Leu Gln 60 55 Gln Ala Leu Thr His Arg Ser Ala Ser Ser Lys His Asn Glu Arg Leu 70 75 Glu Phe Leu Gly Asp Ser Ile Leu Ser Phe Val Ile Ala Asn Ala Leu 85 90 Tyr His Arg Phe Pro Arg Val Asp Glu Gly Asp Met Ser Arg Met Arg 110 100 105 Ala Thr Leu Val Arg Gly Asn Thr Leu Ala Glu Ile Ala Arg Glu Phe 125 120

Glu Leu Gly Glu Cys Leu Arg Leu Gly Pro Gly Glu Leu Lys Ser Gly

```
130
                  135
Gly Phe Arg Arg Glu Ser Ile Leu Ala Asp Thr Val Glu Ala Leu Ile
        150
                         155
Gly Gly Val Phe Leu Asp Ser Asp Ile Gln Thr Val Glu Lys Leu Ile
                                          175
         165 170
Leu Asn Trp Tyr Gln Thr Arg Leu Asp Glu Ile Ser Pro Gly Asp Lys
       180 185
                             190
Gln Lys Asp Pro Lys Thr Arg Leu Gln Glu Tyr Leu Gln Gly Arg His
   195 200 205
Leu Pro Leu Pro Ser Tyr Leu Val Val Gln Val Arg Gly Glu Ala His
 210 215 220
Asp Gln Glu Phe Thr Ile His Cys Gln Val Ser Gly Leu Ser Glu Pro
225 230 235
Val Val Gly Thr Gly Ser Ser Arg Arg Lys Ala Glu Gln Ala Ala Ala
               250
         245
Glu Gln Ala Leu Lys Met Leu Glu Leu Glu
         260
<210> 5778
<211> 436
<212> PRT
<213> Enterobacter cloacae
<400> 5778
Thr Gly Lys Tyr His Met Val Asp Gln Val Lys Val Ala Ala Ala Glu
                           10
Glu Ala Thr Ser Glu Gln Ser Leu Arg Arg Asn Leu Thr Asn Arg His
                        25
 20
Ile Gln Leu Ile Ala Ile Gly Gly Ala Ile Gly Thr Gly Leu Phe Met
 35
                     40
Gly Ser Gly Lys Thr Ile Ser Leu Ala Gly Pro Ser Ile Ile Phe Val
               55
 50
Tyr Met Ile Ile Gly Phe Met Leu Phe Phe Val Met Arg Ala Met Gly
               70
Glu Leu Leu Ser Asn Leu Glu Tyr Lys Ser Phe Ser Asp Phe Ala
                           90 95
       85
Ser Asp Leu Leu Gly Pro Trp Ala Gly Tyr Phe Thr Gly Trp Thr Tyr
               105
       100
Trp Phe Cys Trp Val Val Thr Gly Met Ala Asp Val Val Ala Ile Thr
           120
   115
Ala Tyr Ala Gln Phe Trp Phe Pro Gly Leu Ser Asp Trp Val Ala Ser
       135
                                 140
   130
Leu Ala Val Ile Val Leu Leu Ser Leu Asn Leu Ala Thr Val Lys
         150 155
Met Phe Gly Glu Met Glu Phe Trp Phe Ala Met Ile Lys Ile Val Ala
            165
                           170 175
Ile Ile Ala Leu Ile Val Val Gly Leu Val Met Val Leu Thr His Phe
                               190
         180
                        185
Gln Ser Pro Thr Gly Val Gln Ala Ser Phe Ala His Leu Trp Asn Asp
 195 200
                                    205
Gly Gly Trp Phe Pro Lys Gly Ile Ser Gly Phe Phe Ala Gly Phe Gln
                215
                                 220
   210
Ile Ala Val Phe Ala Phe Val Gly Ile Glu Leu Val Gly Thr Thr Ala
                              235
      230
Ala Glu Thr Lys Asp Pro Glu Lys Ser Leu Pro Arg Ala Ile Asn Ser
       245
                           250
Ile Pro Leu Arg Ile Ile Met Phe Tyr Val Phe Ala Leu Ile Val Ile
    260 265 270
Met Ser Val Thr Pro Trp Ser Ser Val Val Pro Thr Lys Ser Pro Phe
                   280
```

Val Glu Leu Phe Val Leu Val Gly Leu Pro Ala Ala Ala Ser Leu Ile

<400> 5780

```
290
                  295
Asn Phe Val Val Leu Thr Ser Ala Ala Ser Ser Ala Asn Ser Gly Val
                          315
       310
Phe Ser Thr Ser Arg Met Leu Phe Gly Leu Ala Gln Glu Gly Val Ala
          325 330
Pro Ser Ala Phe Ala Lys Leu Ser Lys Arg Ala Val Pro Ala Lys Gly
                                        350
      340 345
Leu Thr Phe Ser Cys Ile Cys Leu Leu Gly Gly Val Val Met Leu Tyr
 355 360 365
Val Asn Pro Ser Val Ile Gly Ala Phe Thr Met Ile Thr Thr Val Ser
  370 375 380
Ala Ile Leu Phe Met Phe Val Trp Thr Ile Ile Leu Cys Ser Tyr Leu
385 390 395
Val Tyr Arg Lys Gln Arg Pro His Leu His Glu Lys Ser Ile Tyr Lys
          405 410 415
Met Pro Leu Gly Lys Leu Met Cys Trp Val Cys Met Ala Phe Phe Val
                425
      420
Phe Val Leu Val
     435
<210> 5779
<211> 212
<212> PRT
<213> Enterobacter cloacae
<400> 5779
Glu Arg Glu Asp Ala Val Leu Pro Pro Ala Gly Glu Glu Leu Glu Ala
                            10
Gln Ala Ser Tyr Gly Ile Gly Leu Gln Val Gly Gln Gln Leu Ser Glu
                        2.5
 20
Ser Gly Leu Glu Gly Leu Leu Pro Glu Ala Leu Val Ala Gly Ile Ala
      35
                40
                                     45
Asp Ala Leu Glu Gly Lys Gln Pro Ala Val Pro Val Asp Val Val His
 50 55
Arg Ala Leu Arg Glu Ile His Glu Arg Ala Asp Ala Val Arg Arg Ala
65 70
Arg Phe Glu Glu Met Ala Ala Glu Gly Val Lys Tyr Leu Glu Glu Asn
                            90 95
          8.5
Arg Glu Arg Glu Gly Val Asn Ser Thr Glu Ser Gly Leu Gln Phe Arg
             105
                                       110
         100
Val Ile Asn Gln Gly Asp Gly Ala Ile Pro Ala Arg Thr Asp His Val
                     120 125
     115
Arg Val His Tyr Thr Gly Lys Leu Ile Asp Gly Thr Val Phe Asp Ser
                   135 140
Ser Val Ala Arg Gly Glu Pro Ala Glu Phe Pro Val Asn Gly Val Ile
               150 155 160
Ala Gly Trp Ile Glu Ala Leu Thr Leu Met Pro Val Gly Ser Lys Trp
            165 170 175
Glu Leu Thr Ile Pro His Asn Leu Ala Tyr Gly Glu Arg Gly Ala Gly
         180 185 190
Ala Ser Ile Pro Pro Phe Ser Thr Leu Val Phe Glu Val Glu Leu Leu
                    200
   195
Glu Ile Leu
  210
<210> 5780
<211> 400
<212> PRT
<213> Enterobacter cloacae
```

```
Asp Glu Thr Arg Ile Tyr Tyr Arg Arg Ser Leu Cys Asn Met Ala Asp
Asp Lys Leu Ser Gly Pro Asp Glu Lys Leu Phe Tyr Gln Ser Arg Arg
         20
                         2.5
Leu Tyr Arg Lys Cys Cys Asn Ile Tyr Tyr Ile Gln Val Ser Met Met
               40
Val Lys Lys Phe Lys Lys Leu Leu Leu Glu Phe Ile Val Ala Val Met
         5.5
Leu Ser Leu Ser Ile Pro Gly Met Ala Met Ala Ala Asp Ala Gly Val
                                75
Pro Gly Ala Met Cys Gln Ser Ala Gly Val Trp Gln Gly Leu Ile Lys
                90
        85
Asn Ile Cys Trp Ser Cys Ile Phe Pro Met Arg Ile Met Gly Ile Gly
                105 110
         100
Ala Ala Pro Glu Gly Ala Ala Pro Ser Arg Pro Gly Cys Tyr Cys Thr
      115 120 125
Asp Gln Asn Gly Val Pro Glu Ile Gly Trp Gln Leu Ser Phe Phe Gln
       135
                        140
   130
Pro Val Lys Ile Val Glu Val Val Lys Ser Pro Trp Cys Ser Pro Phe
                    155
      150
Leu Glu Gly Thr Met Leu Gln Lys Ser Gln Phe Asp Ile Gly Lys Ser
            165 170 175
Asn Thr Asn Gln Pro Met Thr Ala Thr Glu Ala Gly Phe Tyr Asp Val
                         185 190
       180
His Leu Trp Glu Phe Pro Ile Met Thr Met Leu Lys Leu Leu Ile Ile
                      200 205
      195
Gly Glu Cys Thr Ala Glu Pro Tyr Ile Asp Ala Ser Leu Thr Tyr Ile
                          220
         215
Ser Glu Val Asp Pro Met Trp Glu Ser Asp Leu Leu Thr Leu Val Leu
                230 235 240
Asn Pro Glu Ala Val Val Phe Ala Asn Pro Ile Ala Ser Met Val Cys
                             250 255
            245
Ala Ala Asp Cys Val Ala Val Thr Ala Gly Lys Asp Asn Leu Ala Ala
                              270
                         265
          260
Tyr Phe Cys Ala Gly Cys Asp Gly Asn Leu Tyr Pro Leu Thr Gly His
                      280 285
Met Tyr Ala Asn Asp Asp Ala Val Arg Thr Ser Ser Leu Ile Thr His
                   295
                        300
  290
Arg Leu Leu Thr Lys Leu His Arg Gln Gly Met Leu Met Arg Thr Met
      310
                                315
Gly Ala Asp Ala Met Cys Glu Lys Thr Trp Glu Tyr Phe Thr Pro Arg
                             330
             325
Ser Gln Tyr Arg Leu Ser Met Leu Phe Pro Thr Pro Glu Ala Lys Gly
          340
                          345
Pro Asp Cys Cys His Arg Leu Gly Asp Ser Val His Asp Trp Ser Thr
                      360
Leu Lys Gly Gly Arg Lys Lys Ile Gly Asn Asp Asn Tyr Val Tyr Met
                 375
Leu Trp Arg Tyr Asn Asp Cys Cys Val Arg Tyr Ile Pro Gly Ala
                390
                                 395
<210> 5781
<211> 293
<212> PRT
<213> Enterobacter cloacae
```

<400> 5781 Gln Ile Trp Ser Ile Tyr Met Ala Trp Asn Gln Pro Gly Asn Asn Gly 10

Gln Asp Arg Asp Pro Trp Gly Ser Ser Asn Asn Gln Gly Gly Asn Ser 2.0 25

```
Gly Gly Asn Gly Asn Lys Gly Gly Arg Glu Gln Gly Pro Pro Asp Leu
                       40
Asp Asp Ile Phe Arg Lys Leu Ser Lys Lys Leu Gly Gly Leu Gly Gly
                    55
Gly Lys Gly Ser Gly Ser Gly Gly Asn Ser Thr Gln Ser Pro Arg Pro
                70
Pro Met Gly Gly Arg Val Val Gly Ile Val Ala Ala Ala Val Val Ile
                              90
             85
Ile Trp Ala Ala Ser Gly Phe Tyr Thr Ile Lys Glu Ala Glu Arg Gly
         100
Val Val Thr Arg Phe Gly Lys Phe Ser His Leu Val Glu Pro Gly Leu
                                        125
    115
                       120
Asn Trp Lys Pro Thr Phe Ile Asp Asp Val Thr Ala Val Asn Val Glu
  130
                  135
                                     140
Ser Val Arg Glu Leu Ala Ala Ser Gly Val Met Leu Thr Ser Asp Glu
                                  155
                150
Asn Val Val Arg Val Glu Met Asn Val Gln Tyr Arg Val Thr Asp Pro
       165
Glu Arg Tyr Leu Phe Ser Val Thr Ser Ala Asp Asp Ser Leu Arg Gln
  180
                           185
                                            190
Ala Thr Asp Ser Ala Leu Arg Gly Val Ile Gly Lys Tyr Thr Met Asp
 195 200
                                 205
Arg Ile Leu Thr Glu Gly Arg Thr Val Ile Arg Ser Asp Thr Gln Arg
                                     220
  210 215
Glu Leu Glu Glu Thr Ile Arg Pro Tyr Asn Met Gly Ile Thr Leu Leu
225 230 235
Asp Val Asn Phe Gln Ala Ala Arg Pro Pro Glu Glu Val Lys Ala Ala
    245 250
Phe Asp Asp Ala Ile Ala Ala Arg Glu Asn Glu Gln Gln Tyr Ile Arg
    260 265
Glu Ala Glu Ala Tyr Thr Lys Asp Val Arg Leu His Leu Gly Arg Ala
                 280
 275
Asp Pro Arg Arg Ala
   290
<210> 5782
<211> 111
<21.2> PRT
<213> Enterobacter cloacae
<400> 5782
Thr Lys Met Asp Met Leu Glu Asp Phe Glu Pro Arg Ile Asp Arg Asp
                          10
Glu Glu Asn Lys Pro Ile Arg Val Trp Leu Tyr Ala Gln Ala Gly Ile
                           25
Gly Val Pro Leu Leu Phe Gln Ala Leu Thr Glu Arg Leu Ser Gly Glu
                                         45
                 40
       3.5
 Val Ala Gln His Thr Leu Arg Leu Pro Pro Gln Glu Gly Arg Leu Arg
                         60
                    55
Ser Arg Phe Tyr Gln Leu Gln Ala Ile Glu Lys Glu Trp Met Glu Asp
                                 75
                70
 Asp Gly Ser Val Gly Met Gln Val Arg Met Pro Ile Val Asp Trp Arg
                              90
```

Arg Leu Cys Lys Gln Glu Pro Ala Leu Ala Asp Tyr Ile Val

105

100

<sup>&</sup>lt;210> 5783

<sup>&</sup>lt;211> 199 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 5783
Gly His His His Pro Val Leu Gly Ile Val Ile Lys Cys Pro Leu Ser
                                 1.0
Gly Glu Thr Gln Glu Arg Ile Met Met Ser Leu Ala Gly Lys Lys
                             25
Ile Val Leu Gly Val Ser Gly Gly Ile Ala Ala Tyr Lys Thr Pro Asp
      35
                         40
Leu Val Arg Arg Leu Arg Glu Arg Gly Ala Asp Val Arg Val Ala Ile
                     5.5
Thr Glu Gly Gly Lys Ala Phe Ile Thr Pro Leu Ser Leu Gln Ala Val
                  70
                                     75
                                                       80
Ser Gly Tyr Pro Val Ser Asp Ser Leu Leu Asp Pro Ala Ala Glu Ala
             85
                                90
Ala Met Gly His Ile Glu Leu Gly Lys Trp Ala Asp Leu Val Ile Leu
          100
Ala Pro Ala Thr Ala Asp Leu Ile Ala Arg Leu Ala Thr Gly Met Ala
     115 120 125
Asn Asp Leu Val Thr Thr Ile Cys Leu Ala Thr Pro Ala Pro Val Ala
                             140
  130 135
Val Val Pro Ala Met Asn Gln Gln Met Tyr Arg Asn Ala Ala Thr Gln
145 150 155
His Asn Leu Asp Thr Leu Ala Ser Arg Gly Leu Leu Ile Trp Gly Thr
             165 170 175
Asp Ser Gly Ser Gln Ala Cys Gly Glu Ile Gly Gly Arg Gly Phe Pro
                             185
          180
Gln Pro Ile Asn Asp Cys
       195
<210> 5784
<211> 68
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(52)
<400> 5784
Phe Gly Glu Arg Thr Ala Ala Ala Lys Pro Ala Gly Lys Leu Gly Ala
                                 10
Gly Val Phe Leu Asn Pro Leu Thr Ile Val Asp Met Ala Ala Ala His
                                                3.0
           20
                             25
 Phe Ser Pro Val Asn Asp Leu Gin His Leu Asn Ile Met Asn Thr Ala
                          4.0
 Gly Pro Pro Xaa Lys Pro Leu Gly Phe Arg Ala Leu His Gln Gln Pro
                      55
   50
 Lys Val Arg Glu
<210> 5785
<211> 284
 <212> PRT
 <213> Enterobacter cloacae
<400> 5785
 Phe Phe Pro Val Gly Phe His Gln Arg Ala Gly Ile Leu Ser Gln Ser
                                 10
 Leu Lys Arg Gly Asp Asp Val Leu Asn Ser Leu Cys Glu Ala Leu Arg
           20
                             25
 Lys Asn Glu Met Pro Ala Ser Asn Pro Glu Phe Ala Cys Gly Ser Ile
```

```
Met Ala Asn Arg Arg Arg Pro Gly Met Glu Glu Thr Glu Leu Leu Leu
 50
Pro Arg Glu Lys Met Leu Arg His Gly Val Thr Leu Leu Lys Asp Asp
               70
                              7.5
Glu Leu Leu Ala Leu Phe Leu Arg Thr Gly Thr Pro Gly Lys Thr Val
                     90
Phe Thr Leu Ala Lys Glu Leu Ile Asp His Phe Gly Ser Leu Tyr Gly
            105 110
        100
Leu Leu Thr Ala Glu Leu Glu Ala Phe Thr His Val Glu Gly Ile Gly
     115
          120 125
Val Ala Lys Tyr Ala Gln Leu Arg Gly Ile Ala Glu Leu Ala Arg Arg
      135 140
Phe Tyr Asn Val Arg Met Glu Glu Glu Asp Pro Ile Leu Thr Pro Asp
145
   150 155
                                            160
Met Thr Arg Glu Phe Leu Gln Ser Gln Leu Ser Asp Leu Glu Arg Glu
     165 170 175
Ile Phe Met Val Ile Phe Leu Asp Asn Lys Asn Arg Val Leu Lys His
   180 185
                              190
Thr Arg Leu Phe Ser Gly Thr Leu Ser His Val Glu Val His Pro Arg
195 200
                         205
Glu Ile Val Arg Glu Ala Ile Lys Val Asn Ala Ala Gly Val Ile Leu
210 215
                                220
Ala His Asn His Pro Ser Gly Cys Ala Glu Pro Ser Arg Ala Asp Lys
225 230
                             235
                                            240
Ala Ile Thr Glu Arg Ile Ile Lys Cys Cys Gln Phe Met Asp Ile Arg
           245 250
Val Leu Asp His Leu Ile Ile Gly Arg Gly Glu Tyr Ile Cys Leu His
260 265
His Arg Gly Ser Lys Glu Pro Arg Tyr Ala Cys Ile
                    280
```

<210> 5786 <211> 112 <212> PRT <213> Enterobacter cloacae

<400> 5786

Met Asn Met Leu Ser Phe Glu Gly Lys Glu Ile Glu Thr Asp Asn Asp 10 Gly Tyr Leu Lys Glu Ser Ser Gln Trp Ser Glu Ala Leu Ala Glu Lys 20 25 Ile Ala Asp Asn Glu Gly Ile Thr Leu Ser Pro Glu His Trp Glu Val 35 40 Val Arg Phe Val Arg Glu Phe Tyr Leu Glu Phe Asn Thr Ser Pro Ala 55 Ile Arg Met Leu Val Lys Ala Met Ala Asn Lys Phe Gly Glu Glu Lys 70 75 Gly Asn Ser Arg Tyr Leu Tyr Arg Leu Phe Pro Lys Gly Pro Ala Lys 85 90 Gln Ala Thr Lys Ile Ala Gly Leu Pro Lys Pro Val Lys Cys Ile 100 105

<210> 5787 <211> 221

<212> PRT <213> Enterobacter cloacae

<400> 5787

Leu Met Asp Arg Ile Ile Thr Ser Ser Arg Asp Arg Thr Ser Leu Leu 5 10 15 Ser Thr His Lys Val Leu Arg Asn Thr Tyr Phe Met Leu Ser Leu Thr

```
Leu Ala Phe Ser Ala Ile Thr Ala Thr Ala Ser Thr Val Leu Met Leu
                                        4.5
Pro Ser Pro Gly Leu Ile Leu Thr Leu Val Gly Met Tyr Gly Leu Met
                     55
                                     60
Phe Leu Thr Tyr Lys Thr Ala Asp Lys Pro Val Gly Ile Leu Ser Ala
                 70
                                  75
Phe Ala Phe Thr Gly Phe Leu Gly Tyr Ile Leu Gly Pro Ile Leu Asn
             8.5
                        90
Ala Tyr Leu Ser Ala Gly Met Gly Asp Val Ile Gly Met Ala Leu Gly
        100
                        105 110
Gly Thr Ala Leu Val Phe Phe Cys Cys Ser Ala Tyr Val Leu Thr Thr
     115 120 125
Arg Lys Asp Met Ser Phe Leu Gly Gly Met Leu Met Ala Gly Ile Val
 130 135 140
Ile Val Leu Val Gly Met Leu Ala Asn Ile Phe Leu Gln Leu Pro Ala
    150 155
Leu His Leu Ala Ile Ser Ala Val Phe Ile Leu Ile Ser Ser Gly Ala
       165 170
Ile Leu Tyr Glu Thr Ser Asn Ile Ile His Gly Gly Glu Thr Asn Tyr
 180 185 190
Ile Arg Ala Thr Val Ser Leu Tyr Val Ser Leu Tyr Asn Ile Phe Val
                     200 205
Ser Leu Leu Ser Ile Leu Gly Phe Gly Ser Arg Asp
<210> 5788
<211> 94
<212> PRT
<213> Enterobacter cloacae
<400> 5788
Cys Gln Met Phe Ala Pro Leu Pro Gly Ser His Gly Val Gly Gln Gly
                              1.0
Ile Gly Phe Arg Tyr Ser Thr Gln Arg Glu Ala Leu Gln Leu Gly Leu
                        2.5
                                             30
Thr Gly Tyr Ala Arg Asn Met Asp Asp Gly Ser Val Glu Val Val Ala
              4.0
Cys Gly Glu Ala Asp Arg Val Glu Lys Leu Val Ala Trp Leu Lys Ala
Gly Gly Pro Arg Ser Ala Arg Val Asp Lys Val Leu Thr Glu Pro His
             70
Gln Pro Gly Arg Glu Tyr Ala Asp Phe Ser Ile Arg Tyr
<210> 5789
<211> 384
<212> PRT
<213> Enterobacter cloacae
<400> 5789
Lys Ile Leu Arg Tyr Ile Pro Lys Ala Ala Lys Asn Tyr Phe Arg Ile
Val Ile Lys Thr Asp Asn Lys Ala Lys Glu Met Lys Pro Gln Thr Arg
                          25
Thr His Phe Thr Leu Ser Leu Leu Thr Ala Gly Ile Leu Cys Ala Ser
```

35 40 45 Thr Ala Thr Trp Ala Ala Asn Val Pro Ala Gly Thr Gln Leu Ala Asp

Lys Gln Glu Leu Val Arg Asn Asn Gly Ser Glu Pro Ala Ser Leu Asp

5.5

```
Pro His Lys Val Glu Ser Asp Val Glu Phe Asn Ile Ile Ser Asp Leu
           85
Phe Asp Gly Leu Val Ser Val Ser Pro Ala Gly Glu Ile Gln Pro Arg
        100
                      105
                                    110
Leu Ala Glu Lys Trp Glu Asn Lys Asp Asn Thr Val Trp Thr Phe His
     115
                   120 125
Leu Arg Pro Gly Ile Thr Trp Ser Asp Gly Thr Pro Ile Thr Ala Glu
  130
                     140
Asp Ile Val Trp Ser Trp Gln Arg Leu Val Asp Pro Lys Thr Ala Ser
            150
                 155 160
Pro Tyr Ala Ser Tyr Pro Gly Ser Met Arg Ile Val Asn Gly Thr Asp
           165 170 175
Ile Ala Glu Gly Lys Lys Ala Pro Glu Ser Leu Gly Val Lys Ala Ile
      180
            185 190
Asn Asp Thr Thr Leu Glu Val Thr Leu Thr Gln Pro Asn Ala Ala Phe
    195 200
                                 205
Leu Ala Met Leu Ala His Pro Ser Leu Val Pro Ile Asp Lys Val Leu
 210 215 220
Val Gly Arg Phe Gly Asp Lys Trp Thr Lys Pro Glu His Phe Val Ser
225 230 235
Ser Gly Ala Tyr Lys Leu Ser Gln Trp Val Val Asn Glu Arg Ile Val
     245 250 255
Ala Val Leu Asn Pro Lys Tyr Trp Asp Asn Glu His Thr Val Ile Asn
 260 265 270
Lys Val Thr Tyr Leu Pro Ile Ser Ser Glu Ala Ala Asp Val Asn Arg
275 280 285
Tyr Lys Ala Gly Glu Ile Asp Ile Val Tyr Thr Val Pro Ile Asn Glr
290 295
                               300
Phe Ala Gln Leu Lys Lys Thr Leu Gly Ser Glu Leu Asp Val Ser Pro
305 310 315 320
Gln Leu Ala Thr Tyr Tyr Tyr Glu Phe Asn Thr Thr Arg Pro Pro Phe
 325 330 335
Asn Asp Ala Arg Val Arg Lys Ala Leu Asn Leu Ala Leu Asp Lys Asp
 340 345
                                    350
Ile Ile Ala Asp Lys Val Ile Arg Gln Gly Gln Arg Pro Ala Trp Leu
 355 360 365
Ile Asn Gln Pro Asp Ile Gly Gly Val Lys Leu Gln Asn Pro Gly
```

<210> 5790 <211> 316 <212> PRT

<213> Enterobacter cloacae

<400> 5790

Lys Val Leu Pro Gly Val Ser Ala His Met Lys Lys Met Ala Asp Glu 10 Ala Gly Gly Leu Asp Arg Val Ser Gln Met Ala Val Thr Gly Ile Gly 25 30 Arg Val Lys Ala Ala Met Glu Asn Asp Leu Asn Lys Ala Phe Thr Ser 40 Ser Glu Lys Gly Phe Gly Gln Phe Asn Ala Ser Val Ala Asn Met Leu 55 60 Asn Asp Ala Ser Pro Ile Ala Glu Ala Leu Gly His Ile Leu Gly Lys 70 75 Val Ala Ser Met Thr Ser Gly Ala Val Asp His Val Asp Glu Trp Ser 8.5 90 Arg Lys Leu Ser Ala Leu Ile Leu Arg Thr Ser Ala Trp Tyr Asp Asp 100 105 110 Leu Ser Asp Gly Gln Lys Lys Leu Val Asp Ser Ala Glu Gln Phe Ala

```
Ile Gly Ala Ala Gly Val Leu Val Leu Val Lys Ser Ile Ala Gly Val
  130
          135
Ala Asn Lys Leu Lys Trp Leu Ser Ala Leu Leu Gly Gly Gly Ala Glu
                          155
Ala Gly Ala Ala Ala Gly Ala Gly Gly Leu Leu Lys Gly Ala Ser Arg
                170 175
           165
Leu Ala Gly Pro Val Gly Val Ala Leu Val Ala His Asp Ala Val Asp
        180
                      185 190
Ala Ser Gly Val Glu Gln Asn Tyr Pro Asn Ala Val Gly Thr Gly Asn
      195 200 205
Pro Ile Ala Gln Val Leu Asn Trp Leu Thr Asn Pro Ser Lys Ile Leu
 210 215 220
Gly Ala Thr Glu Gln Asp Ser Leu Thr Asn Ser Pro Phe Thr Arg Met
      230 235 240
Met Gly Ser Leu Gly Asp Trp Leu Gln Gly Asn Asn Ala Leu Ser Gly
         245 250 255
Gln Ala Asn Thr Phe Ala Val Pro Ser Met Tyr Asn Pro Ala Gln Thr
    260 265 270
Thr Ile Arg Asn Asp Gln Arg Ile Asn Ile Ser Val Asn Met Asp Ser
 275 280 285
Gln Lys Ile Gly Thr Phe Gln Thr Gln Val Leu Thr Gly Gly Phe Glu
 290 295 300
Asp Leu Asn Ile Asn Ala Glu His Leu Gly Asp
305 310
<210> 5791
<211> 185
<212> PRT
<213> Enterobacter cloacae
<400> 5791
Thr Gly Gln Asp Arg Ile Tyr Arg Leu Glu Leu Phe Cys Arg Glu Pro
1 5
               10
Thr Ile Phe Lys His Ala Cys Cys Ile Ile Asn Leu Ser Gly Leu Ala
      20
                     2.5
                                    30
Cys Ala Asp Glu His Gly Cys His Arg Ile Val Ala Gln Asp Pro Gly
 35 40 45
Gln Cys His Leu Arg Gln Leu Leu Pro Pro Phe Phe Arg Gln Arg Ile
             55
Gln Leu Thr Tyr Leu Phe Gln Leu Phe Val Gly Asp Leu Phe Arg Ile
65 70 75
                                          80
Lys Glu Leu Thr Ala Ala Cys Cys Ala Arg Ile Arg Arg Asp Ala Val
         85 90
Thr Ser His Pro Phe Leu Leu Gln His Val Gln Gln Pro Leu Phe Arg
 115 120 125
Arg Thr Phe Lys His Gly Val Leu Arg Leu Val Asp Gln Thr Trp Arg
 130 135 140
Ala Gln Ile Leu His Tyr Phe Asn Arg Leu Pro Cys His Phe Cys Arg
145 150 155
Val Val Gly Gln Thr Asp Val Gln Arg Phe Ala Leu Thr His His Met
         165
                         170
Val Lys Arg Phe His Gly Phe Thr
<210> 5792
```

<sup>&</sup>lt;211> 349

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 5792
Cys Lys Arg Ile His Gly Cys Phe Phe Pro Ala Pro Glu Val Ser Gln
                                10
Met Gly Tyr Gln Pro Asp Lys Asn Arg Tyr Gln Thr Met Gln Tyr Arg
                             25
Arg Cys Gly Gln Ser Gly Leu Lys Leu Pro Ala Ile Ser Leu Gly Leu
                        40
                                    4.5
Trp His Asn Phe Gly Asp Ala Thr Leu Leu Glu Asn Ser Arg Gln Leu
                 55
                                60
Leu Gln Arg Ala Phe Asn Leu Gly Ile Thr His Phe Asp Leu Ala Asn
               70
                                   7.5
Asn Tyr Gly Pro Pro Pro Gly Ser Ala Glu Arg Asn Phe Gly Arg Ile
            8.5
                                90
Leu Gln Glu Asp Phe Leu Pro Trp Arg Asp Glu Leu Ile Ile Ser Thr
         100
                            105
Lys Ala Gly Tyr Thr Met Trp Asp Gly Pro Tyr Gly Asp Trp Gly Ser
    115
                        120
                                 125
Arg Lys Tyr Leu Ile Ala Ser Leu Asp Gln Ser Leu Lys Arg Met Gly
 130 135
                                      140
Leu Glu Tyr Val Asp Ile Phe Tyr His His Arg Pro Asp Pro His Thr
        150 155
Pro Leu Arg Glu Thr Met Lys Ala Leu Asp His Val Val Arg Gln Gly
             165
                                170
                                                  175
Lys Ala Leu Tyr Ile Gly Leu Ser Asn Tyr Pro Ala Glu Met Ala Arg
                            185
                                              190
Gln Ala Ile Glu Ile Met Glu Asp Leu Gly Thr Pro Cys Leu Ile His
                         200
Gln Pro Lys Tyr Ser Met Phe Glu Arg Ala Pro Glu Glu Gly Leu Leu
  210
                     215
                                        220
Asp Val Leu Gln Gln Lys Gly Val Gly Cys Ile Pro Phe Ser Pro Leu
       230
                                   235
Ala Gly Gly Gln Leu Thr Asp Arg Tyr Leu Asn Gly Ile Pro Ala Asp
              245
                                250
Ser Arg Ala Ala Ser Gly Ser Lys Phe Leu Asn Pro Glu Gln Ile Thr
          260
                           265
                                               270
Asp Lys Lys Leu Glu Lys Val Arg Lys Leu Asn Ala Leu Ala Glu Lys
      275
                        280
                                           285
Arg Arg Gln Lys Leu Ser Gln Met Ala Leu Ala Trp Ile Leu Arg His
                     295
                                        300
Asp Ala Val Thr Ser Val Leu Ile Gly Ala Ser Lys Thr Gly Gln Ile
                310
                                  315
Asp Asp Ala Ala Gly Val Leu Glu Asn Cys Arg Phe Thr Ala Glu Glu
             325
                     330
Leu Lys Thr Ile Asp Thr Ile Leu Ser Ser Ser Asp
          340
                            345
<210> 5793
<211> 464
<212> PRT
<213> Enterobacter cloacae
<400> 5793
Gly Asn Lys Met Gln Val Ser Val Glu Thr Thr Gln Gly Leu Gly Arg
```

Gly Asn Lys Met Gln Val Ser Val Glu Thr Thr Gln Gly Leu Gly Arg
1 5 10 15
Arg Val Thr Ile Thr Ile Ala Ala Asp Ser Ile Glu Thr Ala Val Lys
20 25 30
Ser Glu Leu Val Asn Val Ala Lys Lys Val Arg Ile Asp Gly Phe Arg
35 40 45
Lys Gly Lys Val Pro Met Asn Val Val Ala Gln Arg Tyr Gly Ala Ser
50 50
Val Arg Gln Asp Val Leu Gly Glu Leu Met Ser Arg Asn Phe Ile Asp

```
7.5
Ala Ile Ile Lys Glu Lys Ile Asn Pro Ala Gly Ala Pro Asn Tyr Val
           85
                    90 95
Pro Gly Glu Tyr Lys Gln Gly Glu Asp Phe Thr Tyr Ser Val Glu Phe
       100
               105 110
Glu Val Tyr Pro Glu Val Glu Leu Lys Gly Leu Glu Ser Ile Glu Val
    115 120 125
Glu Lys Pro Ile Val Ser Val Thr Asp Glu Asp Val Asp Gly Met Leu
 130 135 140
Asp Thr Leu Arg Lys Gln Gln Ala Asn Trp Lys Glu Lys Glu Gly Ala 145 $150$
Val Asp Ala Glu Asp Arg Val Thr Ile Asp Phe Thr Gly Ser Val Asp
       165 170
Gly Glu Glu Phe Glu Gly Gly Lys Ala Ser Asp Phe Val Leu Ala Met
        180 185 190
Gly Gln Gly Arg Met Ile Pro Gly Phe Glu Asp Gly Ile Lys Gly His
     195 200 205
Lys Ala Gly Glu Glu Phe Thr Ile Asp Val Thr Phe Pro Glu Glu Tyr
 210 215 220
His Ala Glu Asn Leu Lys Gly Lys Ala Ala Lys Phe Val Ile Asn Leu
225 230
                              235
Lys Lys Val Glu Glu Arg Glu Leu Pro Glu Leu Thr Glu Glu Phe Ile
           245
                          250
                              255
Lys Arg Phe Gly Val Glu Asp Gly Ser Val Ala Gly Leu Arg Thr Glu
                        265
      260
                            270
Val Arg Lys Asn Met Glu Arg Glu Leu Asn Gly Ala Val Arg Asn Arg
      275
                    280
                                 285
Val Lys Ser Gln Ala Ile Glu Gly Leu Val Lys Ala Asn Asp Ile Asp
290
                 295
                                 300
Val Pro Ala Ala Leu Ile Asp Ser Glu Ile Asp Val Leu Arg Arg Gln
   310
                              315
Ala Ala Gln Arg Phe Gly Gly Asn Gln Gln Gln Ala Met Glu Leu Pro
           325
Arg Glu Leu Phe Glu Glu Gln Ala Lys Arg Arg Val Val Val Gly Leu
   340
                       345
                                       350
Leu Leu Gly Glu Val Ile Arg Tar His Glu Leu Lys Ala Asp Glu Glu
                    360
     355
                                    365
Arg Val Lys Gly Leu Ile Glu Glu Met Ala Ser Ala Tvr Glu Asp Pro
   370
                 375
Ser Glu Val Ile Glu Phe Tyr Gly Lys Asn Lys Glu Leu Met Asp Asn
385
   390
                  395
Met Arg Asn Val Ala Leu Glu Glu Gln Ala Val Glu Ala Val Leu Ala
               410
           405
Lys Ala Lys Val Thr Glu Lys Glu Thr Ser Phe Thr Glu Leu Met Asn
       420
                       425
His Gln Gly Val Ile Ser Pro Gln Arg Phe Lys Val Leu Asn Lys Lys
                  440
Pro Val Gly Pro Pro Gly Asp Gly Val Phe Phe Asn His Lys Leu
                  455
```

<210> 5794 <211> 364 <212> PRT <213> Enterobacter cloacae

4 0 Met Arg Ala Gly Pro Ser Ser Leu Asp Pro Ala Asp Val Ser Tyr Arg 55 Arg Pro Leu Tyr Asp Pro Arg Arg Tyr Arg Leu Thr His Ala Asp Cys 7.0 Ala Pro Gly Ser Ala His Arg Gly Gly Asp Cys Ala Gly Gly Arg Pro 90 Arg Leu Cys Gly Val Ala Leu Ser Lys Pro Lys Gly Ala Ser Met Asn 105 110 Ile Thr Val Ala Gly Leu Thr Val Thr Arg Gln Ala Gln Thr Val Leu 115 120 Lys Asn Ile Asp Leu Asp Leu Pro Ser Gly Gln Ile Ile Gly Leu Leu 135 140 Gly Pro Asn Gly Ser Gly Lys Ser Thr Leu Leu Arg Cys Leu Ala Gly 155 150 Leu Phe Pro Arg Leu Ser Glu Arg Val Ala Leu Asn Gly Thr Thr Phe 165 170 175 Gly Met Met Pro Leu Lys Lys Arg Ala Gln His Met Ala Phe Val Pro 180 185 190 Gln His Ala Glu Val Asp Gly Glu Leu Thr Val Glu Asp Ile Val Arg 195 200 205 Leu Gly Arg Thr Pro Tyr Arg Lys Thr Phe Gln Arg Thr Ser Arg Asp 210 215 Asp Glu Ala Ala Val Glu Gln Ala Ile Gly Leu Met Gln Leu Cys Arg 225 230 235 Leu Arg Gln Arg Arg Trp His Ser Leu Ser Gly Gly Glu Arg Gln Arg 245 250 255 Ser Gln Ile Ala Arg Ala Leu Ala Gln Gln Pro Gln Val Leu Leu Leu 260 265 270 Asp Glu Pro Thr Asn His Leu Asp Ile Gln His Gln Leu Glu Leu Met 275 280 285 Arg Leu Val Ser Gln Leu Pro Leu Thr Val Val Val Ala Leu His Asp 290 295 300 Leu Asn Leu Ala Ala Asn Tyr Cys Gln Arg Leu Ile Leu Leu Lys Ala 305 310 315 Gly Gln Ile Ala Ala Thr Gly Ala Pro Glu Ala Val Leu Thr Pro Ala 325 330 335 Asn Ile Glu Asp Thr Trp Cys Val Lys Ala Gln Val Cys Lys Ala Asp 340 345 Ala Gly Ile Thr Ile Ser Tyr Asn Met Val Ala <210> 5795 <211> 186 <212> PRT <213> Enterobacter cloacae <400> 5795

Leu Ala Gly Ile Ala Gly Ala Gln Leu Phe Asn Ala Met Thr Ala Tyr 10 Val Val Gly Thr Ser Ala Asn Ala Glu Gln Ser Arg Ser Val Met Phe 25 3.0 Trp Leu Leu Gly Ser Leu Ser Gly Val Arg Trp Pro Asp Ala Leu Leu 3.5 4.0 Ala Leu Ala Val Thr Leu Ala Gly Leu Leu Val Val Leu Leu Phe Ser 55 Arg Ala Leu Asp Thr Phe Thr Phe Gly Asp Glu Val Ser Thr Thr Leu 75 7.0 Gly Ile Pro Val Thr Ala Val Arg Ile Val Leu Leu Leu Thr Cys Ala 8.5 9.0 Ile Val Thr Ala Thr Leu Val Ser Ala Thr Gly Ala Val Gly Phe Val

```
100
                            105
Gly Leu Val Ile Pro His Val Thr Arg Met Leu Cys Gly Pro Gly His
     115
                120
                                          125
Arg Arg Ser Ile Pro Leu Thr Phe Leu Ile Gly Ala His Phe Met Ile
   130
                   135
                                 140
Leu Ala Asp Ile Val Ser Arg Thr Leu Ile Val His Gln Val Leu Pro
           150
                          155
Ile Gly Val Val Thr Ala Leu Val Gly Ala Pro Val Phe Val Ala Leu
           165 170
Leu Tyr Gln Asn Arg Lys Glu His Pro
<210> 5796
<211> 134
<212> PRT
<213> Enterobacter cloacae
<400> 5796
Lys Asn Leu Gly Val Glu Ala Lys Leu Gln Asn Gln Glu Trp Lys Thr
             5
                            10
Met Leu Asp Thr Met His Thr His Asn Phe Asp Ala Val Arg Tyr Ala
 20
                           25
Trp Ile Ala Asp Tyr Asp Asp Ala Ala Thr Phe Leu Asn Asn Phe Arg
    35
                        4.0
Thr Gly Asp Ser Gln Asn Thr Thr Gln Tyr Ser Asn Pro Asp Tyr Asp
 50
                     5.5
                                      60
Arg Ala Leu Val Asn Ala Ala Lys Ser Lys Thr Ala Glu Glu Arg Gly
                 70
                                   7.5
Lys Phe Tyr Gln Gln Ala Glu Asp Leu Leu Gly Arg Asp Val Pro Ala
            85 90
Ile Pro Val Tyr His Tyr Val Arg Thr His Leu Val Lys Pro Trp Val
           100 105
                                   110
Gly Gly Phe Thr Pro Asp Lys Leu Gly Tyr Tyr Tyr Thr Lys Asp Met
    115
                        120
Tyr Ile Lys Lys His
   130
<210> 5797
<211> 192
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(41)
<220>
<221>UNSURE
<222>(67)
<220>
<221>UNSURE
<220>
<221>UNSURE
<222>(72)
<400> 5797
Leu Thr Tyr Asp Lys Asn Asn Leu Met Ile Lys Leu Ser Asn Ile Thr
                                10
                                                 15
```

Lys Val Phe Gln Gln Gly Asn Arg Thr Ile Gln Ala Leu Asn Asn Val Ser Leu His Val Pro Ala Gly Gln Xaa Tyr Gly Val Ile Gly Ala Ser Gly Ala Gly Lys Ser Thr Leu Ile Arg Cys Val Asn Leu Leu Glu Arg 55 Pro Thr Xaa Gly Gln Arg Xaa Xaa Trp Arg Pro Gly Ala His Arg Ser 65 70 75 Leu Arg Lys Lys Asn Ser Pro Lys Arg Val Ala Gln Ile Gly Met Ile 90 8.5 Phe Leu His Phe Asn Leu Leu Ala Ser Arg Ser Val Phe Gly Asn Val 100 105 110 Ala Leu Pro Leu Glu Leu Asp Phe Ser Pro Leu Glu Glu Ile Ser Arg 115 120 125 Arg Val Ser Glu Leu Leu Asp Leu Val Gly Leu Gly Asp Lys His Asp 130 135 140 Ser Tyr Pro Ala Asn Leu Ser Gly Gly Leu Tyr Leu Arg Val Ser Ile 145 \$150\$Ala Arg Ala Leu Ala Asn Asn Pro Lys Val Leu Leu Cys Asp Glu Ser 165 170 175 Ser Ser Ala Leu Tyr Pro Ala Thr Thr Arg Ser Ile Leu Glu Leu 185 <210> 5798 <211> 161 <212> PRT <213> Enterobacter cloacae <400> 5798 Lys Asp Ile Asn Arg Arg Leu Gly Leu Thr Ile Leu Leu Ile Thr His 10 Glu Met Asp Val Val Lys Arg Ile Cys Asp Cys Val Ala Val Ile Ser 20 25 Asn Gly Glu Leu Ile Glu Gln Asp Thr Val Ser Glu Val Phe Ser His 40 Pro Lys Thr Pro Leu Ala Gln Gln Phe Ile Gln Ser Thr Leu His Leu 5.5 60 Asp Ile Pro Glu Asp Tyr Leu Glu Arg Leu Lys Thr Glu Ala Val Ala 70 75 Asp Ser Val Pro Met Leu Arg Met Glu Phe Thr Gly Gln Ser Val Asp 90 95 Ala Pro Leu Leu Ser Glu Thr Ala Arg Arg Phe Asn Val Asn Asn Asn 100 105 110 Ile Ile Ser Ala Gln Met Asp Tyr Ala Gly Gly Val Lys Phe Gly Ile 120 125 Met Leu Thr Glu Met His Gly Thr Gln Glu Glu Thr Gln Ala Ala Ile 135 140

Ala Trp Leu Gln Glu His His Val Lys Val Glu Val Leu Gly Tyr Val

155

150

<210> 5799

<211> 205

<212> PRT

<213> Enterobacter cloacae

<220> <221>UNSURE <222>(205)

```
<400> 5799
Arg Tyr Trp Val Met Ser Glu Pro Met Met Trp Leu Leu Val Arg Gly
                             1.0
Val Trp Glu Thr Leu Ala Met Thr Phe Val Ser Gly Phe Phe Gly Phe
         2.0
                         25
Val Ile Gly Leu Pro Val Gly Val Leu Leu Tyr Val Thr Arg Pro Gly
     35
                   40
                             4.5
Gln Ile Ile Glu Asn Ala Lys Leu Tyr Arg Thr Leu Ser Ala Leu Val
50 55 60
Asn Ile Phe Arg Ser Ile Pro Phe Ile Ile Leu Leu Val Trp Met Ile
              70
                    75
Pro Phe Thr Arg Val Ile Val Gly Thr Ser Ile Gly Leu Gln Ala Ala
                             90
Ile Val Pro Leu Thr Val Gly Ala Ala Pro Phe Ile Ala Arg Met Val
         100
                      105 110
Glu Asn Ala Leu Leu Glu Ile Pro Thr Gly Leu Ile Glu Ala Ser Arg
                             125
     115
          120
Ala Met Gly Ala Thr Pro Met Gln Ile Val Arg Lys Val Leu Leu Pro
130
                  135 140
Glu Ala Leu Pro Gly Leu Val Asn Ala Ala Thr Ile Thr Leu Ile Thr
               150
                             155
Leu Val Gly Tyr Ser Ala Met Gly Gly Ala Val Gly Ala Gly Gly Leu
             165 170
Gly Gln Ile Gly Tyr Gln Tyr Gly Tyr Ile Gly Tyr Asn Ala Thr Val
                         185 190
         180
Met Asn Thr Val Leu Val Leu Leu Val Val Leu Val Xaa
                       200
```

<210> 5800 <211> 210 <212> PRT

Lys

<213> Enterobacter cloacae

<400> 5800 Ala Leu Tyr Cys Ala Ala Ile His Glu Ile Leu Ala Glu Gln Ala Phe 10 Phe Arg Ser Lys Pro Val Ala Lys Ser Val Pro Ala Ile Phe Leu Asp 20 25 Arg Asp Gly Thr Ile Asn Val Asp His Gly Tyr Val His Glu Ile Asp 35 Glu Phe Glu Phe Ile Glu Gly Val Ile Asp Ala Met Arg Gln Leu Lys 55 50 60 Glu Met Gly Tyr Ala Leu Val Val Val Thr Asn Gln Ser Gly Ile Ala 70 75 Arg Gly Lys Phe Thr Glu Ala Gln Phe Glu Thr Leu Thr Glu Trp Met 90 8.5 Asp Trp Ser Leu Ala Asp Arg Gly Val Asp Leu Asp Gly Ile Tyr Tyr 105 100 Cys Pro His His Pro Gln Gly Ser Val Glu Ala Tyr Arg Gln Thr Cys 125 120 Asp Cys Arg Lys Pro His Pro Gly Met Phe Ile Ser Ala Gln Glu Phe 135 Leu His Ile Asp Met Ala Ala Ser Tyr Met Val Gly Asp Lys Leu Glu 150 155 Asp Met Gln Ala Ala Thr Ala Ala Gly Val Gly Thr Lys Val Leu Val 165 170 Arg Thr Gly Lys Pro Val Tar Pro Glu Ala Glu Asn Ala Ala Asp Trp 180 185 190 Val Ile Thr Ser Leu Ala Glu Leu Pro Lys Glu Ile Lys Lys His Gln 200 205 195

```
<210> 5801
<211> 175
<212> PRT
<213> Enterobacter cloacae
```

210

<400> 5801 Arg Arg Trp Lys Phe Ser Tyr Tyr Pro Leu Tyr Cys Pro Ile Pro Leu 10 Pro Arg Gly His Tyr Gly Leu Asn Thr Ser Met Ser Gln Thr Glu Thr 20 25 3.0 Thr Ala Pro Ser Lys Phe Ser Leu Leu Pro Gly Ser Ile Thr Arg Phe 35 40 45 Phe Leu Leu Ile Val Val Leu Leu Val Thr Met Gly Val Met Ile 55 50 60 Gln Ser Ala Val Asn Thr Trp Leu Lys Asp Lys Ser Tyr Gln Ile Val 70 75 Asp Ile Thr His Ala Val His Lys Arg Ile Asp Thr Trp Arg Tyr Ala 85 90 95 Thr Trp Gln Ile Tyr Asp Asn Ile Ala Ala Ala Pro Ala Thr Ser Ser 100 105 110 Gly Glu Gly Leu Gln Glu Thr Arg Leu Lys Gln Asp Val Tyr Tyr Leu 125 115 Glu Lys Pro Gln Arg Lys Thr Glu Ala Leu Ile Phe Gly Ser His Asp 130 135 140 Ser Ala Thr Leu Glu Ile Tyr Gln Arg Ile Ser Ser Tyr Leu Asp Thr 145 150 155 Leu Trp Gly Pro Glu Asn Val Tnr Val Val Pro Cys Ile Thr

<210> 5802 <211> 143 <212> PRT <213> Enterobacter cloacae

165

<400> 5802 Leu Leu Ile Lys Asp Glu Leu Phe Ile Gin Glu Ile Lys Met Lys Gln 1 10 Thr Arg Leu Val Leu Ala Gly Ile Leu Val Leu Ala Pro Val Phe Ser 2.0 25 Ala Met Ala Ala Pro Gln Ala Ala Thr Gly Cys Glu Ala Lys Arg Gln 35 40 4.5 Asn Ile Glu Gln Gln Ile Glu His Ala Arg Thr His Asn Asn Asp His 55 Arg Val Ala Gly Leu Gln Lys Ala Leu Ser Glu Leu Asn Ala Asn Cys 65 70 75 80 Thr Glu Glu Gly Leu Arg Ala Glu Arg Gln Ala Asp Val Arg Glu Lys 90 8.5 Glu Arg Lys Val Glu Glu Arg Arg Gln Glu Leu Ala Glu Ala Gln Ala 105 100 Asp Gly Arg Thr Asp Lys Ile Ser Lys Lys Glu Arg Lys Leu Lys Asp 120 115 Ala Gln Ala Glu Leu Asp Glu Ala Arg Ser Val Leu Asn Lys 140

<210> 5803 <211> 218

<212> PRT <213> Enterobacter cloacae

```
<400> 5803
Arg Thr Gln Pro Met Ala Gly Phe Leu Leu Phe Cys Pro Arg Tyr Ala
Leu Asn Phe Pro Phe Cys Gln Val Ile Val Ile Phe Phe Pro Asp Asn
      20
                          25
Glu Asn Asp Met Thr Leu Ser Ala Leu Lys Ala Gly Ser Leu Leu Leu
 35
                      4.0
Leu Met Ile Leu Phe Tyr Thr Gly Leu Phe Thr Ser Asp Arg Val Thr
                 55
                                   60
Trp Leu Met Glu Val Thr Pro Val Ile Ile Ile Pro Leu Leu Leu
          70
                                75
Ala Thr His Arg Arg Tyr Pro Leu Thr Pro Leu Leu Tyr Thr Leu Val
            8.5
                            90
Phe Phe His Ala Ile Ile Leu Met Val Gly Gly Met Tyr Thr Tyr Ala
                       105
                                110
Lys Val Pro Val Gly Phe Glu Val Gln Glu Met Leu Gly Leu Ser Arg
     115 120 125
Asn Pro Tyr Asp Lys Leu Gly His Phe Phe Gln Gly Leu Val Pro Ala
                135 140
Leu Ala Ala Arg Glu Ile Leu Leu Arg Gly Gly Tyr Val Arg Gly His
               150 155
Lys Met Thr Gly Phe Leu Val Cys Cys Val Ala Leu Ala Ile Ser Ala
            165 170 175
Thr Phe Asn Ser Leu Ser Gly Gly Leu Leu Trp Arg Trp Asp Arg Val
        180 185
Arg Met Ile Phe Trp Gly Arg Arg Ala Ile His Gly Ile Pro Ser Leu
   195 200
Ile Cys Phe Ala Arg Cys Leu Val Arg
   210
```

<212> PRT <213> Enterobacter cloacae

<210> 5804

<211> 63

<400>5804 Leu Ile Glu Trp Trp Ala Ala Leu Ala Met Gly Gln Gly Ala Asp Asp leu Ile Glu Trp Trp Ala Ala Leu Ala Met Gly Gln Gly Ala Asp Asp leu Leu Gly Thr Gln Gly Asp Pro Trp Asp Thr Gln Ser Asp Met Phe 20 Cys Ala Leu Leu Gly Ala Leu Tr Thr Val Leu Ile Leu Gly Arg Phe 35 40 45 His Gln Arg Gln Leu Arg Arg Leu Asn Val Asp Ser Ala Leu 55 55 56 60

<210> 5805 <211> 123 <212> PRT

<213> Enterobacter cloacae

Leu Pro Leu Glu Gly Ser Gln Ile Ser Ser Pro Ala Leu Asp Glu Leu Lys Ala Asn Pro Lys Ala Arg Ser Ala Leu Trp Gln Gln Ile Cys Glu 100 105 Tyr Glu His Asp Phe Phe Pro His Asp Gly <210> 5806 <211> 164 <212> PRT <213> Enterobacter cloacae <400> 5806 Lys Pro Thr Gln Lys Arg Val Ala Arg Tyr Gly Asn Lys Phe Ala Asn Met Asn Thr Ile Ser Ser Leu Thr Thr Ala Asp Leu Thr Thr Ala Phe 25 30 Ala Ile Glu Thr Arg Ala His Ala Phe Pro Trp Ser Glu Lys Thr Phe 4.0 4.5 Ala Ser Asn Gln Gly Glu Arg Tyr Leu Asn Leu Arg Leu Asp Val Asp 5.5 60 Gly Ala Met Ala Ala Phe Ala Ile Thr Gln Val Val Leu Asp Glu Ala 70 75 Thr Leu Phe Asn Ile Ala Val Asp Pro Ala Tyr Gln Arg Arg Gly Leu 85 90 Gly Arg Gla Leu Leu Glu His Leu Ile His Glu Leu Glu Thr Arg Asp 100 105 110 Val Phe Thr Leu Trp Leu Glu Val Arg Ala Ser Asn Val Ala Ala Ile 115 120 125 Ala Leu Tyr Glu Ser Leu Gly Phe Asn Glu Ala Thr Ile Arg Arg Asn 130 135 140 Tyr Tyr Pro Thr Ala Glu Gly Arg Glu Asp Ala Ile Ile Met Ala Leu Pro Ile Glv <210> 5807 <211> 117 <212> PRT <213> Enterobacter cloacae <400> 5807 Glu Glu Leu Ile Met Thr Leu Ser Pro Tyr Leu Gln Glu Val Ala Lys Arg Arg Thr Phe Ala Ile Ile Ser His Pro Asp Ala Gly Lys Thr Thr 20 2.5 30 Ile Thr Glu Lys Val Leu Leu Phe Gly Gln Ala Ile Gln Thr Ala Gly 4.0 Thr Val Lys Gly Arg Gly Ser Ser Gln His Ala Lys Ser Asp Trp Met 55 60 Glu Met Glu Lys Gln Arg Gly Ile Ser Ile Thr Thr Ser Val Met Gln 70 75 Phe Pro Tyr His Asp Cys Leu Val Asn Leu Leu Asp Thr Pro Gly His 85 90 Glu Asp Phe Ser Glu Asp Thr Tyr Arg Thr Leu Thr Gly Pro Glu Val 100 105 Phe Thr Ser Asp

<210> 5808 <211> 262

```
<212> PRT
<213> Enterobacter cloacae
<400> 5808
Ala Ser Thr Arg Arg Leu Ser Ala Val Thr Thr Thr Pro Pro Gln Arg
                            10
Asp Val Lys Thr Pro Leu Ser Trp Leu Cys Arg Leu Asp Asn Glu Asn
       20
                          25
Lys Val Val Thr Met Lys Trp Asp Trp Ile Phe Phe Asp Ala Asp Glu
      35
                      4.0
                                       4.5
Thr Leu Phe Thr Phe Asp Ser Phe Gly Gly Leu Gln Arg Met Phe Leu
             5.5
                        60
Asp Tyr Ser Val Thr Phe Thr Ala Glu Asp Phe Gln Asp Tyr Gln Ala
      70 75
Val Asn Lys Pro Leu Trp Val Asp Tyr Gln Asn Gly Ala Ile Thr Ala
            8.5
                            90
Leu Gln Leu Gln His Gln Arg Pne Asp Val Trp Ala Glu Arg Leu Asn
         100 105 110
Val Ser Pro Gly Val Leu Asn Glu Ala Phe Leu Asn Ala Met Ala Asp
                      120 125
      115
Ile Cys Ala Pro Leu Pro Gly Ala Val Ser Leu Leu Asp Ser Leu Lys
                   135 140
Gly Lys Val Lys Leu Gly Ile Ile Thr Asn Gly Phe Thr Ala Leu Gln
145
                150 155
Gln Ile Arg Leu Glu Arg Thr Gly Leu Arg Asp His Phe Asp Ala Leu
            165 170 175
Val Ile Ser Glu Glu Val Gly Val Pro Lys Pro Asp Pro Arg Ile Phe
                          185 190
         180
Asp Tyr Ala Leu Ala Gln Ala Gly Asn Pro Asp Arg Asp Arg Val Leu
     195
                      200
                                       205
Met Val Gly Asp Thr Ala Glu Ser Asp Ile Leu Gly Gly Met Arg Ser
210
                   215 220
Gly Leu Ser Thr Val Trp Leu Asn Ala His Gly Arg Met Leu Pro Glu
               230 235 240
Gly Ile Glu Pro Thr Trp Thr Val Thr Ser Leu Asn Glu Leu Glu Gln
          245
Leu Leu Cys Lys Gln
          260
<210> 5809
<211> 232
<212> PRT
<213> Enterobacter cloacae
<400> 5809
Lys Pro Asn Asp Arg Leu Leu Lys Arg Ser Val Phe Phe Met Ser Arg
                             10
Ser Leu Leu Thr Asn Glu Thr Ser Glu Leu Asp Leu Leu Asp Gln Arg
                         25
                                          3.0
   20
Pro Phe Asp Gln Thr Asp Phe Asp Ile Leu Lys Ser Tyr Glu Ala Val
 35
                      40
                                       45
```

Val Asp Gly Leu Ala Met Leu Ile Gly Ser His Cys Glu Ile Val Leu 55 50 60 His Ser Leu Gln Asp Leu Lys Cys Ser Ala Ile Arg Ile Ala Asn Gly 75 70 Glu His Thr Gly Arg Lys Ile Gly Ser Pro Ile Thr Asp Leu Ala Leu 85 90 Arg Met Leu His Asp Met Thr Gly Ala Asp Ser Ser Val Ser Lys Cys 100 105 Tyr Phe Thr Arg Ala Lys Ser Gly Val Leu Met Lys Ser Glu Thr Ile 115 120

```
Ala Ile Arg Asn Arg Glu His Arg Val Ile Gly Leu Leu Cys Ile Asn
                 135
Met Asn Leu Asp Val Pro Pne Ser Gln Ile Met Ser Thr Phe Ile Pro
             150
                                 155
Pro Glu Thr Pro Asp Val Gly Ser Ser Val Asn Phe Ala Ser Ser Val
                 170
                                              175
     165
Glu Asp Leu Val Thr Gln Thr Leu Glu Phe Thr Ile Glu Glu Val Asn
   180 185 190
Ala Asp Arg Asn Val Ser Asn Asn Ala Lys Asn Arg Gln Ile Val Leu
  195 200 205
Asn Leu Tyr Glu Lys Gly Ile Leu Ile Ser Lys Met Pro Ser Thr Gln
 210 215 220
Trp Pro Asp Arg Leu Asn Ile Ser
                230
<210> 5810
<211> 228
<212> PRT
<213> Enterobacter cloacae
<400> 5810
Arq Pro Glu Ile Arg Tyr Ala Leu Gly Ser Phe Leu Gly Arg Tyr Met
Glu Asn Ser Leu Lys Glu Gln Glu Lys Leu Gly Ile Lys Leu Asp Lys
          20
                           25
Asn Gln Leu Ile Ala Gly Val Gln Asp Ala Phe Ala Asp Lys Ser Lys
35
                       40
Leu Ser Asp Gln Glu Ile Glu Gln Thr Leu Gln Ala Phe Glu Ala Arg
50
                    55
Val Lys Gly Ala Ala Gln Thr Lys Met Glu Ala Asp Ala Lys Asp Asn
                 7.0
                                 75
Glu Ala Lys Gly Lys Ala Tyr Arg Asp Lys Phe Ala Lys Glu Lys Gly
             85
                             90
Val Lys Thr Ser Ser Thr Gly Leu Ile Tyr Lys Val Glu Lys Glu Gly
                        105
                               110
         100
Thr Gly Asp Ala Pro Lys Asp Ser Asp Thr Val Val Val Asn Tyr Lys
                       120
       115
Gly Thr Leu Ile Asp Gly Lys Glu Phe Asp Asn Ser Tyr Thr Arg Gly
                    135
                                   140
   130
Glu Pro Leu Ser Phe Arg Leu Asp Gly Val Ile Pro Gly Trp Thr Glu
                 150
                                 155
Gly Leu Lys Asn Ile Lys Lys Gly Gly Lys Ile Lys Leu Val Ile Pro
                              170
                                               175
             165
Pro Asp Leu Ala Tyr Gly Lys Thr Gly Val Pro Gly Ile Pro Ala Asn
                           185
          180
Ser Thr Leu Val Phe Asp Val Glu Leu Leu Asp Ile Lys Pro Ala Pro
                       200 205
Lys Ala Asp Ala Lys Thr Asp Ala Pro Ala Asp Asp Lys Ala Ala Ala
                                     220
 210
Ala Lys Lys
225
<210> 5811
<211> 443
<212> PRT
<213> Enterobacter cloacae
<400> 5811
Thr Ser Pro Cys Asn Leu Ser Arg Ser Phe Gly Pro Leu Val Lys Ile
```

Ala Thr Ala Thr Asp Arg Leu Lys Ala Ile Leu Ile His Gly Val Asn

```
Val Val Thr Leu Thr Asp Gln Lys Gln Tyr Thr Ser Glu Ser Leu Asn
                   40
Ser Pro Met Asp Leu Ile Met Ser Ile Leu Thr Ala Gln Arg Ala His
               5.5
                                 60
Glu Glu Ser Gln Ser Lys Ser Lys Arg Met Arg Glu Val Trp Ala Lys
65 70 75
Lys Arg Thr Glu Ala Glu Glu Ser Gly Lys Ile Ile Thr Lys Ser Cys
       85 90 95
Pro Arg Trp Leu Thr Val Asn Ser Asp Arg Thr Gly Phe Glu Pro Ile
        100 105 110
Pro Glu His Val Glu Ser Ile Arg Leu Met Phe Glu Met Arg Leu Ser
     115 120 125
Gly Lys Gly Phe Ala Gly Ile Ala Gln Ala Leu Asn Glu Ser Gly Arg
   130 135 140
Leu Thr Leu Thr Gly Arg Ser Lys Gly Trp Asn Gln Ser Ser Val Gln
   150 155 160
145
Gin Leu Leu Ser Asn Lys Ala Leu Ile Gly Tyr Lys Ile Pro Ser Arg
           165 170 175
Lys Ala Val Val Asn Tyr Ile Glu Ile Pro Asp Tyr Phe Pro Ser Val
      180
                        185 190
Ile Pro Leu Glu Gln Phe Gln Gln Val Gln Leu Ile Gly Ala Asp Lys
                    200 205
     195
Gln Gly Gln Arg Ala Ala Asn Asp Arg Pro Met Asn Val Asn Leu Phe
                       220
   210
                  215
Arg Gly Val Met Lys Cys Ala Glu Cys Gly Ala Thr Val Ile Val Ser
               230 235
Gly Val Asp Asp Lys Arg Ala Gly Tyr Tyr Ser Cys Ser Phe Arg Arg
            245
                         250
Leu Gly Arg Cys Asn Thr Ser Lys Pro Met Asn Arg Gly Met Val Asp
         260
                        265 270
Glu Ala Leu Ile Lys Gly Leu Leu Tyr Ser Leu Asp Arg Leu Thr Leu
         280
                          285
      275
Gln Gly Gln Gly Glu Asn Pro Leu Ile Lys Leu Glu Ala Lys Arg Ala
                 295
                               300
   290
Asp Leu Thr Glu Arg Ser Gln Lys Leu Leu Ala Ala Leu Glu Ile Ala
                               315
305
               310
Asp Asp Val Thr Ala Ile Ala Thr Arg Leu Lys Ala Val Thr Asp Glu
            325
                           330
                                            335
Ile Lys Ala Ile Glu Thr Gln Ile Lys Thr Cys Lys Asp Leu Glu Gln
                            350
                         345
         340
Val His Thr Val Gln Ser Val Gln Gly Met Asp Leu Thr Val Lys Ser
                           365
                      360
      355
Gln Arg Glu Glu Val Gln Leu Leu Val Lys Lys Thr Phe Arg Glu Ile
                  375
                                  380
Asn Leu Asp Gly Ile Arg Lys Thr Val Asn Val Tyr Leu His Asn Gly
               390
                               395
                                              400
Leu Thr Leu Leu Asn Val Pro Val Asn Gln Ile Val Asp Ala Gly Glu
            405 410
Trp Ile Glu Leu Leu Pro Val Ile Gly Gly Asp Thr Val Asp Phe Lys
         420
                         425
                                        430
Asp Ile Ser Phe Lys Ala Pro Arg Tyr Leu Asp
```

<sup>&</sup>lt;210> 5812 <211> 223

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;400> 5812

Gly Ser Thr Met Tyr Gln His His Asn Trp Gln Gly Ala Leu Leu Asp

```
Tyr Pro Val Ser Lys Val Val Cys Val Gly Ser Asn Tyr Ala Lys His
         20
                            25
Ile Gln Glu Met Gly Ser Ala Val Pro Glu Glu Pro Val Leu Phe Ile
   35
                       4.0
Lys Pro Glu Thr Ala Leu Cys Asp Ile Arg Gln Pro Leu Val Leu Pro
                   55
                                     60
Gln Gly Leu Gly Ser Val His His Glu Val Glu Leu Ala Val Leu Ile
                                   75
       70
Gly Ala Thr Leu Arg Gln Ala Thr Glu Glu His Val Glu Lys Ala Ile
           85
                               90
Ala Gly Tyr Gly Val Ala Leu Asp Leu Thr Leu Arg Asp Val Gln Gly
          100 105
Lys Met Lys Lys Ala Gly Gln Pro Trp Glu Lys Ala Lys Gly Phe Asp
                     120
                              125
Asn Ser Cys Pro Ile Ser Gly Phe Ile Pro Val Ser Glu Phe Thr Asp
        135
 130
Asp Pro Gln Asn Thr Pro Leu Ser Leu Lys Val Asn Gly Glu Ile Arg
               150 155
Gln Gln Gly Thr Thr Ala Asp Met Ile His Lys Ile Val Pro Leu Ile
              165 170 175
Ala Tyr Met Ser Arg Phe Phe Thr Leu Lys Pro Gly Asp Val Ile Leu
          180
                         185
Thr Gly Thr Pro Glu Gly Val Gly Pro Leu Leu Ser Gly Asp Glu Leu
                      200 205
Asp Val Ser Phe Asn Gly Leu Ser Leu Lys Thr Arg Val Leu
                     215
<210> 5813
<211> 134
<212> PRT
<213> Enterobacter cloacae
<400> 5813
His Pro Gly Leu Thr Gln Phe Ala Ile Asn Arg Asn Thr Ser Pro Arg
                                10
Tyr Ser Glu Glu Tyr Gln Ala Cys Tyr Ser Gln Glu Tyr Ile Glu Ala
                                               30
Ser Asn His Pro Leu Ile Gln Ser Lys Asn Met Phe Cys Val Ile Tyr
35
                        40
Arg Ser Thr Ser Arg Asp Gln Thr Tyr Leu Tyr Val Glu Lys Lys Asp
 50
                     5.5
Asp Phe Ser Arg Val Pro Glu Glu Leu Met Lys Ser Phe Gly Arg Pro
                                   75
                  70
Gln Leu Ala Met Leu Leu Pro Leu Asp Gly Arg Lys Lys Leu Val Asn
                                90
              8.5
Ala Asp Leu Glu Lys Val Lys Lys Ala Leu Thr Glu Gln Gly Tyr Tyr
                                              110
          100
                            105
Leu Gln Leu Pro Pro Pro Pro Glu Asn Leu Leu Lys Gln His Leu Glu
                        120
      115
Val Ser Gly Lys Lys
   130
<210> 5814
<211> 242
<212> PRT
<213> Enterobacter cloacae
<400> 5814
Gln Gly Ile Ser Met Ala Arg Ile Ile Val Val Thr Ser Gly Lys Gly
```

Gly Val Gly Lys Thr Thr Ser Ser Ala Ala Ile Ala Thr Gly Leu Ala 25 Gln Lys Gly Lys Lys Thr Val Val Ile Asp Phe Asp Ile Gly Leu Arg 40 Asn Leu Asp Leu Ile Met Gly Cys Glu Arg Arg Val Val Tyr Asp Phe 55 60 Val Asn Val Ile Gln Gly Asp Ala Thr Leu Asn Gln Ala Leu Ile Lys 70 75 Asp Lys Arg Thr Glu Asn Leu Tyr Ile Leu Pro Ala Ser Gln Thr Arg 90 8.5 Asp Lys Asp Ala Leu Thr Arg Giu Gly Val Glu Lys Val Leu Asp Asp 100 105 110 Leu Lys Lys Met Glu Phe Asp Phe Val Val Cys Asp Ser Pro Ala Gly 115 120 125 Ile Glu Thr Gly Ala Leu Met Ala Leu Tyr Phe Ala Asp Glu Ala Ile 130 135 140 Ile Thr Thr Asn Pro Glu Val Ser Ser Val Arg Asp Ser Asp Arg Ile 150 155 Leu Gly Ile Leu Ala Ser Lys Ser Arg Arg Ala Glu Asn Gly Gln Glu 165 170 175 Pro Ile Lys Glu His Leu Leu Leu Thr Arg Tyr Asn Pro Gly Arg Val 185 190 180 Asn Lys Gly Asp Met Leu Ser Met Glu Asp Val Leu Glu Ile Leu Arg 200 205 195 Ile Lys Leu Val Gly Val Ile Pro Glu Asp Gln Ser Val Leu Arg Ala 220 210 215 Ser Asn Gln Gly Glu Pro Leu Ile Leu Asp Thr Gln Ala Glu Ala Gly 230 235 225 Lys Ala

<210> 5815 <211> 269 <212> PRT

<213> Enterobacter cloacae

180

<400> 5815 Arg Val Val Ala Cys Leu Asn Ile Leu Leu Thr Ile Thr Cys Leu Ile 10 Leu Phe Gly Ile Ser Arg Arg Cys Val Ala Val Asn Ser Lys Leu Ser 25 30 Lys Ala Arg Met Ser Asn Thr Pro Ile Glu Leu Lys Gly Ser Ser Phe 35 40 Thr Leu Ser Val Val His Leu His Asp Ala Lys Pro Glu Val Ile Arg 5.5 Gln Ala Leu Glu Asp Lys Ile Ala Gln Ala Pro Ala Phe Leu Lys His 75 70 Ala Pro Val Val Val Asn Val Ser Asp Leu Glu Gly Pro Val Asn Trp 8.5 90 Lys Arg Leu Gln Gln Ala Val Thr Ser Thr Gly Leu Arg Ile Val Gly 100 Ile Ser Gly Cys Lys Asp Ala Glu Leu Lys Ala Glu Ile Glu Arg Ala 115 120 Gly Leu Pro Leu Leu Asn Glu Gly Lys Glu Lys Ala Pro Arg Ala Thr 130 140 Pro Ala Thr Val Pro Ala Pro Pro Pro Pro Ala Gln Asn Val Ala Pro 155 145 150 Val Thr Lys Thr Arg Leu Ile Asp Leu Pro Val Arg Ser Gly Gln Arg 165 170 Ile Tyr Ala Pro Asn Cys Asp Leu Ile Val Thr Ser His Val Ser Ala

185

Gly Ala Glu Leu Ile Ala Asp Gly Asn Ile His Val Tyr Gly Met Met 195 200

Arg Gly Arg Ala Leu Ala Gly Ala Ser Gly Asp Arg Glu Ala Gln Ile 210 215 220

Cys Thr His Leu Thr Ala Glu Leu Val Ser Ile Ala Gly Glu Tyr 225 230 235 240

Trp Leu Ser Asp Lys Ile Pro Ala Glu Phe Tyr Gly Lys Ala Ala Arg 255

Leu Gln Leu Ala Asp Asn Ala Leu Thr Val Gln Pro 265

Leu Gln Leu Ala Asp Asn Ala Leu Thr Val Gln Pro 265

<210> 5816 <211> 616 <212> PRT <213> Enterobacter cloacae

<400> 5816 Phe Val Gin Leu Ile Asn Leu Leu Ser Ile Arg Ser Ile Arg Arg Trp 10 Leu Asn Arg Ser His Gly Leu Met Asn Arg Lys Ile Tyr Asn Asn Val 30 2.5 Lys Ile Phe Met Ile Val Leu Ala Leu Ser Leu Ile Thr Ile Pro Phe 40 45 35 Ser Arg Tyr Ile Ser Pro Arg Ala Ile Val Asn Glu Asn Asp Val Tyr 50 55 Leu Ala Trp Leu Pro Leu Ser Ala Met Leu Ala Ile Val Leu Leu Phe 75 70 Gly Arg Arg Ala Ile Ile Pro Leu Leu Ile Gly Phe Ser Val Thr Asn 8.5 90 Ile Tyr Tyr Phe Asp Leu Ala Leu Leu Gln Ser Ser Val Leu Leu Ile 100 105 110 Cys Gln Thr Phe Ala Val Phe Ala Ala Cys Gly Val Ile Arg Leu Met 115 120 125 Leu Gly Lys Arg Trp Arg His Ser Ile Pro Asn Lys Tyr Ile Gly Ile 135 140 Arg Ile Phe Trp Leu Gly Phe Val Val Pro Val Gly Ile Lys Leu Ser 150 155 160 145 Met Tyr Leu Ala Gly Tyr Leu Phe Asp Phe Pro Val Thr Ile Ser Ser 165 170 175 Tyr Phe Gly Glu Gly Ser Ala Ile Tyr Asn Val Ile Asp Ile Gln Ser 185 190 180 Leu Ile Cys Ala Ala Leu Ile Phe Thr Met Met Phe Tyr Tyr Pro Leu 200 205 195 Arg Met Ile Ile Asn Pro Arg Tyr Ala Arg Thr Phe Trp Arg Arg Ser 215 210 Val Lys Pro Leu Phe Cys His Lys Lys Val Leu Phe Ile Val Val Trp 235 240 230 Leu Met Leu Leu Val Ser Met Ile Ala Ile Leu Cys Ala Pro Phe Glu 245 250 255 Ser Gln Phe Ile Ala Gly Tyr Leu Met Pro Ile Val Phe Ile Leu Phe 265 260 Thr Leu Gly Ile Gly Arg Leu Ser Tyr Ala Leu Ile Ser Leu Leu Trp 280 275 Ala Ala Ser Ala Leu Met Leu Leu Thr Tyr Asn Tyr Asn Phe Leu Asn 300 295 Gly Val Glu Ser Gly His Ser Leu Ser Phe Ile Leu Ser Val Leu Ile 315 310 305 Ser Phe Ala Ile Cys Leu Leu Tyr Met Ser Arg Ile Tyr Gln Lys Ser 335 330 Glu Trp Leu Lys Gln Gly Trp Gln Glu Arg Ala Leu Thr Asp Pro Leu 345

```
Thr Gly Leu Pro Asn Ile Arg Ala Leu Glu Val Phe Leu Gln His His
 355
                     360
Pro Glu Ala Lys Ile Cys Cys Leu Arg Leu Asp Asn Leu Glu Phe Leu
                 375
Ser Arg His Tyr Gly Ile Leu Met Arg Val His Cys Lys Lys Met Ile
         390
                              395
Thr Ala Ser Leu Gln Pro Leu Leu Gln Lys Asp Glu Lys Leu Phe Gln
         405 410 415
Leu Pro Gly Ser Glu Leu Val Val Leu Leu Gly Pro Gly Thr Ala
        420 425 430
Glu Arg Leu Gln Tyr Met Val Asp His Leu Asn Ser Arg Lys Ile Val
     435 440
                          445
Trp Asn Lys Thr Glu Leu Asp Ile Glu Phe Gly Ala Ser Trp Gly Glu
      455 460
Val Pro Asp Gly Glu Ser Leu His His Thr Leu Gly Gln Leu Ser Trp
      470 475
Leu Ser Glu Gln Ser Cys Gly Gly His Asn Val Leu Ala Leu Thr Asn
           485
                           490
Ser Leu Asp Asp Val Ser Gly Gln Thr Thr Asp Arg Val Leu Met Leu
                        505
        500
Ala Arg Ile Lys Arg Ala Leu Asp Ile Gly Gly Leu His Leu Tyr Ala
515
           520 525
Gln Pro Ile His Thr Ala Arg Gly Glu Arg Tyr Phe Asp Ile Pro Ser
                  535
                                 540
Thr Leu Glu Ser Asp Gly Glu Ile Leu His Pro Asp Arg Leu Ile Pro
                              555
               550
Pro Met Ala Gln Phe Asn Leu Asn Pro Arg Phe Asp Ser Asn Phe Trp
            565
                           570
Asn Lys Cys Gly Cys Arg Phe Ala Thr Thr Pro Leu Glu Leu Ile Glu
                        585 590
         580
Ser Pro Pro Arg Gln Thr Asp Ala Leu Asn Leu Lys Gln His Lys Met
 595 600
Gly Ala Lys Phe Phe Ala Phe
  610
```

<210> 5817 <211> 502 <212> PRT

<213> Enterobacter cloacae

<400> 5817 Arg Ala Gly Phe Val Glu Asn Val Ala Ala Thr Ala Gln Thr Val Glu Gln Leu Leu Lys Leu Gly Phe Thr Val Ala Ile Glu Ser Gly Ala Gly 25 30 Thr Leu Ala Ser Phe Asp Asp Glu Ala Phe Thr Gln Ala Gly Ala Asp 4.5 Val Val Asp Gly Ala Glu Val Trp Gln Ser Pro Ile Ile Leu Lys Val Asn Ala Pro Glu Glu Gly Glu Ile Glu Leu Leu Asn Ala Gly Thr Thr 75 70 Leu Val Ser Phe Val Trp Pro Ala Gln Asn Pro Glu Leu Met Glu Lys 90 95 Leu Ala Ala Arg Gly Val Thr Val Met Ala Met Asp Ser Val Pro Arg 100 105 Ile Ser Arg Ala Gln Ser Leu Asp Ala Leu Ser Ser Met Ala Asn Ile 120 125 115 Ala Gly Tyr Arg Ala Ile Val Glu Ala Ala His Glu Phe Gly Arg Phe 130 135 140 Phe Thr Gly Gln Ile Thr Ala Ala Gly Lys Val Pro Pro Ala Lys Val

```
Met Val Ile Gly Ala Gly Val Ala Gly Leu Ala Ala Ile Gly Ala Ala
                         170 175
           165
Asn Ser Leu Gly Ala Ile Val Arg Ala Phe Asp Thr Arg Pro Glu Val
                                     190
        180
                      185
Lys Glu Gln Val Gln Ser Met Gly Ala Glu Phe Leu Glu Leu Asp Phe
 195 200
                                 205
Lys Glu Glu Ala Gly Ser Gly Asp Gly Tyr Ala Lys Val Met Ser Glu
210 215 220
Ala Phe Ile Lys Ala Glu Met Ala Leu Pne Ala Ala Gln Ala Lys Glu
225 230 235
Val Asp Ile Ile Val Thr Thr Ala Leu Ile Pro Gly Lys Pro Ala Pro
      245 250 255
Lys Leu Ile Thr Arg Glu Met Val Asp Ser Met Gln Pro Gly Ser Val
   260 265 270
Ile Val Asp Leu Ala Ala Gln Asn Gly Gly Asn Cys Glu Tyr Thr Val
 275 280 285
Pro Asn Gln Val Thr Thr Ala Asn Gly Val Lys Val Ile Gly Tyr
 290 295 300
Thr Asp Leu Pro Gly Arg Leu Pro Thr Gln Ser Ser Gln Leu Tyr Gly
305 310 315 320
Thr Asn Leu Val Asn Leu Leu Lys Leu Leu Cys Lys Glu Lys Asp Gly
   325 330 335
Asn Ile Thr Val Asp Phe Asp Asp Val Val Val Arg Gly Val Thr Val
        340 345 350
Val Arg Glu Gly Glu Ile Thr Trp Pro Ala Pro Pro Ile Gln Val Ser
355 360 365
Ala Gln Pro Gln Ala Ala Pro Lys Ala Ala Pro Glu Pro Ala Glu Pro
370 375 380
Ala Lys Pro Ala Ser Pro Trp Arg Lys Tyr Ala Ile Met Ala Leu Val
385 390 395 400
Ile Ile Leu Phe Gly Trp Leu Ala Asp Val Ala Pro Lys Glu Phe Leu
       405 410 415
Gly His Phe Thr Val Phe Ala Leu Ser Cys Val Val Gly Tyr Tyr Val 420 \hspace{1cm} 425 \hspace{1cm} 430 \hspace{1cm}
Val Trp Asn Val Ser His Ala Leu His Thr Pro Leu Met Ser Val Thr
                   440 445
 435
Asn Ala Ile Ser Gly Ile Ile Val Val Gly Ala Leu Leu Gln Ile Gly
                 455 460
 450
His Gly Gly Trp Ile Ser Phe Leu Ser Phe Ile Ala Val Leu Ile Ala
465 470 475 480
Ser Ile Asn Ile Phe Gly Gly Phe Thr Val Thr Gln Arg Met Leu Lys
       485
                         490
Met Phe Arg Lys Gly
        500
```

```
<210> 5818
```

<sup>&</sup>lt;211> 193

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;220> <221>UNSURE

<sup>&</sup>lt;220>

<sup>&</sup>lt;221>UNSURE <222>(58)

<sup>&</sup>lt;220>

<sup>&</sup>lt;221>UNSURE

<sup>&</sup>lt;222>(83)

<211> 337

<212> PRT

<213> Enterobacter cloacae

<400> 5818 Gln Arg Gly Asn Leu Ile Trp Thr Trp Tyr Gly Ala Xaa Ile Phe His Thr Pro Val Asn Glu Val Ala His Gly Lys Trp Ala Leu Leu Thr Ser 25 2.0 Gly Ser Lys Ser Phe His Ile Pro Ala Leu Thr Gly Ala Trp Gly Leu 40 Phe Ala Asp Asp Ala Ser Arg Asn Ala Xaa Leu Asn Ala Leu Lys Gly 55 Arg Asp Gly Leu Ser Ser Leu Ser Val Leu Ala Leu Thr Ala His Ile 70 75 Ala Ala Xaa Arg Gln Gly Glu Pro Trp Leu Asp Ala Leu Arg Thr Tyr 85 90 Leu Glu Glu Asn Leu Arg Tyr Val Ala Arg Glu Leu Asn Ser Ala Phe 100 105 110 Pro Ala Leu Ser Trp Gln Pro Pro Glu Ala Thr Tyr Leu Ala Trp Ile 120 125 115 Asp Leu Ser Pro Leu Gly Ile Asp Asp Asn Thr Leu Gln Lys Val Leu 135 140 130 Ile Glu Gln Gln Lys Val Ala Ile Met Pro Gly Tyr Thr Tyr Gly Ala 150 155 Glu Gly Lys Gly Tyr Val Arg Leu Asn Ala Gly Cys Pro Arg Ser Lys 165 170 Leu Glu Gln Gly Val Gln Arg Leu Ile Ala Gly Ile Asn Thr Leu Leu 185 180

<400> 5819 Pro Ala Lys Ser Ala Thr Met Ile Asp Thr Arg Leu Pro Leu Thr Asp 10 Ile His Arg His Leu Asp Gly Asn Ile Arg Ala Gln Thr Ile Leu Asp 25 Leu Gly Arg Gln Phe Asn Leu Thr Leu Pro Ala Glu Thr Leu Glu Thr 40 Leu Ile Pro His Val Gln Val Thr Ser Asn Glu Pro Asp Leu Val Ser 60 Phe Leu Ser Lys Leu Asp Trp Gly Val Lys Met Leu Ala Ser Val Asp 7.5 7.0 Ala Cys Arg Arg Val Ala Phe Glu Asn Ile Glu Asp Ala Ala Arg Asn 90 Gly Leu His Tyr Val Glu Leu Arg Phe Ser Pro Gly Tyr Met Ala Met 105 100 Thr His Asn Leu Pro Val Ala Gly Val Val Glu Ala Val Ile Glu Gly 125 115 Val Arg Glu Gly Cys Lys Thr Phe Asp Val Gln Ala Arg Leu Ile Gly 130 135 140 Ile Met Ser Arg Thr Phe Gly Glu Ala Ala Cys Leu Gln Glu Leu Glu 150 Ala Leu Leu Ala His Arg Asp Gln Ile Thr Ala Ile Asp Leu Ala Gly 170 175 165 Asp Glu Leu Gly Phe Pro Gly Ser Leu Phe Leu Ser His Phe Asn Arg 180 185 Ala Arg Asp Ala Gly Trp His Ile Thr Val His Ala Gly Glu Ala Ala 200 205

```
Gly Pro Glu Ser Ile Trp Gln Ala Ile Arg Glu Leu Gly Ala Glu Arg
  210
Ile Gly His Gly Val Lys Ala Ile Glu Asp Arg Ala Leu Met Asp Phe
                   230
                                     235
Leu Ala Glu Gln Arg Ile Gly Ile Glu Ser Cys Leu Thr Ser Asn Ile
              245
                                 250
Gln Thr Ser Thr Val Ala Ser Leu Ala Gln His Pro Leu Lys Thr Phe
           260
                             265
                                                 270
Leu Glu His Gly Val Leu Ala Ser Leu Asn Thr Asp Asp Pro Ala Val
      275 280 285
Gln Gly Val Asp Ile Ile His Glu Tyr Asn Ile Ala Ala Pro Gln Ala
                   295
                                         300
Gly Leu Ser Arg Glu Gln Ile Arg Gln Ala Gln Ile Asn Gly Leu Glu
305 310 315
Ile Ala Phe Leu Ile Phe Thr Thr Arg Ala Glu Arg Ser Thr Leu Cys
              325
                                 330
Val
<210> 5820
<211> 133
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(126)
<400> 5820
Arg Asp Gln Arg Ala Gly Asn Ile Pro Leu Ser Cys Met Ala Gly Ala
                                  10
His Glu Phe Arg Gln His Gly Phe His Ala Arg Gln Val Gly His Leu
           2.0
                              25
                                                 30
Leu Ala His Val Leu Glu Leu Val Phe Gly Gln Ala Ala Gly Leu Leu
       35
                          40
                                             4.5
Ala Val Gly Ala Ile Val Glu Pro Gln Gln Leu Gly Asn Leu Val Gln
                       5.5
Thr Glu Pro Gln Pro Leu Cys Arg Phe His Glu Phe His Pro Asn His
                                      75
                   7.0
65
Val Arg Leu Pro Ile Ala Ala Asp Ala Ala Val Arg Leu Val Arg Phe
               85
                                  9.0
Pro Gln Gln Ala Leu Ala Leu Ile Glu Ala Asp Cys Leu His Val Asp
                              105
                                                 110
           100
Pro Gly Arg Leu Gly Lys Asn Ala Asn Gly Gln Val Phe Xaa Ile Ile
        115
                           120
Phe His Ile Ala
    130
<210> 5821
<211> 99
<212> PRT
<213> Enterobacter cloacae
<400> 5821
Gly Ile Ala Asp Leu Ala Arg Pro Ala Ser Pro Cys Ser Asp Ala Ile
                                  10
Asn Glv Gln Glu Thr Phe Pro Phe Arg Ala Trp Gln Ala His Thr Ser
                               2.5
                                                 30
Ser Asp Ser Thr Val Ser Met Arg Ala Lys Ser Ala Ile Phe Ser Arg
        35
                          40
Thr Ser Leu Ser Leu Cys Ser Ala Arg Leu Leu Ala Ser Ser Gln Trp
```

```
Val Pro Ser Ser Ser Arg Asn Ser Ser Ala Ile Ser Ser Arg Leu Asn
                                       75
                  70
 Pro Ser Arg Cys Ala Asp Phe Thr Asn Phe Thr Arg Thr Thr Ser Ala
                85
                                    90
 Ser Pro
 <210> 5822
 <211> 113
 <212> PRT
 <213> Enterobacter cloacae
 <220>
 <221>UNSURE
 <222>(14)
<220>
<221>UNSURE
 <222>(72)
<220>
<221>UNSURE
 <222>(73)
<220>
<221>UNSURE
 <222>(74)
<221>UNSURE
 <222>(75)
 <220>
 <221>UNSURE
 <222>(76)
 <220>
 <221>UNSURE
 <222>(77)
 <220>
 <221>UNSURE
 <222>(78)
 <220>
 <221>UNSURE
 <222>(79)
 <220>
  <221>UNSURE
 <222>(80)
 <220>
  <221>UNSURE
  <222>(81)
```

Final

14

in in

-

12

in the

15

<220> <221>UNSURE <222>(82)

```
<220>
<221>UNSURE
<222>(83)
```

<220> <221>UNSURE <222>(84)

<220> <221>UNSURE <222>(85)

<400> 5822 Pro Arg Pro Pro Trp Gln Lys Arg Gln Trp Ser Gly Phe Xaa Asn Tyr Phe Pro Tyr Arg Leu Thr Pro Tyr Met Ser Thr Glu Val Arg Leu Arg Tyr Pro Ile Gln Ile Gln Lys Gly Gln Arg Met Ser Glu Pro Thr Lys 45 35 40 Arg Arg Gly Ala Leu Phe Ala Arg Gly Leu Ala Gly Ile Leu Ala Ser 55 75 70 Xaa Xaa Xaa Xaa Gln Arg Phe Leu Pro Leu Lys Pro Pro Phe Ile 85 90 Gly Leu Lys Met Phe Phe Gly Ser Gln Phe Leu Pro Ala Val Lys Glu

105

<210> 5823 <211> 221 <212> PRT <213> Enterobacter cloacae

100

<400> 5823 Lys Glu Ala Ser Glu Ala Glu Asn Val Val Lys Lys Lys Lys Lys Lys 10 15 Lys Lys Lys Lys Lys Ile Ile Ala Pro Pro Gly Ser Arg Ser Met 20 Gln Glu Cys Arg Pro Ala Arg Gly Arg Arg Ala His Arg Ala Val Leu 40 Leu Val Gln Thr Tyr Val Gly Pro Phe Glu Phe Gly Leu Asp Ser Val 60 Thr Leu Leu Pro Tyr Ser Cys Thr Glu Ser Ser Asp Met Glu Asn Asn 70 75 Leu Glu Asn Leu Thr Ile Gly Val Phe Ala Lys Ala Ala Gly Val Asn 90 85 Val Glu Thr Ile Arg Phe Tyr Gln Arg Lys Gly Leu Leu Arg Glu Pro 110 Asp Lys Pro Tyr Gly Ser Ile Arg Arg Tyr Gly Glu Ala Asp Val Val 120 125 Arg Val Lys Phe Val Lys Ser Ala Gln Arg Leu Gly Phe Ser Leu Asp 130 135 140 Glu Ile Ala Glu Leu Leu Arg Leu Asp Asp Gly Thr His Cys Glu Glu 160 150 155 Ala Ser Ser Leu Ala Glu His Lys Leu Lys Asp Val Arg Glu Lys Met 175 165 170 Ala Asp Leu Ala Arg Met Glu Thr Val Leu Ser Glu Leu Val Cys Ala 180 185 190 Cys His Ala Arg Lys Gly Asn Val Ser Cys Pro Leu Ile Ala Ser Leu

```
200
Gln Gly Glu Ala Gly Leu Ala Arg Ser Ala Met Pro
                   215
   210
<210> 5824
<211> 320
<212> PRT
<213> Enterobacter cloacae
<400> 5824
Arg Lys Leu Ala Pro Ala Leu Ile Thr Gly Asn Thr Ile Val Ile Lys
                               10
Pro Ser Glu Phe Thr Pro Asn Asn Ala Ile Ala Phe Ala Lys Ile Val
                    25
Asp Glu Ile Gly Leu Pro Lys Gly Val Phe Asn Leu Val Leu Gly Arg
                        40
       35
Gly Glu Thr Val Gly Gln Glu Leu Ala Gly Asn Pro Lys Val Ala Met
                 55
Val Ser Met Thr Gly Ser Val Gly Ala Gly Glu Lys Ile Met Ala Ala
                                   75
                 70
Ala Ala Lys Asn Ile Thr Lys Val Gly Leu Glu Leu Gly Gly Lys Ala
                               90
              8.5
Pro Ala Ile Val Met Gly Asp Ala Asp Leu Glu Leu Ala Val Lys Ala
                    105 110
          100
Ile Val Asp Ser Arg Val Ile Asn Thr Gly Gln Val Cys Asn Cys Ala
                                          125
 115
Glu Arg Val Tyr Val Gln Lys Gly Ile Tyr Asp Arg Phe Val Asn Arg
 130
                     135
                                      140
Leu Gly Glu Ala Met Lys Ala Val Gln Phe Gly Asn Pro Ala Glu Arg
                150 155
145
Thr Asp Ile Ala Met Gly Pro Leu Ile Asn Ala Ala Ala Leu Glu Arg
                               170
              165
Val Glu Gln Lys Val Ala Arg Ala Val Gln Glu Gly Ala Lys Val Val
          180
                            185
                                          190
Leu Gly Gly Lys Ala Ala Glu Gly Lys Gly Tyr Phe Tyr Pro Pro Thr
                                           205
      195 200
Leu Leu Leu Asp Val Arg Gln Asp Met Ala Ile Met His Glu Glu Thr
 210
                     215
                                       220
Phe Gly Pro Val Leu Pro Val Val Ala Phe Asp Thr Leu Glu Glu Ala
                230
                                    235
Leu Asn Met Ala Asn Asp Ser Asp Tyr Gly Leu Thr Ser Ser Val Tyr
             245
                                250 255
Thr Gln Asp Leu Asn Val Ala Met Lys Ala Ile Lys Gly Leu Lys Phe
                            265
                                             270
          260
Gly Glu Thr Tyr Ile Asn Arg Glu Asn Phe Glu Ala Met Gln Gly Phe
 275
                        280
                                          285
His Ala Gly Trp Arg Lys Ser Gly Ile Gly Gly Ala Asp Gly Lys His
 290 295
                                       300
Gly Leu Asn Glu Tyr Leu Gln Thr Gln Val Val Tyr Leu Gln Ser
               310
<210> 5825
<211> 148
<212> PRT
<213> Enterobacter cloacae
<400> 5825
 Ser Gly Ala Pro Ser Met Arg Gly Gly Ser His Phe Gln Glu Arg Trp
                             10
 Leu Cys Trp Arg Asp Asn Gly Tyr Leu Ser Gly Asn Asn Met Arg Thr
                             25
          20
```

```
Lys Tyr Thr Gly Leu Gln Ile Ser Ile His Trp Leu Val Phe Leu Leu
                          40
       3.5
Val Ile Met Ala Tyr Cys Ala Met Glu Phe Met Gly Trp Phe Pro Arg
 5.0
                      5.5
                                         60
Ser Asp Arg Pro Leu Ile Asn Met Ile His Val Ser Cys Gly Ile Ser
                                     75
Ile Leu Val Leu Met Val Ala Arg Leu Leu Ile Arg Leu Lys Phe Pro
                             90
              85
Ala Pro Pro Ile Gln Pro Lys Pro Lys Ala Met Ile Thr Gly Leu Ser
          100 105
                                   110
His Leu Gly His Leu Val Ile Tyr Leu Leu Phe Ile Ala Leu Pro Leu
      115 120 125
Ile Cys Met Val Met Met Tyr Asn Arg Gly Asn Asp Trp Phe Ala Phe
 130
                      135
                                  140
Trp Pro Asp
145
<210> 5826
<211> 68
<212> PRT
<213> Enterobacter cloacae
<400> 5826
Cys Ile Thr Gly Glu Met Thr Gly Leu Arg Phe Gly Leu Thr Asn Pro
His Ala Ala Glu Gly Asn Phe Asp Leu Val Asp Thr Leu Lys Thr Trp
           20
                              25
                                                 30
His Val Asn Leu Ala Ile Leu Gly Asn Ser Leu Ile Gly Leu His Pro
35
                          40
                                             45
Leu Ala Pro Leu Asn Pro Pro Tyr Phe Leu Glu Lys Thr Thr Pro Leu
50
                      55
Leu Pro His
65
<210> 5827
<211> 115
<212> PRT
<213> Enterobacter cloacae
<400> 5827
Ile His Asn Gly Leu His Gly Gln Leu Lys Ile Gly Ile Ala His His
                                  1.0
Asp Gly Arg Gly Phe Thr Ala Gln Leu Gln Pro His Phe Gly Asp Val
           20
                              25
                                                 30
Phe Arg Ser Arg Ser His Asp Leu Phe Thr Cys Pro Asp Ala Ala Gly
       35
                          4.0
                                             45
His Ala Asp His Arg His Phe Arg Ile Pro Gly Gln Leu Leu Ser Asp
  50
                      55
                                         60
Gly Phe Thr Pro Ala Gln His Gln Val Lys Asp Ala Phe Arg Gln Ala
                                      75
65
                   70
                                                        8.0
Asn Leu Ile Asp Asp Phe Gly Lys Arg Asn Gly Val Val Trp Gly Lys
                                                     95
               85
                                  90
Phe Ala Arg Phe Asp Asn Asp Gly Val Ala Gly Asp Gln Arg Gly Ser
Lys Leu Thr
      115
<210> 5828
<211> 130
<212> PRT
```

<213> Enterobacter cloacae

```
<400> 5828
Thr Arg Ser Ala Gln Leu His Thr Cys Pro Val Leu Met Thr Arg Glu
                       10
Ser Thr Met Ala Phe Thr Ala Ser Ser Arg Ser Ala Ser Pro Ile Thr
       20
                       25
                                           30
Met Ala Gly Ala Leu Pro Pro Ser Ser Ser Pro Thr Leu Val Met Phe
35 40 45
Phe Ala Ala Ala Ala Met Ile Phe Ser Pro Ala Pro Thr Leu Pro Val
        55 60
Met Leu Thr Ile Ala Thr Phe Gly Phe Pro Ala Ser Ser Cys Pro Thr
             70 75 80
Val Ser Pro Arg Pro Ser Thr Arg Leu Lys Thr Pro Phe Gly Arg Pro
           85 90 95
Ile Ser Ser Thr Ile Leu Ala Asn Ala Met Ala Leu Phe Gly Val Asn
         100 105 110
Ser Leu Gly Leu Ile Thr Met Val Leu Pro Val Ile Ser Ala Gly Ala
                       120
Ser Leu
  130
<210> 5829
<211> 245
<212> PRT
<213> Enterobacter cloacae
<400> 5829
Cys Arg Thr Asp Ser Pro Gly His Ser Pro Trp Phe Val Gln Cys Gly
                             10
Val Val Asn Lys Ser Val Ser Glu Ala Phe Asp Ser Lys Ala Phe Leu
         20
                          25
Lys Thr Val Thr Ser Gln Pro Gly Val Tyr Arg Met Tyr Asp Ala Gly
35
                     4.0
Gly Thr Val Ile Tyr Val Gly Lys Ala Lys Asp Leu Lys Lys Arg Leu
50
                 55
Ser Ser Tyr Phe Arg Ser Asn Leu Ala Ser Arg Lys Thr Glu Ala Leu
                               75
65
               7.0
Val Ala Leu Ile His Asn Ile Asp Val Thr Val Thr His Thr Glu Thr
             8.5
                           90
Glu Ala Leu Leu Leu Glu His Asn Tyr Ile Lys Leu Tyr Gln Pro Arg
       100 105
Tyr Asn Val Leu Leu Arg Asp Asp Lys Ser Tyr Pro Phe Ile Phe Leu
                      120
                                       125
      115
Ser Gly Asp Thr His Pro Arg Leu Ala Met His Arg Gly Ala Lys His
                   135
                                    140
   130
Ala Lys Gly Glu Tyr Phe Gly Pro Phe Pro Asn Gly Tyr Ala Val Arg
                150
                              155
145
Glu Thr Leu Ala Leu Leu Gln Lys Ile Phe Pro Val Arg Gln Cys Glu
                             170 175
             165
Asn Ser Val Tyr Arg Asn Arg Ser Arg Pro Cys Leu Gln Tyr Gln Ile
                          185
                              190
          180
Gly Arg Cys Leu Gly Pro Cys Val Glu Gly Leu Val Ser Glu Glu Glu
      195
                       200
                           205
Tyr Ala Gln Gln Val Glu Tyr Val Arg Leu Phe Leu Ala Gly Lys Asp
                        220
                   215
Asp Gln Val Leu Thr Gln Leu Ile Thr Arg Met Glu Lys Ala Ser Ala
                                 235
Ala Leu Gly Ile
```

```
<211> 80
<212> PRT
<213> Enterobacter cloacae
<400> 5830
Gln Gln Thr Val Thr Val Ile Met Arg Phe Asn Ile Pro Thr Leu Leu
                              1.0
Thr Leu Phe Arg Val Val Leu Ile Pro Phe Phe Val Leu Ala Phe Tyr
    20
                         2.5
                                       3.0
Leu Pro Val Val Trp Ala Pro Phe Ala Cys Ala Leu Ile Phe Leu Ile
     35
                    40 45
Ala Ala Val Thr Asp Trp Phe Asp Gly Tyr Leu Ala Arg Arg Trp Asn
                  55
                                   60
Gln Ser Thr Arg Phe Gly Ala Phe Val Leu Pro His Arg Pro Gly
<210> 5831
<211> 401
<212> PRT
<213> Enterobacter cloacae
<400> 5831
Leu Leu Val Trp Lys Lys Pro Ala Arg Arg Trp Glu Phe Glu Glu Ala
                               10
Ala Arg Ile Arg Asp Gln Ile Gln Ala Val Arg Arg Val Thr Glu Lys
2.0
                           25
Gln Phe Val Ser Asn Thr Gly Asp Asp Leu Asp Val Ile Gly Val Ala
35
                        40
                                         4.5
Phe Asp Ala Gly Leu Ala Cys Val His Val Leu Phe Ile Arg Gln Gly
                    5.5
                                     60
50
Lys Val Leu Gly Ser Arg Ser Tyr Phe Pro Lys Val Pro Gly Gly Thr
                 70
                                  75
65
Glu Leu Gly Glu Val Val Glu Thr Phe Val Gly Gln Phe Tyr Leu Gln
             8.5
                             90
Gly Ser Gln Met Arg Thr Leu Pro Ser Glu Ile Leu Leu Asp ?he Thr
                           105
Leu Asp Asp Lys Thr Leu Leu Ala Asp Ser Leu Ser Glu Leu Ala Gly
                     120 125
      115
Arg Arg Val Asn Val Gln Thr Lys Pro Arg Gly Asp Arg Ala Arg Tyr
                     135
                                      140
 130
Leu Lys Leu Ala Arg Thr Asn Ala Ala Thr Ala Leu Thr Thr Lys Leu
145
                 150
                                  155
Ser Gln Gln Ser Thr Val Ser Gln Arg Leu Thr Ala Leu Ala Thr Leu
              165
                               170 175
Leu Lys Leu Pro Glu Val Lys Arg Met Glu Cys Phe Asp Ile Ser His
                           185
                                             190
          180
Thr Met Gly Glu Gln Thr Val Ala Ser Cys Val Val Phe Asp Ala Asn
      195
                        200
                                         205
Gly Pro Leu Arg Ala Glu Tyr Arg Arg Tyr Asn Ile Thr Gly Ile Thr
                     215
                                      220
   210
Pro Gly Asp Asp Tyr Ala Ala Met Asn Gln Val Leu Arg Arg Tyr
                                   235
                 230
Gly Lys Ala Ile Glu Glu Ser Lys Ile Pro Asp Val Ile Leu Ile Asp
                                                255
             245
                               250
Gly Gly Lys Gly Gln Leu Gly Gln Ala Lys Ala Val Phe Glu Ser Leu
                            265
                                             270
          260
Asp Val Glu Trp Asp Lys Asn His Pro Leu Leu Gly Val Ala Lys
                               285
      275
                        280
Gly Ala Asp Arg Lys Ala Gly Leu Glu Thr Leu Phe Phe Glu Pro Glu
                    295
                                   300
```

Gly Glu Gly Phe Ser Leu Pro Pro Asp Ser Pro Ala Leu His Val Ile

<210> 5832 <211> 174 <212> PRT

<213> Enterobacter cloacae

<400> 5832

Gln Arg Leu Cys Tyr Gln Arg Glu Thr Val Arg Arg Arg Gln Arg Arg 1.0 Gly Gly Arg Pro Asp Ser Val Arg Leu Asn Gly Asp Cys Ala Pro Gly 30 25 20 Trp Leu Trp Gln Gln Arg Asp Arg Tnr Pro Val Leu Ile His Phe Cys 45 4.0 35 Thr Lys Lys Gln Gly Met Arg Pro Val Phe Phe Arg Glu Asp Leu Met 55 50 Ser Thr Phe Ile Leu Leu Ala Ala Leu Ala Ser Gln Ile Thr Phe Ser 70 Thr Ser Gln Gln Ala Asn Met Thr Thr Ile Ile Pro Gln Val Thr Leu 90 8.5 Ala Asp Ala Cys Glu Cys Gln Val Glu Val Leu Ser Val Arg Gln Gly 105 100 Gln Gly Gly Gln Ser Thr Ser Arg Gln Lys Asn Thr Leu Phe Ile Pro 120 115 Ala Asn Gln Pro Ile Asp Leu Thr Arg Ile Ser Leu Asn Ile Arg Ser

130 140
Gly Asp Ala Val Lys 11e Ile Val Thr Val Ser Asp Gly Lys Ser Leu
145 150 155 160
His Leu Ser Gln Gln Trp Asn Ala Pro Val Ser Ala Leu

His Leu Ser Gln Gln Trp Asn Ala Pro Val Ser Ala 165 170

<210> 5833 <211> 187

<212> PRT

<213> Enterobacter cloacae

<400> 5833

Thr Cys Phe Gly Arg His Thr Leu Phe Arg Asn Ala Ala Leu Thr Lys 10 Arg Ile Ala Leu Thr Glu Glr Glu Ile Leu Phe Tyr Ser Gln Val Gln 30 20 25 Gly Asp Ser Met Lys Asn Lys Thr Leu Phe Met Met Phe Thr Leu Leu 40 4.5 Gly Ala Pro Gly Phe Val Ile Ala Gly Asp Ser Asp Leu Ala Ser Ser 55 60 Glu Tyr Asn Phe Ala Ile Asn Glu Leu Ser Lys Ala Ser Tyr Asn Gln 70 75 Ala Ala Ile Ile Gly Gln Gln Gly Ser Gly Asn Asn Ser Asp Val Arg 85 90

```
Gln Asp Gly Ser Lys Leu Leu Ser Val Ile Ser Gln Glu Gly Gly Asn
                             105
          100
Asn Arg Ala Asn Val Asp Gln Ser Gly Thr Tyr Asn Leu Ala Tyr Ile
      115 120
Asp Gln Thr Gly Asn Gly Asn Asp Ala Ser Ile Lys Gln Gly Ala Phe
        135
                                          140
Gly Asn Thr Ala Met Ile Ile Gln Lys Gly Ser Gly Asn Arg Ala Asn
145 150
                                     155
Ile Thr Gln Tyr Gly Thr Gln Lys Thr Ala Val Val Val Gln Arg Gln
            165 170
Ser Gln Met Ala Ile Arg Val Ile Gln Arg
          180
<210> 5834
<211> 159
<212> PRT
<213> Enterobacter cloacae
<400> 5834
Ser Ile Arg Trp Gly Phe Thr Met Lys Leu Phe Lys Val Ala Val Ile
Ala Ala Ile Val Val Ser Gly Ser Ala Phe Ala Gly Ala Val Pro Gln
           20
                               25
Phe Gly Gly Gly His Gly Gly Gly Trp Gly Gly Gly Asn Asn Gly Pro
      35
                          4.0
Asp Ser Thr Leu Ser Ile Tyr Gln Tyr Gly Gly Gly Asn Ser Ala Leu
 50
                       55
Ala Leu Gln Thr Asp Ala Arg Asp Ser Glu Leu Thr Ile Thr Gln His
                   7.0
                                      75
Gly Gly Gly Asn Gly Ala Asp Val Gly Gln Gly Ser Asp Asp Ser Ser
               85
                                  90
Ile Asp Leu Leu Gln Lys Gly Pne Gly Asn Ser Ala Thr Ile Asp Gln
                              105
           100
Trp Asn Ser Lys Asp Ser Val Ile Asn Val Lys Gln Phe Gly Gly Gly
                                              125
 115
                           120
Asn Gly Ala Ala Val Asp Gln Thr Ala Ser Gly Ser Thr Val Thr Val
                       135
His Gln Val Gly Phe Gly Asn Asn Ala Thr Ala His Gln Tyr
                   150
<210> 5835
<211> 297
<212> PRT
<213> Enterobacter cloacae
<400> 5835
Lys Asn Ile Met Met Arg Ile Ala Leu Phe Leu Leu Thr Asn Leu Ala
Val Met Val Val Phe Gly Leu Val Leu Ser Leu Thr Gly Ile Gln Ser
                                                  30
                               25
           20
Ser Ser Val Gln Gly Leu Leu Ile Met Ala Leu Leu Phe Gly Phe Gly
                           40
        3.5
Gly Ser Phe Ile Ser Leu Leu Met Ser Lys Trp Met Ala Leu Lys Ser
   50
                       5.5
Val Gly Gly Glu Val Ile Glu Gln Pro Arg Asn Asp Met Glu Gln Trp
                   70
                                       75
                                                         80
Leu Met Ser Thr Val Ala Gln Gln Ser Lys Gln Ala Gly Ile Ala Met
                                   90
               8.5
 Pro Gln Val Ala Ile Tyr His Ala Pro Asp Ile Asn Ala Phe Ala Thr
           100
                              105
Gly Ala Arg Arg Asp Ala Ser Leu Val Ala Val Ser Thr Gly Leu Leu
```

```
120
Gln Asn Met Ser Arg Asp Glu Ala Glu Ala Val Ile Ala His Glu Ile
                              140
 130
                  135
Ser His Ile Ala Asn Gly Asp Met Val Thr Met Thr Leu Ile Gln Gly
          150
                                 155
Val Val Asn Thr Phe Val Ile Phe Ile Ser Arg Ile Leu Ala Gln Ile
          165
                    170
Ala Ala Gly Phe Met Gly Gly Asn Arg Asp Glu Gly Glu Glu Ser Asn
         180 185 190
Gly Asn Pro Leu Ile Tyr Phe Ala Val Ser Met Val Leu Glu Leu Val
    195 200
                           205
Phe Gly Ile Leu Ala Ser Ile Ile Thr Met Trp Phe Ser Arg His Arg
 210 215 220
Glu Phe His Ala Asp Ala Gly Ser Ala Lys Leu Val Gly Arg Glu Lys
225 230 235
Met Ile Ala Ala Leu Gln Arg Leu Lys Thr Ser Tyr Glu Pro Gln Glu
                                  255
       245 250
Ala Asn Ser Met Met Ala Phe Cys Ile Asn Gly Lys Ser Lys Ser Leu
    260 265 270
Ser Glu Leu Phe Met Ser His Pro Pro Leu Asp Lys Arg Ile Glu Ala
 275 280
Leu Arg Ser Gly Glu Tyr Leu Lys
<210> 5836
<211> 536
<212> PRT
<213> Enterobacter cloacae
<400> 5836
Leu Asp Arg Ser Lys Ala Pro Trp Pro Lys Asp Glu Ala Glu Leu Asn
                             10
Val Leu Trp Asp Gly Lys Val Lys Tyr Asp Glu Leu Ser Leu Lys Leu
Thr Gly Lys Asp Glu Lys Glu Ile Arg Glu Thr Leu Asn Arg Arg Tyr
      35
                      40
Lys Phe Asp Ile Arg Arg Leu Ala Gln Thr Asn Ser Glu Asp Val Phe
                 5.5
                                    60
Ser Leu Ala Met Thr Ala Phe Ala His Glu Ile Asp Pro His Thr Asn
                7.0
                                 75
Tyr Leu Ser Pro Arg Asn Thr Glu Gln Phe Asn Thr Glu Met Ser Leu
                             90
Ser Leu Glu Gly Ile Gly Ala Val Leu Gln Met Asp Asp Asp Tyr Thr
         100
                          105 110
Val Ile Asn Ser Met Val Ala Gly Gly Pro Ala Ser Lys Ser Lys Ala
                       120
                                       125
Ile Ser Val Gly Asp Arg Ile Val Gly Val Gly Gln Thr Gly Lys Ser
  130
                    135
                                    140
Met Val Asp Val Ile Gly Trp Arg Leu Asp Asp Val Val Ala Leu Ile
                 150 155
Lys Gly Pro Lys Gly Ser Lys Val Arg Leu Glu Ile Leu Pro Ala Gly
             165 170
Lys Gly Thr Lys Thr Arg Ile Val Thr Leu Thr Arg Glu Arg Ile Arg
                              190
          180
                           185
Leu Glu Asp Arg Ala Val Lys Met Ser Val Lys Thr Val Gly Lys Glu
                       200
                                        205
       195
Lys Val Gly Val Leu Asp Ile Pro Gly Phe Tyr Val Gly Leu Thr Asp
                                    220
                   215
Asp Val Lys Val Gln Leu Gln Lys Leu Glu Lys Gln Asn Val Ser Ser
                                 235
                230
```

Val Ile Ile Asp Leu Arg Ser Asn Gly Gly Gly Ala Leu Thr Glu Ala

```
250
           245
Val Ser Leu Ser Gly Leu Phe Ile Pro Ser Gly Pro Val Val Gln Val
                     265
       260
Arg Asp Asn Asn Gly Lys Val Arg Glu Asp Ala Asp Thr Asp Gly Val
   275
                   280
                                  285
Val Tyr Tyr Lys Gly Pro Leu Val Val Leu Val Asp Arg Phe Ser Ala
      295
                                300
Ser Ala Ser Glu Ile Phe Ala Ala Ala Met Gln Asp Tyr Gly Arg Ala
      310 315
Leu Ile Val Gly Glu Pro Thr Phe Gly Lys Gly Thr Val Gln Gln Tyr
          325 330
                                        335
Arg Ser Leu Asn Arg Ile Tyr Asp Gln Met Leu Arg Pro Glu Trp Pro
                            350
        340 345
Ala Leu Gly Ser Val Gln Tyr Thr Ile Gln Lys Phe Tyr Arg Val Asn
     355 360 365
Gly Gly Ser Thr Gln Arg Lys Gly Val Thr Pro Asp Ile Met Met Pro
 370 375 380
Thr Gly Thr Glu Glu Thr Glu Thr Gly Glu Lys Phe Glu Asp Asn Ala
   390 395 400
Leu Pro Trp Asp Ser Ile Asp Ala Ala Thr Phe Val Lys Ser Gly Asp
         405 410 415
Met Lys Gln Phe Gly Pro Glu Leu Leu Lys Asn His Asn Asp Arg Ile
      420 425 430
Gly Lys Asp Pro Glu Phe Gln Tyr Ile Met Lys Asp Ile Ala Arg Phe
 435 440 445
Asn Ala Leu Lys Ala Lys Arg Asn Ile Val Ser Leu Asn Tyr Ala Gln
 450 455 460
Arg Glu Lys Glu Asn Asn Glu Asp Asp Ala Thr Arg Leu Ala Arg Ile
   470 475
Asn Asp Arg Phe Lys Arg Glu Gly Lys Pro Leu Leu Lys Lys Leu Asp
                        490 495
          485
Asp Leu Pro Lys Asp Tyr Gln Glu Pro Asp Pro Tyr Leu Asp Glu Thr
      500 505 510
Val His Ile Ala Leu Asp Leu Pro Lys Leu Glu Lys Asn Lys Pro Ala
   515 520
Val Gln Pro Ala Pro Thr Lys
   530
```

<210> 5837 <211> 309

<212> PRT <213> Enterobacter cloacae

<220> <221>UNSURE

<400> 5837

105 Leu Ala Arg Gln Leu Phe Lys Thr Ile Asn Arg Trp Leu Ala Glu Ala 120 125 Gly Val Met Met Thr Gln Gly Thr Leu Val Asp Ala Thr Ile Ile Glu 130 135 140 Ala Pro Ser Ser Ser Lys Asn Lys Glu Gln Gln Arg Asp Pro Glu Met 150 155 160 His Gln Thr Lys Lys Gly Asn Gln Trp His Phe Gly Met Lys Ala His 165 170 Ile Gly Val Asp Ala Lys Ser Gly Leu Thr His Ser Leu Val Thr Thr 180 185 190 Ala Ala Asn Glu His Asp Leu Asn Gln Leu Gly Asn Leu Leu His Gly 195 200 205 Glu Glu Gln Phe Val Ser Ala Asp Ala Gly Tyr Gln Gly Ala Pro Gln 210 215 220 Arg Glu Glu Leu Ala Glu Val Asp Val Asp Trp Leu Ile Ala Glu Arg 225 230 235 Pro Gly Lys Val Lys Thr Leu Lys Gln His Pro Arg Lys Asn Lys Thr 245 250 255 Ala Ile Asn Ile Glu Tyr Met Lys Ala Ser Ile Arg Ala Lys Val Glu 260 265 270 His Pro Phe Arg Ile Ile Lys Arg Gln Phe Gly Phe Val Lys Ala Arg 275 280 285 Tyr Lys Gly Leu Leu Gln His Asp Asn Leu Phe Thr Ser Arg Gly Gly 295 300 290 Ser Ala Ser Gly Xaa 305

<210> 5838 <211> 93 <212> PRT

<213> Enterobacter cloacae

<400> 5838

Ser Ala Ser Trp Arg Gly Ala Ile Cys Leu Ser Arg Cys Arg Leu Pro 10 Arg Ser Ala Thr Ala Arg Gly Ala Gly Arg Gly Gly Cys Gly Leu Ala 25 3.0 Asp Arg Arg Ala Ser Arg Gln Gly Lys Asn Leu Glu Ala Ala Ser Ala 40 45 Gln Glu Gln Asn Gly His Gln His Arg Ile His Glu Ser Gln His Pro 55 60 Cys Gln Gly Gly Ala Pro Val Ser His His Gln Ala Ala Val Arg Leu 65 7.0 7.5 Arg Glu Ser Gln Ile Gln Gly Ala Ala Ala Thr Arg 85

<210> 5839 <211> 100 <212> PRT <213> Enterobacter cloacae

```
Pro Ala Ile Asp Gly Leu Glu Gln Leu Thr Gly Gln Leu Met Leu Leu
Glu Gln Val Ala Glu Ile His Asp Gly Gly Ala Ile Arg Gln Gly Ala
               8.5
                                   90
Ile Gln Gly
<210> 5840
<211> 116
<212> PRT
<213> Enterobacter cloacae
<400> 5840
Ser Gly Lys Gln Ala His Gly Gly Asp Phe Val Gln Gly Ile Phe His
Gly Thr Val Ala Gln Val Val Pro Met Leu His Ala Val Asn Thr Gln
                                                  30
                        25
His Gly Leu Gln Arg Ile Gly Pro Ser Ala Ile Ala Arg Leu Gly Ile
                                        4.5
       35
                         4.0
Lys Arg Leu Asp Asp Ser Gly His Ile Leu Pro Trp Gln Asn Leu Leu
                       55
                                         60
 5.0
His Ala Gly Glu Glu Asn Leu Phe Ser Gly Leu Thr Ala Leu Ser Ala
                                   75
65
                   7.0
Glu Phe Thr Ile Gly Glu Gly Glu Leu Met Ala His Asp Val Pro Leu
               85
                             90
Gly Cys Ala Pro Asp Glu Tyr Asp Asp Leu Ile Ser Gly Thr Cys Ser
                               105
His Leu Pro
<210> 5841
<211> 520
<212> PRT
<213> Enterobacter cloacae
<400> 5841
Val Leu Pro Ala Ala Cys Gly Glu Asn Asp Ser Arg Arg Ala Glu Met
                                                       1.5
                                   10
Leu Gln Gln Ala Asn Ala Leu Asp Glu Arg Glu Ser Phe Ser Ser Leu
                                                   30
            20
Arg Arg Leu Ala Trp Gln Asn Gly His Tyr Phe Thr Leu Arg Thr Thr
                           40
                                               4.5
Phe Asn Gln Pro Gly His Leu Ala Thr Val Val Ala Phe Asp Leu Pro
                       55
                                           60
Ile Asn Asp Leu Ile Pro Pro Asp Met Pro Leu Asp Ser Phe Arg Leu
                   70
                                      75
Glu Pro Asp Asn Ser Thr Gln Asn Met Arg Ser Pro Ser Asp Lys Glu
                                   90
               8.5
Gly Ala Asp Ser Val Ala Ile Ser Phe Asn Gly Ser Lys Ile Glu Ile
           100
                               105
Ala Ser Ser Leu Asn Ser Thr Gly Met Arg Leu Val Trp Gln Val Pro
                                               125
       115
Phe Gly Thr Leu Met Leu Asp Thr Leu Gln Asn Ile Leu Leu Pro Leu
                        1.35
                                           140
   130
Leu Leu Asn Ile Gly Leu Leu Ala Leu Ala Leu Phe Gly Tyr Ser Thr
```

150

165

180

155

170

Phe Arg Phe Gln Ser Gly Arg Gln Ser Asp Ser Thr Ser Val Ser Ala

Gly Thr Ser Asn Glu Leu Arg Ile Leu Arg Ala Leu Asn Glu Glu Ile

185 Ile Ser Val Leu Pro Leu Gly Val Leu Val His Asp Gln Glu Ala Asn

160

```
200
     195
Arg Thr Val Met Ser Asn Lys Ile Ala Asp His Leu Leu Pro His Leu
 210 215
                       220
Asn Leu Gln Asn Ile Thr Ala Met Ala Asp Gln His Gln Gly Val 1le
      230 235
225
Gln Ala Thr Ile Asn Asn Glu Leu Tyr Glu Ile Arg Gln Phe Arg Ser
         245 250 255
Gln Val Ala Ser Arg Thr Gln lle Phe Ile Ile Arg Asp Gln Asp Arg
         260 265 270
Glu Val Leu Val Asn Lys Lys Leu Lys Gln Ala Gln Arg Leu Tyr Glu
     275 280 285
Lys Asn Gln His Gly Arg Ala Ala Phe Met Gln Asn Ile Gly Asp Ala
      295 300
Phe Lys Gln Pro Leu Lys Ser Leu Ala Thr Gln Ile Ala Asp Leu Ser
305 310
                            315
Thr Pro Glu Ser Arg Gln Leu Ser Ser Gln Ala Asp Ser Leu Val Arg
         325
                           330 335
Leu Val Asp Glu Ile Gln Leu Ala Asn Met Leu Glu Asn Asp Ile Trp
         340 345 350
Lys Gly Thr Pro Thr Leu Phe Ser Ile Gln Asp Leu Ile Asp Glu Val
      355 360
Val Pro Glu Val Leu Pro Val I'e Lys Arg Lys Gly Leu Gln Leu Leu
      375
                                  380
Ile Asn Asn His Leu Pro Ala Asn Asp Glu Arg His Gly Asp Arg Asp
385 390
                               395
Ala Leu Arg Arg Ile Leu Met Met Leu Ile Gln Tyr Ala Val Thr Thr
           405
                                           415
                         410
Thr Gln Ile Gly Lys Ile Thr Leu Glu Val Ser Thr Asp Glu Ser Thr
                      425 430
      420
Asp Asp Arg Leu Thr Phe Arg Ile Leu Asp Thr Gly Glu Gly Val Thr
                     440
                                     445
Val Ser Glu Ile Asp Asn Leu His Phe Pro Phe Leu Asn Asp Thr Gln
      455 460
450
Arg Asp His Tyr Gly Lys Ala Asn Ala Leu Thr Phe Trp Leu Cys Asp
            470 475
                                              480
465
Gln Leu Ala Arg Lys Leu Gly Gly His Leu Asn Ile Lys Ala Arg Glu
                            490 495
            485
Ser Leu Gly Thr Arg Tyr Ser Leu His Val Lys Met Val Ser Ser Pro
                                        510
         500
                        505
Arg Gly Trp Ser Ile Arg Pro
<210> 5842
<211> 138
<212> PRT
<213> Enterobacter cloacae
<400> 5842
Ser Val Arg Ser Asn Ser Met Arg His Tyr Glu Ile Val Phe Met Val
                            10
His Pro Asp Gln Ser Glu Gln Val Pro Gly Met Ile Glu Arg Tyr Ser
        20
                        25
Ala Ala Ile Thr Gly Ala Glu Gly Thr Ile His Arg Leu Glu Asp Trp
                  40
                                    45
Gly Arg Arg Gln Leu Ala Tyr Pro Ile Asn Lys Leu His Lys Ala His
                                  60
         55
Tyr Val Leu Met Asn Val Glu Ala Pro Gln Glu Val Ile Asp Glu Leu
      70
                               7.5
Glu Thr Thr Phe Arg Phe Asn Asp Ala Val Ile Arg Ser Met Val Met
                         90
           85
Arg Thr Lys His Ala Val Thr Glu Ala Ser Pro Met Val Lys Ala Lys
```

```
100
Asp Glu Arg Arg Glu Arg Arg Asp Asp Phe Ala Asn Glu Thr Ala Asp
  115
              120
Asp Ser Asp Ala Gly Asp Ser Glu Glu
   130
                     135
<210> 5843
<211> 72
<212> PRT
<213> Enterobacter cloacae
<400> 5843
Phe Leu Met Thr Asn Arg Leu Val Leu Ser Gly Thr Val Cys Arg Thr
                              10
                                                    15
Pro Leu Arg Lys Val Ser Pro Ser Gly Ile Pro His Cys Gln Phe Val
                              25
                                               30
Leu Glu His Arg Ser Val Gln Glu Glu Ala Gly Phe His Arg Gln Ala
                          40
                                   4.5
Trp Cys Gln Met Pro Val Ile Ile Ser Gly His Glu Asn Gln Ala Ile
                    55
  50
Thr His Ser Phe Asn Gly Arg
<210> 5844
<211> 133
<212> PRT
<213> Enterobacter cloacae
<400> 5844
Thr Thr Ser Ser Glu Met Val Thr His Pro Asn Pro Gly Ser Asp Tyr
                                 10
Thr Leu Ile Arg Asn Pro Gli Gln Arg Arg Arg Ala Phe Pro Arg Ile
                           25
          20
Thr Ala Arg Ser Arg Gly Ala His Ile Met Lys Arg Ile Ala Ile Ala
 35
                          40
Ile Leu Ala Ala Leu Leu Leu Ser Ala Asn Ala Met Ala Ala Ile Arg
                      55
  50
Ile Asp Ser Gln Gln Ala Arg Asn Met Asp Asp Val Gln Ser Leu Gly
                   70
                                      7.5
Val Ile Tyr Ile Asn His Asn Phe Ala Thr Glu Ser Glu Ala Asp Gln
                                  90
              8.5
Ala Leu Asn Glu Glu Thr Asp Ala His Gly Ala Lys Tyr Tyr His Val
                                              110
        100
                              105
Met Leu Thr Arg Glu Pro Gly Ser Asn Gly Asn Met His Ala Ser Ala
Asp Ile Tyr Gln
    130
<210> 5845
<211> 188
<212> PRT
<213> Enterobacter cloacae
<400> 5845
Asn Arg Ala Phe Ala Glu Cys Lys His Asp Gly Arg Phe Ala Asp Asp
                                  10
Ala Gly Glu Lys Met Ile Pro Val Leu Ala Ile Ser Ala Trp Ser Gly
                                                  3.0
        20
Thr Gly Lys Thr Ser Leu Leu Lys Lys Leu Ile Pro Ala Leu Cys Ala
                          40
Lys Gly Ile Arg Pro Gly Leu Ile Lys His Thr His His Asn Met Asp
```

```
Val Asp Lys Pro Gly Lys Asp Ser Tyr Glu Leu Arg Lys Ala Gly Ala
        70
                     75
Ala Gln Thr Met Val Ala Ser Asn Gln Arg Trp Ala Leu Met Thr Glu
         85 90
Thr Pro Asp Glu Ala Pro Leu Asp Leu Ala Tyr Leu Val Ser Arg Met
     100 105 110
Asp His Ser Thr Leu Asp Leu Val Leu Val Glu Gly Phe Lys His Glu
 115 120 125
Ala Val Ala Lys Ile Leu Leu Phe Arg Ser Asp Ala Gly His Asp Val
 130 135 140
Ser Glu Leu Thr Leu Asp Glu His Val Ile Ala Val Ala Ser Asp Val
145 150 155 160
Ala Leu Thr Leu Lys Val Pro Val Leu Asp Leu Asn Asn Val Glu Gly
         165 170
Ile Ala Ala Phe Ile Ser Ala Trp Cys Ala Val
         180
<210> 5846
<211> 243
<212> PRT
<213> Enterobacter cloacae
<400> 5846
Phe Ile Arg Lys Gly Gln Gly Val Thr Pro Thr Ala Tyr Ala Thr Ile
Leu His Glu Tyr Ile Ser Gln Gly Leu Glu Ser Ile Leu Gly Ala Leu
                        25
                                       3.0
 20
Asp Leu Thr Gly Ser Tyr Asp Lys Gln Arg Thr Ile Thr Ile Gly Thr
                    40
                                     4.5
35
Ser Pro Ser Val Gly Val Leu Val Met Pro Ala Ile Tyr Gln Ala Val
       55
                                 60
 50
Lys Gln His Ala Pro Gln Leu Leu Ile Arg Asn Val Pro Val Asn Asp
             70
                              7.5
Pro Glu Thr Gln Leu Ala Gln Phe Gln Thr Asp Leu Ile Ile Asp Ser
                         90
            85
Asn Ser Phe Ala Ala Arg Ala Leu Gly His Asn Val Leu Tyr Thr Asp
         100 105 110
Ser Leu Ala Leu Val Cys Arg Gln Asn His Pro Val Leu Ser Ala Pro
 115
                     120
                                     125
Leu Thr Pro Glu Asn Leu Arg His Tyr Glu His Ala Thr Phe Met Ser
 130 135
                                 140
Glu Gly Gln Gly Pro Asp Pro Leu Arg Gln Arg Ile Asp Glu Leu Phe
               150 155
                                             160
Pro Asp Arg Leu Ile Ser Phe Ser Ser Tyr Asn Met Phe Thr Leu Ala
           165
                           170
                                           175
Ala Leu Ile Gly Ser Ser Asp Leu Leu Cys Ile Met Pro Val Arg Leu
                                        190
         180
             185
Phe Ala Leu Leu Gln Lys Cys Trp Pro Leu Glu Ser Ile Pro Leu Ser
                    200
   195
Gln Leu Thr Thr Glu Ser Val Glu Ile Ser Leu His Tyr Asn Lys Leu
 210 215 220
Ser Leu Arg Asp Pro Val Leu Glu Asn Val Ile Asn Val Ile Arg Gln
225 230
                              235
```

<210> 5847 <211> 337 <212> PRT

Ala Phe

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 5847
Ile Glu Thr Leu Ser Phe Asp Ile Arg Asn Trp Asn Thr His Ala Met
                            10
Ser Lys Pro Ile Val Met Glu Arg Gly Val Lys Tyr Arg Asp Ala Asp
                         25
                                          30
   2.0
Lys Met Ala Leu Ile Pro Val Lys Asn Val Ala Thr Glu Arg Glu Ala
  35
                   40
                                      45
Leu Leu Arg Lys Pro Glu Trp Met Lys Ile Lys Leu Pro Ala Asp Ser
                       60
                55
Ser Arg Ile Gln Gly Ile Lys Ala Ala Met Arg Lys Asn Gly Leu His
               70
                    75
Ser Val Cys Glu Glu Ala Ser Cys Pro Asn Leu Ala Glu Cys Phe Asn
          85 90 95
His Gly Thr Ala Thr Phe Met Ile Leu Gly Ala Ile Cys Thr Arg Arg
         100 105 110
Cys Pro Phe Cys Asp Val Ala His Gly Arg Pro Val Ala Pro Asp Ala
      115 120
                                      125
Asn Glu Pro Gln Lys Leu Ala Gln Thr Ile Ala Asp Met Ala Leu Arg
 130 135
                                   140
Tyr Val Val Ile Thr Ser Val Asp Arg Asp Leu Arg Asp Gly Gly
               150
                               155 160
145
Ala Gln His Phe Ala Asp Cys Ile Thr Ala Ile Arg Glu Lys Ser Pro
                             170 175
            165
Asn Ile Lys Ile Glu Thr Leu Val Pro Asp Phe Arg Gly Arg Met Asp
         180
                         185
                                          190
Arg Ala Leu Asp Ile Leu Thr Ala Thr Pro Pro Asp Val Phe Asn His
                      200
                                      205
      195
Asn Leu Glu Asn Val Pro Arg Ile Tyr Arg Gln Val Arg Pro Gly Ala
                   215
                                   220
210
Asp Tyr Asn Trp Ser Leu Lys Leu Leu Glu Arg Phe Lys Glu Ala His
225
                230
                                235
Pro His Ile Pro Thr Lys Ser Gly Leu Met Val Gly Leu Gly Glu Thr
            245
                            250
Asn Ala Glu Ile Ile Glu Val Met Arg Asp Leu Arg Arg His Gly Val
         260
                         265
                                          270
Thr Met Leu Thr Leu Gly Gln Tyr Leu Gln Pro Ser Arg His His Leu
                      280 285
      275
Pro Val Gln Arg Tyr Val Ser Pro Asp Glu Phe Asp Glu Met Lys Ala
                   295
  290
                                   300
Glu Ala Met Ala Met Gly Phe Thr His Ala Ala Cys Gly Pro Phe Val
       310
                               315
Arg Ser Ser Tyr His Ala Asp Met Gln Ala Lys Gly Glu Glu Val Lys
```

<210> 5848 <211> 187 <212> PRT <213> Enterobacter cloacae

325

Ala Asp Phe Tyr Met Ile Asp His Ser Asp Lys Ser Ile Lys Thr Gly 65 70 70 70 95 
Glu Leu Ile Pro Phe Asn Met Pro Lys Ser Val Arg Phe Ile Pro Gln 85 90 95 
Asn Glu Arg Val Ile Lys Ile Val Ala Gly Val Gly Gly Asp Lys Leu 100 100 105 110 
Lys Val Thr Met Asp Gly Val Tyr Asn Gly Asp Lys Phe Phe Glu Thr 115 125 
Asn Ala Arg Arg Ile Ser Lys Lys Tyr Asn Ile Pro Ser Ile Leu Ile 130 130 135 
Glu Lys Glu Leu Ile Ile Pro Glu Gly Glu Val Phe Leu Ile Gly Glr Asp Lys Leu Asn 165 170 175 
Ser Val Ile Gly Lys Thr Tyr Ala Ile Phe

<210> 5849 <211> 271 <212> PRT <213> Enterobacter cloacae

<400> 5849 Cys Ala Val Leu Ser Asn Thr Asn Ala Ser Thr Glu Tyr Gln His Asp Ala Asp Leu Ile Ala Gln Gln Ala Lys Gly Leu Gly Ala Gln Ala Lys 25 3.0 Gly Ala Gln Gln Pro Asp Gly Ala Leu Ser Leu Asp Ala Thr Leu Lys 40 Ser Pro Asp Val Gln Lys Tyr Ile Ala Gln Ala Glu Ala Leu Gln Lys 55 Asn Gln Asp Leu Ser Lys Gln Ile Asn Arg Gly Tyr Val Pro Gly Met 70 75 Asn Ala Asp Ser Val Gln Ala Val Ile Asp His Thr Gln Ala Ile Arg 90 85 Ala Gln Ser Asn Asn Ser Glu Ala Val Asn Asp Ile Ile Arg Arg Arg 105 100 110 Asp Glu Ile Gln Glu Asn Ala Ser Leu Asn Glu Ala Ala Leu Lys Ala 120 125 115 Val Glu Asn Lys Pro Glu Val Met Arg Gly Gln Ala Lys Asn Ile Glu 135 140 Lys Leu Phe Gly Ser Ser Gly Ile Thr Ala Ala Asp Phe Glu Arg Lys 150 145 155 Met Asp Ser Thr Arg Glu Glu Ala Leu Ser Thr Glu Asn Gly Ile Thr 170 165 175 Ile Phe Ala Ser Phe Ser Leu Pro Asp Tyr Val Leu Glu Asp Leu Leu 185 190 Arg Thr Ala Ser Glu His Lys Ala Arg Val Val Phe Asn Gly Leu Lys 195 200 205 Lys Gly Thr Thr Arg Leu Pro Glu Thr Gln Ala Ala Ile Asn Gln Met 210 215 220 Ile Val Lys Gly Lys Phe Glu Ser Pro Leu Ile Thr Ile Asp Pro Asp 230 235 Ser Phe Ser Gln Tyr Gln Val Thr Gln Val Pro Thr Ile Ile Ser Arq 245 250 Glu Gln Ala Arg Phe Ala Lys Met Gly Lys Leu Leu Gln Arg 265

<210> 5850 <211> 247 <212> PRT

## <213> Enterobacter cloacae

```
<400> 5850
Met Asn Leu Arg Thr Lys Gly Phe Leu Leu Ile Ile Lys Asp Glu Gly
                                10
Asp Thr Lys Glu Phe Thr Ile Glu Asn Pro Gly Lys Tyr Thr Leu Met
                       25
          20
Val Val Phe Lys Asp Asn Arg Asn Asn Glu Gln Arg Ile Glu Asn Thr
                                            45
                        40
      35
Phe Val Val Asp Glu Gln Thr Pro Met Asn Val Glu Met Thr Pro Lys
                             60
                    55
Phe Ser Asn Lys Tyr Met Arg Ala Pro Leu Asp Val Thr Leu Arg Ser
                                    75
                  70
Asn Ile Lys Ile Ser His Ser Ala Asp Ser Ile Asp Thr Val Thr Tyr
                                 90
              85
Lys Val Asn Gly Glu Val Ile Pro Ser Gly Lys Asn Tyr Trp Ala Gln
                             105
Leu Ile Ser Gly Leu Lys Glu Lys Lys Tyr Glu Ile Thr Ile Asp Val
                          120
                                            125
       115
Val Ser Lys Leu Gly Gln Arg Gly Ser Ala Ser Val Glu Phe Asp Val
   130
                   135
                                         140
Val Lys Asn Ala Val Pro Asn Cys Thr Leu Ser Tyr Thr Glu Thr Asn
                  150
                                     155
145
Leu Ser Trp Ser Phe Thr Asn Lys Cys Asp Asp Thr Asp Gly Lys Met
                                 170
                                                    175
               165
Val Arg Tyr Glu Trp Phe Ile Asn Gly Glu Leu Arg Asn Val Phe Gly
                            185
                                  190
Ser Thr Ala Thr Leu Ser Lys Asn Leu Asn Arg Gly Lys Gln Asp Ile
                               205
       195
Lys Val Ile Ala Tyr Asp Asp Ser Gly Asp Phe Ala Thr Gln His Val
                                 220
                      215
 210
Thr Val Phe Gly Pro Ala Glu Glu Ala Ser Lys Ser Glu Asn Thr Val
                                     235
                   230
225
Ser Ile Pro Ser Ser Glu
```

<210> 5851 <211> 139 <212> PRT <213> Enterobacter cloacae

245

<400> 5851 Val Leu Asp Ala Gln Ile Ser Val Cys Ala Cys Ser Ser Leu Ile Arg Cys Ile Asn Thr Thr Pro His Met Arg Gly Phe Phe Val Pro Asp Ser 3.0 20 25 Arg Val Ser Cys Gly Cys Arg Val Ala Val Ala His Tyr Pro Ala Tyr 40 35 Arg Ile Gln Tyr Ala Arg Ile Glu Pro Trp Ser Lys Leu Phe Ile Arg Pro Arg Met Gly Glu Pro Trp Gly Ile Val Leu Leu Asp Ser Ala Lys 75 80 7.0 Glu Ser Gly Ser Asp Gly Gly Gly Gly Arg Ile Thr Gln Arg Phe Ala 9.0 8.5 Leu Arg Pro Ser Gly Arg Cys Met Arg Gln Arg Phe Leu Asp Thr Leu 110 105 100

Glu Ser Asn Leu Gly Arg Ser Phe Ser Ser Phe Pro Ala Leu Lys Asn 115 120 125

His Gly Ala Leu Cys Phe Glu Arg Val Leu 130

```
<210> 5852
<211> 112
<212> PRT
<213> Enterobacter cloacae
<400> 5852
Phe Ala Val Leu Ile Gln Pro Arg Ile Cys Gly Val Phe Leu Phe Pro
                                10
Ile Pro Gly Tyr Arg Ala Asp Ala Gly Trp Arg Leu Arg Ile Thr Arg
           20
                             2.5
His Thr Glu Phe Asn Met Leu Glu Ser Asn Leu Gly Arg Ser Phe Leu
                  40
                                            4.5
Ser Val Pro Ala Trp Glu Asn His Gly Ala Leu Cys Phe Trp Ile Val
               55
                                  60
Leu Lys Asn Pro Glu Val Met Val Val Gly Glu Gly Leu Leu Ser Ala
                 70
                                    75
Ser Arg Phe Ala Leu Arg Val Val Ala Cys Gly Asn Ala Phe Ser Ile
             85 90
Arg Ser Asn Arg Thr Leu Val Glu Ala Ser His His Ser Pro His
                   105
<210> 5853
<211> 173
<212> PRT
<213> Enterobacter cloacae
<400> 5853
Phe Glu Glu Ala Glu Asp His Ala Gly Asn Ser Thr Glu Ala Lys Thr
                                 10
Ile Arg Asp Asp Arg Lys Tyr Thr Lys Arg Glu Arg Glu Leu Pro Ala
Asn Arg Leu Asn Arg Lys Arg Ala Arg Ser Gln Ala Lys Lys Asp Gly
       35
                         4.0
Asn Ala Lys Glu Gln Gln Gln Asp Gln Ile Glu Thr Lys Ile Glu Gln
                      55
Gln Ala Glu Glu Ile Glu Asn Ile Asn Ser Asp Gln Glu Lys Gln Ser
                                    75
                  70
Arg Glu Ile Lys Glu Gly His Gln Gly Glu Glu Asn Asp Glu Ala Lys
                                 90
Thr Thr Gln Ala Glu Gln Glu Glu Ile Gly Arg Lys Glu Arg Lys Arg
                             105
          100
Gln Lys Glu Thr Gln Arg Ala Lys Asn Ile Gln Glu Arg Lys Ala Arg
                          120
                                            125
       115
Gln Pro Gly Gly Gln Glu Gln Ala Arg Glu Ile Lys Arg Glu Ile
                                         140
   130
                      135
Glu Ser Gln Gln Pro His Asn Glu Ser Leu Phe Gln Lys Val Asn Tyr
                  150
                                  155
                                                        160
Leu Ser Tyr Ile Asn Arg Arg Gly Arg Arg Thr Arg Ala
               165
<210> 5854
<211> 270
<212> PRT
<213> Enterobacter cloacae
<400> 5854
```

```
Gly Ile Ser Tyr Lys Ser Ala Trp Asp Ala Ile Asn Asp Met Asn Thr
                  55
                                 60
Leu Ser Glu His Thr Leu Val Glu Arg Ala Thr Gly Gly Lys Gly Gly
               70
Gly Gly Ala Val Leu Thr Arg Tyr Gly Glr Arg Leu Ile Gln Leu Tyr
          8.5
                         90
Asp Leu Leu Ala Gln Ile Gln Gln Lys Ala Phe Asp Val Leu Ser Asp
      100 105 110
Asp Asp Asn Leu Pro Leu Asp Ser Leu Leu Gly Ala Ile Ser Arg Phe
                          125
     115 120
Ser Leu Gln Thr Ser Ala Arg Asn Gln Trp Phe Gly Thr Val Thr Gly
               135 140
Arg Asp His Ser Gln Val Gln Glu His Ile Glu Ile Leu Leu Ala Asp
    150 155
Gly Thr Thr Arg Leu Lys Ala Ala Ile Thr Ala Gln Ser Gly Gln Arg
          165 170 175
Leu Gly Leu Asn Glu Gly Gln Gla Val Leu Val Leu Leu Lys Ala Pro
                            190
        180 185
Trp Ile Ser Ile Thr Leu Asn Pro Glu Gln Ala Ala Glu Ala Asp Asn
                            205
      195 200
Gln Leu Arg Gly Arg Ile Ser His Ile Glu Arg Gly Ala Glu Gln Cys
                  215
Glu Val Leu Met Thr Leu Pro Asp Gly Gln Leu Leu Cys Ala Thr Val
225 230
                    235
Pro Val Asn Asp Ala Thr Glu Leu Asp Glu Gly Ala Val Val Thr Ala
          245 250
Tyr Phe Asn Ala Asp Arg Val Ile Ile Ala Thr Leu Cys
```

<210> 5855 <211> 388 <212> PRT

<213> Enterobacter cloacae

<220> <221>UNSURE <222>(329)

<400> 5855 His Met Ser Ser Leu His Ile Ser Gln Gly Thr Phe Arg Leu Ser Asp Thr Arg Thr Leu Ser Leu Pro Glu Leu Thr Leu Arg Ala Gly Glu Ser 20 25 Trp Ala Phe Val Gly Ser Asn Gly Ser Gly Lys Ser Ala Leu Ala Arg 35 4.0 4.5 Ala Leu Ala Gly Glu Ile Thr Gln Leu Lys Gly Glu Arg Arg Cys Thr 50 55 Phe Thr Arg Leu Thr Arg Leu Ser Phe Glu Gln Leu Gln Lys Leu Val 70 7.5 Ser Asp Glu Trp Gln Arg Asn Asn Thr Asp Leu Leu Ser Pro Gly Glu 90 85 Glu Asp Thr Gly Arg Thr Thr Ala Glu Ile Ile Gln Asp Glu Ile Lys 110 105 100 Asp Pro Ala Arg Cys Gln Gln Leu Ala Glu Gln Phe Gly Ile Thr Ala 120 115 Leu Leu Asn Arg Arg Phe Lys Tyr Leu Ser Thr Gly Glu Thr Arg Lys 140 135 Thr Leu Leu Cys Gln Ala Leu Met Ser Glu Pro Glu Leu Leu Ile Leu 155 150 Asp Glu Pro Phe Asp Gly Leu Asp Val Gln Ser Arg Ala Gln Leu Ala

170 Ala Leu Leu Ala Ser Leu Asn Gln Gln Gly Tyr Thr Leu Val Leu Val 185 190 180 Leu Asn Arg Phe Asp Glu Ile Pro Asp Phe Val His Tyr Ala Gly Val 195 200 Leu Ala Asp Cys Ser Leu Thr Glu Ile Gly Glu Lys Ala Val Leu Leu 215 220 Arq Gln Ala Leu Ile Ala Gln Leu Ala His Ser Glu Lys Leu Asp Gly 225 230 235 Ile Ala Leu Pro Glu Pro Asp Ala Pro Ser Ala Arg His Gly Leu Glu 245 250 255 Pro Asp Gln Pro Arg Ile Val Leu Arg Asp Gly Val Val Ala Tyr Asp 260 265 270 Asp Arg Pro Ile Leu Asn His Leu Ser Trp Thr Val Asn Pro Gly Glu 275 280 285 His Trp Gln Ile Val Gly Pro Asn Gly Ala Gly Lys Ser Thr Leu Leu 290 295 300 Ser Leu Ile Thr Gly Asp His Pro Gln Gly Tyr Ser Asn Asp Leu Thr 305 310 315 320 Leu Phe Ala Arg Arg Gly His Xaa Asp Thr Ile Trp Asp Ile Lys 325 330 335Lys His Phe Arg Tyr Val Ser Ser Thr Leu His Leu Gly Leu Pro Gly 340 345 350 Glu Gln His Arg Cys Lys Thr Leu Ser Ser Leu Ala Ser Phe Asp Ser 355 360 365 Ile Gly Tyr Leu Ser Arg Arg Phe Pro Thr Asn His His Gln Leu Ala 375 380 370 Pro Thr Leu Gly 385

<211> 264 <212> PRT <213> Enterobacter cloacae

<210> 5856

<400> 5856 Gly Lys Thr Met Ile Thr Leu Cys Lys Thr Cys Gly Thr Ala Tyr Asp 10 Glu Gln Pro Lys Asn Cys Pro Ile Cys Asp Asp Glu Arg Gln Tyr Val 20 25 30 Pro Val Thr Gly Gln Ala Trp Thr Asp Phe Asp Ser Leu Thr Thr Thr 40 His Thr Asn Lys Trp Gln Gln Leu Glu Pro Gln Leu Phe Ser Ile Lys 55 Thr Val Pro Ala Phe Ala Ile Asn Gln Arg Ala Leu Leu Arg Thr 7.0 75 Pro Gln Gly Asn Val Leu Trp Asp Cys Ile Ala Asn Leu Asp Pro Ala 85 90 Thr Arg Ala Leu Val Asp Ala Leu Gly Gly Ile Ser Ala Ile Ala Ile 105 100 Ser His Pro His Tyr Tyr Thr Thr Met Gln Glu Trp Ala Ala Ala Phe 115 120 125 Asn Ala Pro Ile Tyr Leu His Ala Ser Asp Arg Gln Trp Val Met Arg 130 135 140 Asp Ser Pro Ala Ile Arg Phe Trp Glu Glu Asp Ala Leu Glu Ile Met 150 145 Pro Leu Val Thr Leu Leu Arg Leu Gly Gly His Phe Ala Gly Gly Thr 165 170 175 Val Leu His Trp Gln Ser Gly Asp Gly Val Leu Leu Ala Gly Asp Ile 180 185 Leu Gln Val Thr Pro Gly Lys Asp Ala Val Ser Phe Met Trp Ser Tyr

```
Pro Asn Met Leu Pro Leu Pro Ala Arg Thr Val Glu Ser Leu Ile Gly
                 215
  210
                                  220
Arg Leu Thr Gly Lys Thr Tyr Gln Arg Leu Tyr Gly Ala Phe Glu Gly
           230
                             235
Gln Asn Ile Pro Val Asn Ala Asp Glu Ile Val Gln Arg Ser Gly Gln
         245
                   250
Lys Tyr Ile Ala Cys Leu Arg
        2.60
<210> 5857
<211> 277
<212> PRT
<213> Enterobacter cloacae
<400> 5857
Ala Pro Pro Ile Arg Gly Gly Ser Arg Leu Phe Gln Ala Arg Val Lys
                           10
Leu Leu Ile Pro Thr Pro Phe Gly Ala Asp Thr Val Leu Ala Asp Thr
 20
                25
                                        30
Gln Phe Gly Ser Leu Thr Arg Pro Val Gln Asp Glu Ala Met Ala Asn
          40
                            4.5
Trp Gln Glu Glu Gly Trp Lys Glu Ala Pro Leu Pro Val Trp Asn Leu
                55
Leu Asn Tyr Ala Val Leu Gln Glu Arg Arg Asn Gly Met Ala Leu Phe
             70
                             7.5
Thr Glu Gly Leu Arg Glu Phe Glu Val Thr Gly Glu Arg Gln Lys Thr
          85
Phe Ala Leu Thr Leu Leu Arg Gly Val Gly Val Leu Gly Lys Glu Asp
 100 105 110
Leu Leu Leu Arg Pro Gly Arg Pro Ser Gly Ile Lys Met Pro Val Pro
115 120 125
Asp Ser Gln Met Arg Gly Gln Leu Thr Cys Arg Phe Ser Leu Phe Ser
                  135 140
Phe Asn Gly Thr Pro Val Ser Ala Gly Val Ala Gln Gln Ala Lys Ser
              150
                             155 160
Trp Leu Thr Pro Val His Cys Tyr Asn Lys Ile Pro Trp Asp Ala Met
       165 170 175
Lys Leu Asn Arg Ala Ser Phe Thr Thr Pro Cys Ser Tyr Ser Leu Leu
        180 185 190
Thr Leu Ala Pro Asn Gly Cys Val Leu Ser Ala Leu Lys Lys Ala Glu
    195
                     200 205
Asp Arg Asp Glu Met Ile Leu Arg Leu Tyr Asn Pro Ser Glu Thr Arg
  210
                  215 220
Ser Cys Asp Val Ala Leu Ser Val Asn Arg Glu Ile Gln Ala Cys Cys
225
               230
                               235
Glu Thr Asp Met Asn Glu Val Tyr Lys Ala Gln Gly Glu Glu Gly Ser
            245
                         250 255
Ala Ile Thr Gly Ser Phe Arg Pro Gly Gln Ser Arg Thr Phe Ser Ile
                       265
         260
Lys Ile Glu Arg
      275
<210> 5858
<211> 68
<212> PRT
<213> Enterobacter cloacae
<400> 5858
Gly Leu Ile Leu Ala Gly Phe Ile Asn Ser Pro Met Val Gly Gln Gly
                            1.0
```

```
Leu Phe Leu Phe Asn Ile Pro Ile Gly Gly His Val Ser Cys Gly Gly
                               25
          20
Phe Leu Lys Val Pro Ser Tyr Arg Pro Lys Pro Glu Asp Val Glu Phe
                        40
       35
Asp Ala Arg Arg Asp Leu Phe Phe Cys His His Trp Ala Phe Pro Leu
                  5.5
  50
Gln Ser Gly
65
<210> 5859
<211> 247
<212> PRT
<213> Enterobacter cloacae
<400> 5859
Thr Arg Ser Ile Pro Leu Thr Phe Thr Gly Ser Leu Met Arg Pro Ile
                                   10
Val Val Val Leu Leu Ile Leu Ala Ala Ala Leu Thr Pro Ile Leu Trp
                               25
            20
Arg Val Glu Arg Ala Ala Pro Asp Pro Val Val Gln Val Asp Leu Leu
                           40
Ala Ser Arg Glu Val Arg Ile Ala Thr Ala Ile Ser Ala Gly Asn Gly
                       55
Leu Ser Gin Ala Ala Ile Val Phe Ile Pro Ser Tyr Ala Phe Leu Ala
                                       75
                    70
Leu Ser Leu Ser Glu Ser Met Ala Ser Phe Ser Leu Leu Pro Phe Val
                                    90
                85
Thr Thr Met Ala Leu Ser Ala Pro Ile Val Gly Val Leu Leu Asp Arg
                                105
            100
Val Gly Ser Arg Val Val Met Ile Ser Gly Ser Leu Ile Leu Met Val
                            120
                                                125
        115
Gly Cys Thr Ile Met Ala Leu Leu Ser Ser Thr Thr Pro Leu Phe Ile
                                            140
  130
Leu Ala Glu Val Leu Met Ala Leu Gly Leu Ile Thr Val Ile Gly Ala
                                       155
145
Pro Leu Arg Tyr Ile Met Leu Ser Glu Thr Pro Pro Glu His Arg Ala
                                   170
                165
Ser Gly Gln Ala Leu Ile Asn Ile Leu Ser Ser Ala Gly Gln Leu Val
                                                    190
                                185
            180
Gly Gly Ala Leu Ile Gly Gly Ile Val Ala Ser Met Gly Ser Gly Val
                                                205
        195
Met Gly Tyr Arg Phe Ser Phe Leu Phe Leu Val Ala Val Ala Phe Thr
   210
                        215
Leu Phe Leu Leu Ser Thr Gly Leu Lys Gly Arg Asp Val Glu Leu Glu
                                        235
Thr Met Lys Arg Asp Ser Cys
                245
<210> 5860
<211> 250
<212> PRT
<213> Enterobacter cloacae
<400> 5860
Phe Met Phe Leu Ser Val Ile Thr Val Ala Phe Arg Asn Tyr Glu Gly
                                    10
Val Val Lys Thr Trp Arg Ser Leu Arg Asn Leu Ala Arg Asp Pro Ser
                                25
            20
 Leu Thr Phe Glu Trp Ile Val Val Asp Gly Gly Ser Asn Asp Gly Thr
                            40
Ala Glu Phe Leu Glu Lys Leu Asn Gly Glu Phe Asn Leu Arg Tyr Ile
```

```
Ser Glu Lys Asp Lys Gly Ile Tyr Asp Ala Met Asn Lys Gly Ile Asn
                                 75
Met Ala Gln Gly Arg Tyr Ala Ile Phe Leu Asn Ser Gly Asp Val Phe
             85
                             90
His Glu Asn Val Ala Leu Phe Ala Arg Gln Leu Ala Arg Gln Lys Glu
        100 105
Asp Ala Met Phe Ile Gly Asp Ala Leu Leu Asp Phe Gly Glu Gly Lys
115 120 125
Lys Val Leu Arg Gly Ala Lys Pro Gly Trp Tyr Ile Tyr His Ser Leu
 130 135 140
Pro Ala Ser His Gln Ala Ile Phe Phe Pro Met Ser Gly Leu Lys Lys
    150 155
Gln Pro Tyr Asp Leu Arg Tyr Lys Val Ser Ser Asp Tyr Ala Leu Ala 165 170 175
Ala Ser Leu Tyr Lys Ser Gly Tyr Pro Phe Arg Arg Ile Lys Gly Leu
              185 190
Val Ser Glu Phe Ser Met Gly Gly Val Ser Thr Ser Asn Asn Leu Glu
      195 200 205
Leu Cys Gln Asp Ala Lys Asn Val Gln Arg Lys Ile Leu Arg Val Pro
                 215 220
210
Gly Phe Trp Ala Glu Leu Ser Tyr Phe Leu Arg Leu Lys Thr Thr Gly
             230
                                 235
225
Lys Ala Lys Ala Leu Tyr Asn Lys Ala
             245
<210> 5861
<211> 117
<212> PRT
<213> Enterobacter cloacae
<400> 5861
Gly Asn Val Met Gln Glu Leu Asn Gly Phe Ser Val Pro Lys Gly Phe
                              10
Arg Gly Gly Ser Gly Ile Lys Val Gln Leu Trp Trp Ala Val Gln Ala
         20
                           25
Thr Leu Phe Ala Trp Ser Pro Gln Ile Leu Tyr Arg Trp Arg Ala Phe
                     4.0
                                        4.5
      3.5
Leu Leu Arg Leu Phe Gly Ala Lys Ile Gly Lys Asn Val Val Ile Arg
                                    60
                    55
Pro Ser Val Lys Ile Thr Tyr Pro Trp Lys Leu Thr Leu Gly Asp Tyr
                 7.0
                               7.5
Ala Trp Val Gly Asp Asp Ala Val Leu Tyr Thr Leu Gly Glu Ile Thr
            85
                    90 95
Ile Gly Ala Asn Ser Val Val Ser Gln Lys Cys Tyr Leu Cys Thr Gly
      100
Ser His Asp Phe Met
<210> 5862
<211> 76
<212> PRT
<213> Enterobacter cloacae
<400> 5862
Ile Ile Tyr Phe Ser Trp Phe Ala Val Leu Leu Thr Leu Trp Tyr Leu
                           10
Phe Lys Val Phe Lys Met Met Ile Asn Ala Phe Gly Asp Asn Gln Asn
                           25
                                            30
Phe Arg Val Gln Leu Tyr Leu Phe Thr Pro Val Ser Leu Phe Phe Thr
```

40

```
Gly Ser Ile Phe Ser Pro Glu Tyr Ala Phe Leu Ile Val Cys Pro Phe
Ile Leu Arg Lys Ala Leu Asn Ile Thr Ser Val
65 70
<210> 5863
<211> 124
<212> PRT
<213> Enterobacter cloacae
<400> 5863
Thr Ala Ala Asp Leu Leu Gln Leu Ser Thr Ser Gln Arg Gln Gly
Arg Tyr Lys Thr Thr Leu Asn Arg Gly Val Met Ala Pro Lys Leu Leu
                             25
                                               30
Ile Ile Asp Glu Ile Gly Tyr Leu Pro Phe Ser Gln Glu Glu Ala Lys
                                          4.5
                        40
Leu Phe Phe Gln Val Ile Ala Lys Cys Tyr Glu Lys Ser Ala Met Ile
                                 60
                      5.5
Leu Thr Ser Asn Leu Pro Phe Gly Gln Trp Asp Gln Thr Phe Ala Gly
                  70
                                      75
Asp Ala Ala Leu Thr Ser Ala Met Leu Asp Arg Ile Leu His His Ser
                                  90
His Val Val Gln Ile Lys Gly Glu Ser Tyr Arg Leu Lys Gln Lys Arg
Lys Ala Gly Val Ile Ala Glu Ala Asn Pro Glu
       115
<210> 5864
<211> 709
<212> PRT
<213> Enterobacter cloacae
<400> 5864
Thr Arg Asn Gln Met Ala Arg Thr Thr Pro Ile Ala Arg Tyr Arg Asn
Ile Gly Ile Ser Ala His Ile Asp Ala Gly Lys Thr Thr Thr Thr Glu
           2.0
                               2.5
Arg Ile Leu Phe Tyr Thr Gly Val Asn His Lys Ile Gly Glu Val His
                          40
Asp Gly Ala Ala Thr Met Asp Trp Met Glu Gln Glu Gln Glu Arg Gly
   50
                       55
                                          60
Ile Thr Ile Thr Ser Ala Ala Thr Thr Ala Phe Trp Ser Gly Met Ala
                   70
Lys Gln Tyr Glu Pro His Arg Val Asn Ile Ile Asp Thr Pro Gly His
               8.5
                                  90
Val Asp Phe Thr Ile Glu Val Glu Arg Ser Met Arg Val Leu Asp Gly
           100
                               105
                                                  110
Ala Val Met Val Tyr Cys Ala Val Gly Gly Val Gln Pro Gln Ser Glu
                                              125
        115
Thr Val Trp Arg Gln Ala Asn Lys Tyr Lys Val Pro Arg Ile Ala Phe
                                          140
                       135
Val Asn Lys Met Asp Arg Met Gly Ala Asn Phe Leu Lys Val Val Gly
                                      155
                   150
Gln Ile Lys Thr Arg Leu Gly Ala Asn Pro Val Pro Leu Gln Leu Ala
                                   170
                                                      175
                165
Ile Gly Ala Glu Glu Gly Phe Thr Gly Val Ile Asp Leu Val Lys Met
                               185
                                                  190
Lys Ala Ile Asn Trp Asn Glu Thr Asp Ala Gly Val Thr Phe Glu Tyr
                                              205
                   200
Glu Asp Ile Pro Ala Glu Met Gln Asp Leu Ala Asp Glu Trp His Gln
```

215 Asn Leu Ile Glu Ser Ala Ala Glu Ala Ser Glu Glu Leu Met Glu Lys 230 235 Tyr Leu Gly Gly Glu Glu Leu Ser Glu Gln Glu Ile Lys Ser Ala Leu 250 245 Arg Gln Arg Val Leu Asn Asn Glu Ile Ile Leu Val Thr Cys Gly Ser 265 270 260 Ala Phe Lys Asn Lys Gly Val Gln Ala Met Leu Asp Ala Val Val Asp 275 280 285 Tyr Leu Pro Ser Pro Ile Asp Val Pro Ala Ile Asn Gly Ile Leu Asp 290 295 300 Asp Gly Lys Asp Thr Pro Ala Glu Arg His Ala Ser Asp Glu Glu Pro 305 310 315 Phe Ser Ala Leu Ala Phe Lys Ile Ala Thr Asp Pro Phe Val Gly Asn 325 330 Leu Thr Phe Phe Arg Val Tyr Ser Gly Val Val Asn Ser Gly Asp Thr 340 345 350 Ile Leu Asn Ser Val Lys Ala Ala Arg Glu Arg Phe Gly Arg Ile Val 355 360 365 Gln Met His Ala Asn Lys Arg Glu Glu Ile Lys Glu Val Arg Ala Gly 370 375 380 Asp Ile Ala Ala Ala Ile Gly Leu Lys Asp Val Thr Thr Gly Asp Thr 385 390 395 Leu Cys Asp Pro Asp His Pro Ile Ile Leu Glu Arg Met Glu Phe Pro 405 410 415 Glu Pro Val Ile Ser Ile Ala Val Glu Pro Lys Thr Lys Ala Asp Gln 420 425 430 Glu Lys Met Gly Leu Ala Leu Gly Arg Leu Ala Lys Glu Asp Pro Ser 435 440 445 Phe Arg Val Trp Thr Asp Glu Glu Ser Asn Gln Thr Ile Ile Ala Gly 450 455 460 Met Gly Glu Leu His Leu Asp Ile Ile Val Asp Arg Met Lys Arg Glu 465 470 475 480 Phe Asn Val Glu Ala Asn Val Gly Lys Pro Gln Val Ala Tyr Arg Glu 485 490 495 Ala Ile Arg Ala Lys Val Thr Asp Val Glu Gly Lys His Ala Lys Glm 500 505 510 Ser Gly Gly Arg Gly Gln Tyr Gly His Val Val Ile Asp Met Tyr Pro 515 520 525 Leu Glu Pro Gly Ser Asn Pro Lys Gly Tyr Glu Phe Ile Asn Asp Ile 530 535 540 Lys Gly Gly Val Ile Pro Gly Glu Tyr Ile Pro Ala Val Asp Lys Gly 550 555 560 545 Ile Gln Glu Gln Leu Lys Ala Gly Pro Leu Ala Gly Tyr Pro Val Val 565 570 575 Asp Met Gly Val Arg Leu His Phe Gly Ser Tyr His Asp Val Asp Ser 580 585 590 Ser Glu Leu Ala Phe Lys Leu Ala Ala Ser Ile Ala Phe Lys Glu Gly 595 600 Phe Lys Lys Ala Lys Pro Val Leu Leu Glu Pro Ile Met Lys Val Glu 610 615 620 Val Glu Thr Pro Glu Glu Asn Thr Gly Asp Val Ile Gly Asp Leu Ser 625 630 635 Arg Arg Arg Gly Met Leu Arg Gly Gln Glu Ser Glu Val Thr Gly Val 645 650 655 Lvs Ile His Ala Glu Val Pro Leu Ser Glu Met Phe Gly Tyr Ala Thr 660 665 670 Gln Leu Arg Ser Leu Thr Lys Gly Arg Ala Ser Tyr Thr Met Glu Phe 675 680 685 Leu Lys Tyr Asp Asp Ala Pro Asn Asn Val Ala Gln Ala Val Ile Glu 690 695

Ala Arg Gly Lys <210> 5865 <211> 126 <212> PRT <213> Enterobacter cloacae <400> 5865 Ser Thr Gly Leu Lys Pro Lys Ser Arg Ala Leu Ser Glu Gly Glu Ser Thr Ile Val Arg Asn Ile Ala Val Ser Lys Glu Lys Phe Glu Arg Thr 30 2.5 20 Lys Pro His Val Asn Val Gly Thr Ile Gly His Val Asp His Gly Lys 45 35 Thr Thr Leu Thr Ala Ala Ile Thr Thr Val Leu Ala Gln Thr Tyr Gly 55 Gly Ala Ala Arg Ala Phe Asp Gln Ile Asp Asn Ala Pro Glu Glu Lys 70 75 Ala Arg Gly Ile Thr Ile Asn Thr Ser His Val Glu Tyr Asp Thr Pro 90 85 Thr Arg His Tyr Ala His Val Asp Cys Pro Gly His Ala Asp Tyr Val 100 105 Ser Leu His Pro Arg Ala Leu Asp Gly Ser Thr Leu Arg <210> 5866 <211> 235 <212> PRT <213> Enterobacter cloacae <400> 5866 Cys Thr Thr Phe Gly Gln Arg Thr Gln Leu Ser Cys Ile Ser Glu His 10 Phe Arg Gln Arg Asn Phe Ser Val Asp Leu Asn Ala Ser Tyr Phe Gly 25 Phe Leu Thr Thr Gln His Thr Ala Thr Thr Ala Gln Val Thr Asp Asn 40 Val Thr Gly Val Leu Phe Arg Ser Phe Tyr Phe Asn Leu His Asp Arg 60 55 Leu Lys Gln Asn Trp Phe Cys Phe Leu Lys Ala Phe Phe Lys Gly Asn 7.0 7.5 Arg Arg Ser Gln Phe Lys Arg Gln Phe Arg Gly Val Asn Val Val 90 Arg Thr Glu Val Gln Thr Asn Thr His Val Tyr Asn Arg Val Thr Ser 105 Gln Arg Thr Ser Phe Gln Leu Leu Leu Asp Ala Phe Ile Asn Gly Arg 125 120 115 Asp Val Phe Ala Arg Asn Tyr Thr Thr Phe Asp Val Val Asp Glu Leu 140 135 Val Thr Phe Arg Val Arg Ala Arg Leu Gln Trp Val His Val Asp His 150 155 Asn Val Thr Val Leu Thr Ala Thr Thr Arg Leu Leu Ser Val Phe Thr 175 170 165 Phe Asn Val Gly Asn Phe Arg Ala Asn Arg Phe Ala Val Ser Asn Leu 190 185 180 Arg Phe Thr His Val Arg Phe Asn Val Glu Phe Thr Leu His Thr Val 200 205 Asn Asp Asp Val Gln Val Gln Phe Thr His Thr Ser Asp Asp Gly Leu 215 Val Arg Phe Phe Ile Ser Pro Tyr Thr Glu

<210> 5867 <211> 371 <212> PRT <212> Enterobacter cloacae <400> 5867 Trn Val Phe Phe Arg Gln Th

Trp Val Phe Phe Arg Gln Thr Ala Gln Ser Gln Thr His Phe Phe Leu 10 Val Ser Phe Gly Phe Trp Phe Asn Cys Asp Gly Asp Tyr Arg Leu Arg 2.5 3.0 Glu Phe His Thr Leu Gln Asn Asp Arg Val Ile Arg Ile Thr Gln Ser 35 40 45 Val Thr Ser Gly His Val Phe Gln Thr Asp Ser Ser Ser Asp Val Ala 50 55 60 Arg Thr Asn Phe Phe Asp Leu Phe Thr Phe Val Ser Val His Leu Tyr 65 70 75 Asp Thr Ala Lys Thr Phe Thr Arg Arg Phe His Gly Val Gln Asp Gly 90 95 8.5 Val Thr Gly Val Asn His Thr Arg Val Asn Ala Glu Glu Gly Gln Val 100 105 110 Thr His Glu Trp Val Gly Ser Asn Phe Glu Arg Gln Cys Arg Glu Trp 115 120 125 Leu Phe Ile Thr Cys Val Thr Leu Ser Arg Ser Ile Phe Thr Val Val 130 135 140 Gln Asp Ala Val Asp Arg Arg Asn Val Asn Arg Gly Trp Gln Val Val 150 155 160 145 Asn Tyr Arg Ile Gln His Arg Leu Asn Thr Phe Val Leu Glu Arg Arg 165 170 175 Thr Thr Gly Tyr Gln Asp Asp Phe Val Val Gln Asn Ala Leu Thr Gln 180 185 190 Ser Arg Phe Asp Leu Leu Arg Gln Phe Phe Thr Thr Gln Val Phe 195 200 205 Phe His Gln Leu Phe Arg Ser Phe Cys Cys Gly Phe Asp Gln Val Leu 215 220 210 Val Pro Phe Val Ser Gln Val Leu His Leu Cys Arg Asp Ile Phe Val 230 235 240 Phe Glu Gly Asn Ala Arg Ile Cys Phe Val Pro Val Asp Gly Phe His 245 250 255 Phe His Gln Val Asp Asn Ala Gly Glu Ala Phe Phe Ser Thr Asn Cys 260 265 270 Gln Leu Lys Arg Asn Arg Val Arg Ala Gln Thr Gly Phe Asp Leu Ala 275 280 285 Asn Asn Phe Gln Glu Val Ser Thr His Thr Val His Phe Val Asn Glu 290 295 300 Arg Asp Ala Trp Asn Phe Ile Phe Val Cys Leu Thr Pro Tyr Gly Phe 310 315 305 Arg Leu Trp Leu Asn Thr Thr Asn Cys Ala Ile Asn His Tyr Arg Ala 325 330 335 Val Lys Asn Thr His Gly Thr Pne Tyr Phe Asp Gly Glu Val Asn Val 345 350 Pro Trp Gly Val Asp Asp Val Tyr Ala Met Arg Phe Val Leu Leu Ser

360

365

His Thr 370

<210> 5868 <211> 63 <212> PRT

<213> Enterobacter cloacae

```
<400> 5868
Ser Gly Ser His Arg Val Ser Pro Val Val Thr Ser Phe Arg Pro Ile
                                10
Ala Ala Ala Met Ser Pro Ala Arg Thr Ser Leu Ile Ser Ser Arg Leu
                            25
       20
Leu Ala Cys Ile Cys Thr Ile Arg Pro Lys Arg Ser Arg Ala Ala Phe
          40 45
       35
Thr Glu Phe Arg Met Val Ser Pro Glu Leu Thr Thr Pro Glu
                    5.5
<210> 5869
<211> 275
<212> PRT
<213> Enterobacter cloacae
<400> 5869
Pro His Ile Leu Asp Leu Phe Ala Pro Ser Leu Glu Pro Gly His Ser
                               10
Lys Thr Met Met Ala Ala Phe Ile Val Ala Ile Arg Gly Thr Val Thr
                            25
          2.0
Gln Ala Val Leu Leu Gly Leu Ala Ala Thr Ile Ser His Thr Ser Ile
 35
                        4.0
Val Trp Leu Ile Ala Leu Gly Gly Met Tyr Ile Arg Gln Lys Phe Thr
                     55
Ala Glu Ser Ala Glu Pro Trp Phe Gln Leu Ile Ser Ala Ile Ile Ile
               70
65
                                   7.5
Leu Ala Thr Ala Ala Trp Met Phe Trp Arg Thr Trp Arg Gly Glu Lys
              8.5
                                90
Leu Trp Arg Met Glu Gln Glu Asp Glu His Gly His Val Asn His Pro
          100
                            105
His Asp Glu Thr Arg Val Ile Asp Thr Gly His Gly Ser Val Glu Leu
                         120
                                         125
       115
Ser Ile Phe Glu Glu Gly Gln Pro Pro His Trp Arg Leu Arg Ser Leu
                     135
                                       140
   130
Ser Gly Arg Lys Trp Glu Ala Ser Asp Ile Thr Leu Val Thr Asn Arg
                  150
                                    155
145
Gly Thr Gly Thr Phe Ser Gln Val Phe Asn Phe Val Glu Lys Asp Gly
              165
                                170
Phe Met Glu Ser Ala Gln Pro Ile Pro Glu Pro His Asn Phe Glu Val
                            185 190
           180
Cys Leu Ser Leu Gly His Arg Gly His Val His Asp Tyr Asp Val Glu
                                           205
                         200
 195
Phe Arg Glu His Asp His Asn His Asp His Ser Ala Leu Glu Gly Leu
                     215
                                        220
    210
Asp Val Ser Ser Leu Glu Tyr Gln Asp Ala His Glu Lys Ala His Ala
                       235
                                                      240
225
                  230
Asn Asp Ile Lys Lys Arg Phe Ala Asn Ser Ser Val Thr Thr Gly Gln
              245
                                                   255
                             250
Ile Ile Leu Ser Arg Pro Asp Gly Leu His His Ala Asp Gly Lys Ile
                             265
Lys Arg Ser
       275
<210> 5870
<211> 149
<212> PRT
<213> Enterobacter cloacae
<400> 5870
Val Ile Phe His Gln Pro Leu Val Ala Cys Phe Asp Lys Thr Lys Leu
```

```
Thr Phe Asn Asn Pro Lys Arg Val Leu His Leu Cys Pro Asp Ala Gly
                            25
      20
Phe Gln Val Phe Glu Phe Asp Gly Gly Phe Val Phe Ala Gly Val Leu
                        40
Phe Gln Tyr Pro Asp Phe Pro Trp Thr Phe Ser Asp Glu Pro Val His
                  55
Ile Thr Val Leu Gln Leu Ile Pro Phe Leu Cys Ala Thr Ile Thr Arg
                7.0
                                   75
Ile Gly Gly Asp Lys Phe Phe Val Thr Val Gln Lys Ile Ile Gln Leu
             85
                               90
Val Gln Val Met Phe Ile Ser Gly Gly Gly His Gln Arg Met Ser Lys
                105
Ala Ala Phe Ser Ile Asp Ser Asn Met Ser Leu His Ala Lys Val Pro
      115 120
                                   125
Leu Ile Ser Phe Phe Gly Leu Met His Ile Gly Val Thr Leu Phe Val
                    135
Phe Ile Leu Gly
145
<210> 5871
<211> 329
<212> PRT
<213> Enterobacter cloacae
<400> 5871
Gly His Met Ser Gln Gln Leu Thr Phe Ala Asp Ser Glu Phe Ser Ser
                              10
Lys Arg Arg Leu Thr Arg Lys Glu Ile Phe Leu Ser Arg Met Asp Thr
                                              30
         20
                            25
Leu Leu Pro Trp Pro Gln Leu Leu Gly Asn Ile Glu Pro Val Tyr Pro
                                          45
 35
Lys Ala Gly Asn Gly Arg Arg Pro Tyr Ser Leu Glu Thr Met Phe Arg
                                       60
  50
Ile His Cys Leu Gln Leu Trp Tyr Ser Leu Gly Asp Glu Ala Met Glu
                          7.5
                 7.0
Asp Ala Leu Tyr Glu Ile Ala Ser Met Arg Gln Phe Ala Leu Leu Ser
              85
                  90
Leu Asp Lys Ala Ile Pro Asp Arg Thr Thr Ile Met Asn Phe Arg His
                            105
          100
Leu Leu Glu Lys Tyr Lys Leu Thr Arg Lys Ile Phe Gln Thr Val Asn
                                 125
                         120
Gln Trp Leu Leu Asp Cys Gly Val Met Met Thr Gln Gly Thr Leu Val
  130
                     135
                                       140
Asp Ala Thr Ile Ile Glu Ala Pro Ser Ser Thr Lys Asn Lys Asn Lys
                 150 155
Gln Arg Asp Pro Asp Met His Gln Thr Lys Lys Gly Asn Gln Trp His
                                170
            165
Phe Gly Met Lys Ala His Ile Gly Val Asp Ala Glu Ser Gly Leu Thr
                             185 190
           180
His Thr Leu Val Thr Thr Ala Ala Asn Glu His Asp Leu Asn Gln Leu
                         200
                                           205
       195
Asn Asn Leu Leu His Gly Asp Glu Glu Phe Val Ser Ala Asp Ala Gly
                                       220
 210
                      215
Tyr Arg Gly Ala Glu Lys Arg Asp Glu Leu Lys Asp Arg Asp Val Asp
                                  235
                  230
Trp Phe Ile Ala Glu Arg Pro Gly Lys Val Arg Ile Leu Lys Lys His
                                250
              245
Pro Arg Lys Asn Lys Ala Ala Ile Lys Leu Glu Tyr Leu Lys Ala Ser
                            265
          260
 Ile Arg Ala Lys Val Glu His Pro Phe Arg Val Ile Lys Arg Gln Phe
```

275 280 285

Gly Phe Ile Lys Ala Arg Tyr Lys Gly Leu Met Lys Asn Asp Ser Gln 290 295 300

Leu Ala Met Leu Phe Thr Leu Ala Asn Leu Phe Lys Val Asp Gln Met 305

Ile Arg Arg Gln Thr Lys Ser Ala

<210> 5872 <211> 344 <212> PRT <213> Enterobacter cloacae

<400> 5872 Arg Leu Pro Ala Ser Gly Gly Ile Arg Met Arg Lys Ser Val Ile Ala 1.0 Ile Ile Ile Ile Val Leu Val Val Leu Tyr Thr Ser Ile Phe Val Val 25 3.0 Lys Glu Gly Glu Arg Gly Ile Lys Phe Gln Phe Ser Ser Val Val Arg 40 4.5 Asp Gly Asp Lys Arg Pro Val Ile Tyr Glu Pro Gly Leu His Phe Lys 60 50 55 Ile Pro Phe Ile Gln Ser Val Lys Thr Leu Asp Ala Arg Ile Gln Thr 75 7.0 Met Asp Asn Gln Ala Asp Arg Phe Val Thr Lys Glu Lys Lys Asp Leu 85 9.0 Ile Val Asp Ser Tyr Ile Lys Trp Arg Ile Ser Asp Phe Ser Arg Tyr 100 105 110 Phe Leu Ala Thr Gly Gly Gly Asp Val Ser Gln Ala Glu Val Leu Leu 115 120 125 Lys Arg Lys Phe Ser Asp Arg Leu Arg Ser Glu Ile Gly Arg Leu Asp 130 135 140 Val Lys Asp Ile Val Thr Asp Ser Arg Gly Arg Leu Thr Leu Glu Val 145 150 155 160 Arg Asp Ala Leu Asn Ser Gly Ser Ala Gly Thr Glu Asp Glu Val Glu 165 170 175 Thr Pro Ala Ala Asp Asp Ala Ile Ala Lys Ala Ala Glu Arg Val Gln 180 185 190 Ala Glu Thr Asn Gly Lys Val Pro Val Ile Asn Pro Asn Ser Met Ala 195 200 205 Ala Leu Gly Ile Glu Val Val Asp Val Arg Ile Lys Gln Ile Asn Leu 215 220 210 Pro Ala Glu Val Ser Glu Ala Ile Tyr Asn Arg Met Arg Ala Glu Arg 225 230 235 Glu Ala Val Ala Arg Arg His Arg Ser Gln Gly Gln Glu Glu Ala Glu 245 250 255 Lys Leu Arg Ala Ala Ala Asp Tyr Glu Val Thr Lys Thr Leu Ala Glu 260 265 Ser Glu Arg Gln Gly Arg Ile Leu Arg Gly Glu Gly Asp Ala Glu Ala 275 280 Ala Lys Leu Phe Ala Asp Ala Phe Ser Gln Asp Pro Asp Phe Tyr Ala 295 300 Phe Ile Arg Ser Leu Arg Ala Tyr Glu Asn Ser Phe Lys Ser Asn Gln 305 310 315 Asp Val Met Val Leu Ser Pro Asp Ser Asp Phe Phe Arg Tyr Met Lys 330 325 Thr Pro Thr Asn Ala Thr Arg

<210> 5873 <211> 168

<220>

```
<212> PRT
<213> Enterobacter cloacae
<400> 5873
Gly Gly Val Asp Asp Phe Ala Arg Cys Val Lys Tyr Ile Arg Glu Gly
                            10
Gln Ala Tyr Thr Asn Glu Val Gln Pro Arg Ala Asn Gly Gln Ala Gln
         20
                            25
Arg Ile Leu Glu Glu Ala Arg Ala Tyr Lys Thr Gln Thr Ile Leu Glu
                       40
                                       4.5
Ala Gln Gly Glu Val Ala Arg Phe Ala Lys Ile Leu Pro Glu Tyr Lys
                          60
                  55
Ala Ala Pro Glu Ile Thr Arg Glu Arg Leu Tyr Ile Glu Thr Met Glu
                 70
                                  75
Lys Val Leu Ser His Thr Arg Lys Val Leu Val Asn Asp Asn Lys Gly
                  90 95
             8.5
Gly Asn Leu Met Val Leu Pro Leu Asp Gln Met Leu Lys Gly Gly Ser
              105
                                             110
          100
Ala Pro Ala Ala Lys Asp Asn Ser Gly Ala Asn Asn Leu Leu Arg Leu
       115 120
Pro Pro Ala Ser Ser Gly Ser Ala Ser Ala Asn Thr Thr Pro Ser Ser
                    135
                            140
 130
Asn Asp Gly Asp Ile Met Asp Gln Arg Arg Ala Asn Ala Gln Arg Asn
                 150
                                   155
145
Asp Tyr Gln Arg Gln Gly Glu
              165
<210> 5874
<211> 303
<212> PRT
<213> Enterobacter cloacae
<221>UNSURE
<222>(252)
<220>
<221>UNSURE
<222>(255)
<221>UNSURE
<222>(256)
<220>
<221>UNSURE
<222>(257)
<220>
<221>UNSURE
<222>(258)
<220>
<221>UNSURE
<222>(259)
<220>
<221>UNSURE
<222>(260)
```

```
<221>UNSURE
<222>(261)
<220>
<221>UNSURE
<222>(262)
<220>
<221>UNSURE
<222>(263)
<220>
<221>UNSURE
<222>(264)
<220>
<221>UNSURE
<222>(265)
<220>
<221>UNSURE
<222>(266)
<220>
<221>UNSURE
<222>(267)
<220>
<221>UNSURE
<222>(296)
<400> 5874
Val Arg Leu Arg Gly Ser Ser Leu Pro Leu Val Lys Ile Met Thr Asp
                                   1.0
Pro Ala Gly Ala Ser Glu Leu Val Phe Gly Leu Phe Trp Leu Leu Gly
                               25
                                                   30
            20
Tyr Gln Phe Ser Pro Arg Leu Ala Asp Ala Gly Ala Ser Val Phe Trp
                           40
Arg Met Asp His Asp Ala Asp Tyr Gly Val Leu Asn Asp Ile Ala Arg
                       55
                                           60
Gly Gln Ser Asp Pro Arg Lys Ile Val Leu Gln Trp Asp Glu Met Ile
                                       75
                    7.0
Arg Thr Ala Gly Ser Leu Lys Leu Gly Lys Val Gln Val Ser Val Leu
                8.5
                                   90
Val Arg Ser Leu Leu Lys Ser Glu Arg Pro Ser Gly Leu Thr Gln Ala
                                105
            100
Ile Ile Glu Val Gly Arg Ile Asn Lys Thr Leu Tyr Leu Leu Asn Tyr
                                               125
       115
Ile Asp Asp Glu Asp Tyr Arg Arg Ile Leu Thr Gln Leu Asn Arg
                                           140
   130
                        135
Gly Glu Ser Arg His Ala Val Ala Arg Ala Ile Cys His Gly Gln Lys
                                       155
                                                           160
                   150
Gly Glu Ile Arg Lys Arg Tyr Thr Asp Gly Gln Glu Asp Gln Leu Gly
                                                   175
                                   170
                165
Thr Leu Gly Leu Val Thr Asn Ala Val Val Leu Trp Asn Thr Ile Tyr
                               185
                                                   190
           180
Met Gln Ala Ala Leu Asp His Leu Arg Ala Gln Gly Glu Thr Leu Asn
                        200
                                               205
Asp Glu Asn Ile Ala Arg Leu Ser Pro Leu Cys His Gly His Ile Asn
                        215
                                          220
Met Leu Gly His Tyr Ser Phe Thr Leu Ala Glu Leu Val Thr Lys Gly
```

```
230
His Leu Lys Pro Leu Lys Glu Ala Ser Glu Ala Xaa Asn Val Xaa Xaa
                    250
           245
270
       260
             265
His Gln Val His Ala Lys Met Gly Gly His Pro Ala Gly Glu Lys Ala
 275 280
                         285
Pro Arg Ala Val Leu Val Val Xaa Thr Ser Val Gly Pro Phe
  290
         295
<210> 5875
<211> 743
<212> PRT
<213> Enterobacter cloacae
<400> 5875
Asn Pro Glu Arg Lys Phe Pro Glu Gly Ile Gln Tyr Ser Ile Ala Tyr
                           1.0
Asp Pro Thr Phe Phe Ala Ser Ala Ser Leu Lys Ser Val Ala Thr Thr
   20
                        25
                                       3.0
Leu Leu Glu Ala Thr Ile Leu Val Val Leu Val Val Met Leu Phe Leu
35 40
                                  4.5
Gln Thr Trp Arg Ala Ser lle Ile Pro Leu Val Ala Val Pro Ile Ser
                        60
         55
Leu Val Gly Thr Phe Ala Leu Met Asp Val Phe Gly Phe Ser Leu Asn
          70
                              7.5
Thr Leu Ser Leu Phe Gly Leu Val Leu Ser Ile Gly Ile Val Val Asp
                90 95
Asp Ala Ile Val Val Val Glu Asn Val Glu Arg His Ile Ala Arg Gly
        100 105 110
Leu Ser Pro Lys Asp Ala Ala Arg Lys Ala Met Asp Glu Val Thr Gly
 115 120
                                    125
Pro Ile Leu Ala Ile Thr Ser Val Leu Ala Ala Val Phe Ile Pro Ser
               135 140
 130
Ala Phe Leu Ser Gly Leu Gln Gly Glu Phe Tyr Arg Gln Phe Ala Leu
             150 155
Thr Ile Ala Ile Ser Thr Ile Leu Ser Ala Ile Asn Ser Leu Thr Leu
            165
                           170 175
Ser Pro Ala Leu Ala Ser Val Leu Leu Lys Pro His Gln Gly Thr Asp
         180 185 190
Lys Lys Asp Met Leu Thr Arg Val Leu Glu Arg Leu Leu Gly Ser Phe
                     200 205
      1.95
Phe Gly Arg Phe Asn Thr Phe Phe Asp Arg Leu Ser Glu Lys Tyr Val
   210
                                220
Asp Thr Val Arg Arg Ile Val Arg Gly Ser Thr Ile Val Leu Ile Leu
               230
                              235
Tyr Ala Gly Phe Leu Ala Met Thr Phe Leu Gly Phe Lys Gln Val Pro
            245
                           250
Gly Gly Phe Val Pro Ala Gln Asp Lys Tyr Tyr Leu Val Gly Ile Ala
         260
                        265
Gln Leu Pro Thr Gly Ala Ser Leu Asp Arg Thr Glu Ala Val Val Lys
                    280
                                    285
Glu Met Thr Arg Leu Ala Leu Ala Gln Pro Gly Val Glu Ser Val Val
                  295
                                  300
Ala Phe Pro Gly Leu Ser Val Asn Gly Pro Asn Met Pro Asn Ser Ala
               310
                              315
Leu Met Phe Thr Met Leu Lys Pro Phe Lys Asp Arg Gln Asp Pro Ser
                           330
            325
Leu Ser Ala Tyr Ala Ile Ala Gly Ser Leu Met Gly Lys Phe Ser Lys
         340
                        345
Ile Pro Asp Gly Phe Val Gly Ile Phe Pro Pro Pro Pro Val Pro Gly
```

```
360
Leu Gly Ser Met Gly Gly Phe Lys Leu Gln Ile Glu Asp Arg Ala Gly
370 375
                               380
Leu Gly Phe Glu Glu Leu Ala Arg Val Gln Gly Thr Ile Met Ala Lys
385 390 395
Ala Met Gln Thr Pro Glu Leu Ala Gly Met Met Ala Ser Phe Glu Thr
      405 410 415
Asn Ser Pro Gln Ile Gln Val Asp Ile Asp Arg Val Lys Ala Lys Ser
      420 425 430
Gln Gly Val Ala Leu Thr Asp Ile Phe Asp Thr Leu Gln Val Asn Leu
     435 440 445
Gly Ser Leu Tyr Val Asn Asp Phe Asn Arg Phe Gly Arg Thr Tyr Arg
 450 455 460
Val Ile Thr Gln Ala Asp Ala Pro Phe Arg Met Gln Ala Glu Asp Ile
465 470 475 480
Gly Leu Leu Lys Val Arg Asn Ala Ala Gly Glu Met Ile Pro Leu Ser
         485 490 495
Ala Leu Ile Asn Ile Lys Leu Thr Ser Gly Pro Asp Arg Val Met Arg
        500 505 510
Tyr Asn Gly Tyr Pro Ser Ala Asp Ile Thr Gly Gly Thr Ala Pro Gly
     515 520 525
Tyr Ser Ser Gly Gln Ala Thr Asp Ala Ile Glu Lys Ile Val Lys Glu
                535 540
530
Ser Leu Pro Glu Gly Met Ala Tyr Glu Trp Thr Asp Leu Thr Tyr Gln
545 550 555
Glu Lys Leu Ala Gly Asn Ser Ala Leu Tyr Ile Phe Pro Leu Ala Val
           565 570 575
Phe Phe Ala Phe Leu Ile Leu Ala Ala Gln Tyr Asn Ser Trp Ser Leu
                      585 590
        580
Pro Phe Ala Val Leu Leu Ile Ala Pro Met Ala Leu Leu Ser Ala Ile
595
                   600 605
Gly Gly Val Trp Ile Ser Asn Gly Asp Asn Asn Ile Phe Thr Gln Ile
610 615 620
Gly Phe Val Val Leu Val Gly Leu Ala Ala Lys Asn Ala Ile Leu Ile
           630 635 640
Val Glu Phe Ala Arg Thr Gln Glu Asn Glu Gly Leu Ser Pro Leu Glu
                 650
           645
Ala Val Leu Glu Ala Ala His Leu Arg Leu Arg Pro Ile Leu Met Thr
           665
        660
Ser Leu Ala Phe Ile Ala Gly Val Ile Pro Leu Val Leu Ala Ser Gly
                   680 685
    675
Ala Gly Ala Glu Met Arg His Ala Met Gly Ile Ala Val Phe Ala Gly
                               700
 690
                695
Met Leu Gly Val Thr Phe Phe Gly Leu Leu Leu Thr Pro Val Phe Tyr
705
           710 715
Val Val Val Arg Ser Phe Ser Ile Arg Arg Lys Val Asn Ser His Gln
                         730
           725
Leu Leu Ser Glu Lys Arg
        740
<210> 5876
<211> 93
<212> PRT
```

<213>

<213> Enterobacter cloacae

<220> <221>UNSURE <222>(91)

 $<\!400\!>5876$  Leu Gin Gin Met Asn Gly Lys Ala Leu Asp Leu Thr Thr Val Val Ser

Pro Lys Leu Lys Gly Thr Thr Thr Lys Gln Asp Thr Tyr Met Gln Phe 25 His Leu Asp Asn Met Thr Cys Gly Gly Cys Ala Arg Thr Val Thr Lys 35 40 Val Ile Gln Asn Leu Asp Pro Asp Ala Ser Ile Val Thr Asp Pro Pro 50 55 60 Thr Arg Lys Val Glu Ile Gln Thr Leu Leu Ser Val Asp Leu Ile Ser 70 75 Asp Ala Leu Arg Glu Ala Gly Phe Pro Pro Xaa Glu

<210> 5877 <211> 384 <212> PRT

<213> Enterobacter cloacae

<400> 5877 Pro Pro Ser Val Gln Gly Ala Leu Ala Gly Gly Pro Ser Ala Arg Phe Arg Gly Thr Gly Asn Arg Cys Gly His Cys Leu Arg Ala Thr Phe Leu 20 Pro Ser Pro Thr Arg Arg Phe Ser Ala Ile Thr Ala Glu Tyr Leu Val 40 Thr Ala Ala Gly Tyr His Phe Glu Glu Asn Arg Tyr Ala Ile Gly Glu 5.0 5.5 Gly Glu Thr Ile His Arg Thr Asp Phe Ser Val Ile Pro Ala Ser Val 75 7.0 Ser Tyr Arg Pro Ala Gln Ser Thr Ala Trp Pro Arg Thr Tyr Gly Pro 85 9.0 Gln Thr Ala Lys Val Val Gly Pro Gln Gly Glu Ser Ile Trp Thr Asp 105 100 Lys Tyr Gly Arg Val Lys Val Lys Phe His Trp Asp Arg Leu Ala Lys 120 115 Gly Asp Asp Thr Ser Ser Cys Trp Val Arg Val Ser Ser Ala Trp Ala 130 135 140 Gly Gln Gly Tyr Gly Gly Val Gln Ile Pro Arg Val Gly Asp Glu Val 150 155 145 Val Val Asp Phe Ile Asn Gly Asp Pro Asp Arg Pro Ile Ile Thr Gly 170 165 Arg Val Tyr Asn Asp Ala Ser Met Pro Pro Trp Ala Leu Pro Ala Ala 180 185 190 Ala Thr Gln Met Gly Phe Met Ser Arg Ser Lys Asp Gly His Lys Asp 205 Asn Ala Asn Ala Leu Arg Phe Glu Asp Lys Ala Gly Gln Glu Gln Ile 210 220 215 Trp Ile His Ala Glu Lys Asn Met Asp Thr Glu Ile Glu Asn Cys Glu 230 235 Thr His Asp Val Gly Val Asp Arg Lys Lys Ile Ile Gly Arg Asp Glu 250 245 His Val Thr Val Lys Arg Asn Arg Asp Val Asn Val Gly Ala Asn Ser 270 265 260 Thr Ser Asn Thr Gly Asn Gln His Lys Phe Asn Val Gly Lys Asn Gln 280 285 Thr Val Leu Thr Met Asp Lys Glu Gly Asn Ala Leu Leu Glu Ala Thr 300 290 295 Thr Ser Ile Lys Leu Lys Val Asn Asp Asn Tyr Ile Leu Ile Thr Pro 310 315 Ser Thr Ile Glu Ile Ile Val Ser Glu Gly Thr Leu Lys Ala Glu Ser 325 330 Ile Thr Val Ala Ser Phe Lys Gly Thr Glu Leu Thr Lys Leu Gly Gly

```
345
Gly Ile Asn Ala Glu Met Lys Ala Asn Asp Thr Leu His Leu Asn Gly
                                   365
   355 360
Thr Asn Leu Thr Asp Ile Lys Gly Ala Val Val Lys Ile Asn Ser
   370
<210> 5878
<211> 364
<212> PRT
<213> Enterobacter cloacae
<400> 5878
Tyr Val Glu Gly Phe Leu Asn Met Gly Gln Pro Ala Ala Arg Ala Thr
                  10
Ile Asp Val Ser Ala His Ser Gly Pro Ile Gln Ser Gly Ser Pro Asp
  20
             25
Val Ile Ile Gly Gly Phe Pro Ala Ala Arg Lys Gly Asp Thr Leu Ser
                4.0
                                 4.5
Cys Ser Thr His Gly Ser Gly Ile Ile Val Gly Gly Ser Gly Thr Val
Phe Val Asn Gly Met Pro Leu Ala Arg Gln Gly Asp Lys Thr Lys Cys
65 70 75
Asp Val Ser Gly Ser Pro Ala Pro Ala Ile Pro Lys Ala Ala Ala Pro
      85
                            90
Gln Tyr Trp Gly Gly Thr Leu Ala Lys Asn Ala Gly Glu Asp Gly Met
        100 105 110
Met His Gly Glu His Phe Asp Ala Arg Val Leu Gly Ala Tyr Ala Ser
115 120 125
Leu Glu Asp Lys Asn Leu Asn Gly Asp Phe Asp Thr Ala Ser Ala Gly
 130 135 140
Phe Ala Leu Ala Asp Ile Thr Ile Gly Asn Met Lys Ser Lys Asp Leu
               150 155
Leu Arg Ala Glu Met Arg Asn Lys Leu Ala Val Ala Asn Ala Thr Gly
             165 170 175
Ser Leu Tyr Gly Gly Gly Asn Asp Ile Tyr Gly Leu Asn Ala Asn Ala
         180
                         185
Ala Ala Thr Gly Glu Gln Tyr Gly Gly Ser Val Ala Ala Gly Lys Glu
                     200
                                      205
Gly Thr Leu Tyr Gly Gly Val Ser Gly Asp Val Thr Ile Gly Thr Ala
                                   220
   210
                  215
Glu Ala Lys Ala Val Leu Glu Val Tyr Thr Gly Asn Asp Gly Lys Tyr
               230
                               235
Gly Leu Thr Ala Asp Ala Gly Ala Glu Ala Lys Gly Met Lys Gly Glu
             245
                            250
                                             255
Val Ser Gly Asn Leu Asp Ile Leu Gly Ile Val Ser Gly Glu Ala Lys
         260
             2.65
                                         270
Ile Asp Gly Ser Phe Gly Ser Ala Gly Leu Ala Gly Gly Gly Ser Ala
                      280
                            285
Phe Trp Asp Thr Lys Asp Tyr Ser Val Asn Val Arg Val Thr Gly Gly
                  295
                                   300
 290
Ala Ala Gly Leu Val Trp Leu Lys Gly Asp Ala Ser Leu Lys Val Ala
                310
                                315
Phe Lys Pro Ile Leu Asp Phe Phe Asp Tyr Leu Tyr Gly Glu Glu Asp
            325 330 335
Glu Pro Ala Val Thr Ser Val Leu Thr Glu Ser Gly Asp Gly Thr Ile
                                          350
       340 345
Ile Thr Gly Cys Val Thr Val Leu Ile Gly Asp
                      360
```

<210> 5879 <211> 130 <212> PRT <213> Enterobacter cloacae <400> 5879 Lys Arg Asp Thr Ile Tyr Ser Thr Gln Glu Ile Leu Met Ser Pro Phe Ser Thr Leu Gln Leu Phe Lys Asn Leu Ser Asp Glu Thr Arg Leu Gly 25 30 20 Ile Val Leu Met Leu Lys Glu Met Gly Glu Leu Cys Val Cys Asp Leu 35 40 4.5 Cys Thr Ala Leu Glu Gln Ser Gln Pro Lys Ile Ser Arg His Leu Ala 55 60 Met Leu Arg Glu Ser Gly Leu Leu Leu Asp Arg Lys Asn Gly Lys Trp 7.0 7.5 8.0 Val His Tyr Arg Leu Ser Pro His Ile Pro Ser Trp Ala Ala Gln Val 85 90 Ile Glu Gln Ala Trp Leu Ser Gln Gln Asp Asp Val Gln Ala Ile Ala 105 110 100 Arg Lys Leu Ala Ser Ala Asn Cys Ser Gly Ser Gly Lys Ala Val Cys 115 120 130 <210> 5880 <211> 131 <212> PRT <213> Enterobacter cloacae <400> 5880 His Leu Lys Ala Ala Ala Val Val Ile Leu Leu Val Ala Glu Met Ser 10 Gly Gly His Met Lys Phe Leu Gln Asn Ile Pro Pro Tyr Leu Phe Phe 25 20 Thr Gly Lys Gly Gly Val Gly Lys Thr Ser Ile Ser Cys Ala Thr Ala 40 45 35 Ile Ser Leu Ala Glu Gln Gly Lys Arg Val Leu Leu Val Ser Thr Asp Pro Ala Ser Asn Val Gly Gln Val Phe Ser Gln Thr Ile Gly Asn Thr 75 70 65 Ile Leu Pro Val Ala Ser Val Pro Gly Leu Ser Ala Leu Glu Ile Asp 85 Pro Gln Ala Ala Ala Gln Glu Tyr Arg Ala Arg Ile Val Asp Pro Ile 110 100 Lys Gly Ile Leu Pro Glu Ser Ser Pro Arg Gly Trp Gln Asp Pro Ser 125 115 Leu Ala Lys 130 <210> 5881 <211> 111 <212> PRT <213> Enterobacter cloacae <400> 5881 Ala Phe Ile Arg Arg Thr Ile Met Glu Asn Ile Ala Leu Ile Gly Ile 10 Asp Leu Gly Lys Asn Ser Phe His Ile His Cys Gln Asp Arg Arg Gly 30 25 20 Lys Ala Val Tyr Arg Lys Lys Phe Thr Arg Pro Lys Leu Ile Glu Phe 4.0 35 Leu Ala Thr Cys Pro Ala Thr Thr Ile Ala Met Glu Ala Cys Gly Gly

5.5 Ser His Phe Met Ala Arg Lys Leu Glu Glu Leu Gly His Phe Pro Lys 65 70 75 Leu Ile Ser Pro Gln Phe Val Arg Pro Phe Val Lys Ser Asn Lys Asn 85 90 Glu Phe Val Asp Ala Val Phe Thr Asn Gly Ala Gly Ser Thr Ile <210> 5882 <211> 318 <212> PRT <213> Enterobacter cloacae <400> 5882 Phe Met Asn Ile Lys Arg Leu Val Leu Ser Ala Leu Val Val Gly Thr 10 Ser Ser Tyr Leu Thr Gly Cys Ser Ile Gly Ser Ser Glu Ser Glu Cys 20 25 Pro Gly Ile Glu Lys Gly Val Ile Cys Lys Gly Pro Arg Glu Val Met 40 4.5 35 Glu Leu Thr Asn Asn Arg Asp Asp Leu Ser Ala Leu Ala Gly Glu Glu 50 SS 60 Ser Glu Ser Gly Lys Glu Lys Ser Ala Val Asn Asp Ser Arg Tyr Pro 65 70 Thr Glu Ile Ser Pro Pro Gly Glu Val Lys Tyr Pro Gln Ser Thr Thr 90 8.5 Leu Lys Asn Gln Pro Val Ala Tyr Ser Lys Thr Glu Ile Lys Pro Val 105 110 100 Gly Gln Leu Pro Val Met Tyr Asp Lys Thr Leu Lys Met Gly Ala Pro 115 120 125 Thr Ser Ser Ile Gly Pro Arg Pro Ile Ser Gly Val Pro Val Asn Ser 140 135 130 Asn Val Arg Met Thr Ile Ser Tyr Ser Thr Ala Ser Ser Thr Gly Asn 150 155 160 Pro Phe Val His Pro Ala Ala Glu Val Val Lys Gln Thr Ser Tyr Pro 170 175 165 Val Ser Ala Gly Asn Ala Pro Arg Tyr Val Ala Pro Asn Ser Asp Ile 180 185 190 Ser Pro Gly Lys Asp Met Tyr Ser Leu Tyr Asn Gly Gln Pro Val Asn 205 195 200 Pro Thr Leu Asn Pro Gly Gln Ile Gln Gln Tyr Arg Ser Gln Gly Tyr 220 Lys Gln Ala Val Val Ala Pro Glu Pro Leu Ala Val Leu Gln Gln Gly 230 235 240 Lys Val Met Arg Ile Thr Phe Ala Pro Tyr Thr Asp Asp Asn Asp Ala 245 250 · 255 Leu Asn Leu Pro Gly Tyr Val Tyr Val Asn Val Lys Pro Gln Thr Trp 265 270 260 Ile Ala Gly Lys Asn Ser Thr Ser Asn Pro Ala Arg Ile Val Pro Leu 275 280 285 Glu Val Gln Asp Ala Ala Arg Glu Asn Met Gln Gln Gln Gln Lys Ala 290 295 300 Thr Lys Ala Val Ser Ser Asn Gly Ile Val Arg Gln Leu 310 <210> 5883

<211> 590 <212> PRT

<213> Enterobacter cloacae

<400> 5883

Thr Pro Arg Lys Asn Ser Arg Trp Ala Glu Gly Phe Ile Asp Val Asn 10 Thr Met Lys Arg Leu Asn Glu Gln Val Asn Val Pro Gly Arg Lys Tyr 25 Thr Val Thr Glu Asn His Phe Ser Ser Val Thr Gln Ser Asp Asp Glu 40 Ser Glu His Arg Tyr Phe Lys Gln Leu Ser Val Val Lys Phe Pro Glu 55 60 Tyr Val Asn Phe Gly Cys Met Tyr Glu Leu Val Val Asn Trp Met His 70 75 80 Gly Arg Lys Thr Ile Phe Ser Pro Phe Met Ile Thr Gln Thr Val Gln 85 90 95 Phe Ala Asp Pro Leu Lys Leu Ser Lys Glu Asn Val Arg Tyr Lys Ala 100 105 110 Ile Thr Asn Lys Gln Ala Ser Ile Pro Ser Val Val Thr Phe Cys Pro 115 120 125 Arg Leu Arg Asp Met Asp Asn Asp Tyr Met Ala Val Thr Arg Glu Leu 130 135 140 Gly Ser Asn Ala Asn Ser Val Gln Thr Ala Ala Asn Asp Leu Lys Ser 165 170 175 Phe Tyr Leu Glu Ser Arg Val Lys Val Ala Asp Asp Ser Phe Ile Val 180 185 190 Phe Pro Ser Phe Met Ser Cys Leu Pro Met Cys Asn Asp Pro Lys Thr 195 200 205 Ile Phe Asp Leu Asp Arg Ser Glu Val Val Ser Asn Thr Gly Ala Ala 210 215 220 His Met Thr Pro Ile Phe Gly Pro Trp Lys Gly Asn Thr Asp Arg Pro 225 230 235 Val Leu Ser Leu Val Ser Arg Glu Gly Gln Leu Met Gly Leu Asp Ile 245 250 255 Phe Lys Thr Ser Ala Ser Tyr Asn Met Val Ile Gly Ala Thr Ser Gly 260 265 270 Ala Gly Lys Ser Phe Trp Thr Ala Tyr Leu Ile Asn Asn Tyr Leu Gly 275 280 285 Ala Gly Pro Arg Ser Asn Asn Leu Val His Tyr Arg Ser Thr Phe Lys 295 300 His Phe Leu Glu Asn Glu Tyr Pro Asp Asp Asp Pro Asp Gly Ala Gln 305 310 315 Val Phe Val Val Asp Val Gly Arg Ser Tyr Gln Gly Ile Ala Glu Gln 325 330 Tyr Thr Asn Ser Gln Phe Ile Asp Phe Gly Lys Thr Pro Asp Phe Thr 345 350 Leu Asn Pro Phe Ala Phe Leu Thr Asp Ile Thr Val Asn Asp Asp Val 355 360 365 Phe Asn Glu Ala Pro Glu Phe Thr Gly Glu Ser Thr Ser Asn Asp Ala 375 380 Glu Lys Asp Lys Val Ala Gln Thr Ile Met Val Leu Asn Gln Leu Lys 390 395 Ile Met Ala Ser Glu Lys Gly Leu Ile Asp Asp Tyr Gln Gln Ser Val 405 410 Met Leu Gln Leu Ile Ala Glu Glu Tyr Gln Glu Ser Arg Lys Ser Gly 425 420 430 Arg Thr Gly Ser Ile Thr Gly Phe Ala Leu Arg Cys Lys His Glu 435 440 445 Asp Lys Arg Ile Lys Asp Ile Gly Glu Gln Leu Gly Ala Trp Cys Glu 455 460 Gly Gly Ile Tyr Gly His Arg Phe Thr Asp Thr Leu Pro Pro Ile Asn 475 470 Phe Asp Ser Arg Phe Ile Val Leu Glu Leu Glu Glu Leu Lys Gly Thr

490 Pro His Leu Gln Thr Val Val Leu Met Ser Ile Ile Gln Ala Ala Gln 505 500 His Ala Met Phe Ile Lys Lys Asp Gly Arg Arg Arg Leu Phe Ile Leu 515 520 Asp Glu Ala Trp Glu Tyr Ile Arg Pro Asp Asn Ser Ser Gly Ala Gly 530 535 540 Asn Gln Ser Asn Gln Phe Phe Ser Ser Phe Leu Glu Ala Ala Trp Arg 545 550 555 Met Phe Arg Ile Thr Asn Cys Ala Gly Ile Cys Ile Thr His Ser Phe 565 570 Glu Lys Leu Phe Thr Ser Ser Val Gly Pro Ala Pro Glu Cys 585

<210> 5884 <211> 516 <212> PRT

<213> Enterobacter cloacae

<400> 5884 Ser Tyr Thr His Ser Gly Gly Pro Ser Gly Pro Val Val Lys Thr Gln 10 Ser Ser Gly Glu Tyr Leu Leu Glu Met Thr Gly Val Asn Lys Ser Phe 2.5 Pro Gly Val Lys Ala Leu Asp Asn Val Asn Leu Lys Val Arg Pro His 4.0 4.5 Ser Ile His Ala Leu Met Gly Glu Asn Gly Ala Gly Lys Ser Thr Leu 5.5 60 Leu Lys Cys Leu Phe Gly Ile Tyr Gln Lys Asp Ser Gly Ser Ile Leu 70 7.5 Phe Gln Gly Lys Glu Ile Asp Phe His Ser Ala Lys Glu Ala Leu Glu 85 90 Asn Gly Ile Ser Met Val His Gln Glu Leu Asn Leu Val Leu Gln Arg 100 105 110 Ser Val Met Asp Asn Met Trp Leu Gly Arg Tyr Pro Thr Lys Gly Val 120 125 115 Phe Val Asp Gln Asp Lys Met Tyr Arg Asp Thr Lys Ala Ile Phe Asp 135 Glu Leu Asp Ile Asp Ile Asp Pro Arg Ala Arg Val Gly Thr Leu Ser 150 155 145 Val Ser Gln Met Gln Met Ile Glu Ile Ala Lys Ala Phe Ser Tyr Asp 170 175 165 Ala Lys Ile Val Ile Met Asp Glu Pro Thr Ser Ser Leu Thr Glu Lys 180 185 Glu Val Asn His Leu Phe Thr Ile Ile Arg Lys Leu Lys Asp Arg Gly 200 205 195 Cys Gly Ile Val Tyr Ile Ser His Lys Met Glu Glu Ile Phe Gln Leu 215 220 210 Cys Asp Glu Ile Thr Ile Leu Arg Asp Gly Gln Trp Ile Ala Thr Gln 235 230 Pro Leu Glu Gly Leu Asp Met Asp Lys Ile Ile Ala Met Met Val Gly 245 250 Arg Ser Leu Asn Gln Arg Phe Pro Asp Lys Glu Asn Lys Pro Gly Glu 270 260 265 Val Ile Leu Glu Val Arg Asn Leu Thr Ser Leu Arg Gln Pro Ser Ile 285 275 280 Arg Asp Val Ser Phe Asp Leu His Lys Gly Glu Ile Leu Gly Ile Ala 295 300 Gly Leu Val Gly Ala Lys Arg Thr Asp Ile Val Glu Thr Leu Phe Gly 310 Ile Arg Glu Lys Ala Glu Gly Thr Ile Thr Leu His Gly Lys Lys Ile

```
330
Asn Asn His Asn Ala Asn Glu Ala Ile Asn Asn Gly Phe Ala Leu Val
         340
                    345 350
Thr Glu Glu Arg Arg Ser Thr Gly Ile Tyr Ala Tyr Leu Asp Ile Asn
     355
           360
                           365
Phe Asn Ser Leu Ile Ser Asn Ile Arg Asn Tyr Lys Asn Lys Val Gly
   370 375 380
Leu Leu Asp Asn Ser Arg Met Lys Ser Asp Thr Gln Trp Val Ile Asp
   390 395 400
Ser Met Arg Val Lys Thr Pro Gly His Arg Thr Gln Ile Gly Ser Leu
       405 410 415
Ser Gly Gly Asn Gln Gln Lys Val Ile Ile Gly Arg Trp Leu Leu Thr
      420 425 430
Gln Pro Glu Ile Leu Met Leu Asp Glu Pro Thr Arg Gly Ile Asp Val
    435 440 445
Gly Ala Lys Phe Glu Ile Tyr Gln Leu Ile Ala Glu Leu Ala Lys Lys
  450 455 460
Asp Lys Gly Ile Ile Ile Ser Ser Glu Met Pro Glu Leu Leu Gly
465 470 475
Ile Thr Asp Arg Ile Leu Val Met Ser Asn Gly Leu Val Ala Gly Ile
      485
                         490 495
Val Glu Thr Lys Thr Thr Gln Asn Glu Ile Leu Arg Leu Ala Ser
                         505
                                         510
Leu His Leu
      515
<210> 5885
<211> 342
<212> PRT
<213> Enterobacter cloacae
<400> 5885
Asp Gln Gly Leu Leu Met Ser Ala Leu Asn Lys Lys Ser Phe Leu Thr
                          10
Tyr Leu Lys Glu Gly Gly Ile Tyr Val Val Leu Leu Val Leu Leu Ala
         20
                         25
Ile Ile Ile Phe Gln Asp Pro Thr Phe Leu Ser Leu Leu Asn Leu Ser
 35
                     40
Asn Ile Leu Thr Gln Ser Ser Val Arg Ile Ile Ile Ala Leu Gly Val
                55
Ala Gly Leu Ile Val Thr Gln Gly Thr Asp Leu Ser Ala Gly Arg Gln
               7.0
                               75
Val Gly Leu Ala Ala Val Ile Ala Ala Thr Leu Leu Gln Ser Met Glu
                           90
Asn Ala Asn Lys Val Phe Pro Glu Met Ala Thr Met Pro Ile Phe Val
       100
                         105
Val Ile Leu Ile Val Cys Ala Ile Gly Ala Val Ile Gly Leu Ile Asn
      115
               120
Gly Ile Ile Ile Ala Tyr Leu Asn Val Thr Pro Phe Ile Thr Thr Leu
                  135
                                  140
Gly Thr Met Ile Ile Val Tyr Gly Ile Asn Ser Leu Tyr Tyr Asp Phe
             150
                    155
Val Gly Ala Ser Pro Ile Ser Gly Phe Asp Ser Gly Phe Ser Thr Phe
                  170 175
            165
Thr Gln Gly Phe Val Ala Leu Gly Ser Phe Arg Leu Ser Tyr Ile Thr
                                  190
```

185 Phe Tyr Ala Leu Ile Ala Val Ala Phe Val Trp Ile Leu Trp Asn Lys

Thr Arg Phe Gly Lys Asn Ile Phe Ala Ile Gly Gly Asn Pro Glu Ala

Ala Lys Val Ser Gly Val Asn Val Ala Leu Asn Leu Leu Met Ile Tyr

205

220

180

195 200

```
230
                             235
Ala Leu Ser Gly Val Phe Tyr Ala Phe Gly Gly Met Leu Glu Ala Gly
        245 250 255
Arg Ile Gly Ser Ala Thr Asn Asn Leu Gly Phe Met Tyr Glu Leu Asp
        260 265 270
Ala Ile Ala Ala Cys Val Val Gly Gly Val Ser Phe Ser Gly Gly Val
   275 280 285
Gly Thr Val Leu Gly Val Val Thr Gly Val Ile Ile Phe Thr Val Ile
 290 295 300
Asn Tyr Gly Leu Thr Tyr Ile Gly Val Asn Pro Tyr Trp Gln Tyr Ile
   310 315
Ile Lys Gly Ala Ile Ile Ile Phe Ala Val Ala Leu Asp Ser Leu Lys
           325
Tyr Ala Arg Lys Lys
         340
<210> 5886
<211> 292
<212> PRT
<213> Enterobacter cloacae
<400> 5886
Leu Leu Ile Lys Thr Arg Ser Gln Thr Met Ser Lys Val Lys Thr
                        1.0
Ile Thr Arg Glu Ser Trp Ile Leu Ser Thr Phe Pro Glu Trp Gly Ser
20
Trp Leu Asn Glu Glu Ile Glu Gln Glu Gln Val Ala Pro Gly Thr Phe
35
                    40
Ala Met Trp Trp Leu Gly Cys Thr Gly Ile Trp Leu Lys Ser Glu Gly
                  55
Gly Ala Asn Ile Cys Val Asp Phe Trp Cys Gly Thr Gly Lys Gln Ser
65
             70
His Gly Asn Pro Leu Met Lys Lys Gly His Gln Met Gln Arg Met Ala
           85
                          90 95
Gly Val Glu Lys Leu Gln Pro Asn Leu Arg Thr Thr Pro Phe Val Leu
        100 105
Asp Pro Phe Ala Ile Arg Gln Ile Asp Ala Val Leu Ser Thr His Asp
                    120
                           125
His Asn Asp His Ile Asp Val Asn Val Ala Ala Ala Val Met Gln Asn
  130
       135
                                140
Cys Ala Asp Asp Val Pro Phe Ile Gly Pro Gln Thr Cys Val Asp Leu
        150 155 160
Trp Ile Gly Trp Gly Val Pro Lys Glu Arg Cys Ile Val Met Lys Pro
           165 170 175
Gly Asp Val Val Lys Ile Lys Asp Ile Glu Ile His Ala Leu Asp Ala
      180
                       185
                           190
Phe Asp Arg Thr Ala Leu Ile Thr Leu Pro Ala Asp Gln Lys Ala Ala
                    200
     195
Gly Val Leu Pro Asp Gly Met Asp Glu Arg Ala Val Asn Tyr Leu Phe
 210
                 215 220
Lys Thr Pro Gly Gly Ser Leu Tyr His Ser Gly Asp Ser His Tyr Ser
              230
                     235
Asn Tyr Tyr Ala Lys His Gly Asn Glu His Gln Ile Asp Val Ala Leu
      245
                          250 255
Gly Ser Tyr Gly Glu Asn Pro Arg Gly Ile Thr Asp Lys Met Thr Ser
   260 265 270
```

Ala Asp Met Leu Arg Met Ala Glu Ala Leu Lys Thr Gln Met Val Asn

275 280

Pro Val Gln Gln 290

```
<210> 5887
<211> 268
<212> PRT
<213> Enterobacter cloacae
<400> 5887
His Gln Pro His Arg Asp Cys Pro Leu Cys Ser His Phe Leu Glu Arg
             5
                        1.0
Val Met Glu Ile Leu Tyr Asn Val Phe Thr Val Phe Phe Asn Gln Val
       20
                         2.5
                                          3.0
Met Thr Asn Ala Pro Leu Leu Gly Ile Val Thr Cys Leu Gly Tyr
   35
                    40
                                       45
Ile Leu Leu Arg Lys Ser Val Ser Val Ile Ile Lys Gly Thr Ile Lys
 50 55
                       60
Thr Ile Ile Gly Phe Met Leu Leu Gln Ala Gly Ser Gly Ile Leu Thr
      70
                       7.5
Ser Thr Phe Lys Pro Val Val Ala Lys Met Ser Glu Val Tyr Gly Ile
            85
                             90
Asn Gly Ala Ile Ser Asp Thr Tyr Ala Ser Met Met Ala Thr Ile Asp
         100
                         105
                                           110
Arg Met Gly Asp Ala Tyr Ser Trp Val Gly Tyr Ala Val Leu Leu Ala
115
                      120
                           125
Leu Ala Leu Asn Ile Ile Tyr Val Leu Leu Arg Arg Ile Thr Gly Ile
                    135
                                   140
Arg Thr Ile Met Leu Thr Gly His Ile Met Phe Gln Gln Ala Gly Leu
145 150 155
                                                 160
Ile Ala Val Ser Leu Tyr Ile Phe Gly Tyr Pro Met Trp Thr Thr Val
             165
                            170
                                              175
Ile Cys Thr Ala Val Leu Val Ser Leu Tyr Trp Gly Ile Thr Ser Asn
         180
                         185
                                           190
Met Met Tyr Lys Pro Thr Gln Asp Val Thr Asp Gly Cys Gly Phe Ser
    195
                      200
                                       205
Ile Gly His Gln Gln Gln Phe Ala Ser Trp Ile Ala Tyr Lys Val Ala
210 215
                                    220
Pro Tyr Leu Gly Lys Lys Glu Glu Ser Val Glu Asp Leu Lys Leu Pro
               230
                                235
Gly Trp Leu Asn Ile Phe His Asp Asn Ile Val Ser Thr Ala Ile Val
       245 250
Met Thr Ile Phe Phe Gly Ala Met Ser Ser His Thr
          260
                          265
<210> 5888
<211> 130
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(130)
<400> 5888
Thr Arg Arg Ser Ser Lea Pro Arg Gly His Asp Met Arg Gly Asp Cys
1
                            10
                                              15
Arg Arg Cys Gln Pro Ala Ser Val Arg Gly Phe Ile Thr Cys Thr Ser
                          25
Glu Asn Ala Asp Pro Arg Ala Asp Arg Glu Glu Pro Met Ile Pro Leu
                      4.0
Pro Ser Gly Thr Arg Ile Trp Leu Val Ala Gly Val Thr Asp Met Arg
 50
                   55
                                    60
Lys Ser Phe Asn Gly Leu Gly Glu Leu Val Gln His Val Leu Asp Asp
                7.0
```

```
Asn Pro Phe Ser Gly His Leu Phe Ile Phe Arg Gly Arg Lys Gly Asp
Thr Val Arg Ile Leu Trp Ala Asp Ala Asp Gly Leu Cys Leu Phe Thr
         100
                             105
Arg Pro Leu Glu Glu Gly Leu Ser Thr Arg Arg Asp Gly Arg Glu Lys
              120
Val Xaa
  130
<210> 5889
<211> 140
<212> PRT
<213> Enterobacter cloacae
<400> 5889
Trp Thr Leu Ser Met Ser Asn Thr Leu Gln Pro Arg Arg Ala Arg Ala
Ser Tyr Ser Met Asp Phe Lys Leu Ala Leu Val Glu Lys Ser Tyr Gln
          20
                          25
Pro Gly Ala Cys Val Ala Arg Leu Ala Arg Asp Asn Gly Ile Asn Asp
                                      4.5
                         40
Asn Leu Leu Phe Thr Trp Arg Gln Arg Tyr Arg His Leu Leu Pro Asp
                                        60
                      55
Glu Ile Gln Arg Ser Ile Arg Glu Gln Asp Ser Val Ile Pro Val Val
                                     75
                   70
Leu Pro Asp Met Ala Leu Ser His His Ala Glu Pro His Tyr Glu Pro
              8.5
                                 90
Ala Ala Pro Ala Cys Arg Glu Ala Met Tnr Cys Glu Val Thr Val Gly
           100
                              105 110
Gly Ala Ser Leu Arg Leu Ser Gly Asp Leu Ser Pro Ala Leu Leu Lys
    115
                    120
Thr Leu Ile Arg Glu Leu Thr Gly Arg Ser Arg
  130
<210> 5890
<211> 211
<212> PRT
<213> Enterobacter cloacae
<400> 5890
Ser Gly Ala Val Met Met Asn Lys Leu Gln Glu Arg Tyr Ala Arg Ile
Ile Ala Ile Met Asn Asn Lys Gly Gly Pro Gly Lys Thr Ser Ser Ala
           20
                              25
Thr Asn Leu Ala Val His Tyr Ala Arg Ser Gly Lys Arg Thr Leu Leu
       35
                          40
                                             4.5
Ile Asp Ser Asp Gln Gln Ala Asn Thr Thr Glu Val Thr Ala Asn Gly
    50
                      5.5
                                          60
Lys Lys Tyr Tyr Ser Met Tyr Gly Pro Thr Ile Cys Asp Leu Tyr Ser
                   7.0
Asn Ser Arg Phe Asp Ile Arg Asp Val Ile Ile Pro Ala Met Ala Gly
                                  90
               85
Asp Ala Pro Ile Pro Asn Leu Asp Leu Ile Pro Ser Asp Pro Tnr Phe
                              105
           100
Glu Lys Ile Ile Glu Gln Thr Leu Thr Arg Ser His Arg Glu Lys Ile
                           120
        115
Leu Gly Arg His Leu Glu Lys Val Arg Thr Glu Tyr Asp Tyr Ile Ile
```

135

150

Ile Asp Cys Ala Pro Gly Leu Asn Ile Ala Thr Gly Asn Ala Ile Phe

Ile Ala Asp His Val Leu Val Pro Val Asp Gly Ser Phe Ser Leu

140

155

```
And the first that the first field to the first that the first field the first field that the field that the first field that the first
```

```
165
                             170
Ser Gly Leu Glu Ile Met Leu Asp Tyr Met Asp Glu Ile Ser Glu Glu
                                  190
      180 185
Asp Tyr Ala Arg Phe Ser Val Pne Thr Thr Glu Arg Asp Gly Ser Ala
   195
            200
Leu Glu Tyr
 210
<210> 5891
<211> 404
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(28)
<400> 5891
Thr Cys Phe Ile Leu Gly Ala Asn Met Asp Arg Val Ser His Phe Val
                     10
Leu Ala Leu Val Val Val Thr Ala Leu Ala Leu Xaa Val Ser Thr Asp
20
                         25
Arg Lys Lys Ile Arg Met Arg Tyr Val Val Gln Leu Leu Val Ile Glu
                      4.0
                                4.5
35
Val Leu Leu Ala Trp Phe Phe Leu Asn Ser Asn Val Gly Leu Gly Phe
50 55
Val Lys Gly Phe Ser Glu Met Phe Glu Lys Leu Leu Gly Phe Ala Asn
                              7.5
             70
Glu Gly Thr Asn Phe Val Phe Gly Ser Met Asn Asp Gln Gly Leu Ala
            85
                            90
Phe Phe Leu Lys Val Leu Cys Pro Ile Val Phe Ile Ser Ala Leu
                         105
         100
Ile Gly Ile Leu Gln His Ile Arg Val Leu Pro Val Val Ile Arg Ala
                             125
      115
                      120
Ile Gly Phe Leu Leu Ser Lys Val Asn Gly Met Gly Lys Leu Glu Ser
   130 135
                       140
Phe Asn Ala Val Ser Ser Leu Ile Leu Gly Gln Ser Glu Asn Phe Ile
                150 155
145
Ala Tyr Lys Asp Ile Leu Gly Lys Met Ser Arg Asn Arg Met Tyr Thr
                          170 175
             165
Met Ala Ala Thr Ala Met Ser Thr Val Ser Met Ser Ile Val Gly Ala
         180
                          185
Tyr Met Thr Met Leu Glu Pro Lys Tyr Val Val Ala Ala Leu Val Leu
      195
                      200
                                       205
Asn Met Phe Ser Thr Phe Ile Val Leu Ser Leu Ile Asn Pro Tyr Arg
                                   220
 210
Val Asp Ala Ser Glu Glu Asn Ile Gln Met Ser Asn Leu His Glu Gly
                230
                                235
Gln Ser Phe Phe Glu Met Leu Gly Glu Tyr lle Leu Ala Gly Phe Lys
                             250 255
             245
Val Ala Ile Ile Val Ala Ala Met Leu Ile Gly Phe Ile Ala Leu Ile
                          265
                                   270
         260
Ala Ala Leu Asn Ala Leu Phe Ala Ala Val Leu Gly Ile Ser Phe Gln
                      280
                                       285
      275
Gly Ile Leu Gly Tyr Ile Phe Tyr Pro Val Ala Trp Val Met Gly Val
                                    300
   290
                   295
Pro Ala His Glu Ala Leu Gln Val Gly Ser Ile Met Ala Thr Lys Leu
                                315
                310
Val Ser Asn Glu Phe Val Ala Met Met Asp Leu Gln Lys Ile Ala Ser
                             330
                                             335
             325
Thr Leu Ser Pro Arg Ala Glu Gly Ile Leu Ser Val Phe Leu Val Ser
```

2240 340 345 Phe Ala Asn Phe Ser Ser Ile Gly Ile Ile Ala Gly Ala Ile Lys Gly 355 360 365 Leu Asn Glu Glu Gln Gly Asn Val Val Ser Arg Phe Gly Leu Lys Leu 370 375 380 Val Tyr Gly Ser Thr Leu Val Ser Val Leu Ser Ala Ser Ile Ala Ala 390 Leu Val Leu <210> 5892 <211> 217 <212> PRT <213> Enterobacter cloacae <400> 5892 Asn Leu Glu Ile Pro Ile Pro Gly Trp Lys Ser Asp Trp Arg Asp His 10 Pro Pro Leu Thr Val Leu Phe Pro Val Ile Gly His Leu Asn Leu Ser 20 25 Asn Arg Leu Asn Leu Lys Leu Leu Glu Lys Leu Leu Met Trp Met Arg 4.0 4.5 35 Ser Asn Arg Ser Gly Arg Ala Gly Thr Arg Phe Ser Val Asn Leu Met 55 60 50 Pro Leu Thr Leu Met Gln Asn Glu Ile Ala Ala Glu Ile Ile Ala Leu 70 75 Phe Glu Arg Tyr Ala Ile Ala Pro Gln Asn Ile Ile Ile Glu Ile Thr 90 85 Glu Glu Gln Ala Phe Ser Asp Ser Gly Ser Ser Ile Lys Asn Ile Gln 105 110 100 Gln Leu Arg Asp Tyr Gly Phe Arg Ile Ala Ile Asp Asp Phe Gly Thr 125 115 Gly Tyr Ala Asn Phe Glu Arg Leu Lys Arg Leu Glu Ala Asp Ile Ile 135 140 130 Lys Ile Asp Gly Cys Phe Val Lys Asp Ile Cys Thr Asp Ser Met Asp 150 155 160 145 Ala Met Ile Val Gln Ser Ile Cys Asn Met Ala Lys Thr Lys Ser Leu 170 175 165 Cys Val Val Ala Glu Tyr Val Glu Thr Ala Glu Gln Arg Glu Met Leu 180 185 190 Leu Arg Phe Gly Val Asp Tyr Leu Gln Gly Tyr Leu Ile Gly Lys Pro 200 195 Gln Pro Leu Thr Ala Leu Glu Ala 210 <210> 5893 <211> 291 <212> PRT <213> Enterobacter cloacae <400> 5893 Tyr Met Asp Gln Ala Gly Ile Ile Arg Asp Leu Leu Thr Trp Leu Glu Gly His Leu Asp Gln Pro Leu Ser Leu Asp Asn Val Ala Ala Lys Ala 25 Gly Tyr Ser Lys Trp His Leu Gln Arg Met Phe Lys Asp Val Thr Gly 3.5 4.0 4.5 His Ala Ile Gly Ala Tyr Ile Arg Ala Arg Arg Leu Ser Lys Ser Ala 5.5

Val Ala Leu Arg Leu Thr Ala Arg Pro Ile Leu Asp Ile Ala Leu Gln

```
Tyr Arg Phe Asp Ser Gln Gln Thr Phe Thr Arg Ala Phe Lys Lys Gln
                    9.0
            8.5
Phe Ser Leu Thr Pro Ala Leu Tyr Arg Arg Ser Pro Asp Trp Ser Ser
                                      110
               105
Phe Gly Met Arg Pro Pro Leu Arg Leu Gly Glu Phe Ala Met Pro Lys
      115 120 125
Tyr Glu Ile Ile Thr Leu Pro Glu Thr His Leu Val Gly Thr Thr Gln
                        140
                    135
   130
Ser Tyr Ser Cys Ser Leu Glu Gln Ile Ser Glu Phe Arg His Gln Met
                150 155
145
Arg Val Gln Phe Trp Arg Glu Phe Leu Ser His Ala Pro Ala Ile Pro
             165 170 175
Pro Ile Leu Tyr Gly Leu Asn Glu Thr His Pro Ser Gln Glu Lys Asp
                           185
          180
Asp Glu Gln Glu Val Phe Tyr Thr Thr Ala Leu Thr Pro Asp Met Ala
                                         205
                        200
       195
Asn Gly Tyr Ile His Gly Ser Lys Pro Val Val Leu Glu Gly Gly Glu
                     215
                                     220
  210
Tyr Val Met Phe Ser Tyr Glu Gly Leu Gly Thr Gly Val Gln Glu Phe
                                  235
                 230
Ile Leu Thr Val Tyr Gly Thr Cys Met Pro Met Leu Asn Leu Asn Arg
                               250
              245
Arg Lys Gly Gln Asp Ile Glu Arg Tyr Tyr Pro Ala Gln Asp Ala Lys
                                 270
          260
                           265
Pro Glu Glu Gly Pro Ile Asn Leu Arg Met Glu Phe Leu Ile Pro Val
                                          285
                        280
```

Arg Arg 290

<210> 5894 <211> 67

<211> 67 <212> PRT

<213> Enterobacter cloacae

<400> 5894

<210> 5895

<211> 144 <212> PRT

<213> Enterobacter cloacae

<400> 5895

Gly Pro Pro Thr Arg Pro Val Lys Arg Pro Lys Leu Asp Glu Asp Glu 1 5 10 15 15 16 Gly Gln Arg Leu Leu Ser Ile Pro Cys Val Gly Thr Leu Thr Ala 20 25 30 30 Ser Thr Ile Ser Thr Glu Ile Gly Asp Gly Lys Gln Tyr Ala Ser Ser 35 40 45 Arg Asp Phe Ala Ala Ala Thr Gly Leu Val Pro Arg Gln Tyr Ser Thr 50 55 60 Gly Gly Arg Thr Thr Leu Leu Gly Ile Ser Lys Arg Gly Asn Lys Lys

```
Ile Arg Thr Leu Leu Val Gin Cys Ala Arg Val Phe Ile Gln Lys Leu
         85
                    90
Glu His Cln Ser Gly Lys Leu Ala Asp Trp Val Arg Asp Leu Leu Cys
   100
             105 110
Arg Lys Ser Asn Phe Val Val Thr Cys Ala Leu Ala Asn Lys Leu Ala
 115 120 125
Arg Ile Ala Trp Ala Leu Thr Ala Arg Gln Gln Thr Tyr Val Ala
                 135
<210> 5896
<211> 294
<212> PRT
<213> Enterobacter cloacae
<400> 5896
Lys Gly Leu Leu Val Met Gln Glu Gln Glu Ile Trp Thr Pro Gln Lys
          5
                            10
Ala Ala Ile Arg Leu Thr Lys Ile Cys Asp Thr Phe Ser Glu Ile His
                         25
Gly Thr Glu Arg Phe Pro Val Asn Val Glu Glu Leu Ser Leu Glu Ala
35
                     4.0
Ala Glu Leu Phe Lys Trp Ala Asp Pro Ile Val Lys Ile Glu Pro Val
50 55
                         60
Asp Ile Lys Gly Phe Asp Gly Ala Leu Met Ala Asn Glu Ser Arg Ser
               70
                               75
Arg Trp Met Leu Leu Tyr Asn Asn Gly Leu Thr Ser Pro Gly Arg Ile
           85
                            90
Arg Phe Thr Gln Ala His Glu Leu Gly His Tyr Ile Leu His Arg Leu
 100
                         105
                                         110
Ile Arg Asp Glu Phe Arg Cys Ser Ser Asp Asp Met Leu Ser Trp Glu
115
                      120
                          125
Asp Lys Asn Ile Glu Ser Glu Ala Asp Leu Phe Ala Ser Tyr Leu Leu
130 135
                                  140
Met Pro Phe Asn Asp Phe Arg Lys Gln Leu Thr Pro Asp Val Asp Ile
145 150 155
Asp Val Leu Ser Gln Tyr Ala Ile Arg Tyr Gly Val Ser Leu Thr Ala
            165
                            170 175
Ala Ala Leu Lys Trp Leu Glu Cys Thr Glu Glu Asn Ala Val Phe Ile
                                         190
        180
                         185
Leu Ser Arg Asp Gly Tyr Met Lys Trp Ala Phe Ser Ser Pro Ala Ala
      195
                      200
Arg His Asn Gly Ala Phe Phe Arg Thr Gln Arg Asn Val Val Ser Ile
  210 215
                                  220
Pro Glu Gly Ser Ile Ala Ala Asn Gln Asn Ile Ser Met Glu Arg Ala
               230
                               235
Gly Met Lys Ile Pro Ala Ser Ile Trp Phe Pro His Ala Asp Lys Asp
            245
                            250
Ala Ser Val Arg Glu Met Lys Ile His Ser Glu Gln Tyr Glu Tyr Val
                               270
         260
                         265
Ile Thr Leu Leu Ile Leu Ser Arg Lys Thr Thr Val Trp Pro Pro Phe
   275
                      280
His Gly Glu Asp Glu
   290
<210> 5897
<211> 98
<212> PRT
<213> Enterobacter cloacae
```

<400> 5897

```
Cys Leu His Lys Pro His Glu Asp Ile Pro Met Lys Lys Arg Phe Ser
 Asp Glu Gln Ile Ile Ser Ile Leu Arg Glu Ala Glu Ala Gly Val Pro
             20
 Ala Arg Glu Leu Cys Arg Lys His Ala Ile Ser Asp Ala Thr Phe Tyr
                                                45
 Ile Trp Arg Lys Lys Tyr Gly Gly Met Glu Val Pro Glu Val Lys Arg
                                            60
 Leu Lys Ser Leu Glu Glu Glu Asn Ala Arg Leu Lys Lys Leu Leu Ala
                                        7.5
 Glu Ala Met Leu Asp Lys Glu Ala Leu Gln Val Ala Leu Gly Arg Lys
Tyr
<210> 5898
<211> 62
<212> PRT
<213> Enterobacter cloacae
<400> 5898
Arg Gly Ala Ser Gly Gly Ser Trp Ala Lys Val Leu Thr Thr Asp Gln
Lys Arg Glu Thr Val Met Leu Met Cys Asp Ala Asn Gly Leu Ser Gln
    20
                                2.5
Arg Arg Ala Cys Arg Leu Thr Gly Phe Ile Leu Ser Thr Cys Arg Tyr
                           4.0
Glu Ala Gln Arg Pro Ala Ala Asp Ala His Leu Ser Gly Arg
<210> 5899
<211> 171
<212> PRT
<213> Enterobacter cloacae
<400> 5899
Asn Leu Asn Phe Cys His Ile Ser Leu Thr Val Leu Ser Ala Met Asn
Ile Thr Glu Leu Val Phe Ile Asp Asp Asp Tyr Asn His Val Val Ile
Met Ser Asp Val Val Gln Arg Leu His Leu Tyr Arg Gln Leu His Tyr
 35
                           40
Ala Ser Thr Glu Ala Gly Gly Thr Leu Ile Gly Glu Arg Arg Gly Lys
                       5.5
His Ile Val Ile Thr His Ile Ser Glu Pro Gly Ser Gly Asp Val Arg
                    7.0
                                        75
                                                            80
Ser Arg Thr Arg Ile Glu Arg Lys Gly Glu His His Gln Gln Lys Val
                85
                                   90
Asp Asp Leu Phe Gln Gln Ser Asp Gly Ser Leu Val Tyr Leu Gly Glu
           100
                               105
Trp His Thr His Pro Glu Asp Phe Pro Gln Pro Ser Ser Thr Asp Met
                           120
                                               125
Arg Ser Trp Arg Thr Gly Leu Lys Ala Thr Glu Pro Met Val Leu Leu
                       135
                                           140
Ile Met Gly Arg Lys Gln Ala Trp Cys Gly Lys Lys His Gly Asn Val
                   150
                                       155
Ile Lys Lys Leu Glu Glu Lys Asn Asn His
               165
```

<210> 5900 <211> 374

```
<212> PRT
<213> Enterobacter cloacae
<400> 5900
Ile Met Val Cys His Met Thr Pro Pro Val Ala Leu Phe Lys Gly Cys
                       10
Val Met Gln Asp Leu His Ser Lys Asp Ser Val Ile Asn His Tyr Ala
         20
                         25
Asp Arg Tyr Gln Cys Tyr Met Pro Ile Asp Val Arg Asn Gly Leu Arg
                   40
                                      4.5
Ser Asn Ser Ile Asp Ala Ser Asn Ser Ser Leu Pro Trp Asp Val Thr
                55
Leu Pro Leu Val Thr Thr Glu Asp Val Ser Arg Asp Lys Ala Leu Gly
             70 75
Ala Phe Val Gly Leu Ala Val Gly Asp Ala Val Gly Thr Thr Leu Glu
            85
                            90
Phe Lys Lys Arg Asp Ser Glu His Val Ala Asp Met Ile Gly Gly Gly
    100 105 110
Pro Phe Gln Leu Lys Pro Gly Glu Trp Thr Asp Asp Thr Ser Met Ala
 115 120 125
Leu Cys Leu Ala Glu Thr Tyr Leu Ser Glu Asn Arg Met His Thr Asp
130 135 140
Val Leu Arg Lys Tyr Leu Leu Lys Trp Tyr Leu Asp Gly Glu Asn Ser
             150 155
Ser Asn Gly Arg Cys Phe Asp Ile Gly Asn Thr Thr Arg Phe Ala Leu
            165
                            170 175
Glu Gln Tyr Met Arg Val Gly Pro Ser Trp Tyr Gly Asn Thr Glu Lys
                         185 190
His Thr Ala Gly Asn Ala Gly Val Ile Arg Gln Ala Pro Val Ser Ile
195 200
                                     205
Phe Arg Arg Lys Ser Leu Arg Ala Ile Tyr Phe Glu Ser Gln Ala Gln
 210
                                  220
Ser Arg Ala Thr His Gly Ala Val Glu Ser Ile Asn Ala Cys Gln Phe
225 230
                               235
Leu Gly Leu Val Leu His Tyr Leu Ile Asn Gly Tyr Gln Lys Glu Gly
            245
                            250
Ala Phe Ser Pro His Val Phe Pro Leu Cys Ala Arg Val Met Ile Ile
         260
                         265
                                        270
Asn Ala Gly Glu Tyr Lys Gln Lys Thr Arg Asp Gln Ile Arg Ser Ser
     275
                     280
                             285
Gly Tyr Val Ile Asp Thr Leu Glu Ala Ala Met Trp Ser Val Trp Asn
 290 295
                                   300
Thr Asp Asn Phe Arg Asp Ala Ile Leu Leu Ala Ala Asn Leu Ala Asp
               310
                             315
Asp Ala Asp Ser Val Ala Ala Thr Ala Gly Gln Ile Ala Gly Ala Leu
            325
                            330
Tyr Gly Tyr Ser Ala Ile Pro Gln Asp Trp Lys Asp Lys Leu Val Gln
        340
                        345
His Glu Arg Ile Ala Thr Met Ala Gly Lys Leu Phe Asp Arg Ala Pro
     355
                      360
Glu Asp Asn Phe Leu
  370
<210> 5901
<211> 83
<212> PRT
<213> Enterobacter cloacae
<400> 5901
Phe Asp Thr Ser Gln Val Arg Met Arg Thr Met Lys Lys Trp Ala Val
                            1.0
```

Ile Ile Ser Ala Val Gly Leu Ala Phe Ala Val Ser Gly Cys Ser Ser 25 Asp Tyr Val Met Ser Thr Lys Asp Gly Arg Met Ile Leu Thr Asp Gly 4.0 4.5 Lys Pro Glu Val Asp Asp Asp Thr Gly Leu Val Ser Tyr Arg Asp Arg 55 50 60 Glu Gly Asn Gln Met Gln Ile Asn Arg Asp Glu Val Ser Gln Ile Ile 7.0 Glu Arg <210> 5902 <212> PRT <213> Enterobacter cloacae <400> 5902 Lys Arg Lys Pro Ala Met His Tyr His Arg Ile Pro His Ser Ala Leu 10 Glu Ile Ser Gln Leu Gly Leu Gly Thr Met Thr Phe Gly Glu Gln Asn 25 30 Ser Glu Ala Asp Ala His Ala Gln Leu Asp Tyr Ala Val Ser Gln Gly 40 45 Ile Asn Leu Ile Asp Val Ala Glu Met Tyr Pro Val Pro Pro Arg Pro 55 Glu Thr Gln Gly Leu Thr Glu Thr Tyr Val Gly Asn Trp Leu Ala Lys 70 Arg Gly Asn Arg Glu Lys Leu Val Ile Ala Ser Lys Val Ser Gly Pro 8.5 90 Ser Arg Asn Asn Asp Ala Gly Ile Arg Pro Asn Gln Ile Leu Asp Arg 100 105 Lys Asn Ile Arg Ala Ala Leu Asp Ala Ser Leu Lys Arg Leu Gin Thr 115 120 Asp Tyr Leu Asp Leu Tyr His Val His Trp Pro Gln Arg Pro Thr Asn 130 135 Cys Phe Gly Lys Leu Gly Tyr Thr 145 150 <210> 5903 <211> 108 <212> PRT <213> Enterobacter cloacae <400> 5903 Asn Glu Ser Ala Pro Ala Val Thr Leu Leu Glu Thr Leu Glu Thr Leu 10 15 Thr Glu Cys Gln Arg Ala Gly Lys Ile Arg Tyr Ile Gly Val Ser Asn 20 25 Glu Thr Ala Phe Gly Val Met Arg Tyr Leu His Leu Ala Asp Lys His 35 40 4.5 Asp Leu Pro Arg Ile Val Thr Ile Gln Asn Pro Tyr Ser Leu Leu Lys 55 60 Arg Ser Tyr Glu Val Gly Leu Ala Glu Val Thr Gln Tyr Glu Glu Val 7.0 75 Glu Leu Leu Pro Gln Leu Leu Ser Gly Leu Arg Tyr Pro Asp Gly Gln

90

<210> 5904 <211> 243 85

Ile Pro Glu Arg Arg Glu Thr Gly Trp Arg Ala

```
<212> PRT
<213> Enterobacter cloacae
<400> 5904
Asn Ile Ser Ser Phe Phe Asn
1 5
```

Asn Ile Ser Ser Phe Phe Asn Gln Lys Val Val Ser Met His Ser Leu 5 10 Ala Pro Leu Leu Ser Pro Pro Val Ser Glu Ala Gln Leu Leu Gln Gln 20 25 30 Ala Gln Arg Leu Ala Gly Tyr Ser Leu Gly Glu Leu Ala Val Met Ala 35 4.0 Gly Leu Thr Ile Pro Asn Asp Leu Lys Arg Asp Lys Gly Trp Ile Gly 50 55 60 Val Leu Leu Glu Arg Trp Leu Gly Ala Ser Ala Gly Ser Lys Pro Glu 7.0 75 Gln Asp Phe Ala Ala Leu Gly Val Glu Leu Lys Thr Ile Pro Ile Asp 85 90 Ser Gln Gly Arg Pro Leu Glu Thr Thr Phe Val Cys Val Ala Pro Leu 105 110 Thr Gly Asn Ser Gly Val Thr Trp Glu Thr Ser His Val Arg His Lys 120 Leu Lys Arg Val Leu Trp Val Pro Val Glu Gly Asp Arg Gln Ile Pro 130 135 140 Leu Ala Glu Arg Arg Val Gly Ala Pro Leu Leu Trp Ser Pro Asn Asp 150 155 160 Glu Glu Glu Arg Leu Leu Ser Gln Asp Trp Glu Glu Leu Met Asp Met 165 170 175 Ile Val Leu Gly Gln Val Glu Arg Ile Thr Ala Arg His Gly Glu Met 180 185 190 Leu Gln Leu Arg Pro Lys Ala Ala Asn Ser Lys Ala Leu Thr Giu Ala 195 200 205 Val Cys Ala Gln Gly Glu Pro Ile Leu Thr Leu Pro Arg Gly Phe Tyr 210 215 220 Leu Lys Lys Asn Phe Thr Gly Ala Leu Leu Ala Arg His Phe Leu Leu

<210> 5905 <211> 125 <212> PRT <213> Enterobacter cloacae

230

<400> 5905 Arg Ser Thr Lys Arg Trp Ser Cys Ser Pro Asn Ser Cys Leu Gly Phe 10 Gly Thr Leu Thr Gly Lys Tyr Leu Asn Gly Ala Lys Pro Ala Gly Ala 25 Arg Asn Thr Leu Phe Ser Arg Phe Thr Arg Tyr Ser Gly Glu Gln Thr 4.0 Gln Lys Ala Val Ala Ala Tyr Val Asp Ile Ala Lys Arg His Gly Leu 50 5.5 Asp Pro Ala Gln Met Ala Leu Ala Phe Val Arg Arg Gln Pro Phe Val 65 Ala Ser Thr Leu Leu Gly Ala Thr Thr Met Asp Gln Leu Lys Thr Asn 8.5 90 Ile Glu Ser Phe Asn Leu Asn Leu Ser Glu Glu Val Leu Ala Glu Ile 105 100 Glu Ala Val His Gln Val Tyr Thr Tyr Pro Ala Pro

<210> 5906

Lys Thr

```
<211> 118
<212> PRT
<213> Enterobacter cloacae
<400> 5906
Thr Val Ala Arg Cys Met Pro Ala Gly Ile Val Ile Gly Val Gly Val
Leu Phe Phe Ser Leu Gln His Ala Leu Leu Pro Ala Tyr Ala Leu Leu
        20
                25
Leu Leu Ile Gly Met Leu Gly Gly Phe Phe Val Val Pro Leu Asn Ala
             40
                                 4.5
Leu Leu Gln Glu Arg Gly Lys Gln Thr Val Gly Ala Gly Asn Ala Ile
                     55
Ala Val Gln Asn Leu Gly Glu Asn Met Ala Met Leu Leu Met Leu Gly
                 70
                                    75
Ile Tyr Ser Leu Ala Val Lys Ala Gly Ala Pro Val Val Ala Ile Gly
                              90
Val Gly Phe Gly Ala Leu Phe Ala Leu Ala Ile Ser Gly Leu Trp Val
        100
                             105
Trp Gln Arg Arg Arg
      115
<210> 5907
<211> 305
<212> PRT
<213> Enterobacter cloacae
<400> 5907
Ser Pro Gly Gly Met Met Arg Met Lys Arg Asn Leu Lys Ala Ile
                                10
Pro Val Leu Val Ala Gly Leu Phe Thr Ser Gln Leu Ser Ile Ala Ala
20
                             25
Gly Ser Val Ser Ala Asp Pro His Ala Gly His Asp Met Ser Ala Met
35
                         40
Gln Met Pro Ala Asp Glu Asn Phe Thr Glu Met Thr Ser Met Glu Pro
                   55
 5.0
Ile Val Thr Glu Ser Arg Thr Pro Ile Pro Pro Val Thr Asp Ala Asp
                 7.0
                                   75
Arg Lys Ala Ala Phe Gly Asn Leu Gln Gly His Ala Ile His Aso Ser
              85
                               90
Ala Ile Asn Tyr Leu Val Leu Leu Asp Gln Leu Glu Trp Gln Arg Ser
          100
                            105
                                              110
Asp Asn Thr Asn Asn Phe Ser Trp Ser Val Asn Ser Trp Ile Gly Gly
      115
                         120
                                          125
Asp Thr Asp Arg Ile Trp Leu Lys Ser Glu Gly Glu Arg Ser Asn Gly
   130
                                       140
Glu Thr Glu Ala Ala Glu Ala Gln Leu Leu Trp Gly His Ala Val Gly
145
                 150
                                 155
Pro Trp Trp Asp Leu Val Ala Gly Val Arg Gln Asp Phe Arg Pro Ala
                               170
              165
Ser Ala Arg Thr Trp Ala Ala Val Gly Phe Gln Gly Leu Ala Leu Tyr
                            185
                                       190
Asn Phe Glu Ser Glu Ile Thr Gly Phe Val Ser Asn Gly Gly Lys Ala
      195
                         200
Ala Leu Arg Leu Gly Gly Glu Tyr Asp Val Leu Leu Thr Asn Arg Leu
 210
                     215
                            220
Ile Leu Gln Pro Ser Tyr Glu Val Asn Phe Tyr Ser Gln Asp Asp Glu
               230 235
Ser Arg Gly Arg Gly Arg Gly Leu Thr Asp Thr Glu Leu Gly Leu Arg
              245 250 255
Leu Arg Tyr Glu Ile Arg Arg Glu Phe Ala Pro Tyr Ile Gly Val Ser
```

```
2248
                               265
Trp Asn Gln Leu Tyr Gly Lys Thr Ser Asp Met Ala Lys Arg Glu Gly
    275
                        280
                                 285
Glu Lys Asp His Gln Val Val Phe Leu Ala Gly Ala Arg Ile Trp Phe
                       295
305
<210> 5908
<211> 140
<212> PRT
<213> Enterobacter cloacae
<400> 5908
Arg Thr Asp Ile Lys His Ser Thr Lys Gln Val Asn Lys Met Ser Ile
                                  10
Leu Asn Lys Ala Ile Leu Thr Gly Gly Leu Val Met Gly Val Ala Phe
                                                 3.0
Ser Ala Met Ala His Pro Glu Leu Lys Ser Ser Val Pro Gln Ala Asp
                          40
                                              4.5
Ser Ala Val Ala Ala Pro Glu Lys Ile Gln Leu Asn Phe Ser Glu Asn
                       5.5
                                         60
Leu Thr Val Lys Phe Ser Gly Ala Lys Leu Thr Met Thr Gly Met Lys
                  70
                                      75
Gly Met Ser Ser His Ser Pro Met Pro Val Ala Ala Lys Val Ala Pro
                                  90
Gly Ala Asp Pro Lys Ser Met Val Ile Ile Pro Arg Glu Pro Leu Pro
                              105
           100
Ala Gly Thr Tyr Arg Val Asp Trp Arg Ala Val Ser Ser Asp Thr His
                          120
Pro Ile Thr Gly Asn Tyr Thr Phe Thr Val Lys
                       135
                                          140
<210> 5909
<211> 491
<212> PRT
<213> Enterobacter cloacae
<400> 5909
Lys His Phe Met Gly Val Gln Pro Asp Asp Thr Tyr Val Tyr Thr Phe
                                 10
Lys Val Lys Gln Asn Gly Thr Tyr Trp Tyr His Ser His Ser Gly Leu
           20
Gln Glu Gln Glu Gly Val Tyr Gly Ala Ile Ile Ile Asp Ala Gly Glu
       35
                          40
                                             45
Pro Glu Pro Phe Thr Tyr Asp Arg Glu His Val Val Met Leu Ser Asp
                       55
Trp Thr Asp Glu Asn Pro His Ser Leu Leu Lys Lys Leu Lys Gln
65
                  70
Ser Asp Tyr Tyr Asn Phe Asn Lys Pro Thr Val Gly Ser Phe Phe Arg
              85
Asp Val Asn Thr Arg Gly Leu Ser Ala Thr Ile Ala Asp Arg Lys Met
           100
                              105
Trp Ala Glu Met Lys Met Asn Pro Thr Asp Leu Ala Asp Val Ser Gly
       115
               120
                                          125
Tyr Thr Tyr Thr Tyr Leu Met Asn Gly Gln Ala Pro Leu Lys Asn Trp
                  135
                                         140
Thr Gly Leu Phe Arg Pro Gly Glu Lys Ile Arg Leu Arg Phe Ile Asn
                  150
                                     155
Gly Ser Ala Met Thr Tyr Phe Asp Ile Arg Ile Pro Gly Leu Lys Met
```

165

Thr Val Val Ala Ala Asp Gly Gln Tyr Val Asn Pro Val Thr Val Asp

185

180

```
Glu Phe Arg Ile Ala Val Ala Glu Thr Tyr Asp Val Ile Val Glu Pro
     195
                    200
                          205
Gln Gly Glu Ala Tyr Thr Ile Phe Ala Gln Ser Met Asp Arg Thr Glv
 210
                     220
             215
Tyr Ala Arg Gly Thr Leu Ala Thr Arg Glu Gly Leu Ser Ala Ala Val
225
    230 235
Pro Pro Leu Asp Pro Arg Pro Leu Leu Thr Met Glu Asp Met Gly Met
           245 250 255
Gly Gly Met Gly His Asp Met Ala Gly Met Asp His Ser Gln Met Gly
        260 265 270
Gly Met Asp Asn Ser Gly Glu Met Met Ser Met Asp Gly Ala Asp Leu
    275 280 285
Pro Asp Ser Gly Thr Ser Ser Ala Pro Met Asp His Ser Ser Met Ala
 290 295 300
Gly Met Asp His Ser Arg Met Ala Gly Met Pro Gly Met Gln Ser His
305 310 315
Pro Ala Ser Glu Thr Asp Asn Pro Leu Val Asp Met Gln Ala Met Ser
           325 330
                                         335
Val Ser Pro Lys Leu Asn Asp Pro Gly Ile Gly Leu Arg Asn Asn Gly
 340
                       345
                                      350
Arg Lys Val Leu Thr Tyr Ala Asp Leu Lys Ser Arg Phe Glu Asp Pro
355
                    360
                                   365
Asp Gly Arg Glu Pro Gly Arg Thr Ile Glu Leu His Leu Thr Gly His
370 375
                                380
Met Glu Lys Phe Ala Trp Ser Phe Asn Gly Ile Lys Phe Ser Asp Ala
385 390
                             395
Ala Pro Val Leu Leu Lys Tyr Gly Glu Arg Leu Arg Ile Thr Leu Ile
 405 410 415
Asn Asp Thr Met Met Thr His Pro Ile His Leu His Gly Met Trp Ser
      420 425
                                      430
Asp Leu Glu Asp Glu Asn Gly Asn Phe Met Val Arg Lys His Thr Ile
4.35
                    440 445
Asp Val Pro Pro Gly Thr Lys Arg Ser Tyr Arg Val Thr Ala Asp Ala
                 455 460
Leu Gly Arg Trp Ala Tyr His Cys His Leu Leu Tyr His Met Glu Met
465 470 475
Gly Met Phe Arg Glu Val Arg Val Glu Glu
           485
<210> 5910
<211> 91
<212> PRT
<213> Enterobacter cloacae
<400> 5910
Ser Asn Ile Met Asn Asp Leu Ile Met Ile Val Ile Arg Phe Leu Leu
                        10 15
Tyr Leu Asp Leu Met Val Ile Phe Gly Leu Pro Phe Phe Gln Ile Tyr
        20
                       25
                                      30
Gly Ile Ser Gly Val Arg His Glu Thr Tyr Asn Leu Thr Asn Phe Arg
                    40
Ser Phe Ile Thr Phe Ala Val Val Thr Gly Ile Ile Leu Thr Gly Ile
5.0
                55
```

Asn Met Leu Leu Val Ser Asn Ala Met Ser Gly Val Thr Asp Leu Arg

75

70

Glu Leu Ser Ile His Val Ile Glu Met Val Ile 85 90

```
<211> 454
<212> PRT
<213> Enterobacter cloacae
```

<400> 5911 Thr Asn Ser Asn Ser Ser Gln Val Asn Phe Tyr Tyr Ile Gln Gly Ser 10 His Ala Ala Leu Ser Gly Gly Phe Met Leu Leu Ala Gly Ala Ile Phe 20 25 Ile Leu Thr Ile Val Leu Val Ile Trp Gln Pro Lys Gly Leu Gly Ile 35 40 Gly Trp Ser Ala Ile Phe Gly Ala Ile Leu Ala Leu Ile Ser Gly Val 50 55 Val His Ile Thr Asp Ile Leu Val Val Trp Asn Ile Val Trp Asn Ala 70 75 Thr Ala Thr Phe Ile Ala Val Ile Ile Ile Ser Leu Leu Leu Asp Glu 85 90 95 Ser Gly Phe Phe Glu Trp Ala Ala Leu His Val Ser Arg Trp Gly Asn 100 105 Gly Arg Gly Arg Leu Leu Phe Thr Tyr Ile Val Leu Leu Gly Ala Ala 115 120 125 Val Ala Ala Leu Phe Ala Asn Asp Gly Ala Ala Leu Ile Leu Thr Pro 130 135 140 Ile Val Ile Ala Met Leu Leu Ala Leu Gly Phe Ser Lys Ser Ala Thr 1.50 155 Leu Ala Phe Val Met Ala Ala Gly Phe Ile Ala Asp Thr Ala Ser Leu 165 170 175 Pro Leu Ile Val Ser Asn Leu Val Asn Ile Val Ser Ala Asp Phe Phe 180 185 190 His Leu Gly Phe Thr Glu Tyr Ala Ser Val Met Val Pro Val Asp Ile 200 205 Ala Ala Ile Ile Ala Thr Leu Val Met Leu His Leu Phe Phe Arg Lys 215 Asp Ile Pro Pro Thr Tyr Asp Leu Asn Arg Leu Lys Glu Pro Ala Leu 225 230 235 Ala Ile Lys Asp Pro Ala Thr Phe Arg Thr Gly Trp Ile Val Leu Ile 245 250 Leu Leu Leu Val Gly Phe Phe Val Leu Glu Pro Leu Gly Ile Pro Val 260 265 Ser Ala Ile Ala Ala Val Gly Ala Ala Ile Leu Phe Phe Val Ala Lys 275 280 Lys Gly His Ala Ile Asn Thr Gly Lys Val Leu Arg Gly Ala Pro Trp 295 300 Gln Ile Val Ile Phe Ser Leu Gly Met Tyr Leu Val Val Tyr Gly Leu 310 315 Arg Asn Ala Gly Leu Thr Glu Tyr Leu Ser Gly Val Leu Asn Leu Phe 325 330 Ala Asp Lys Gly Leu Trp Ala Ala Thr Phe Gly Thr Gly Phe Leu Thr 340 345 Ala Phe Leu Ser Ser Ile Met Asn Asn Met Pro Thr Val Leu Ile Gly 355 360 365 Ala Leu Ser Ile Asp Gly Ser Thr Ala Ser Gly Val Ile Lys Glu Ala 370 375 380 Met Ile Tyr Ala Asn Val Ile Gly Cys Asp Leu Gly Pro Lys Ile Thr 385 390 395 Pro Ile Gly Ser Leu Ala Thr Leu Leu Trp Leu His Val Leu Ser Gln 405 410 415 Lys Asn Met Thr Ile Thr Trp Gly Tyr Tyr Phe Arg Thr Gly Ile Ile 425 430 Met Thr Leu Pro Val Leu Phe Val Thr Leu Ala Ala Leu Ala Leu Arg 435

```
Leu Ser Phe Thr Leu
   450
<210> 5912
<211> 93
<212> PRT
<213> Enterobacter cloacae
<400> 5912
Asp Thr Asp Met Ser Asm Ile Thr Ile Tyr His Asm Pro Ala Cys Gly
                                   1.0
                                                      15
Thr Ser Arg Asn Thr Leu Glu Met Ile Arg Asn Ser Gly Thr Glu Pro
         20
                       2.5
Thr Val Ile His Tyr Leu Glu Thr Pro Pro Ser Arg Asp Glu Leu Val
       35
                        40
Lys Leu Ile Ala Asp Met Gly Ile Thr Val Arg Ala Leu Leu Arg Lys
            55
Asn Val Glu Pro Phe Glu Ala Leu Gly Leu Ala Glu Asp Arg Phe Thr
     70
Asp Asp Gln Leu Ile Asp Phe Met Val Ser Val Lys
<210> 5913
<211> 112
<212> PRT
<213> Enterobacter cloacae
<400> 5913
Lys Gln Lys Gly His Val Ser Thr Pro Met Met Gln Leu Gln Asp Pro
                                  10
Glu Arg Thr Lys Val Leu Leu Val Thr Leu Pro Glu Thr Thr Pro Val
         20
Leu Glu Ala Ala Asn Leu Gln Ala Asp Leu Glu Arg Ala Gly Ile His
                          4.0
Pro Trp Gly Trp Ile Ile Asn Asn Ser Leu Ser Ile Ala Glu Thr Arg
                       55
Ser Pro Leu Leu Arg Gln Arg Ser Gln Gln Glu Leu Pro Gln Ile Glu
                   7.0
Ala Val Lys Asn Gln His Ala Thr Arg Val Ala Leu Val Pro Val Leu
            85
                              90
Ala Ala Glu Pro Thr Gly Ile Asp Lys Leu Lys Gln Leu Ala Gly
                              105
<210> 5914
<211> 213
<212> PRT
<213> Enterobacter cloacae
<400> 5914
Asp Ser Ile Ala Trp Met Pro Arg Pro Ala Val Val Lys Thr Leu Phe
                                  10
Ser Ala Glu Arg Glu Gly Gly Pro Leu Thr Glu Ala Ala Cys Trp Ala
           20
                              25
His Ala Arg Arg Lys Ile His Asp Val Tyr Ile Ser Thr Arg Thr Ala
                          40
Thr Ala Glu Glu Ala Leu Lys Arg Ile Ser Glu Leu Tyr Ala Ile Glu
                      5.5
Glu Glu Ile Arg Gly Leu Pro Ala Ser Gln Arg Leu Ala Ala Arg Arg
Ser Arg Ser Lys Pro Leu Leu Ile Ser Leu His Asp Trp Leu Val Glu
```

```
Lys Arg Ala Thr Leu Ser Lys Lys Ser Arg Leu Gly Glu Ala Phe Ala
        100
                            105
Tyr Ala Leu Asn Gln Trp Asp Ala Leu Cys Tyr Tyr Cys Asp Asp Gly
            120
                             125
Leu Ala Glu Pro Asp Asn Asn Ala Ala Glu Arg Ala Leu Arg Ala Val
   130
        135
                                      140
Cys Leu Gly Lys Lys Asn Tyr Ile Phe Phe Gly Ser Asp His Gly Gly
     150 155
                                                     160
Glu Arg Gly Ala Leu Leu Tyr Gly Leu Ile Gly Thr Cys Arg Leu Asn
        165 170 175
Gly Ile Asp Pro Glu Gly Tyr Leu Arg His Ile Leu Ser Val Leu Pro
       180 185
                                 190
Glu Trp Pro Ile Asn Lys Val Ala Glu Leu Leu Pro Trp Asn Val Asp
    195
           200
                                          205
Leu Thr Asn Lys
  210
<210> 5915
<211> 142
<212> PRT
<213> Enterobacter cloacae
<400> 5915
Arg Gln Pro Gln Pro Gly Ser Gln Pro Met Gln Thr Gln Leu Val Thr
                                10
Pro Ser Asn Asp Pro Gly Gln Val Ala Pro Val Glu Pro Glu Pro Val
        20
Gln Glu Asp Gln Glu Gln Ala Ala Thr Pro Ser Glu Pro Gln Ala Gln
      35
                        40
Gln Pro Thr Gly Ile Glu Gln Gln Trp Arg Ser Tyr Arg Val Glu Pro
                     55
Gly Lys Thr Leu Ala Gln Leu Phe Arg Asp His Asn Leu Pro Ala Thr
                 7.0
Asp Val Tyr Ala Met Ala Gln Val Glu Gly Ala Gly Lys Pro Leu Ser
             8.5
                               90
Asn Leu Gln Asn Gly Gln Met Val Gln Ile Arg Gln Asn Ala Ser Gly
        1.00
                            105
                                             110
Val Val Thr Gly Leu Thr Ile Asp Thr Gly Asn Gly Gln Gln Val Leu
      115
                        120
Phe Thr Arg Gln Pro Asp Gly Ser Phe Ile Arg Ala Arg
   130
                     135
<210> 5916
<211> 154
<212> PRT
<213> Enterobacter cloacae
<400> 5916
Glu Asp Lys Val Met Gln Val Ile Leu Leu Asp Lys Val Ala Asn Leu
Gly Ser Leu Gly Asp Gln Val Asn Val Lys Ala Gly Tyr Ala Arg Asn
          20
                            25
Phe Leu Val Pro Gln Gly Lys Ala Val Pro Ala Thr Lys Lys Asn Val
      35
                        4.0
Glu Phe Phe Glu Ala Arg Arg Ala Glu Leu Glu Ala Lys Leu Ala Asp
  50
                     55
                                      60
Val Leu Ala Ala Ala Asn Ala Arg Ala Glu Ala Ile Asn Ala Leu Gly
                 7.0
                                  7.5
Thr Val Thr Ile Ala Ser Lys Ala Gly Asp Glu Gly Lys Leu Phe Gly
                               90
Ser Ile Gly Thr Arg Asp Ile Ala Asp Ala Val Thr Ala Ala Gly Val
```

105 100 Lys Val Ala Lys Ser Glu Val Arg Leu Pro Asn Gly Val Leu Arg Thr 120 125 115 Thr Gly Glu His Glu Val Asp Phe Gln Val His Ser Glu Val Phe Ala 130 135 Lys Leu Val Val Asn Val Val Ala Glu <210> 5917 <211> 82 <212> PRT <213> Enterobacter cloacae <400> 5917 Ile Leu Glu Thr Ser His Met Ala Arg Tyr Phe Arg Arg Arg Lys Phe 10 Cys Arg Phe Thr Ala Glu Gly Val Gln Glu Ile Asp Tyr Lys Asp Ile Ala Thr Leu Lys Asn Tyr Ile Thr Glu Ser Gly Lys Ile Val Pro Ser 40 45 Arg Ile Thr Gly Thr Arg Ala Lys Tyr Gln Arg Gln Leu Ala Arg Ala 50 55 60 Ile Lys Arg Ala Arg Tyr Leu Ser Leu Leu Pro Tyr Thr Asp Arg His 70 Gln <210> 5918 <211> 319 <212> PRT <213> Enterobacter cloacae <400> 5918 Asn Ala Ile Leu Phe Met Arg Phe Val Met Asp Thr Ala Leu Pro Thr 10 Pro Val Phe Ala Arg Arg Asn Val Ala Tyr Ala Cys Ala Thr Leu Cys 20 25 Cys Leu Leu Trp Gly Ser Ser Tyr Pro Ala Ile Lys Ser Gly Tyr Glu 35 40 Leu Phe Gln Ile Ala Thr Asp Asp Ile Pro Ser Lys Val Val Phe Ala 50 55 Gly Tyr Arg Phe Leu Phe Ala Gly Ala Leu Leu Leu Phe Ala Leu 70 7.5 Ala Gln Arg Lys Pro Ile Gly Arg Leu Thr Pro Thr Gln Phe Gly Gln 8.5 Leu Thr Ile Leu Gly Leu Thr Gln Thr Ser Leu Gln Tyr Thr Phe Phe 105 100 Tyr Ile Gly Leu Ala Tyr Thr Thr Gly Val Asn Gly Ser Ile Met Asn 115 120 Ala Thr Gly Thr Phe Phe Ser Val Leu Leu Ala His Phe Ile Tyr His 135 140 Asn Asp Lys Leu Ser Tyr Asn Lys Thr Leu Gly Cys Val Leu Gly Phe 150 145 155 Ala Gly Val Met Leu Val Asn Phe His Ser Gly Leu Ser Glu Phe Gln 165 170 175 Phe Val Trp Lys Gly Asp Gly Phe Val Val Leu Ala Ala Phe Ile Leu 180 185 190

Ser Ala Ala Thr Leu Tyr Gly Lys Arg Ile Ser Gln Thr Val Asp Pro

Thr Val Met Thr Gly Trp Gln Leu Gly Ile Gly Gly Ala Ala Leu Val 215

200 205

220

```
Ala Gly Gly Tyr Ala Thr Gly Gly Thr Leu Glu Val His Ser Met Lys
 225
                 230
                                 235
Ala Val Ala Val Leu Gly Tyr Leu Thr Leu Leu Ser Ser Val Ala Phe
              245
                               250
                                    255
Ala Leu Trp Ser Ala Leu Leu Lys Val Asn Arg Val Ser Met Ile Ala
          260
                 265
                                 270
 Pro Phe Asn Phe Val Ile Pro Val Ala Gly Thr Val Leu Ser Ala Ile
                      280
      275
                             285
 Phe Leu Gly Asp Asn Ile Met Asp Ile Lys Tyr Ala Ile Ala Leu Val
        295 300
 Leu Val Cys Ser Gly Ile Trp Trp Val Asn Lys Arg Arg Ala
    310
                         315
<210> 5919
<211> 95
<212> PRT
<213> Enterobacter cloacae
<400> 5919
Thr Glu Arg Leu Gln Trp Leu Ala Ala Leu Leu Leu Asp Ala Leu Lys
                               10
Ile Gln Gln Gly Asp Thr Leu Leu Thr His Pro Glu Val Trp Ala Leu
  20
                         25
                                             3.0
Val Thr Thr Leu Ala Asn Arg Leu Ser Gly Gln Ser Leu His Ala Ile
                       40
                                   4.5
Leu His Asp Ile Cys Gln Ser Arg Glu Gln Leu Leu Thr Val Thr Gly
 50
                    5.5
                               60
Gly Gly Leu Asn Arg Glu Leu Leu Thr Asp Gln Leu Leu Arg Ile
    7.0
                                75
Glu His Tyr Leu Gln Pro Gly Val Ile Pro Pro Val Ser His Leu
                               90
<210> 5920
<211> 291
<212> PRT
<213> Enterobacter cloacae
<400> 5920
Pro Thr Ser Tyr Cys Val Ser Asn Thr Thr Cys Asn Arg Val Ser Tyr
                              10
Arg Arg Phe Pro Thr Ser Glu Arg Asp Ile Met Phe Leu Val Asp Ser
                           25
His Cys His Leu Asp Gly Leu Asp Tyr Gln Ser Leu His Lys Asn Val
                       4.0
Asp Asp Val Leu Ala Lys Ala Ala Ala Arg Asp Val Lys Phe Cys Leu
                    55
                                      60
Ala Val Ala Thr Thr Leu Pro Gly Tyr Arg Ser Met Arg Glu Leu Val
                 70
                                  75
Gly Glu Arg Asp Asn Val Val Phe Ser Cys Gly Val His Pro Leu Asn
             85
                               90
Gln Asp Glu Ala Tyr Asp Val Glu Asp Leu Arg Arg Leu Ala Ala Glu
          100
                           105
Glu Gly Val Val Ala Met Gly Glu Thr Gly Leu Asp Tyr Leu Tyr Thr
      115
                                  125
                        120
Pro Glu Thr Lys Pro Arg Gln Gln Glu Ser Phe Arg Asn His Ile Arg
   130
                    135
                                      140
Ile Gly Arg Glu Leu Asn Lys Pro Val Ile Val His Thr Arg Asp Ala
               150
                                  155
Arg Ala Asp Thr Leu Ala Ile Leu Arg Glu Glu Lys Val Thr Asp Cys
             165
                              170
```

Gly Gly Val Leu His Cys Phe Thr Glu Asp Arg Glu Thr Ala Gly Lys

```
185
Leu Leu Asp Leu Gly Phe Tyr Ile Ser Phe Ser Gly Ile Val Thr Phe
              200 205
Arg Asn Ala Glu Gln Leu Arg Asp Ala Ala Arg Tyr Val Pro Leu Asp
 210 215 220
Arg Ile Leu Val Glu Thr Asp Ser Pro Tyr Leu Ala Pro Val Pro His
      230 235
Arg Gly Lys Glu Asn Gln Pro Ala Met Thr Arg Asp Val Ala Glu Tyr
        245 250 255
Met Ala Val Leu Lys Gly Val Ser Ile Glu Glu Leu Ala Arg Val Thr
      260 265 270
Thr Glu Asn Phe Ala Ser Leu Phe His Ile Asp Pro Ala Arg Leu Gln
                      280
Ser Val
  290
<210> 5921
<211> 489
<212> PRT
<213> Enterobacter cloacae
<400> 5921
Lys Lys His Lys Tyr Ser Gly Ala Leu Ser Ile Met Phe Lys Asn Ala
1
                            10
Phe Ala Asn Leu Gln Lys Val Gly Lys Ser Leu Met Leu Pro Val Ser
                         25
Val Leu Pro Ile Ala Gly Ile Leu Leu Gly Val Gly Ser Ala Asn Phe
35
                      40
Ser Trp Leu Pro Ala Val Val Ser His Val Met Ala Glu Ala Gly Gly
50 55
Ser Val Phe Ala Asn Met Pro Leu Ile Phe Ala Ile Gly Val Ala Leu
                      75
65 70
Gly Phe Thr Asn Asn Asp Gly Val Ser Ala Leu Ala Ser Val Val Ala
            8.5
                            90
Tyr Gly Ile Met Val Lys Thr Met Ala Val Val Ala Pro Leu Val Leu
         100
                         105
                                         110
His Leu Pro Ala Glu Glu Ile Ala Ala Lys His Leu Ala Asp Thr Gly
    115
                      120
Val Leu Gly Gly Ile Ile Ser Gly Ala Ile Ala Ala Tyr Met Phe Asn
 130
                   135
                                  1.40
Arg Phe Tyr Arg Ile Lys Leu Pro Glu Tyr Leu Gly Phe Phe Ala Gly
               150
                               155
Lys Arg Phe Val Pro Ile Ile Ser Gly Leu Ala Ala Ile Phe Thr Gly
            165
                            170
Val Val Leu Ser Phe Ile Trp Pro Pro Ile Gly Thr Ala Ile Gln Thr
               185
        180
                             190
Phe Ser Gln Trp Ala Ala Tyr His Asn Pro Val Val Ala Phe Gly Ile
      195
                    200
                             205
Tyr Gly Phe Ile Glu Arg Cys Leu Val Pro Phe Gly Leu His His Ile
  210
                  215
                                  220
Trp Asn Val Pro Phe Gin Met Gin Ile Gly Glu Tyr Thr Asn Ala Ala
      230 235
Gly Gln Val Phe His Gly Asp Ile Pro Arg Tyr Met Ala Gly Asp Pro
           245 250 255
Thr Ala Gly Lys Leu Ser Gly Gly Phe Leu Phe Lys Met Tyr Gly Leu
         260
                265 270
Pro Ala Ala Ala Ile Ala Ile Trp His Ser Ala Lys Pro Glu Asn Arg
     275
            280
                                     285
Ala Lys Val Gly Gly Ile Met Ile Ser Ala Ala Leu Thr Ser Phe Leu
                295 300
Thr Gly Ile Thr Glu Pro Ile Glu Phe Ser Phe Met Phe Val Ala Pro
```

```
310
                              315
Ile Leu Tyr Ile Ile His Ala Val Leu Ala Gly Leu Ala Phe Pro Ile
          325 330 335
Cys Ile Leu Leu Gly Met Arg Asp Gly Thr Ser Phe Ser His Gly Leu
      340 345
Ile Asp Phe Ile Val Leu Ser Gly Asn Ser Ser Lys Leu Trp Leu Phe
   355 360 365
Pro Ile Val Gly Ala Gly Tyr Ala Val Val Tyr Tyr Thr Val Phe Arg
 370 375 380
Val Leu Ile Lys Ala Leu Asp Leu Lys Tnr Pro Gly Arg Glu Asp Ala
385 390 395
Thr Glu Asp Ser Lys Ala Gly Ala Thr Ser Glu Met Ala Pro Ala Leu
         405 410 415
Val Ala Ala Phe Gly Gly Lys Glu Asn Ile Thr Asn Leu Asp Ala Cys
                        425
Ile Thr Arg Leu Arg Val Ser Val Ala Asp Val Ala Lys Val Asp Gln
                          445
                     440
Pro Gly Leu Lys Lys Leu Gly Ala Ala Gly Val Val Val Ala Gly Ser
 450 455 460
Gly Val Gln Ala Ile Phe Gly Thr Lys Ser Asp Asn Leu Lys Thr Glu
   470
                               475
Met Asp Glu Tyr Ile Arg Asn Asn
            485
<210> 5922
<211> 177
<212> PRT
<213> Enterobacter cloacae
<400> 5922
Asp Ser Asn Ala Leu Ile Gly Ser Ile Gly Val Arg Met Asp His Trp
                            10
Asn Leu Ser Glu Ile Met Ser Thr Val Gly Val Lys Asn Glu Pro Leu
20
                        25
Thr Ala Gly Glu Phe Lys Asp Ala Leu Asp Pro Phe His Pro Leu Ser
35
                     40
Asp Ser Thr Arg Glu Phe Met Gln Lys Glu Ile Leu Asn Thr Met His
             5.5
                                 60
```

Glu Lys Phe Ile Thr Asp Val Glu Leu Gly Arg Gly Lys Lys Leu Leu 70 75 Ser Arg His Asp Ala Asp Ala Val Ser Leu Tyr Ser Gly Arg Val Trp 85 90 Pro Thr Pro Gln Ala Val Lys Tyr Gly Leu Val Asp Gly Asp Leu Thr 100 105 110 Ser Val Glu Ile Arg Thr Arg Leu Ser Lys Met Tyr Ser Thr Asp Thr 115 120 125 Phe Lys Asn Tyr Asn Glu Pro His Arg Asn Leu Arg Ser Ala Leu Gly 130 135 1.40 Met Leu Met Ser Leu Ser Ser Asn Ile Glu Ser Leu Thr Gly Thr Thr 145 150 155 Thr Arg Leu Val Glu Ser Val Asn Ala Thr Ser Tyr Pro Ser Val Arg 165 170

<sup>&</sup>lt;210> 5923

<sup>&</sup>lt;211> 246

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Gly Asn Met Asp Ala Phe Asn Leu Leu Trp Ser Ile Thr Gly Val Ala 1.0 Phe Ile Ile Leu Ile Phe Val Val Leu Leu Cys Leu Leu Gly Phe Met 25 30 Thr Ser Ala Ile Ala Glu Arg Arg Thr Ala Lys Ala Ile Glu Ser Gly 35 4.0 45 Leu Pro Glu Glu Ala Gln Gly Leu Leu Ser Asp Leu Thr Phe Gln Leu 5.5 Ser Ala His Ser Thr Thr Gln Val Asp His Ile Leu Val Ala Pro His 7.0 7.5 Gly Ile Tyr Val Ile Glu GIn Lys Asn Tyr Val Gly Lys Leu Tyr Gly 85 90 95 Thr Leu Glu Glu Ser His Trp Arg Lys Trp Thr Gln Ser Arg Thr Leu 100 105 110 Lys Leu Gln Asn Pro Phe Lys Gln Asn Gln Gly His Ile Arg Ala Ile 115 120 125 Gln Ser Ala Leu Lys Ala Arg Glu Leu Glu Cys Ile Asn Val Val Ile 130 135 140 Ile Asn Gly Arg Cys Lys Phe Asp Gly Ile Lys Pro Glu Trp Leu Cys 150 155 Met Gly Met Asp Asp Phe Ile His Lys Val Lys Gln Arg Arg Gly Leu 165 170 Arg Leu Phe Thr Pro Glu Ser Val Gln His Ile Cys Ser Val Leu Lys 180 185 190 Ser Thr Arg Lys Ser Pro Gly Lea Tyr Thr Asp Lea Thr His Ile His 195 200 205 Asn Ile Thr Thr Lys Tyr Lys Ala Pro Met Lys Phe Glu Gln Arg Val 210 215 220 Thr Tyr Ile Leu Leu Asn Phe Ile His Tyr Leu Trp Ala Ser Leu Phe 235 Thr Lys Gln Lys Pro

<210> 5924 <211> 275 <212> PRT <213> Enterobacter cloacae

<400> 5924 Arg Gly Met Pro Ala Arg Val Ser Arg Pro Gly Ile Thr Gly Arg Ser 10 His Leu Met Ser Gln Asn Thr Leu Lys Val His Asp Leu Asn Glu Asp 20 Ala Glu Phe Asp Glu Asn Gly Ala Glu Ala Phe Asp Glu Lys Ala Leu 40 Val Glu Glu Pro Ser Asp Asn Asp Leu Ala Glu Glu Glu Leu Leu 5.5 Ser Gln Gly Ala Thr Gln Arg Val Leu Asp Ala Thr Gln Leu Tyr Leu 70 7.5 Gly Glu Ile Gly Tyr Ser Pro Leu Leu Thr Ala Glu Glu Glu Val Tyr 85 90 Phe Ala Arg Arg Ala Leu Arg Gly Asp Val Ala Ser Arg Arg Arg Met 100 105 Ile Glu Ser Asn Leu Arg Leu Val Val Lys Ile Ala Arg Arg Tyr Gly 115 120 Asn Arg Gly Leu Ala Leu Leu Asp Leu Ile Glu Glu Gly Asn Leu Gly 130 135 Leu Ile Arg Ala Val Glu Lys Phe Asp Pro Glu Arg Gly Phe Arg Phe 150 155 Ser Thr Tyr Ala Thr Trp Trp Ile Arg Gln Thr Ile Glu Arg Ala Ile 165 170

```
Met Asn Gln Thr Arg Thr Ile Arg Leu Pro Ile His Ile Val Lys Glu
          180
                           185 190
Leu Asn Val Tyr Leu Arg Thr Ala Arg Glu Leu Ser His Lys Leu Asp
      195
                     200 205
His Glu Pro Ser Ala Glu Glu Ile Ala Glu Gln Leu Asp Lys Pro Val
  210
       215 220
Asp Asp Val Ser Arg Met Leu Arg Leu Asn Glu Arg Ile Thr Ser Val
       230 235
Asp Thr Pro Leu Gly Gly Asp Ser Glu Lys Ala Leu Leu Asp Ile Leu
          245 250 255
Ala Asp Glu Lys Asp Asr Gly Pro Glu Asp Thr Thr Gln Asp Asp Asp
       260
                 265
Met Lys Gln
<210> 5925
<211> 365
<212> PRT
<213> Enterobacter cloacae
<400> 5925
Arg Arg Val Ala Ala Leu Ser Leu Val Ser Leu Trp Leu Ala Gly Cys
                              10
Thr Ser Ser Asn Asn Ala Pro Ala Pro Val Ser Ser Val Asn Gly Thr
       20
                           25
Ser Gly Ser Gly Asn Thr Ser Ser Gly Met Leu Ile Thr Pro Pro Pro
35
                       4.0
Lys Met Gly Thr Ser Thr Ala Gln Gln Thr Pro Gln Ile Gln Pro Val
                    55 60
Gln Arg Pro Val Thr Gln Pro Thr Gln Ile Gln Pro Val Glu Gln Pro
                7.0
                                  75
Val Gln Thr Glu Asn Gly Arg Ile Val Tyr Asn Arg Lys Tyr Gly Asn
             85
                            90
Ile Pro Lys Gly Ser Tyr Thr Gly Gly Ser Thr Tyr Thr Val Lys Arg
       100
                          105 110
Gly Asp Thr Leu Phe Tyr Ile Ala Trp Ile Thr Gly Asn Asp Phe Arg
                       120
                                         125
Asp Leu Ala Gln Arg Asn Asn Val Gln Ala Pro Tyr Ala Leu Glu Val
                  135
Gly Gln Thr Leu Gln Val Gly Asn Ala Thr Gly Thr Pro Leu Thr Pro
                150
                                  155
Gly Asn Thr Val Ser Ala Ala Asp Val Thr Ala Gln Asn Asn Ser Val
             165
                               170
                                  175
Thr Pro Ala Gln Lys Thr Thr Thr Val Val Ala Ser Gln Pro Val Ile
          180
                           185
                               190
Thr Tyr Ser Glu Asp Ser Gly Asp Gln Ser Ala Asn Lys Met Leu Pro
      195
                       200
                                      205
Asn Asn Lys Gly Thr Ala Thr Val Val Thr Ala Pro Thr Thr Ala Pro
                    215
                                     220
Val Val Ser Ser Thr Val Pro Thr Ala Ser Ser Gln Asn Ala Ser Ser
                 230
                                 235
Ser Ile Thr Thr Trp Arg Trp Pro Thr Asp Gly Lys Ile Ile Glu Asn
             245
                              250
Phe Ala Thr Ser Glu Gly Gly Asn Lys Gly Ile Asp Ile Ala Gly Ser
          260
                          265
Lys Gly Gln Ala Ile Ile Ala Thr Ala Asp Gly Arg Val Val Tyr Ala
                      280
                                        285
Gly Asn Ala Leu Arg Gly Tyr Gly Asn Leu Ile Ile Ile Lys His Asn
                    295
                           300
Asp Asp Tyr Leu Ser Ala Tyr Ala His Asn Asp Thr Met Leu Val Arg
                310
                                  315
```

```
Glu Gln Gln Glu Val Lys Ala Gly Gln Lys Ile Ala Thr Met Gly Ser
               325
                                   330
Thr Gly Thr Ser Ser Thr Arg Leu His Phe Glu Ile Arg Tyr Lys Gly
            340
                 345
Lys Ser Val Asn Pro Leu Gln Tyr Leu Pro Gln Arg
                            360
<210> 5926
<211> 130
<212> PRT
<213> Enterobacter cloacae
<400> 5926
Ser Leu Leu Asn Phe Leu Ile Pro Lys Asn Lys Gly Ala Ile Ser Pro
                                   10
Gln Ile Lys Phe His Gln Val Thr Arg Thr Lys Lys Phe Gln Arg Asp
                              25
Gln Arg Ile Gln Thr Ser Ala Arg Gly Asn Tyr Gly Arg Glu Gln Thr
                           40
                                              45
Glu Glu Glu Pro Pro Lys Gly Thr Ala Pro Glu Lys Pro Gln Ala Ala
 50
                       55
                                        60
Gln Arg Arg Glu Lys Arg Lys Thr Glu Lys Gly His Gln Asn Arg Gly
                   70
                               75
                                                          80
Glu Lys Leu Ile Ser Glu Gln Asn Arg Ser Pro Asn Glu Lys Arg Asn
               85
                                   90
Ile Ser Ala Glu Lys Lys Arg Glu Ser Ala Gln Leu Val Leu Asp Gln
           100
                               105
Asn His Thr Val Ala Ala Val Leu His Arg Arg Gly Arg Lys Glu Thr
                           120
                                               125
Arg Phe
  130
<210> 5927
<211> 605
<212> PRT
<213> Enterobacter cloacae
<400> 5927
Val Ser Pro Ser Glu Arg Thr Leu Glu Gly Lys Glu Trp Cys Ala Gly
Asn Thr Asn Gly Asp Ser Gly Lys Ser Leu Lys Val Asn Ile Gly Gly
          20
                               25
Lys Lys Ser Trp Ala Asp Phe Ala Ser Gly Asp Ser Gly Asp Leu Leu
                           40
Asp Leu Trp Val Leu Val Arg Asn Cys Gln Leu His Asp Ala Met Arg
                       55
 5.0
Glu Ala Lys Glu Phe Leu Gly Let Lys Asp Asp Asp His His Phe Glu
                   7.0
                                       75
Ala Lys Lys Leu Phe Ser Arg Pro Thr Lys Lys Gly Val Lys Ser
               85
                                   90
Ala Ser Lys Cys Tyr Asp Tyr Leu Ala Ser Arg Gly Ile Thr Arg Glu
           100
                               105
                                                  110
Thr Ala Asp Arg Phe Lys Val Thr Asp Ala Val Val Trp Tyr His Asp
       115
Glu Ser Arg Glu Val Pro Ala Val Ala Phe Pro Tyr Ile Arg Asn Gly
   130
                       135
                                          140
Glu Leu Leu Gln Val Lys Arg Ile Gly Thr Glu Arg Pro Asn Gly Lys
                   150
                                      155
                                                          1.60
Lys Leu Ile Met Ala Glu Ala Asp Cys Glu Pro Cys Leu Phe Gly Trp
              165
                                  170
                                                     175
```

Gln Ala Leu Asp Lys Asn Thr Arg Leu Val Val Leu Cys Glu Gly Glu

```
180
                       185
Ile Asp Cys Met Thr Phe Thr Gln Leu Gly Tyr Asp Ala Leu Ser Val
    195 200 205
Pro Phe Gly Gly Gly Lys Gly Ala Lys Gln Gln Trp Ile Glu Tyr Glu
   210
      215 220
Tyr His Asn Leu Asp Arg Phe Gln Glu Ile Trp Leu Cys Leu Asp Asn
      230 235
Asp Asn Val Gly Arg Glu Ala Ala Lys Glu Ile Ala Arg Arg Leu Gly
       245 250 255
Glu His Arg Cys Arg Met Val Glu Leu Pro His Lys Asp Ile Asn Asp
        260 265 270
Cys Leu Met Asn Gly Met Asp Ser Asp Ser Ile Leu Glu Tyr Met Glu
   275 280 285
Arg Ala Lys Phe Phe Asp Pro Asp Glu Leu Cys Ser Ala Gly Asp Leu
   290 295
                               300
Leu Gln Glu Thr Ile Glu Ala Phe Glu His Arg Asp Thr Gly Leu Phe
305 310 315 320
Thr Ser Pro Trp Ala Ser Leu Asn Asn Asn Phe Lys Phe Arg Ala Gly
       325 330
                                        335
Glu Leu Thr Leu Val Asn Gly Val Asn Gly His Gly Lys Thr Glu Leu
                      345
Val Gly His Ile Ala Ile Asp Ala Met Ser Gln Gly Val Arg Thr Cys
 355 360 365
Ile Ala Ser Leu Glu Leu Lys Pro Gly Lys Met Leu Ala Arg Leu Thr
 370 375 380
Arg Gln Thr Ile Cys Thr Ser Ser Pro Lys Arg Glu Glu Ile Ile Met
385 390 395 400
Thr Asn Glu Trp Phe Ser Asp Arg Leu Trp Val Phe Lys Leu Thr Gly
           405 410 415
Thr Ala Lys Ala Asp Arg Leu Leu Glu Ile Phe Ala Tyr Ala Arg Arg
      420
                      425 430
Arg Tyr Gly Ile Glu Leu Phe Val Ile Asp Asn Leu Ala Lys Cys Gly
 435 440
Leu Asp Glu Glu Asp Tyr Thr Gly Gln Lys Asp Phe Ile Asp Thr Leu
                 455
                               460
Cys Asp Phe Lys Asn Glu His Asn Cys His Val Leu Leu Val Thr His
465 470
                            475
Ala Arg Lys Thr Asn Asp Ser Ala Pro Thr Gly Lys Met Asp Val Lys
           485
              490
Gly Thr Gly Ala Leu Thr Asp Met Pro Asp Asn Val Met Ala Val Trp
        500 505 510
Arg Asn Ile Pro Arg Glu Leu Ala Gln Arg Lys Ala Asp Arg Met Gly
     515 520 525
Tyr Glu Ser Leu Asp Lys Asp Glu Gln Ala Ala Ile Asn Leu Pro Ala
  530
                535
                               540
Ser Met Ile Arg Leu Leu Lys Gln Arg Glu Gly Glu Gly Trp Ile Gly
545 550 555
Asp Ile Gly Ala Asm Phe Asp Ser Arg Ser His Gln Phe Leu Glu Gly
           565 570 575
Glu Lys Lys Pro Phe Asn Tyr Leu Val Gly Lys Pro Gln Ser Glu Leu
        580
                    585
Asp Leu Glu Trp Glu Ala Ser Asn Val Thr Arg Val
     595
<210> 5928
<211> 343
<212> PRT
<213> Enterobacter cloacae
```

... ...

<400> 5928 Ala Ser Ser Arg Leu His Asn His Ala Ser Ser Gly Val Cys Val Ser

```
Ser Lys Ile Leu Gly Asn Val Trp Asp Ala Cys Ala Ala His Asp Ile
                            25
Lys Gly Ala Lys Leu Val Ile Met Ala Arg Leu Ala Asp Tyr Ser Asn
      35
                  4.0
Asp Asp Gly Val Cys Tyr Pro Ser Val Glu Thr Ile Cys Arg Gln Leu
            55
Gly Leu Gly Glu Ser Thr Val Arg Thr Ala Ile Ala Glu Leu Glu Ser
        70
                                 7.5
Ser Gly Trp Leu Arg Arg Glu Ala Arg Arg Lys Gly Asn Arg Asn Thr
           85
                                90
Ser Asn Leu Tyr His Leu Asn Ala Glu Arg Leu Glu Ala Leu Ala Arg
          100
                            105
Ile Glu Glu Asp Lys Val Ala Ala Leu Lys Gln Gln Arg Arg Thr Asn
                        120 125
Gly Phe His Pro Ser Asp Ser Asp Pro Ser Lys Thr Glu Pro Ser Asp
                     135
                                        140
Ser Gly Phe Ser Asn Gly Phe His Pro Ser Asp Ser Asp Lys Asn Gly
       150
                                    155
Val Phe Thr Arg Gln Asn Leu Thr Pro Asp Pro Gln Val Asn Ser Lys
                                170
              165
His Asp Pro Gln Val Asn Ser Lys His Asp Pro Gln Val Asn Ser Lys
          180
                             185
                                               190
Gln Glu Ser Gln Asp Ile Gly Val Cys Gly Lys Ala Ser Ser Glu Asn
 195
                         200
                                           205
Arg Ser Ser Lys Glu Asn Tyr Ser Asn Glu Phe Glu Lys Ala Trp Gln
 210 215
                                    220
Ala Tyr Pro Lys Arg Ala Gly Gly Asn Ser Lys Ala Ala Ala Trp Lys
225
                  230
                                   235
Ala Trp Lys Ala Arg Ile Lys Asp Gly Val Asn Thr Glu Ala Met Leu
              245
                                250
Ala Gly Val Asn Arg Tyr Ala Gly Tyr Val Arg Ala Thr Gly Ser Ala
          260
                            265
Gly Thr Gln Tyr Val Lys Gln Ala Ala Thr Phe Phe Gly Pro Asp Lys
       275
                         280
                                 285
His Phe Asp Glu Pro Trp Leu Val Glu Thr Gln Glu Asn Lys Val Pro
   290
                     295
Thr Arg Gln Asp Gln Ser Arg Tyr Glu Trp Tyr Ala Lys Ser Asp Asp
305
                  310
                                   315
Gly Ser Ala Glu Val Phe Ile Asn Gln Ser Ala Ile Asp Arg Met Asn
              325
                               330
Arg Gly Gly Tyr Arg Pro
           340
```

```
<210> 5929
<211> 182
<212> PRT
```

<213> Enterobacter cloacae

Asp Thr Leu Gln Ser Glu Asp Ala Thr Gly Ala Pro Val Lys Ser Ser

```
85
                                 90
Gly Phe Phe Gly Ala Pro Thr Thr Leu Ala Pro Gly Val Ile Glu Ser
        100
                      105 110
Asn Glu Pro Ala Pro Ala Leu Ala Pro Val Val Ala Ala Pro Ala Ala
     115 120
                               125
Gln Pro Ala Pro Val Thr Ala Pro Cys Cys Tyr Ala Asp Cys Gly Ala
  130 135
                                      140
Cys Asp Gly Glu Arg Gln Leu Arg Gly Ser Gly Trp Arg Cys Gln Arg
145 150 155
Ser Asp Pro Cys Arg Ala Ile Ser Ala Ala Phe Lys Gln Thr Val Trp
              165
                                 170
Arg Ala Arg Pro Arg
           180
<210> 5930
<211> 106
<212> PRT
<213> Enterobacter cloacae
<400> 5930
Asn Ser Arg Pro Val Ala Gly Val Ile Ile Phe Tyr Thr His Ala Gly
Ala Asp Met Lys Thr Lys Leu Asn Glu Leu Leu Glu Phe Pro Thr Pro
           20
                             25
                                               30
Phe Thr Tyr Lys Val Met Gly Leu Ala Lys Pro Glu Leu Val Asp Gln
 35
                         40
Val Val Glu Val Val Gln Arg His Ala Pro Gly Asp Tyr Ser Pro Ser
 50
                      55
                                        60
Val Lys Pro Ser Ser Lys Gly Asn Tyr His Ser Val Ser Ile Thr Ile
                  70
                                    75
                                                      8.0
Thr Ala Thr His Ile Glu Gln Val Glu Thr Leu Tyr Glu Glu Leu Gly
              8.5
Asn Ile Glu Ile Vai Arg Met Val Leu
           100
<210> 5931
<211> 90
<212> PRT
<213> Enterobacter cloacae
<400> 5931
Pro Arg Pro Ala Ala Thr Gln Thr Ala Ala Pro Ala Thr Ala Ser Gly
                                10
Ser Tyr Val Val Gln Val Gly Ala Val Ser Asp Arg Thr Arg Ala Glu
           20
                             25
                                               30
Gln Tyr Gln Gln Arg Leu Ser Lys Gln Phe Gly Val Pro Gly Arg Val
       35
                         40
                                           4.5
Glu Gln Asn Gly Ala Val Trp Arg Ile Gln Met Gly Pro Phe Ala Ser
 50
                                       60
Lys Ser Gln Ala Ala Ser Leu Gln Gln Arg Leu Gln Ser Glu Ala Gln
65
                  70
Leu Gln Ser Phe Ile Ala Val Ala Lys
              85
<210> 5932
<211> 435
<212> PRT
<213> Enterobacter cloacae
<400> 5932
His Ser His Asp Glu Ser Arg Met Pro Ala Arg Ile Ala Phe Ala Ile
```

```
10
Val Arg His Phe Phe Asn Ser Ile Thr Asp Val Val Leu Thr Met
      20
                      25
Lys Thr Thr Phe Ser Ala Arg Phe Val Gln Arg Met Ala Leu Thr Thr
                   40
Ala Leu Cys Ala Ala Ala Phe Ser Ala Ala His Ala Asp Asp Leu Asn
                       60
Ile Lys Thr Met Ile Pro Gly Val Pro Gln Ile Asp Ala Glu Ser Tyr
    70 75 80
Ile Leu Ile Asp Tyr Asn Ser Gly Lys Val Leu Ala Glu Gln Asn Ala
              90 95
Asp Ala Arg Arg Asp Pro Ala Ser Leu Thr Lys Met Met Thr Ser Tyr
    100 105 110
Val Ile Gly Gln Ala Met Lys Ala Gly Lys Phe Lys Glu Thr Asp Leu
   115 120 125
Val Thr Ile Gly Asn Asp Ala Trp Ala Thr Gly Asn Pro Val Phe Lys
 130 135 140
Gly Ser Ser Leu Met Phe Leu Lys Pro Gly Met Gln Val Pro Val Ser
145 150 155 160
Gln Leu Ile Arg Gly Ile Asn Leu Gln Ser Gly Asn Asp Ala Cys Val 165 \\ 170 \\ 175
Ala Met Ala Asp Phe Ala Ala Gly Ser Gln Asp Ala Phe Val Gly Leu
 180 185 190
Met Asn Ser Tyr Val Ser Ala Leu Gly Leu Lys Asn Ser His Phe Gln
195 200 205
Thr Val His Gly Leu Asp Ala Glu Gly Gln Tyr Ser Ser Ala Arg Asp
210 215 220
Met Ala Leu Ile Gly Gln Ala Leu Ile Arg Asp Val Pro Asn Glu Tyr
225 230 235 240
Ser Ile Tyr Lys Glu Lys Glu Phe Thr Phe Asn Gly Ile Arg Gln Thr
      245 250 255
Asn Arg Asn Gly Leu Leu Trp Asp Asn Ser Leu Asn Val Asp Gly Ile
260 265 270
Lys Thr Gly His Thr Asp Lys Ala Gly Tyr Asn Leu Val Ala Ser Ala
275 280 285
Thr Glu Gly Gln Met Arg Leu Ile Ser Ala Val Met Gly Gly Arg Thr
290 295
                               300
Phe Lys Gly Arg Glu Thr Glu Ser Lys Lys Leu Leu Thr Trp Gly Phe
305 310
                           315
Arg Phe Phe Glu Thr Val Asn Pro Leu Lys Ala Gly Lys Glu Phe Ala
          325 330 1 335
Ser Glu Pro Val Trp Phe Gly Asp Asn Asp Arg Ala Ser Leu Gly Val
     340 345 350
Asp Lys Asp Leu Tyr Leu Thr Ile Pro Arg Gly Arg Met Lys Asp Leu
                   360
                                  365
Lys Ala Ser Tyr Val Leu Asn Thr Thr Glu Leu His Ala Pro Leu Gln
                375
Lys Asn Gln Val Val Gly Thr Ile Asn Phe Gln Leu Asp Gly Lys Thr
385 390 395
Ile Asp Gln Arg Pro Leu Val Val Leu Glu Glu Ile Pro Glu Gly Asn
              410
          405
Phe Phe Gly Lys Ile Ile Asp Tyr Ile Lys Leu Met Phe His His Trp
            425
     435
```

<210> 5933 <211> 229

<sup>&</sup>lt;212> PRT <213> Enterobacter cloacae

<400> 5933 Tyr Thr Pro Arg Tyr Leu Phe Ser Leu Val Phe Gly Asp Val Leu Leu Tyr Gln Asp Lys Ile Leu Val Arg His Leu Gly Ile Gln Pro Tyr Glu Pro Val Ser Gln Ala Met His Asp Phe Thr Asp Met Arg Asp Asp Thr 40 Thr Pro Asp Glu Ile Trp Leu Val Glu His Met Pro Val Phe Thr Gln 60 Gly Gln Ala Gly Lys Ala Glu His Leu Leu Met Thr Gly Asp Ile Pro 70 75 Val Ile Gln Ser Asp Arg Gly Gly Gln Val Thr Tyr His Gly Pro Gly 85 90 Gln Gln Val Met Tyr Val Leu Leu Asn Leu Lys Arg Arg Lys Leu Gly 100 105 Val Arg Glu Leu Val Thr Leu Leu Glu Gln Thr Val Val Asn Thr Leu 120 125 115 Ala Glu Tyr Gly Ile Asp Ala His Pro Arg Ala Asp Ala Pro Gly Val 130 135 140 Tyr Val Gly Glu Lys Lys Ile Cys Ser Leu Gly Leu Arg Ile Arg Lys 145 150 155 Gly Cys Ser Phe His Gly Leu Ala Leu Asn Ile Asn Met Asp Leu Thr 165 170 175 Pro Phe Gln Arg Ile Asn Pro Cys Gly Tyr Ala Gly Met Glu Met Thr 180 185 190 Gln Met Arg Gln Trp Val Ala Thr Ala Thr Pro Glu Asn Ile Arg Pro 195 200 205 Val Leu Leu Lys Lys Phe Leu Ala Leu Leu Asn Asn Pro Asp His Glu 210 Tyr Ile Ala Ala 225

<210> 5934 <211> 387 <212> PRT

<213> Enterobacter cloacae

<400> 5934 Pro Gly Val Asp Met Tyr Ala Leu Thr His Gly Arg Ile Tyr Thr Gly 1.0 His Glu Ile Leu Asp Asp His Ala Ile Val Ile Ala Asn Gly Leu Ile 25 Glu Arg Val Cys Pro Leu Ala Glu Leu Pro Pro Glu Ile Glu Gln Arg 4.0 4.5 Ser Leu Asn Gly Ala Val Ile Ser Pro Gly Phe Ile Asp Val Gln Leu 5.5 60 Asn Gly Cys Gly Gly Val Gln Phe Asn Asp Thr Ala Glu Ala Val Thr 7.0 7.5 Val Glu Thr Leu Glu Ile Met Gln Lys Ala Asn Glu Lys Ser Gly Cys 90 Thr Ser Tyr Leu Pro Thr Leu Ile Thr Ser Ser Asp Asp Leu Met Lys 100 105 Gln Gly Ile Arg Val Met Arg Glu Tyr Leu Ala Lys His Pro Asn Gln 115 120 Ala Leu Gly Leu His Leu Glu Gly Pro Trp Leu Asn Met Val Lys Lys 135 140 Gly Thr His Asn Pro Asn Tyr Val Arg Lys Pro Asp Ala Glu Leu Val 150 155 Asp Tyr Met Cys Ala Asn Ala Asp Val Ile Thr Lys Val Thr Leu Ala 165 170 Pro Glu Met Thr Gly Thr Asp Val Ile Ser Lys Leu Ala Ala Ala Gly

```
180
                       185
                                     190
Ile Val Val Ser Ala Gly His Ser Asn Ala Thr Leu Lys Glu Ala Lys
   195
                    200
                           205
Ala Gly Phe Arg Ala Gly Ile Thr Phe Ala Thr His Leu Tyr Asn Ala
  210
                       220
Met Pro Tyr Ile Thr Gly Arg Glu Pro Gly Leu Val Gly Ala Ile Leu
            230 235
Asp Glu Pro Asp Val Tyr Cys Gly Ile Ile Ala Asp Gly Leu His Val
         245 250 255
Asp Tyr Thr Asn Ile Arg Asn Ala Gln Arg Leu Lys Gly Asp Lys Leu
       260
            265 270
Cys Leu Val Thr Asp Ala Thr Ala Pro Ala Gly Ala Asn Ile Asp Gln
     275
         280 285
Phe Ile Cys Ala Gly Lys Thr Ile Tyr Tyr Arg Asn Gly Leu Cys Val
 290 295 300
Asp Glu Asn Gly Thr Leu Ser Gly Ser Ser Leu Thr Met Ile Glu Gly
305 310 315
Val Arg Asn Leu Val Glu His Cys Gly Ile Ala Leu Glu Glu Val Leu
        325 330 335
Arg Met Ala Thr Leu Tyr Pro Ala Arg Ala Ile Gly Val Asp Lys Gln
            345 350
 340
Leu Gly Gly Ile Ala Pro Gly Met Val Ala Asn Leu Thr Ala Phe Thr
355 360
                          365
His Asp Tyr Lys Ile Ile Lys Tar Ile Val Asn Gly Asn Glu Val Val
370
                 375
                               380
Thr Glu
385
```

<210> 5935 <211> 268 <212> PRT <213> Enterobacter cloacae

<400> 5935 Ile Met Arg Leu Ile Pro Leu Ala Tnr Ala Glu Gln Val Gly Lys Trp 10 Ala Ala Arg His Ile Val Asn Arg Ile Asn Ala Phe Lys Pro Thr Ala 25 30 Asp Arg Pro Phe Val Leu Gly Leu Pro Thr Gly Gly Thr Pro Leu Thr 40 Ala Tyr Lys Ala Leu Val Glu Met His Lys Ala Gly Gln Val Ser Phe 5.5 Lys His Val Val Thr Phe Asn Met Asp Glu Tyr Val Gly Leu Pro Lys 70 Glu His Pro Glu Ser Tyr His Ser Phe Met His Arg Asn Phe Phe Asp 85 90 His Val Asp Ile Pro Ala Glu Asn Ile Asn Leu Leu Asn Gly Asn Ala 100 105 Pro Asp Ile Asp Ala Glu Cys Arg Gln Tyr Glu Glu Lys Ile Arg Ser 115 120 125 Tyr Gly Lys Ile His Leu Phe Met Gly Gly Val Gly Asn Asp Gly His 130 135 140 Ile Ala Phe Asn Glu Pro Ala Ser Ser Leu Ala Ser Arg Thr Arg Ile 150 155 Lys Thr Leu Thr His Asp Thr Arg Val Ala Asn Ser Arg Phe Phe Asp 165 170 Gly Asp Val Asn Gln Val Pro Lys Tyr Ala Leu Thr Val Gly Val Gly 180 185 190 Thr Leu Leu Asp Ala Glu Glu Val Met Ile Leu Val Leu Gly Ala Val 200 205 Lys Ala Gln Ala Leu Gln Ala Ala Val Glu Gly Asn Val Asn His Met

```
Trp Thr Ile Ser Cys Leu Gln Leu His Pro Lys Ala Val Val Cys
       230 235
                                                240
Asp Glu Pro Ser Thr Met Glu Leu Lys Val Lys Thr Leu Lys Tyr Phe
      245 250
Asn Glu Leu Glu Ala Glu Asn Ile Lys Gly Leu
         260
<210> 5936
<211> 399
<212> PRT
<213> Enterobacter cloacae
<400> 5936
Val Ser Lys Ser Met Thr Pro Gly Gly Gln Ala Gln Ile Gly Asn Val
                            10
Asp Leu Val Lys Gln Leu Asn Ser Ala Ala Val Tyr Arg Leu Ile Asp
 20
                         25
Gln His Gly Pro Ile Ser Arg Ile Gln Ile Ala Glu Gln Ser Gln Leu
35
                40
Ala Pro Ala Ser Val Thr Lys Ile Thr Arg Gln Leu Ile Glu Arg Gly
5.0
             55
Leu Ile Lys Glu Val Asp Gln Gln Ala Ser Thr Gly Gly Arg Arg Ala
      70
Ile Ser Ile Val Thr Glu Thr Arg Asn Phe Gln Ala Ile Gly Val Arg
                90
       8.5
Leu Gly Arg His Asp Thr Thr Leu Thr Leu Tyr Asp Leu Ser Ser Lys
         100 105
Ala Ile Ala Glu Glu His Tyr Pro Leu Pro Glu Arg Thr Gln Glu Thr
      115
                     120
                                      125
Leu Glu His Ala Leu Leu Asn Thr Ile Ala Gln Phe Ile Glu Ser Cys
130 135
                                   140
Glm Arg Lys Ile Arg Glu Leu Ile Ala Ile Ser Val Ile Leu Pro Gly
145
                150
                              155
Leu Val Asp Pro Glu Ser Gly Val Ile Arg Tyr Met Pro His Ile Lys
         165
                            170 175
Val Glu Asn Trp Gly Leu Val Glu Ala Leu Glu Lys Arg Phe Lys Leu
         180
                         185 190
Thr Cys Phe Val Gly His Asp Ile Arg Ser Leu Ala Leu Ala Glu His
     195 200
                             205
Tyr Phe Gly Ala Ser Gln Asp Cys Glu Asp Ser Ile Leu Val Arg Val
   210
         215
                           220
His Arg Gly Thr Gly Ala Gly Ile Ile Ser Asn Gly Arg Ile Phe Ile
               230
                                235
Gly Arg Asn Gly Asn Val Gly Glu Ile Gly His Ile Gln Val Glu Pro
            245
                            250 255
Leu Gly Glu Arg Cys His Cys Gly Asn Phe Gly Cys Leu Glu Thr Val
         260
                         265
Ala Ala Asn Ala Ala Ile Glu His Arg Val Arg His Leu Leu Glu Gln
      275
                    280 285
Gly Tyr Gln Ser Arg Val Thr Leu Asp Asp Cys Lys Ile Gly Ala Ile
  290
         295
                                   300
Cys Lys Ala Ala Asn Lys Gly Asp Ala Leu Ala Cys Glu Val Ile Glu
      310 315
Gln Val Gly Arg His Leu Gly Lys Thr Ile Ala Ile Ala Ile Asn Leu
            325
                            330
                                             335
Phe Asn Pro Gln Lys Val Val Ile Ala Gly Glu Ile Val Glu Ala Glu
        340
                         345
Lys Val Leu Leu Pro Ala Ile Glu Gly Cys Ile Asn Thr Gln Ala Leu
     355
                     360
Lys Ala Phe Arg Gln Asn Leu Pro Val Val Arg Ser Thr Leu Asp His
```

```
375
Arg Ser Ala Ile Val Phe Ile His Glu Gly Arg Glu Arg Arg
<210> 5937
<211> 115
<212> PRT
<213> Enterobacter cloacae
<400> 5937
Met Arg Arg Asp Met Tyr Glu Val Met Asp Arg Trp Gly Ala Trp Ala
                              10
Ala Ala Asp Ser Ser Gly Val Asp Trp Gln Pro Ile Ala Ala Gly Phe
                                2.5
Lys Gly Leu Leu Pro His Gly Lys Lys Ser Arg Leu Gln Cys Asp Asp
                            40
Asp Glu Gly Ile Met Ile Asp Gly Cys Ile Ala Arg Leu Arg Lys Phe
Lys Ser Asp Glu Tyr Glu Leu Leu Ile Ala His Phe Val Ile Gly Ile
                                        75
                    7.0
Ser Leu Arg Thr Ile Ala Lys Lys Lys Lys Cys Ser Asp Gly Thr Val
                                    90
Arg Lys Asp Leu Gln Thr Ala Leu Gly Phe Val Glu Gly Val Met Ser
Met Leu
<210> 5938
<211> 212
<212> PRT
<213> Enterobacter cloacae
<400> 5938
Asp Val Met Gly Ile Met Cys Asp Met Ser Tyr Arg Leu Tyr Pro Leu
                                    10
Lys Asn Thr Val Ala Phe Arg Lys Thr Tnr Glu Lys Trp Gly Gly Leu
                                25
Ser Asn Met Ala Lys Gly Tyr Pro Leu Leu Ile Asn Gly Leu Pro Ile
                           40
Gln Ser Ser Glu Ile Leu Tyr Gln Ala Cys Arg Tyr Pro Asp Tyr Pro
Glu Ile Gln Lys Ala Ile Ile Thr Gln Gly Asn Pro Tyr Glu Ala Lys
                70
                                        75
Gln Thr Ala Arg Ser Phe Glu Ala Lys Thr Arg Ser Gly Trp Glu Lys
               8.5
Asn Arg Val Ser Ile Met Lys Trp Cys Val Cys Val Lys Leu Cys Gln
           100
Asn Trp Glu Thr Phe Phe Ala Leu Leu Asp Ser Thr Gly Glu His Asp
       115
                          120
                                                125
Ile Val Glu His Ser Glu Lys Asp Gln Phe Trp Gly Ala Ser Lys Asp
                       135
                                           140
Ser Glu Gly Asn Phe Tyr Gly Met Asn Val Leu Gly Arg Ile Leu Met
                    150
                                       155
Asp Val Arg Asp Val Ala Arg Lys Arg Gly Pro Thr Gly Phe Ala Ser
               165
                                   170
Ile Pro Pro Leu Pro Leu Glu Lys Phe Leu Leu Leu Gly Asp His Ile
                               185
                                                   190
Arg Asp Val Thr Phe Thr Pro Pro Pro Val Asp Thr Gly His Ser Leu
        195
                           200
Ser Leu Phe
   210
```

```
<210> 5939
<211> 217
<212> PRT
<213> Enterobacter cloacae
<400> 5939
Ser Ser Arg Ile Arg Cys Asn Met Leu Phe His Thr Asn Asn Ser Ile
                             1.0
Tyr Leu Ser His Asn Asp Gly Gln Gln Val Ser His Thr Pro Ser Met
    20
                          25
His Cys Tyr Gly Cys Val Lys Lys Cys Leu Phe Gly Asp Ala Glu Ala
     35
                      4 ∩
Cys Ala Arg Lys Thr Cys Thr Gly Leu Glu Cys Tyr Ile Trp Pro Asp
                  55
Asn Asn Ser Tyr Leu Val Glu Gly Ile Arg His Tyr Phe Glu Cys Val
             70 75
Ser Asp Lys Tyr Ile Ser Gln Pro Val Val Ile Ile Asp Phe Ser His
           85 90
Lys Asn Ile Thr Tyr Phe Leu Asn Asp Ser Trp Leu Glu Gln Phe Lys
 100 105 110
Asn Met Arg Leu Ile Leu Val Thr Asp Lys Lys Met Thr Ala Ile Ala
115 120 125
His Tyr Trp Phe Tyr Asn Asp Thr Leu Glu Thr Thr Ile Ser Ser Ile
130 135 140
Ile Phe Tyr Asp Asp Ser Ala Glu Glu Val Ala Thr Lys Leu Lys Lys
145 150 155
Thr Phe Leu Ala Lys Thr Ile Lys Pro Ser Gly Ser Arg Pro Lys Leu
          165 170 175
Ser Gln Asn Glu Phe Ser Leu Phe Ser Phe Leu Phe Asn Gly Trp Thr
 180 185 190
Pro Lys Lys Ile Ala Tyr Gln Asn Gly Thr Ser Val Lys Asn Thr Tyr
 195 200
Ala Met Lys Asn Leu His His Glu
<210> 5940
<211> 812
<212> PRT
<213> Enterobacter cloacae
<400> 5940
Phe Met Arg Ile Cys Cys Leu Gly Arg Ile Lys Thr Leu Phe Tyr His
                             10
Gly Leu Ser Leu Tyr Leu Ser Ser Leu Ile Leu Leu Ala Trp Thr Ala
                          25
Ala Leu Gly Val Ala Gly Leu Trp Asn Ile Trp Val Leu Val Pro Leu
                    4.0
Ala Ile Ile Leu Leu Pro Phe Asn Leu Thr Pro Met Arg Lys Ser Met
                5.5
                                    60
Ile Ser Val Pro Val Phe Arg Gly Phe Arg Lys Val Met Pro Pro Met
               70
                                 75
Ser Arg Thr Glu Lys Glu Ala Ile Asp Ala Gly Thr Thr Trp Trp Glu
            85
Gly Asp Leu Phe Gln Gly Asn Pro Asp Trp Lys Lys Leu His Asn Tyr
         100
                         105
Pro Gln Pro Arg Leu Thr Ala Glu Glu Gln Ala Phe Ile Asp Gly Pro
                      120
Val Glu Glu Ala Cys Arg Met Ala Asn Asp Phe Ala Ile Thr His Glu
                  135
```

Met Ala Asp Leu Pro Pro Glu Leu Trp Ala Tyr Leu Lys Glu His Arg

```
150
                           1.5.5
Phe Phe Ala Met Ile Ile Lys Lys Glu Tyr Gly Gly Leu Glu Phe Ser
           165
                  170 175
Ala Tyr Ala Gln Ala Arg Val Leu Gln Lys Leu Ala Gly Val Ser Gly
       180
            185 190
Ile Leu Ala Ile Thr Val Gly Val Pro Asn Ser Leu Gly Pro Gly Glu
 195
         200 205
Leu Leu Gln His Tyr Gly Thr Glu Glu Gln Lys Asp His Tyr Leu Pro
 210 215 220
Arg Leu Ala Arg Gly Gln Glu Ile Pro Cys Phe Ala Leu Thr Ser Pro
225 230 235 240
Glu Ala Gly Ser Asp Ala Gly Ala Ile Pro Asp Thr Gly Val Val Cys
        245 250 255
Met Gly Glu Trp Gln Gly Gln Gln Val Leu Gly Met Arg Leu Trp 260 265 270
Asn Lys Arg Tyr Ile Thr Leu Ala Pro Ile Ala Thr Val Leu Gly Leu
275 280 285
Ala Phe Lys Leu Ser Asp Pro Glu Lys Leu Leu Gly Gly Glu Glu Asp
 290 295 300
Leu Gly Ile Thr Cys Ala Leu Ile Pro Thr Ser Thr Pro Gly Val Glu
305 310 315
Ile Gly Arg Arg His Phe Pro Leu Asn Val Pro Phe Gln Asn Gly Pro
 325 330 335
Thr Arg Gly Gln Asp Ile Phe Val Pro Ile Asp Tyr Ile Ile Gly Gly
340 345 350
Pro Lys Met Ala Gly Gln Gly Trp Arg Met Leu Val Glu Cys Leu Ser
355 360 365
Val Gly Arg Gly Ile Thr Leu Pro Ser Asn Ser Thr Gly Gly Leu Lys
370 375 380
Ser Val Ala Met Gly Ile Gly Ala Tyr Ala His Ile Arg Arg Gln Phe
385 390
                         395 400
Lys Ile Ser Ile Gly Lys Met Glu Gly Ile Glu Glu Pro Leu Ala Arq
     405 410 415
Ile Ala Gly Asn Ala Tyr Val Met Asp Ala Ala Ala Ser Leu Ile Thr
420 425 430
Tyr Gly Ile Met Leu Gly Glu Lys Pro Ala Val Leu Ser Ala Ile Val
435 440
                               445
Lys Tyr His Cys Thr His Arg Ala Gln Gln Ser Ile Ile Asp Ala Met
 450 455
                             460
Asp Ile Ala Ser Gly Lys Gly Ile Met Leu Gly Glu Gly Asn Phe Leu
465 470 475 480
Ala Arg Asn Tyr Gln Gly Ala Pro Ile Ala Ile Thr Val Glu Gly Ala
         485 490 495
Asn Ile Leu Thr Arg Ser Met Met Ile Phe Gly Gln Gly Ala Ile Arg
     500 505
                                   510
Cys His Pro Tyr Val Leu Glu Glu Met Ala Ala Ala Gln Asn Asn Asp
 515 520 525
Val Asp Ala Phe Asp Lys Leu Leu Phe Lys His Ile Gly His Val Gly
530 535 540
Ser Asn Glu Val Arg Ser Phe Trp Leu Gly Leu Thr Arg Gly Leu Thr
545 550 555 560
Ser Ala Thr Pro Thr Gly Asp Ala Thr Lys Arg Tyr Tyr Gln His Leu
          565 570 575
Asn Arg Leu Ser Ala Asn Leu Ala Leu Leu Ser Asp Val Ser Met Ala
     580 585
Val Leu Gly Gly Ser Leu Lys Arg Arg Glu Arg Ile Ser Ala Arg Leu
   595 600 605
Gly Asp Val Leu Ser Gln Ile Phe Leu Ala Ser Ala Val Leu Lys Arg
610 615 620
Tyr Asp Asp Glu Gly Arg Gln Glu Ala Asp Leu Pro Leu Val His Trp
            630
                           635
```

Gly Val Gln Asp Ala Leu Tyr Gln Ala Glu Gln Ala Ile Asp Asp Leu 645 650 655 Leu Ala Asn Phe Pro Asn Arg Phe Val Ala Gly Ala Leu Arg Val Val 660 665 670 Ile Phe Pro Thr Gly Arg His His Leu Ala Pro Ser Asp Lys Leu Asp 675 680 685 His Lys Val Ala Lys Ile Leu Gln Val Pro Ser Ala Thr Arg Ser Arg 690 695 700 Ile Gly Arg Gly Gln Tyr Leu Ala Pro Thr Pro His Asn Pro Val Gly 705 710 715 720Leu Leu Glu Glu Ala Leu Leu Asp Val Met Ala Ala Asp Pro Ile His 725 730 735 Gln Lys Ile Cys Lys Gln Leu Gly Lys Asn Leu Pro Phe Thr Arg Leu 740 745 750 Asp Glu Leu Ala Lys Gln Ala Leu Ala Gly Gly Ile Ile Asp Asn Ser 755 760 765 Glu Ala Ala Ile Leu Val Lys Ala Glu Glu Ser Arg Leu Arg Ser Ile 775 780 Asn Val Asp Asp Phe Glu Pro Glu Glu Leu Ala Thr Gln Pro Val Lys 785 790 795 Leu Pro Glu Lys His Arg Lys Pro Glu Ala Ala . 805 <210> 5941 <211> 263 <212> PRT <213> Enterobacter cloacae <400> 5941 Gly Val Gly Ile Val Pro Gly Leu Lys Ile Ser Val Leu Gln Gln Pro 5 10 Leu Val Trp Met Asp Gly Pro Ala Asn Leu Arg His Phe Asp Arg Gln 20 25 30 Leu Glu Glu Ile Ser Gly Arg Asp Val Ile Val Leu Pro Glu Met Phe 35 4.5 40 Thr Thr Gly Phe Ala Met Glu Ala Ala Lys Gln Ser Met Pro Gln Asp 5.5 Glu Val Val Ala Trp Met His Ala Lys Ala Gln Glu Thr Asn Ala Leu 70 7.5 Ile Ala Gly Ser Val Ala Leu Glr. Thr Glu Arg Gly Pro Val Asn Arg 85 90 Phe Leu Leu Val Glu Pro Glu Gly Lys Val His Phe Tyr Asp Lys Arg 100 105 His Leu Phe Arg Met Ala Asp Glu His Gln His Tyr Val Ala Gly Asn 115 120 Glu Arg Val Val Phe Glu Trp Arg Gly Trp Arg Ile Leu Pro Leu Val 130 140 Cys Tyr Asp Leu Arg Phe Pro Val Trp Ser Arg Asn Arg Asn Asp Tyr 145 150 155 160 Asp Leu Ala Leu Tyr Val Ala Asn Trp Pro Ala Pro Arg Ser Leu His 165 170 175 Trp Gln Ala Leu Leu Thr Ala Arg Ala Ile Glu Asn Gln Ala Tyr Ile 180 185 Val Gly Cys Asn Arg Val Gly Thr Asp Gly Asn Gly His His Tyr Arg 200 205 195 Gly Asp Ser Arg Val Ile Ser Pro Gln Gly Glu Ile Ile Ala Thr Ala 210 215 220

Glu Pro His Gln Ala Thr Arg Ile Asp Ala Glu Leu Ser Leu Thr Ala 230

Leu Thr Glu Tyr Arg Glu Lys Phe Pro Ala Trp Gln Asp Ala Asp Arg

250

245

235 240

Phe Ser Ile Glu Asn Lys 260

<210> 5942 <211> 166

<212> PRT <213> Enterobacter cloacae

<400> 5942

Glu Asp Ile His Trp Ile Phe Leu Val Ser Arg Pro Leu Tyr Pro Leu 10 Ala Val Glu Leu Leu Met Arg Pro Glu Ser Thr Leu Leu Ser Asp Met 20 25 Glu Pro Ile Glu Gly Val Ile Asn Ala Ile Arg Ala Gly Ser Glu Arg 4.0 4.5 Ala Glu Arg Ile Ser Gln Thr Leu Leu Ile Pro Glu Thr Pro Asp Ile 5.0 55 60 Glu Glu Glu Ser Glu Gln Met Ile Ala Leu Thr His Ser Glu Arg Lys 70 80

Val Leu Arg Leu Leu Gly Lys Gly Trp Gly Ile Asn Gln Ile Ala Thr 90 8.5

Leu Leu Asn Lys Ser Asn Lys Thr Tie Ser Ala Gln Lys Asn Ser Ala 100 105

Met Arg Arg Leu Ser Leu Arg Ser Asn Ala Asp Met Tyr Ala Trp Ile 115 120 125

Ser Ser Thr Gln Gly Met Arg Glu Leu Ser Leu Met Ser Ala Tyr Gly 130 135 140 Glu Phe Glu Glu Trp Lys Arg Pro Leu Gln Gln Asp Ile Ser Pro Ser

145 150 Ser Lys Ala Ala Gln

165

<210> 5943 <211> 383

<212> PRT

<213> Enterobacter cloacae

<220> <221>UNSURE <222>(327)

<400> 5943

Glu Arg Pro Lys Arg Thr Tyr Asp Arg Arg Ser Ala Met Ser Ala Asn 1.0 His Ala Ala Phe Asn Leu Ile Phe Arg Phe Val Glu Asn Tyr Val Ser 25 3.0 Pro Ile Ala Gly Arg Ile Ser Ser Gln Arg His Val Met Ala Ile Arg 35 40 45 Asp Gly Phe Ile Ser Ala Met Pro Phe Met Ile Val Gly Ser Phe Leu 55 Leu Val Phe Ala Tyr Pro Pro Phe Ser Pro Asp Thr Thr Trp Gly Phe 70 75 Ala Arg Ala Trp Leu Asp Met Ala Lys Gln Phe Glu Gly Gln Ile Leu 85 90 Thr Pro Phe Asp Met Thr Met Gly Val Met Ser Leu Tyr Ile Cys Ala 100 105 110 Ala Ile Ala Tyr Asn Leu Gly Lys His Tyr Val Lys Thr His Gln Leu

Asp Pro Phe Met Cys Ala Met Leu Ser Leu Met Ala Phe Leu Leu Val 130 1.35 1.40

Ala Ala Pro Lys Thr Lys Gly Ala Leu Pro Val Asp Ser Leu Gly Gly

```
150
Thr Gly Ile Phe Thr Ala Ile Leu Val Ala Ile Tyr Cys Val Glu Met
         165
                             170
Met Arg Phe Leu Lys Ala His Asn Ile Gly Ile Arg Leu Pro Asp Gln
         180
                 185
                              190
Val Pro Pro Met Ile Lys Asn Ser Phe Asp Leu Leu Ile Pro Val Leu
      195
                 200
                           205
Val Val Val Leu Thr Leu Tyr Pro Leu Ser Leu Leu Ile Gln Ser Gln
 210
                215 220
Phe Gly Met Leu Ile Pro Gln Ala Ile Met Ser Ile Phe Lys Pro Leu
             230 235
Val Ser Ala Ala Asp Ser Leu Pro Ala Ile Leu Leu Ala Val Leu Ile
         245 250 255
Gly His Leu Leu Trp Phe Ala Gly Ile His Gly Ala Ala Ile Val Ser
       260 265 270
Gly Met Leu Gln Met Phe Trp Leu Thr Asn Leu Gly Ala Asn His Thr
    275 280 285
Ala Leu Ala Ala Asn Gln Pro Leu Pro His Ile Phe Met Glu Ala Phe
 290 295
                                   300
Trp Thr Phe Phe Ile Val Ile Gly Gly Ser Gly Ala Thr Met Gly Leu
305 310 315
Val Phe Cys Tyr Leu Arg Xaa Arg Ser Ala His Leu Arg Ser Ile Gly
           325 330
                                             335
Arg Leu Asn Val Val Pro Ser Ile Phe Asn Ile Asn Glu Pro Val Ile
 340 345 350
Phe Val Thr Pro Asp Cys Asp Glu Pro Gly Val Leu Tyr Ser Phe Pro
355 360
                                       365
Cys Trp Arg Arg Trp Leu Ile Pro Cys Trp His Gly Gln Arg
<210> 5944
<211> 71
<212> PRT
<213> Enterobacter cloacae
<400> 5944
Phe Pro Ser Cys Arg Gly Arg His Pro Ala Pro Val Gly Ala Ala Trp
                             10
Ala Leu Gly Trp Asp Phe Arg Ala Ala Ile Leu Val Leu Val Leu Ala
                         25
Cys Val Ser Ala Ile Ile Tyr Phe Pro Phe Phe Lys Val Tyr Glu Lys
                     40
                                      4.5
Gln Leu Leu Gln Gln Glu Ala Glu Glu Ala Gln Arg Asn Gly Glu Glu
                55
Glu Asn Gln Gln Val Ala
<210> 5945
<211> 230
<212> PRT
<213> Enterobacter cloacae
<400> 5945
Gly Met Glu Lys Thr Thr Ala Thr Arg His Ile Ala Val Ile Glu Ser
                             10
Cys Ser Met Ser Ala Val Gly Leu Lys His Leu Phe Ala Met Pro Ser
         20
                         25
Leu Ser His Tyr Gln Val His Leu Phe Ser Arg Phe Ala Ser Phe Lys
                      40
Ala Ala Leu Ser Asp Ile Ser Phe Tyr Ala Val Ile Tyr Ser Leu Ser
   5.0
                   55
```

Asp Glu Arg Glu Glu Arg Arg Asn Cys Leu Ala Cys Leu Arg Asp Leu Thr Phe Thr His Ser Asp Val Gln Arg Ile Val Leu Ala Ser Asp Glu 90 Met Glu Ala Arg Leu Val Ser His Leu Ser Pro Ser Arg Leu His Gly 100 105 Ile Ile Ser Lys Ser Val Pro Leu Lys Gln Leu Met Glu Gly Leu Lys 115 120 125 Thr Leu Leu Ser Glu Thr His Gln Val Asn Asp Asn Met Tyr Asn His 135 140 Trp Cys Val Ser Gln Asn Arg Met Leu Ser Pro Thr Glu Arg Ala Ile 150 155 Leu Arg Tyr Met Ser Ser Gly Phe Ser Ile Pro Glu Ile Ala Ala Gln 165 170 175 Leu Glu Arg Asn Ile Lys Thr Ile Arg Ala His Lys Phe Asn Ala Met 180 185 190 Val Lys Leu Gly Val Asn Ser Asp Val Gly Leu Leu Asp Ala Ala Asp 195 200 205 Ile Leu Ala His Leu Pro Ala Arg Glu Val Arg Arg Ser Ala Leu Thr 210 215 Val Pro Ser Phe Ser <210> 5946 <211> 267 <212> PRT <213> Enterobacter cloacae <400> 5946 Arg Leu His Thr Met Ala Thr Arg Thr Ala His Ile Val Glu Pro Leu 10 Leu Trp Arg Ala Pro Leu Ser Ala Gly Glu Thr Thr Leu Ala Asp Ala 20 25 Ile Arg Glu Lys Ile Ala Val Thr Arg Ala His Leu Leu Asp Phe Ile 40 Lys Leu Asp Glu Ala Pro Pro His His Ala Leu Thr Leu Thr Glu Trp 5.5 60 Gln Arg Pro Ala Glu Leu Arg Ser Leu Leu Ala Thr Tyr Ser Asp His 70 75 Ile Tyr Arg Asn Gln Pro Thr Leu Thr Arg Glu Asn Lys Pro Leu Leu 8.5 90 Ser Leu Trp Ala Gln Trp Tyr Ile Gly Leu Met Val Pro Pro Val Met 105 110 Leu Ala Leu Leu Thr Gln Glu Thr Met Leu Asp Leu Ser Ser Glu His 125

Phe His Val Glu Phe His Glu Thr Gly Arg Ala Ala Cys Phe Trp Ile 135 140 Asp Val His Glu Asp Pro Ser Ala Arg His Leu Ser Ala Gln Ala Arg 150 155 Met Glu Arg Leu Ile Thr Arg Ala Leu Val Pro Val Ile Asp Ala Leu 165 170 Glu Ala Thr Gly Glu Ile Asn Gly Lys Leu Ile Trp Ser Asn Thr Gly 180 185 190 Tyr Leu Ile His Trp Tyr Leu Thr Glu Met Lys Pro Leu Leu Gly Asp 195 200 205 Glu Lys Val Asp Ala Leu Arg Gln Ser Cys Phe Phe Ala Arg Gln Leu 210 215 Ser Asp Gly Arg Asp Asn Pro Leu Tyr Arg Thr Val Val Pro Arg Glu 230 235 Gly Leu Leu Val Arg Arg Thr Cys Cys Gln Arg Tyr Arg Leu Pro Asp 245 250

Val Gln Gln Cys Gly Asp Cys Thr Leu Lys  $260 \hspace{1cm} \hbox{265}$ 

<210> 5947

<211> 164 <212> PRT

<213> Enterobacter cloacae

<400> 5947

Gln Ile Thr Gln Asp Ile Cys Gln Glu Glu Ser Met Ser Leu Gln Ser I 1 5 10 15 Val Gln Gln Phe Phe Ala Glu His Ala Pro Asp Ile Glu Ile Ile Glu 20 25 30

Leu Asn Gln Ser Thr Ala Thr Val Ala Leu Ala Ala Ala Ala His Asn 35 40 45

Val Glu Pro Gly Gln Ile Ala Lys Thr Leu Ser Leu Lys Ile Lys Asn 50 55 Asp Val Ile Leu Val Val Ala Lys Gly Asp Ala Arg Leu Asp Asn Lys

65 70 75 80 Lys Leu Lys Glu Thr Phe Gly Ala Lys Ala Arg Met Leu Ser Ser Asp

85 90 95 Glu Val Val Thr Leu Thr Gly His Pro Val Gly Gly Val Cys Pro Phe

Gly Leu Glu Asn Pro Leu Ser Val Tyr Cys Asp Ile Thr Leu Lys Gln
115 126 127

11.5 120 125 Tyr Ala Glu Val Leu Pro Ala Ala Gly Ala Ile His Ser Ala Val Arg 130 135 140

Ile Ser Pro Asp Arg Met Ala Glu Leu Thr Ala Ala Lys Trp Val Asp 145 150 150 160

Val Cys Ile

<210> 5948 <211> 335

<211> 333 <212> PRT

<213> Enterobacter cloacae

<400> 5948

Ile Ala Ile Leu Pro Gly Pro Cys Cys Tyr Thr Gln Ala Pro Ser Thr 1 5 10 15

Cys Thr Ala Gly Cys Ser Ile Thr Ala Asn Tyr Leu Lys Lys Phe Ile 25 30

Met Ser Arg Ile Leu Ala Ala Ile Thr Leu Leu Leu Ser Val Ile Leu 35 40 45

Thr Ile Leu Val Thr Ile Ala Cys Ser Val Pro Ile Ile Val Ala Gly 50 55 60

Ile Ile Lys Leu Leu Pro Val Pro Pro Val Trp Arg Ala Val Ser  $65 \\ 70 \\ 75 \\ 75$  Ala Phe Cys Asn Phe Met Met Tyr Cys Trp Cys Glu Gly Leu Ala Ile

85 90 95 Leu Leu His Leu Asn Pro Trp Leu Lys Trp Asp Val Gln Gly Leu Glu

100 105 110 110 110 110 Lys Leu Asn Lys Lys Asn Trp Tyr Leu Leu Ile Cys Asn His His Ser

Trp Ala Asp Ile Val Val Leu Cys Val Leu Phe Arg Lys His Ile Pro
130 135 140

Met Asn Lys Tyr Phe Leu Lys Gln Gln Leu Ala Trp Val Pro Phe Ile 145 150 155 160 Gly Leu Ala Cys Trp Ala Leu Asp Met Pro Phe Met Lys Arg Tyr Ser 165 170 175

Arg Ser Tyr Leu Ile Arg His Pro Glu Arg Arg Gly Lys Asp Val Glu

```
185
         180
                                        190
Thr Thr Arg Arg Ser Cys Glu Lys Phe Arg Ala His Pro Thr Thr Ile
             200 205
    195
Val Asn Phe Val Glu Gly Ser Arg Phe Thr Glu Glu Lys Arg Gln Gln
 210
          215 220
Thr Arg Ser Pro Tyr Gln Asn Leu Leu Pro Pro Lys Ala Ala Gly Ile
225 230 235
Ala Met Ala Leu Asn Val Leu Gly Glu Gln Phe Asp Lys Leu Leu Asn
         245 250 255
Val Thr Leu Cys Tyr Pro Glu Asn Asp Arg Thr Pro Phe Tyr Asp Leu
       260 265 270
Leu Ser Gly Arg Leu Thr Arg Ile Val Val Arg Val Asp Leu Val Pro
    275 280 285
Val Asn Thr Glu Leu His Gly Asp Tyr Val Asn Asp Lys Asn Phe Lys
 290 295 300
Arg Arg Phe Gln Leu Trp Leu Asn Thr Leu Trp Lys Glu Lys Asp Glu
305 310 315
Gln Ile Ala Lys Ile Lys Ser Ser Tyr Lys Asn Ala Gly Gln
                            330
<210> 5949
<211> 185
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(136)
<400> 5949
Cys Ser Phe His Leu Glu Arg His Val Ser Arg Val Asn Pro Thr Ile
Lys Glu Ala Ile Phe Val Asn Gln Cys Gln Glu Ile Ile Gly Val Val
 20
                        25
Leu Ala Gly Gly Arg Ala Thr Arg Met Gly Gly Lys Asp Lys Gly Leu
 35
           40
Gln Leu Leu Asn Asn Thr Pro Leu Trp Gln His Val Ala Asp Thr Leu
 50 55
Ala Asp Gln Val Ser Ser Met Ala Ile Ser Ala Asn Arg His Val Asp
              70
                               75
Ile Tyr Gln Arg Ser Gly Tyr Pro Val Tyr Gln Asp Asn Leu Ala Asp
            8.5
                            90 95
Tyr Pro Gly Pro Leu Ala Gly Met Leu Ser Val Met Gln Gln Ser Tyr
         100
                         105
Gly Glu Trp Phe Leu Phe Cys Pro Cys Asp Thr Pro Phe Ile Pro Ser
      115 120
                          125
Cys Leu Val Glu Arg Leu Val Xaa Arg Arg Gly Gly Ala Pro Val Val
   130
                  135
                                 140
Trp Val His Asp Gly Glu Arg Glu His Pro Thr Ile Ala Leu Ile Asn
                     155 160
145
               150
Arg Ser Leu Ile Ser Ala Leu Gly Val Leu Leu Ala Ala Gly Asp Arg
         165 170
Arg Val Leu Val Phe Met Pro Pro Phe
        180
                        185
<210> 5950
<211> 100
<212> PRT
```

<213> Enterobacter cloacae

<400> 5950

Arq Val Ser Leu Asn Glu Arg Ser Thr Thr Met Lys Cys Lys Arg Leu Asn Glu Val Ile Glu Leu Leu Gln Pro Ala Trp Gln Lys Glu Pro Glu 2.5 Leu Asn Leu Met Gln Phe Leu Gln Lys Leu Ala Lys Glu Ser Gly Phe 35 40 Asp Gly Glu Leu Ala Asp Leu Ser Asp Asp Ile Leu Ile Tyr His Leu 55 60 Lys Met Arg Asp Ser Ala Lys Asp Ala Val Ile Pro Gly Ile Gln Lys 70 75 Asp Tyr Glu Glu Asp Phe Lys Thr Ala Leu Leu Arg Ala Arg Gly Val 90 Ile Lys Glu

100

<210> 5951 <211> 334 <212> PRT

<213> Enterobacter cloacae

<400> 5951 Phe Pro Asp Asp Arg Met Asn Asp Gln Ala Phe Thr Phe Gln Thr Leu 10 His Pro Asp Thr Ile Met Asp Ala Leu Phe Glu Gln Gly Ile Arg Val 25 Asp Ser Gly Leu Thr Ala Leu Asn Ser Tyr Glu Asn Arg Val Tyr Gln 35 40 Phe Gln Asp Glu Glu Arg Gln Arg Phe Val Val Lys Phe Tyr Arg Pro 5.5 60 Gln Arg Trp Ser Ala Glu Gln Ile Gln Glu Glu His Gln Phe Ala His 70 75 80 Asp Leu Leu Asp Asp Asp Val Pro Val Ala Ala Pro Ile Lys Phe Asn 85 90 Asn Gln Thr Leu Leu Thr His Gln Gly Phe Tyr Tyr Ala Val Phe Pro 100 105 Ser Leu Gly Gly Arg Gln Phe Glu Ala Asp Asn Ile Asp Gln Met Glu 115 120 Trp Val Ala Arg Tyr Leu Gly Arg Ile His Gln Thr Gly Arg Lys Lys 135 130 Pro Phe Val Ala Arg Pro Thr Ile Gly Val Lys Glu Tyr Leu Ile Glu 150 155 Pro Arg Gln Val Phe Glu Thr Ser Ala Leu Ile Pro Asn Ala Leu Lys 170 165 Asp Asn Phe Leu Thr Ala Thr Asp Lys Leu Ile Asp Ala Val Lys Ala 180 185 190 Ser Trp Arg Asp Asp Ile Thr Thr Leu Arg Leu His Gly Asp Cys His 195 200 Ala Gly Asn Ile Leu Trp Arg Asp Gly Pro Leu Phe Val Asp Leu Asp 210 220 Asp Ala Arq Met Gly Pro Ala Val Gln Asp Leu Tro Met Leu Leu Asn 225 230 235 Gly Asp Lys Ala Glu Gln Arg Met Gln Leu Glu Thr Ile Ile Glu Ala 250 Tyr Glu Glu Phe Ile Pro Phe Asn Ser Asp Glu Ile Ala Leu Ile Glu 265 Pro Leu Arg Ala Met Arg Phe Val Tyr Tyr Leu Ala Trp Leu Ile Arg 275 280 285 Arg Trp Glu Asp Pro Ala Phe Pro Arg Asn Phe Pro Trp Leu Thr Gly 295 300 Glu Asp Tyr Trp Arg Asn Gln Ile Ser Thr Phe Thr Glu Gln Val Lys 310

Val Leu Gln Glu Pro Pro Leu Gln Leu Thr Pro Met Tyr <210> 5952 <211> 217 <212> PRT <213> Enterobacter cloacae <400> 5952 Leu Asp Thr Pro Arg Arg Glu Leu Ile Met Lys Lys Ile Trp Leu Ala 1.0 Leu Ala Gly Met Ile Leu Ala Phe Ser Ala Thr Ala Ala Gln Phe Thr 20 25 Asp Gly Lys Gln Tyr Ile Thr Leu Asp Lys Pro Val Ala Gly Glu Pro 35 40 Gln Val Leu Glu Phe Phe Ser Phe Tyr Cys Pro His Cys Tyr Glu Phe 5.5 Glu Gln Val Leu His Val Ser Asp Asn Val Lys Lys Lys Leu Pro Glu 70 75 8.0 Gly Thr Lys Met Thr Lys Tyr His Val Glu Phe Leu Gly Pro Leu Gly 85 90 Lys Asp Leu Thr Gln Ala Tro Ala Val Ala Ile Ala Leu Gly Val Glu 105 100 110 Asp Lys Ile Thr Ala Pro Met Phe Glu Ala Val Gln Lys Thr Gln Thr 115 120 125 Val Gln Thr Thr Ala Asp Ile Arg Lys Val Phe Val Asp Ala Gly Val 130 135 140 Lys Gly Glu Asp Tyr Asp Ala Ala Trp Asn Ser Phe Val Val Lys Ser 145 150 155 Leu Val Ala Gln Gln Glu Lys Ala Ala Ala Asp Phe Gln Leu Gln Gly 165 170 Val Pro Ala Met Tyr Val Asn Gly Lys Tyr Gln Val Asn Met Arg Gly 180 185 Met Asp Thr Thr Ser Met Asp Ile Phe Val Gln Gln Tyr Ala Asp Thr 200 Val Lys Tyr Leu Val Glu Lys Lys 210 215 <210> 5953 <211> 88 <212> PRT <213> Enterobacter cloacae <400> 5953 Asp Ala Gln Pro Ala Asn Leu Leu His Arg Gly Arg Lys Arg Ser Ala 10 Trp Thr Ile Pro Glu Gly Ala Thr Ala Pro Gln Ala Ala Asp Lys Ile 20 25 30 His Thr Asp Phe Val Lys Gly Phe Ile Arg Thr Gln Thr Ile Val Phe 35 Glu Asp Phe Ile Thr Tyr Lys Gly Glu Gln Gly Ala Lys Glu Thr Gly 50 55 60 Lys Met Arg Ala Glu Gly Lys Asp Tyr Ile Ile Lys Asp Gly Asp Val

75

```
<210> 5954
<211> 83
```

65

Met Asn Phe Leu Phe Asn Leu 85

7.0

<sup>&</sup>lt;211> 83 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 5954 Cys Gln Arg Met Thr Phe Ser Cys Val Arg Arg Leu Cys Val Thr Phe Ser Ala Glu Ser Ser Ser Gly Lys Gly Ser Val Glu Val Ala Val Tyr 20 25 30 Ala Ala Val Glu Ser Asp Ile Ala Glu Ile Ile Asp Gly Asp His Lys 40 Glu Phe Met Ala Glu Arg Gly Leu Asn Arg Val Ile Arg Ala Gly Tyr 55 60 Glu Leu Leu Ser Leu Gln Thr Tyr Phe Thr Ala Gly Val Lys Glu Val 7.0 75 Asn Ala <210> 5955 <211> 102 <212> PRT <213> Enterobacter cloacae <400> 5955 Arg Gln Arg Met Pro Phe Ser Cys Val Arg Arg Leu Cys Val Thr Phe Ser Ala Asp Ser Ser Ser Asp Lys Gly Ser Val Val Val Ala Phe Trp 25 Asn Ala Val Glu Ser Asp Ile Ala Glu Met Asn Asp Ala Asp Arg Glu 35 40 Asp Phe Met Ala Glu Gln Gly Leu Asn Arg Val Ile Arg Ala Gly His 55 Glu Met Leu Ser Leu Gln Thr Tyr Phe Tor Ala Gly Val Lys Glu Val 75 Arg Gly Pro Ser Leu Arg Val Arg Leu Arg Leu Arg Pro Ile Lys 85 90 Ser Thr Pro Ile Ser <210> 5956 <211> 444 <212> PRT <213> Enterobacter cloacae <400> 5956 Val Cys Arg Leu Ser Ile Ser Trp Pro Ala Arg Ile Thr Arg Phe Arg 1 10 Pro Cys Ser Ala Met Lys Ser Ser Arg Ser Ala Ser Phe Ile Ser Ala 20 Ile Ser Asp Ser Thr Ala Phe Gln Asn Ala Thr Thr Thr Glu Pro Leu 40 Ser Leu Glu Glu Ser Ala Glu Lys Val Thr His Asn Arg Leu Thr Gln 50 55 Leu Asn Gly Ile Arg Trp Arg Tyr Asp Ile His Gly Arg Thr Val Glu 70 75 Lys Asp Asn Gly Gln Thr Arg Trp His Tyr Arg Tyr Asp Gly Glu His 85 95 Arg Leu Thr Glu Val Ile Ser Gln Pro Arg Asp Arg Asn Arg Pro Gln 100 105 Thr Leu Val Ser Phe Arg Tyr Asp Pro Leu Gly Arg Arg Ile Ser Lys 115 120 125 Thr Arg Arg Gln Met Leu Gly Gly Gln Pro Thr Gly Lys Pro Val Thr 135 Thr Arg Phe Val Trp Glu Gly Phe Arg Leu Leu Gln Glu Val His Glv

```
150
Asp Val Pro Leu Thr Tyr Val Tyr Ser Asp Gln Asp Ser Tyr Asp Pro
       165
                       170
                                   175
Leu Ala Arg Ile Asp Gly Val Asp Ala Gln Glu Ile Phe Trp Phe His
         180
                   185 190
Cys Gln Pro Asn Gly Thr Pro Glu Arg Met Thr Asp Ser Glu Gly Gln
  195 200
                          205
Val Arg Trp Glu Gly Val Asn Ser Ala Trp Gly Lys Leu Leu Arg Glu
 210 215 220
Ser Glu Thr Gln Val Ser Gly Tyr Phe Gln Asn Leu Arg Met Gln Gly
225 230 235 240
Gln Tyr Leu Asp Arg Glu Thr Gly Leu His Tyr Asn Leu Phe Arg Tyr 245 250 255
Tyr Asp Pro Asp Cys Gly Arg Phe Thr Gln Gln Asp Pro Ile Gly Leu
       260 265 270
Ala Gly Gly Ile Asn Leu Tyr Gln Tyr Ala Pro Asn Ala Leu Gly Trp
 275 280 285
Val Asp Pro Trp Gly Leu Ser Arg Glu Cys Ser Gly Lys Thr Lys Pro
 290 295 300
Asp Phe Tyr Val Gly Pro Asn Gly Pro Ser Ser Thr Met Pro Ser Thr
305 310 315
Ala Tyr Arg Tyr Met Asp Ser Lys Tyr Ala Pro Gln Thr Ile Glu Asn
          325 330
Lys Ser Ala Pro Leu Ser Tyr Phe Gly Tyr Thr Lys Tyr Lys Ser Ala
 340 345 350
His Glu Ala Arg Asp Ala Tyr Gln Ile Phe Tyr Glu Lys Gly Asn Pro
355 360 365
Asp Ser Trp Ser Asp Ala Arg Leu Leu Gly Glu Phe Asp Thr Leu Gln
370 375 380
Leu Tyr Lys Asn Gly Val Pro Gln Val Gln Val Pro Leu Ala Asn Gly 385 390 395 400
Gly Arg Gly Pro Gly Tyr Glu Leu Phe Thr Ser Ala Tyr Pro Glu Tyr
          405 410 415
Gly Lys Gly Gly Ala Leu Gln Leu Leu Pro Ile Glu Arg Asn Tyr Pro
        420 425
Val Ile Phe Glu Arg Val Thr Ile Ile Pro Glu
<210> 5957
<211> 268
<212> PRT
<213> Enterobacter cloacae
<400> 5957
Thr Gln Lys Ile Ser Leu Ser Leu Lys Glu Leu Leu Lys Val Gly Gly
                           10
Val Val Val Glu Val Lys Ile Tyr Tyr Lys Gly Ser Val Asp Phe Ile
20
Ala Gly Glu Gly Thr Ile Leu Asn Glu Phe Ile Gly Glu Val Ala Thr
                     40
Arg Gln Ile Asn Ile Ile Asp Gly Asn Tyr Tyr Ala Ser Ser Ser Leu
                 55
Leu Asp Lys Lys Glu Lys Val Gly Phe Leu Leu Tyr Asp Gly Lys Lys
         70
                        7.5
Ser Asp Leu Asn Leu Ser Asp Ala Glu Glu Ile Ser Asn Glu Glu Phe
         8.5
                           90
Glu Val Phe Trp Gln Thr Ser Thr Gly Ser Leu Gln Glu Lys Lys Arq
```

105

Ile Lys Tyr Leu Ser Gly Asp Ala Val Glu Pro Leu Lys Lys Ser Thr

Val Ile Ala His Ile Val Asn Asn Lys Gly Lys Trp Gly Lys Gly Phe

120

110

125

100

115

```
135
                                     140
Val Leu Ser Leu Ser Asn Lys Tyr Pro Ala Ala Lys Lys Ser Tyr Leu
       150
                      155
Ser Cys Phe Lys Glu Asn Asn Phe Pro Glu Leu Gly Val Val Asp Phe
           165 170 175
Val Met Val Asp Ala Gln Glu Lys Ile Phe Ile Ala Asn Met Tyr Ala
        180 185 190
Gln Asp Gly Ile Lys Lys Asn Ile Asn Asp Lys Lys Gln Tyr Val Cys
      195 200 205
Tyr Asp Ser Leu Lys Val Cys Leu Glu Lys Leu Ser Asp Phe Ala Leu
   210 215
                                     220
Val Asn Arg Leu Ser Ile Gln Met Pro Arg Ile Gly Ala Gly Leu Gly
225 230 235
Gly Gly Asp Trp Asn Val Ile Glu Ser Leu Ile Leu Lys Asn Ile Cys
             245
                              250
Tyr Lys Met Ile Asp Cys Asn Val Ile Thr Leu
          260
                            265
<210> 5958
<211> 68
<212> PRT
<213> Enterobacter cloacae
<400> 5958
Ser Phe Lys Glu Gln Arg Met Leu Ile Leu Thr Arg Arg Val Gly Glu
                               10
Thr Leu Met Ile Gly Asp Glu Val Thr Val Thr Val Leu Gly Val Lys
 20
Gly Asn Gln Val Arg Ile Gly Val Asn Ala Pro Lys Glu Val Ser Val
 35
                       40
                                       4.5
His Arg Glu Glu Ile Tyr Gln Arg Ile Gln Ala Glu Lys Ser Gln Gln
50
                     35
Ser Ser Tyr
<210> 5959
<211> 89
<212> PRT
<213> Enterobacter cloacae
<400> 5959
Ile Gln Phe Gly Asn Thr Lys Gly Ala His Lys Arg Phe Asp Asn Leu
                              10
                                      15
Gly Arg Trp Gly Thr Pro Ala Leu Ala Val Arg Ala Thr Glu Ile Phe
                           25
                                             30
Leu Arg Ser Trp Arg Pro His Tyr Gly Ala Ala Leu Pro Gly Ser Ala
Glu Glu Asp Gly Asp Arg Tyr Ile Glu Ile Trp Asn Ile Val Phe Met
                    55
                                     60
Gln Phe Asn Arg Gln Ala Asp Gly Thr Met Glu Pro Leu Pro Lys Thr
65
                 7.0
Val Arg Arg Tyr Arg Tyr Gly Pro
             8.5
<210> 5960
<211> 707
<212> PRT
<213> Enterobacter cloacae
<400> 5960
Ala Gly Gly Gly Pro Arg Pro Leu Arg Tyr Val Pro Pro Arg Phe Phe
```

10 Tyr Asp His Gly Asp His Ile Met Gly Arg Pro Ser Arg Glu Ala Arg 20 25 Lys Lys Met Ala Ile Ala Ile Leu Arg Ser Gly Thr Leu Ser Ser Cys 3.5 4.0 Ser Ser Thr Val Arg Arg Thr Ala Pro Trp Ser Arg Cys Pro Lys Pro 55 60 Ser Val Asp Thr Gly Met Gly Leu Glu Arg Ile Ala Ala Val Leu Gln 70 7.5 His Val Asn Ser Asn Tyr Glu Ile Asp Leu Phe Ser Thr Leu Ile Lys 90 Ala Val Ala Glu Val Thr Gly Ala Thr Asp Leu Ser Asn Lys Ser Leu 110 100 105 Arg Val Ile Ala Asp His Ile Arg Ser Cys Ala Phe Leu Ile Ala Asp 115 120 125 Gly Val Ile Pro Ser Asn Glu Asn Arg Gly Tyr Val Leu Arg Arg Ile 135 130 140 Ile Arg Arg Ala Ile Arg His Gly Asn Met Leu Gly Ala Lys Asp Thr 150 155 Phe Phe Tyr Lys Leu Val Gly Pro Leu Ile Gly Val Met Gly Ser Ala 165 170 Gly Asp Glu Leu Lys Arg Gln Gln Ala Gln Val Glu Gln Val Leu Lys 180 185 Thr Glu Glu Glu Gln Phe Ala Arg Thr Leu Glu Arg Gly Leu Ala Leu 195 Leu Asp Asp Glu Leu Ala Lys Leu Lys Gly Asp Thr Leu Asp Gly Glu 210 215 220 Thr Ala Phe Arg Leu Tyr Asp Thr Tyr Gly Phe Pro Val Asp Leu Thr 230 235 Ala Asp Val Cys Arg Glu Arg Asn Ile Lys Val Asp Glu Ala Gly Phe 245 250 255 Glu Ala Ala Met Glu Glu Gln Arg Arg Arg Ala Arg Glu Ser Ser Gly 260 265 Phe Gly Ala Asp Tyr Asn Ala Met Ile Arg Val Asp Ser Ala Ser Glu 280 285 Phe Lys Gly Tyr Glu Glu Leu Ala Leu Thr Ser Asn Val Thr Ala Leu 290 295 300 Phe Val Asp Gly Lys Ala Val Asp Ser Ile Ser Ala Gly Gln Asp Ala 310 315 Val Val Ile Leu Asp Lys Thr Pro Phe Tyr Ala Glu Ser Gly Gly Gln 330 325 335 Val Gly Asp Lys Gly Glu Leu Lys Gly Asn Gly Phe Ser Phe Ser Val 340 345 Ser Asp Thr Gln Lys Tyr Gly Gln Ala Ile Gly His Gln Gly Lys Leu 360 Val Ser Gly Ser Leu Lys Val Gly Glu Gly Val Gln Ala Asn Val Asp 375 380 Glu Ala Arg Arg Ala Arg Ile Arg Leu Asn His Ser Ala Thr His Leu 390 395 Met His Ala Ala Leu Arg Glu Val Leu Gly Thr His Val Ala Gln Lys 405 410 415 Gly Ser Leu Val Asn Asp Lys Val Leu Arg Phe Asp Phe Ser His Phe 420 425 Glu Ala Met Lys Pro Ser Glu Ile Arg Ala Val Glu Asp Leu Val Asn 440 Ala Gln Ile Arg Arg Asn Leu Pro Ile Glu Thr His Ile Met Asp Leu 455 Glu Ala Ala Lys Lys Gly Ala Met Ala Leu Phe Gly Glu Lys Tyr 470 475 Asp Asp Arg Val Arg Val Leu Ser Met Gly Asp Phe Ser Thr Glu Leu 485 490

```
Cys Gly Gly Thr His Ala Ser Arg Thr Gly Asp Ile Gly Leu Phe Arg
         500
                   505
 Ile Val Ser Glu Ser Gly Thr Ala Ala Gly Val Arg Arg Ile Glu Ala
      515
                   520
                          525

    Val Thr Gly Glu Gly Ala Ile Ala Ser Leu His Ala Gln Ser Asp Gln

  530
         535 540
Leu His Glu Ile Ala Gln Leu Leu Lys Gly Asp Ser Gln Asn Leu Gly
545 550 555
Glu Lys Val Arg Val Ala Leu Asp Arg Thr Arg Gln Leu Glu Lys Glu
            565 570 575
Leu Gln Gln Leu Lys Glu Gln Ala Ala Gln Glu Ser Ala Asn Leu
         580 585 590
 Ser Ser Lys Ala Val Asp Ile Lys Gly Val Lys Leu Leu Val Ser Asp
  595 600 605
 Leu Ala Gly Val Glu Pro Lys Met Leu Arg Thr Met Val Asp Asp Leu
  610 615
                                  620
Lys Asn Gln Leu Gly Ser Thr Val Ile Val Leu Ala Thr Val Ala Glu
               630
                               635
Gly Lys Val Ser Leu Ile Ala Gly Val Ser Lys Asp Val Thr Asp Arq
            645
                            650
                                           655
Val Lys Ala Gly Glu Leu Ile Gly Met Val Ala Gln Gln Val Gly Gly
         660
                         665
Lys Gly Gly Gly Arg Pro Asp Met Ala Gln Ala Gly Gly Thr Asp Ala
     675 680
                             685
Ala Ala Leu Pro Ala Ala Leu Ala Ser Val Glu Ser Trp Val Ser Ala
 690
                  695
                                  700
Lys Leu
```

<210> 5961 <211> 299

705

<211> 299

<213> Enterobacter cloacae

<400> 5961

Val Ser Pro Leu Ile Gln Leu Leu Asp Arg Pro Ile Ala Tyr Gln Pro 10 Ala Phe Ala Gln Leu Arg Ala Gly Lys Val Lys Ser Gly Pro Ala Ala 20 Ala Val Leu Leu Ser Gln Leu Val Tyr Trp His Asn Arg Met Asp Gly 35 40 Glu Trp Leu Tyr Lys Thr Arg Glu Asp Ile Lys Lys Glu Thr Gly Leu 50 55 Ser Arg Asp Glu Gln Glu Thr Ala Arg Lys Arg Leu Val Ala Leu Gly 70 7.5 80 Val Leu Gln Glu Asp Leu Arg Gly Val Pro Ala Thr Val His Tyr Arg 90 Ile Asn Thr Glu Arg Leu Glu Ala Leu Leu Leu Ala Pro Gly Gln Ala 100 105 Glu Ser Gln Leu Gly Ala Thr Pro Pro Thr Arg Arg Arg Gln Pro Arg 115 120 125 Gln Gln Asp Gly Gly Asn Ala Pro Asn Lys Met Val Glu Thr Pro Pro 135 140 Thr Arg Arg Val Glu Pro Thr Gln Gln Val Gly Trp Val Pro Ala Asn 150 155 Phe Pro Thr Gly Asp Tyr Thr Glu Ile Thr Gln Glu Ser Thr Gln Glu 165 170 175 Ile Thr Gln Lys Ala Gly Glu Lys Asn Ser Val Asp Asn Phe Ser Glu 180 185 190 Ile Tyr Pro Glu Ala Glu Ile Phe Asp Ala Glu Lys Lys Thr Trp Gly 200

```
Thr Ala Glu Asp Leu Glu Phe Ala Gln Trp Phe Phe Ala Arg Ile Val
                      215
   210
Glu Leu His Glu Lys Ala Ala Glu Tyr Asp Gly Met Leu Ser Arg Pro
                  230
                                     235
Lys Glu Pro Asp Trp Thr Gly Trp Ala Asp Glu Val Arg Gln Leu Arg
              245
                   250 255
Glu Gly Gln Arg Cys Asp His Gln Ala Asp Ala Lys Pro Gly Arg Ala
        260 265
                                    270
Tyr Ser Ala Arg Pro Val Gly Gly Ala Arg Arg Phe Arg Leu Pro Lys
    275 280
Cys Cys Thr Pro Asn Gly Gln Asn Trp Ser
   290
                      295
<210> 5962
<211> 219
<212> PRT
<213> Enterobacter cloacae
<400> 5962
Met Glu Thr Val Leu Asp Val Leu Lys Ala Met Gly Lys Thr Thr Tyr
                                  10
Arg Asp Val Ala Ala Arg Leu Asp Ile Glu Pro Val Val Ala Leu Asn
        20
                              25
                                                 30
Met Leu Arg Glu Gln Lys Glu Gln Gly Leu Cys Asp Tyr Ala Asp Gly
      3.5
                          4.0
Gly Trp Phe Leu Gly Thr Ala Ala Lys Gln Lys Pro Lys Arg Ile Arg
                      55
Pro Lys Gln Glu Ser Glu Leu Val Gly Arg Ile Leu Ala Val Met Gln
                  70
                                      75
Gly Gln Gly Ala Ile Ser Ala Glu Lys Ile Ala Lys Leu Leu Gly Lys
               85
                                  90
Thr Ser Arg Ala Leu Asn Ala Ser Leu Gly Ala Leu Gly Lys Glu Gly
                              105
           100
Arg Val Val Arg His Val Asp Gly Lys Asn Ile Thr Trp Ser Leu Lys
       115
                       120
                                             125
Asn Asp Asp Ala Pro Ala Pro Ala Thr Ala Ala Pro Ile Ala Asn Ala
                      135
                                         140
Arg Gln Ala Glu Ser Ala Leu Ala Glu Lys Ser Thr Ala Gln Ile Ile
145
                 150
                                     155
Glu Glu Ile Pro Ala Phe Thr Ala Arg Pro Asn Asp Leu Ala Ile Pro
              165
                                 170
Ser Ser Arg Phe Ile Ser Ser Glu Ile Arg Arg Thr Lys Ala Lys Leu
           180
                              185
                                                190
Ala Ser Leu Gln Lys Leu Gln Cys Ala Ala Arg Gln Leu Arg Arg His
                          200
       195
Lys His Leu Leu Val Gly Leu Asp Asn Glu
   210
<210> 5963
<211> 139
<212> PRT
<213> Enterobacter cloacae
<400> 5963
Leu Met Glu Ile Lys His Glu His Ile Gln Cys Val Leu Leu Ala Trp
Ala Ala Glu Val Gly Gln Ala His Ala Ala Glu Ala Ile Thr Ala Glu
                              25
Tyr Thr Arg Gln Gly Gly Ala Glu Leu Pro Leu Val Ala Gly Asn Thr
                          4.0
Trp Asn Asn Gln Gln Asn Ile Phe His Arg Trp Leu Asp Gly Ser Thr
```

2284 Pro Gln Arg Arg Ala Lys Ile Arg Glu Leu Leu Pro Ala Ile Leu Ala 7.5 Val Leu Pro Arg Ser Ile Arg His Arg Leu Ser Ile Tyr Asp Thr Ile 8.5 90 Glu Arg Arg Ala Leu Leu Ala Ala Gln Asp Ala Leu Gly Ala Ala Ile 100 105 110 Asp Ala His Asp Asp Ala Val Glu Ala Leu Phe Gln Lys Val Met Gln 115 120 His Ala Ala Ala Asp Ser Pro Lys Phe His 130 <210> 5964 <211> 126 <212> PRT <213> Enterobacter cloacae <400> 5964 Val His Arg Gly Asp Val Val Ser Val Lys Cys Cys Gly Cys Gln Glu 10 Leu Leu Glu Glu Asp Glu Val Pne Lys Leu Ala Asp Ser Cys Gly Val 2.0 2.5 30 Asp Ile Cys Asp Arg Cys Ala Ser Arg Val Val His Ser Tyr Asn Glu 3.5 40 Trp His Gly Gly Phe Ser Tyr Ala Pro Val Lys Gln Lys Asn Pro Arg 60 Lys Ser Ile Ser Ala Ala Val Lys Leu Lys Ile Phe Gln Arg Asp Gly 7.0 75 80 Phe Arg Cys Lys His Cys Gly Thr Ser Glu Ala Leu Thr Ile Asp His 8.5 90 Ile Gln Pro Val Ser Lys Gly Gly Ser Asn Gln Asp Glu Asn Leu Gln 100 105 Thr Leu Cys Ala Ser Cys Asn Ser Arg Lys Gly Val Lys <210> 5965 <211> 205 <212> PRT <213> Enterobacter cloacae <400> 5965 Arg Lys Asn Gly Leu Ala Tyr Ile Asn Ala Val Tyr Pro Phe Asn Phe 10 Ile Ile Pro Leu Gly Ile Ser Ala Cys Leu Ala Tyr Ile Leu Pro Ile 25 20 Ile Asn Glu Lys Ile Thr Tyr Leu Gln Ser Arg Pro Ile Ser Arg Thr 35 40 Ala Ile Leu Leu Ser Ile Arg Ala Lys Lys Ala Leu Val Ala Asp Ile 55 Ser Leu Glu Lys Tyr Arg Ala Lys Arg Asp Val Thr Tyr Glu Arg His 7.0 75 Val Ala Gly Ala Glu Lys Glu Ile Gln Asp Met Arg Glu Glu Ile Val 85 90 Asn Ser Lys Glu Arg Val Gly Glu Met Asn Ala Ala Leu Leu Glu Leu 100 Asn Gln Lys Asn Asp Glu Ile Asn Ala Leu Leu Gln Asp Ser Asn Ile 115 120 125 Arg Asn Lys Lys Leu Ser Asp Glu Ile Glu Arg His Lys Ile Ala Glu 135 Thr Arg Phe Phe Gly Glu Ile Glu Asp Leu Asn Lys Glu Leu Asp Arg

Leu Tyr Ser Leu Leu Lys Met Glu Pro Thr Arg Gly Val Gly Leu Gly 165 170 Ile Arg Lys Ile Thr Thr Ile Asn Gly Glu Glu Asn Ser Asp Thr Asp 180 185 Asp Thr Gln Tyr Arg Pro Gly Ser Asn Glu Asp Lys 200

<210> 5966 <211> 242 <212> PRT

<213> Enterobacter cloacae

<400> 5966

Val Ala Asn Met Gln Thr Pro His Ile Leu Ile Val Glu Asp Glu Leu 10 15 Val Thr Arg Asn Thr Leu Lys Ser Ile Phe Glu Ala Glu Gly Tyr Asp 25 3.0

Val Phe Glu Ala Thr Asp Gly Ala Glu Met His Gln Ile Leu Ser Glu 40

Asn Asp Ile Asn Leu Val Ile Met Asp Ile Asn Leu Pro Gly Lys Asn 55 60

Gly Leu Leu Ala Arg Glu Leu Arg Glu Gln Ala Asn Val Ala Leu 7.0 75 Met Phe Leu Thr Gly Arg Asp Asn Glu Val Asp Lys Ile Leu Gly Leu 85 90 95

Glu Ile Gly Ala Asp Asp Tyr Ele Thr Lys Pro Phe Asn Pro Arg Glu 100 110

Leu Thr Ile Arg Ala Arg Ash Leu Leu Ser Arg Thr Met Ash Leu Gly 120 115 Thr Val Ser Glu Glu Arg Arg Ser Val Asp Ser Tyr Lys Phe Asn Gly

1.40 Trp Glu Leu Asp Ile Asn Ser Arg Ser Leu Ile Ser Pro Asn Gly Glu

145 150 160 Gln Tyr Lys Leu Pro Arg Ser Glu Phe Arg Ala Met Leu His Phe Cys

170 165 Glu Asn Pro Gly Lys Ile Gln Ser Arg Ala Glu Leu Leu Lys Lys Met 180 185 190

Thr Gly Arg Glu Leu Lys Pro His Asp Arg Thr Val Asp Val Thr Ile 195

Arg Arg Ile Arg Lys His Phe Glu Ser Thr Pro Asp Thr Pro Glu Ile 210 220

Ile Ala Thr Ile His Gly Glu Gly Tyr Arg Phe Cys Gly Asp Leu Gln 225 230 Glu

<210> 5967 <211> 229 <212> PRT

<213> Enterobacter cloacae

<400> 5967

Met His Leu Ser Ile Val Leu Val Ala Pro Ala Arg Ala Glu Asn Ile Gly Ala Ala Arg Ala Met Lys Thr Met Gly Phe Thr Asp Leu Arg 20 25

30 Ile Val Asp Ser Thr Ala His Leu Glu Pro Ala Ala Arg Trp Val Ala 4.0 45

His Gly Ser Gly Asp Ile Leu Asp Asn Ile Thr Thr Tyr Ala Thr Leu 55 60 Ala Asp Ala Leu His Asp lle Ser Phe Thr Val Ala Thr Thr Ala Arg

```
70
                                 75
Ser Arg Ala Lys Phe His Tyr Tyr Ala Thr Pro Ala Glu Leu Val Pro
            85
                         90
Met Leu Glu Glu Lys Ser Gln Trp Leu Glu Lys Ala Ala Leu Val Phe
          100
                 105
                                              110
Gly Arg Glu Asp Ser Gly Leu Thr Asn Glu Glu Leu Ala Leu Ala Asp
              120
                                          125
Val Leu Thr Gly Ala Pro Met Val Ala Asp Tyr Pro Ser Leu Asn Leu
                   135
                                       140
Gly Gln Ala Val Met Val Tyr Cys Tyr Gln Leu Ala Ser Leu Ile Gln
                 150
                                155
Ile Ser Gln Pro Pro Val Thr Val Ser Asp Glu Asn Gln Leu Ala Ala
                   170
              165
                                                  175
Leu Arg Val Arg Ala Asp Lys Leu Leu Ala Gln Leu Gly Val Ala Asp
           180
                            185
Asp Gln Lys Met Val Asp Trp Leu Gln Gln Arg Leu Gly Arg Leu Glu
                                        205
   195
                         200
Gln Arg Asp Thr Val Met Leu His Arg Leu Leu His Asp Ile Glu Lvs
 210
                     215
Lys Leu Ala Glu
225
<210> 5968
<211> 160
<212> PRT
<213> Enterobacter cloacae
<400> 5968
Gly Asn Asn Met Lys Tyr Lys Val Leu Val Phe Ala Ala Leu Ala Leu
Met Ala Gly Arg Val Ala Gln Ala Glu Gln Ile Gly Ser Val Asp Thr
          20
                            25
                                              3.0
Val Phe Lys Met Phe Gly Pro Asp His Lys Ile Val Val Glu Ala Phe
       35
                         40
                                           4.5
Asp Asp Pro Asp Val Lys Asn Val Thr Cys Tyr Val Ser Arg Ala Lys
 50
                                       60
Thr Gly Gly Ile Lys Gly Gly Leu Gly Leu Ala Glu Asp Thr Ser Asp
                  70
                                   75
Ala Ala Ile Ser Cys Gln Gln Val Gly Pro Val Glu Leu Ser Asp Lys
              85
                                90
Ile Lys Asn Gly Lys Ala Gln Gly Asp Val Val Phe Gln Lys Arg Thr
          100
                            105
                                              110
Ser Leu Val Phe Lys Lys Leu Gln Val Val Arg Phe Tyr Asp Ala Lys
 115
                 120
                                        125
Arg Asn Thr Leu Ala Tyr Leu Ala Tyr Ser Asp Lys Val Val Glu Gly
 130
                  135
                              140
Ser Pro Lys Asn Ala Ile Ser Ala Val Pro Ile Met Pro Trp His
                150
                                   155
<210> 5969
<211> 288
<212> PRT
<213> Enterobacter cloacae
<400> 5969
Lys Lys Cys Leu Ser Ala Leu Arg Gln Ile Leu Glu Lys Ser Thr Arg
                               10
Leu Ile Met Ser Gly Ser Ser Gln Asp Asp Phe Thr Gly Ala Asp Met
                            2.5
Phe Arg Arg Leu Arg Asp Ile Ile Lys Arg Gly Val Val Lys Glu Val
       35
```

```
Gln Met Gln Pro Pro Arg Val Arg Val Thr Phe Gly Gly Glu His Gln
                               60
Ser Gly Trp Leu Gln Trp Phe Thr Leu Ala Thr Ser Glu Arg Val Asp
                             75
Trp Ser Ala Pro Lys Val Gly Asp Pro Val Pro Pro Asn Ser Thr Ala
           85
                    90
Ala Glu Arg Ala Leu Glu Ala Val Leu Ser His Val Gly Asp Leu Pro
      100 105
                                     110
Gly Asp Ile Arg Ile Ile Lys Asn Pro Asp Leu Cys Pro Val Asp Leu
 115 120 125
Leu Pro Trp Leu Ala Trp Glu Tyr Ala Val Thr Tyr Trp Asn Ser Gly
130
      135 140
Trp Ser Glu Gln Gln Lys Arg Gln Val Ile Lys Ala Ala Ala Trp Gln
   150 155 160
Asn Lys His Arg Gly Thr Arg Gly Ala Val Glu Arg Ala Leu Leu Thr
      165 170 175
Val Gly Tyr Glu Ser Gln Leu Gln Glu Trp Phe Glu Lys Val Pro Lys
      180 185
                           190
Gly Asp Pro Tyr Thr Phe Gly Ile Lys Ile Tyr Leu Leu Lys Gln Met
    195 200
                        205
Gly Met Asp Leu Asp Leu Leu Asn Thr Phe Ile Ala Gln Ile Phe Asp
 210 215
                                220
Ala Lys Asn Cys Arg Ser Leu Leu Glu Ser Ile Asn Phe Glu Ala Glu
225 230
                             235
Ile Asp Gly Glu Phe Tyr Ile Ala Gly Thr Thr Ala Ala Asp Val Val
           245
Val Glu Ile Pro Ala Glu Asp Glu Gly Gly Val Lys Val Asn Gly Ser
        260 265 270
Leu Phe Ile Ser Gly Val Pro Thr Ala His Ile Thr Val Glu Ile
                    280
```

<210> 5970 <211> 280 <212> PRT

<213> Enterobacter cloacae

<400> 5970

Gly Gly Ser Lys Ser Lys Arg Leu Pro Val Tyr Phe Gly Cys Thr Asp 10 Ser Ser Tyr His Ser Gly Asn Ile Glu Met Val Gln Lys Arg Thr Ala 25 Leu Lys Ser Ala Thr Ser Thr Pro Asp Asp Lys Ile Tyr Ala Ile Leu 4.0 Thr Asp Arg Gly Ala Glu Leu Glu Ala Ala Ala Leu Ala Thr Gly Val 55 Pro Val Lys Leu Thr Lys Phe Val Ile Gly Asp Ala Asn Gly Gln Glu 70 65 75 Glu Val Thr Pro Asp Pro Ala Arg Thr Ala Leu Ile His Glu Val Tyr 90 85 Arg Gly Asp Ile Asn Gly Ala Glu Ser Lys Gly Asn Gln Val Thr Phe 100 105 Thr Leu Asp Val Pro Pro Glu Thr Gly Gly Tyr Thr Ile Arg Glu Val 120 115 125 Gly Ile Leu Thr Glu Ala Gly Giu Leu Tyr Ser Val Ala Arg Ser Pro 135 140 Asp Ile Leu Lys Pro Thr Glu Ser Asn Gly Ala Val Ile Ser Ile Thr 150 155 Phe Lys Tyr Ile Leu Ala Val Ser Ser Thr Ser Thr Val Thr Val Val 165 170 175 Val Tyr Asn Asp Tyr Leu Thr Pro Asp Ala Ala Asp Ala Arg Tyr Leu 180 185

```
Lys Val Asn Ala Asn Leu Lys Glu Ile Ala Asp Asn Gly Ala Ser Ser
       195
                         200
Gln Gln Leu Ala Arg Lys Asn Ile Gly Ile Asp Gly Asp Ile Ala Tyr
                     215
                                   220
Arg Asp Lys Glu Asn Ile Phe Thr Lys Lys Asn Thr Phe Gly Glu Ile
225
               230
                       235 240
Leu Tyr Val Asn Lys Ser Ile Val Leu Ser Gly Asp Trp Ala Val Ser
              245 250 255
Trp Ser Leu Ala Gly Ala Tyr Ile Glu Ala Tyr Leu Val His Ser Lys
        260 265
Leu Pro Asp Arg Leu Phe Ser Thr
<210> 5971
<211> 119
<212> PRT
<213> Enterobacter cloacae
<400> 5971
Arg Cys Arg Ala Ala Leu Leu Gln Ala Ile Leu Asp Gly Val Ala Gln
                                 10
His Gly Pro Tyr Phe Val Ile Ala Pro Gly Leu Ala Met Pro His Gly
         20
                       2.5
Arg Pro Glu Glu Gly Val Lys Lys Thr Gly Phe Ala Leu Val Thr Leu
                       4.0
                                      4.5
Lys Thr Pro Leu Val Phe Asn His Glu Asp Asn Asp Pro Val Asp Ile
                      55
                                      60
Leu Ile Thr Met Ala Ala Val Asp Ala Asn Thr His Gln Glu Val Gly
                  7.0
                                   7.5
                                                        80
Ile Met Gln Ile Val Asn Leu Phe Asp Asp Glu Ala Asn Phe Asp Arg
             85
                                90
Leu Arg Ala Cys Arg Thr Ala Gln Asp Val Leu Asp Leu Ile Asp Asn
        100
                             105
Ala Thr Ala Ala Ala Val
<210> 5972
<211> 221
<212> PRT
<213> Enterobacter cloacae
<400> 5972
Glu Glu Leu Lys Met Ser Leu Pro Met Leu Gln Val Ala Leu Asp Asn
                                 10
Gln Thr Leu Ser His Ala Tyr Glu Thr Thr Arg Leu Ile Ala Glu Glu
          20
Val Asp Ile Ile Glu Val Gly Thr Ile Leu Cys Val Gly Glu Gly Val
                         4.0
Arg Ala Val Arg Asp Leu Lys Ala Leu Tyr Pro His Lys Ile Val Leu
                     55
                                        60
Ala Asp Ala Lys Ile Ala Asp Ala Gly Lys Ile Leu Ser Arg Met Cys
                  70
Phe Glu Ala Asn Ala Asp Trp Val Thr Val Ile Cys Cys Ala Asp Ile
                                 90
Asn Thr Ala Lys Gly Ala Leu Asp Val Ala Lys Glu Phe Asn Gly Asp
          100
                             105
                                                110
Val Gln Ile Glu Leu Thr Gly Phe Trp Thr Trp Glu Gln Ala Gln Glu
       115
                         120
                                            125
Trp Arg Glu Ala Gly Ile Gln Gln Val Val Tyr His Arg Ser Arg Asp
                      135
Ala Gin Ala Ala Gly Val Ala Trp Gly Glu Ala Asp Ile Ser Ala Ile
```

<400> 5974

```
150
Lys Arg Leu Ala Asp Met Gly Phe Lys Val Thr Val Thr Gly Gly Leu
           165
                  170 175
Ala Leu Glu Asp Leu Pro Leu Phe Lys Gly Ile Pro Ile His Val Phe
         180 185 190
Ile Ala Gly Arg Ser Ile Arg Asp Ala Glu Ser Pro Val Glu Ala Ala
    195 200 205
Arg Gln Phe Lys Arg Ser Ile Ala Gln Leu Trp Gly
<210> 5973
<211> 290
<212> PRT
<213> Enterobacter cloacae
<400> 5973
Gly Ala Gly Met Leu Ser Lys Glr. Val Pro Leu Gly Ile Tyr Glu Lys
                               10
Ala Leu Pro Ala Gly Glu Cys Trp Leu Glu Arg Leu Gln Leu Ala Lys
                           25
                                             30
Gln Leu Gly Phe Asp Phe Val Glu Met Ser Leu Asp Glu Thr Asp Glu
35
                     40
Arg Leu Ala Arg Leu Asp Trp Ser Arg Asp Gln Arg Leu Ala Leu Val
                    55
                                   60
Ser Ala Ile Ala Glu Thr Gly Val Arg Val Pro Ser Met Cys Leu Ser
                                  75
      70
                                                   80
Ala His Arg Arg Phe Pro Leu Gly Ser Glu Asp Asp Ala Val Arg Ala
             85
                               90
Glu Gly Leu Glu Ile Met Arg Lys Ala Ile Arg Phe Ala Gln Asp Val
         100
                           1.05
Gly Ile Arg Val Ile Gln Leu Ala Gly Tyr Asp Val Tyr Tyr Gln Glu
 115
                        120
Ala Asn Asp Glu Thr Arg Arg Arg Phe Arg Asp Gly Leu Lys Glu Ser
 130
                                      140
Val Glu Met Ala Ser Arg Ala Gln Val Thr Leu Ala Met Glu Ile Met
                150
                                  155
Asp Tyr Pro Leu Met Asn Ser Ile Ser Lys Ala Leu Gly Tyr Ala His
             165
                               170
Tyr Leu Asn Asn Pro Trp Phe Gln Leu Tyr Pro Asp Ile Gly Asn Leu
          180
                            185
Ser Ala Trp Asp Asn Asp Val Gln Met Glu Leu Gln Ala Gly Ile Gly
      195
His Ile Val Ala Val His Val Lys Asp Thr Arg Pro Gly Val Phe Lys
  210
                     215
Asn Val Pro Phe Gly Thr Gly Val Val Asp Phe Glu Arg Cys Phe Gln
                 230
                                  235
Thr Leu Lys Gln Thr Gly Tyr Cys Gly Pro Tyr Leu Ile Glu Met Trp
             245
                               250
Ser Glu Thr Ala Asp Asp Pro Ala Ala Glu Val Ala Lys Ala Arg Asp
          260
                                270
Trp Val Cys Glu Arg Met Ala Arg Ala Gly Leu Met Glu Ala Glu His
                       280
Ala
   290
<210> 5974
<211> 218
<212> PRT
<213> Enterobacter cloacae
```

```
Thr Trp Cys Gln Ala Asp Gly Arg Val Lys Pro Gln Leu Ala Val Leu
                             10
Tyr Pro Cys Lys Pro Gly Leu Ser Leu Ser Arg Trp Pro Phe Val Ile
         2.0
                         25
                                          3.0
Ile His Pro Arg Gly Val Arg Met Phe Val Ala Glu Leu Ser Glu Ala
     35
                      40
                                      45
Phe Asn Gly Ile Ser Gln Arg Leu Ile Pro Gly Ala Val Leu Ala Ile
                  55
                                   60
Asp Cys Ala Ala Ile Tyr Ser Phe Ala Pro Asn Ala Val Val Trp Gly
             70
                             7.5
Phe Met Trp Gly Thr Ile Gly Gln Leu Ile Ala Val Gly Ile Leu Val
           85
                            90
Gly Cys Gly Ser Ser Ile Leu Ile Ile Pro Gly Phe Ile Pro Met Phe
       100 105
                                          110
Phe Ser Asn Ala Thr Ile Gly Val Phe Ala Asn His Phe Gly Gly Trp
      115
                     120
                          125
Arg Ala Ala Leu Lys Ile Cys Leu Val Met Gly Met Val Glu Ile Phe
 130 135 140
Gly Cys Val Trp Ala Val Lys Leu Thr Gly Met Ser Ala Trp Met Gly
145
      150 155
                                               160
Met Ala Asp Trp Ser Ile Leu Ala Pro Pro Met Met Gln Gly Phe Ala
          165 170
Ser Val Gly Leu Val Phe Met Ala Val Ile Ile Leu Ile Ala Leu Ala
         180
                         185
                                190
Tyr Met Phe Phe Ala Gly Arg Ser Leu Arg Ala Glu Glu Asp Ala Glu
195 200
                                     205
Lys Gln Thr Ala Glu Val Ser Ala His
  210
                   215
```

<210> 5975 <211> 106 <212> PRT

<213> Enterobacter cloacae

<400> 5975

Gly Val Ser Ile Met Thr Val Arg Ile Leu Ala Val Cys Gly Asn Gly Gln Gly Ser Ser Met Ile Met Lys Met Lys Val Asp Gln Phe Leu Thr 25 20 Gln Ser Asn Ile Asp His Thr Val Asn Ser Cys Ala Val Gly Glu Tyr 35 45 Lys Ser Glu Leu Asn Gly Ala Asp Ile Ile Ile Ala Ser Thr His Ile 50 55 Ala Gly Glu Ile Ser Val Ser Gly Asn Lys Tyr Val Val Gly Val Arg 65 7.0 75 Asn Met Leu Ser Pro Ala Asp Phe Gly Pro Lys Leu Leu Glu Val Ile Lys Glu His Phe Pro Gln Asp Val Lys

<210> 5976 <211> 62 <212> PRT <213> Enterobacter cloacae

```
2291
        3.5
                          40
Arg Phe Trp Met Ala Trp Arg Ser Met Ala Leu Thr Leu
    50
                       55
<210> 5977
<211> 190
<212> PRT
<213> Enterobacter cloacae
<400> 5977
Trp Arg Arg Asn Met Leu Lys Leu Lys Gln Gln Val Phe Glu Ala Asn
                                   10
Met Asp Leu Pro Arg Tyr Gly Leu Val Thr Phe Thr Trp Gly Asn Val
         20
                               25
Ser Ala Ile Asp Arg Glu Gln Gly Leu Val Val Ile Lys Pro Ser Gly
        35
                           40
                                               45
Val Ala Tyr Asp Ala Met Lys Ala Asp Asp Met Val Val Val Asp Leu
  50
                       55
                                           60
Glu Gly Leu Val Val Glu Gly Lys Trp Arg Pro Ser Ser Asp Thr Ala
                   70
                                       75
Thr His Leu Ala Leu Tyr Gln Arg Tyr Pro Ser Leu Gly Gly Ile Val
               85
                                  90
His Thr His Ser Thr His Ala Thr Ala Trp Ala Gln Ala Gly Leu Ala
           100
                               105
                                                  110
Ile Pro Ala Leu Gly Thr Thr His Ala Asp Tyr Phe Phe Gly Asp Ile
       115
                           120
                                              125
Pro Cys Thr Arg Ala Leu Thr Gln Thr Glu Val Glu Gly Glu Tyr Glu
 130
                       135
                                          140
Leu Asn Thr Gly Arg Val Ile Ile Glu Thr Leu Gly Glu Thr Glu Pro
                   150
                                      155
                                                          160
Leu His Thr Pro Gly Ile Val Val Tyr Gln His Gly Pro Phe Ser Gly
  165
                                  170
Arg Asn Leu His Leu Gly Pro Gly Gly Pro Glu Leu Arg
           180
                               185
<210> 5978
<211> 236
<212> PRT
<213> Enterobacter cloacae
<400> 5978
Lys Ser Ala Arg Tyr Ser Phe Asn Lys Arg Val Arg Thr Ala Ile Phe
1
Ser Tyr Met Asp Cys Leu Leu Ser Glu Arg Arg Met Pro Met Gln Asn
                               25
Lys Lys Thr Ile His Val Ala Val Val Asp Ser Cys Glu Phe Thr Met
                           40
                                             4.5
Ile Gly Leu Gln Ser Leu Gly Lys Arg Glu Pro Asp Glu Lys His Asp
                      55
                                          60
Val Ile Phe His Gly Phe Thr His Ile Glu Glu Leu Ala Met Ser Glu
                   70
                                      75
Gln Leu Phe Asp Ile Ile Ile Tyr Asp Pro Leu Asn Thr Arg His Phe
              8.5
                                  90
Arg Val Thr Thr Asn Asp Asp Ile Leu Cys Ile Lys Gln Lys Gln Val
        100
                              105
Thr Ala Lys Ile Tyr Ile Tyr Ser Leu Ser Ala Gly Tyr Leu Lys Phe
      115
                          120
Lys His Val Asp Gly Val Ile Ser Lys Arg Val Ser Leu Gly Asp Ile
                      135
                                       140
Lys Ala Leu Trp Gln Ile Leu Met Ser Gln Thr Pro Gln Glu Ser Glv
                  150
```

Arg Tyr Asn Val Gly Met Thr Thr Arg Leu Arg Thr Pro Ala Arg Leu 165 170 175 Ser Ser Glu Glu Ala Ser Vai Leu Arg Gly Tyr Ser Cys Asn Leu Lys 185 180 190 Thr Lys Gln Ile Ala Arg Gln Leu Gly Cys Asn Val Arg Leu Val Tyr 195 200 205 Phe Tyr Lys Asn Asn Ala Met Asn Lys Leu Lys Ala Val Arg Gly Pro 210 215 220 Ser Phe Tyr Gln Ser Ile Arg Trp Ile Leu Asn 225 230 <210> 5979 <211> 254 <212> PRT <213> Enterobacter cloacae <400> 5979 Ile Lys Asn Leu Thr Val Cys Arg Leu Pro Phe Val Pro Val Ser Ala 1 5 10 Gly Thr Phe Phe Ser Phe Ser Glu Gly Cys Ser Met Tyr Thr Val Leu 20 25 Pro Ser Pro Leu Leu Gln Arg Ile Ser Gly Leu Arg Phe Gln Pro Leu 4.0 Val Asp Leu His Ser Gly Gln Val Phe Ala His Glu Val Leu Val Glu 5.5 Ile Arg Asn Val Asn Leu Glu Val Leu Phe Ala Ser Leu Pro Ser Arg 70 75 80 Ser Ala Leu Gln Ile Phe Phe Trp Gln Ala Asn Thr Leu Leu Gln Ile Pro Ala Arg Asp Gly Tyr Trp Leu Asn Leu Pro Ala Glu His Leu Leu 100 105 110 Asp Glu Arg Ala Ile Arg Leu Leu Leu Ala Leu Arg His Gln Gln Arg 115 120 125 Leu Thr Ile Glu Ile Gln Asp Pro Leu Thr Ile Thr Arg Leu Ser Glu 130 135 140 Ala Glu Gln Arg His Leu His Ala Thr Leu Val Arg Leu Lys Glu Ala 150 155 160 Gly Trp Gln Ile Trp Leu Asp Asp Leu Thr Arg Glu Leu Ala Glu Ala 165 170 175 Phe Ala Arg Leu Ala Leu Pro Leu Asp Gly Val Lys Ile Asp Arg Ser 180 185 190 Ala Leu Arg Glu Arg Ala Pro Leu Ala Pro Phe Val Gln Glu Val Arg 195 200 Thr Gly Ile Ala Gln Ser Ile Leu Ile Glu Gly Ile Glu Asn Ser Arg 210 215 220 Asp Leu Ala Arg Ala Arg Thr Ser Gly Ala Gln Ser Gly Gln Gly Phe 225 230 235 Leu Trp Pro Glu Ser Arg Thr Asp Ala Arg Val Thr Leu 245 <210> 5980 <211> 62 <212> PRT <213> Enterobacter cloacae <400> 5980 Gly Gly Asn Asp Ala Arg His Ile Lys Val Gly Val Ile Asn Gly Ala Glu Gln Asp Val Ala Glu Val Ala Lys Lys Val Ala Lys Glu Lys Tyr

Gly Leu Asp Val Glu Leu Val Gly Phe Ser Gly Ser Leu Leu Pro Asn

```
Asp Ala Thr Asn Gln Gly Glu Leu Asp Ala Asn Val Phe
                     55
   50
<210> 5981
<211> 185
<212> PRT
<213> Enterobacter cloacae
<400> 5981
His Arg Pro Phe Leu Ala Glu Asp Asn Lys Ala His Asn Tyr Lys Leu
Val Ala Val Ala Asn Thr Phe Val Phe Pro Met Ala Gly Tyr Ser Arg
 20
                           25
                                              30
Lys Ile Lys Ser Val Ser Glu Leu Lys Asp Gly Ala Thr Ile Ala Ile
 35
                        40
                                          4.5
Pro Asn Asp Pro Thr Asn Leu Gly Arg Ala Leu Leu Leu Gln Lys
 50
                     5.5
Glu Lys Leu Ile Thr Leu Lys Pro Asp Val Gly Leu Leu Pro Thr Ala
                 70
                       75
Leu Asp Ile Thr Ala Asn Pro Lys Asn Leu Gln Ile Met Glu Leu Glu
           85 90
Gly Ala Gln Leu Pro Arg Val Leu Asp Asp Pro Lys Val Asp Val Ala
          100
                          105
                                              110
Ile Ile Ser Thr Thr Tyr Leu Gln Gln Thr Gly Leu Ser Pro Val His
 115 120
                                          125
Asp Ser Val Phe Ile Glu Asp Lys Asn Ser Pro Tyr Val Asn Ile Val
 130 135
                                       140
Val Thr Arg Glu Asp Asn Lys Asp Ala Glu Asn Val Lys Glu Phe Ile
145 150
                                   155
Gln Ser Tyr Gln Ser Pro Glu Val Ala Lys Ala Ala Glu Thr Leu Phe
           165
Asn Gly Gly Ala Val Pro Gly Tro
<210> 5982
<211> 80
<212> PRT
<213> Enterobacter cloacae
<400> 5982
Thr Pro His Gly Val Thr Gly Cys Leu Pro Lys Leu Arg Pro Ser Pro
                               10
Pro Pro Cys Gly Trp Ser Thr Gly Phe Ile Ala Val Pro Arg Thr Val
                                              30
Gly Arg Thr Pro Arg Gln Arg Ala Ala Pro Ala Leu Pro Arg Thr Arg
                      40
                                        45
Ser Ile Cys Ser Ala Leu Pro Thr Ser Pro Arg Val Ala Arg Gln Ser
                   55
Ala Ser Thr Leu Arg Ile Ser Pro Glu Arg Arg Arg Arg Val Thr
<210> 5983
<211> 79
<212> PRT
<213> Enterobacter cloacae
<400> 5983
Phe Ser Ser Arg Leu Val Lys Thr Lys Leu Leu Ala Gln Lys Leu Lys
                                1.0
Asp Met Ala Leu Glu Asp Val Leu Ile Ile Thr Gly Glu Leu Asp Glu
```

Asn Leu Phe Leu Ala Ala Arg Asn Leu His Lys Val Asp Val Arg Asp 35 40 4.5 Ala Thr Gly Ile Asp Pro Val Ser Leu Ile Ala Phe Asp Lys Val Val 55 60 Met Thr Ala Asp Ala Val Lys Gln Val Glu Glu Met Leu Ala 70 <210> 5984 <211> 273 <212> PRT <213> Enterobacter cloacae <400> 5984 Arg Pro Lys His Glu Ala His Tyr Ala Ala Cys Glu Arg Ser Cys Arg Ser His Pro Glu Ala His Gln Pro His Tyr Cys Gly Cys Val Arg Ser 20 25 Leu Arg Leu Trp Arg Leu Ala Met Gly Gln Lys Val His Pro Asn Gly 35 40 Ile Arg Leu Gly Ile Val Lys Pro Trp Asn Ser Thr Trp Phe Ala Asn 55 Thr Lys Glu Phe Ala Asp Asn Leu Asp Ser Asp Phe Lys Val Arg Gln 70 75 Tyr Leu Thr Lys Glu Leu Ala Lys Ala Ser Val Ser Arg Ile Val Ile 85 90 Glu Arg Pro Ala Lys Ser Ile Arg Val Thr Ile His Thr Ala Arg Pro 100 105 110 Gly Ile Val Ile Gly Lys Lys Gly Glu Asp Val Glu Lys Leu Arg Lys 115 120 125 Val Val Ala Asp Ile Ala Gly Val Pro Ala Gln Ile Asn Ile Ala Glu 130 135 140 Val Arg Lys Pro Glu Leu Asp Ala Lys Leu Val Ala Asp Ser Ile Thr 150 155 Ser Gln Leu Glu Arg Arg Val Met Phe Arg Arg Ala Met Lys Arg Ala 165 170 175 Val Gln Asn Ala Met Arg Leu Gly Ala Lys Gly Ile Lys Val Glu Val 185 190 Ser Gly Arg Leu Gly Gly Ala Glu Ile Ala Arg Thr Glu Trp Tyr Arg 195 200 205 Glu Gly Arg Val Pro Leu His Thr Leu Arg Ala Asp Ile Asp Tyr Asn 210 215 Thr Ser Glu Ala His Thr Thr Tyr Gly Val Ile Gly Val Lys Val Trp 230 235 240 Ile Phe Lys Gly Glu Ile Leu Gly Gly Met Ala Ala Val Glu Gln Pro 245 250 255 Glu Lys Pro Ala Ala Gln Pro Lys Lys Gln Gln Arg Lys Gly Arg Lys 260 265 <210> 5985 <211> 141

```
<212> PRT
```

<400> 5985

Gly Ala Ser Leu Met Leu Gln Pro Lys Arg Thr Lys Phe Arg Lys Val 5 10 His Lys Gly Arg Asn Arg Gly Leu Ala Gln Gly Thr Asp Val Ser Phe 20 25

<sup>&</sup>lt;213> Enterobacter cloacae

```
Gly Thr Phe Gly Leu Lys Ala Val Gly Arg Gly Arg Leu Thr Ala Arg
Gln Ile Glu Ala Ala Arg Arg Ala Met Thr Arg Ala Val Lys Arg Gln
                   55
                                    60
Gly Lys Ile Trp Ile Arg Val Phe Pro Asp Lys Pro Ile Thr Glu Lys
               70
Pro Leu Glu Val Arg Met Gly Lys Gly Lys Gly Asn Val Glu Tyr Trp
            85
                  90
                                             95
Val Ala Leu Ile Gln Pro Gly Lys Val Leu Tyr Glu Met Asp Gly Val
       100 105 110
Pro Glu Glu Leu Ala Arg Glu Ala Phe Gly Leu Ala Ala Ala Lys Leu
 115 120 125
Pro Ile Lys Thr Thr Phe Val Thr Lys Thr Val Met
                  135
<210> 5986
```

<211> 281 <212> PRT <213> Enterobacter cloacae

<400> 5986 Val Ser Arg Arg Ser Asn Thr Met Ala Val Val Lys Cys Lys Pro Thr 10 Ser Pro Gly Arg Arg His Val Val Lys Val Val Asn Pro Glu Leu His 25 Lys Gly Lys Pro Phe Ala Pro Leu Leu Glu Lys Asn Ser Lys Ser Gly 35 40 Gly Arg Asn Asn Asn Gly Arg Ile Thr Thr Arg His Ile Gly Gly Gly 55 His Lys Gln Ala Tyr Arg Ile Val Asp Phe Lys Arg Asn Lys Asp Gly 75 70 Ile Pro Ala Val Val Glu Arg Leu Glu Tyr Asp Pro Asn Arg Ser Ala 8.5 90 Asn Ile Ala Leu Val Leu Tyr Lys Asp Gly Glu Arg Arg Tyr Ile Leu 100 105 Ala Pro Lys Gly Leu Lys Ala Gly Asp Gln Ile Gln Ser Gly Val Asp 125 115 120 Ala Ala Ile Lys Ala Gly Asn Thr Leu Pro Met Arg Asn Ile Pro Val 140 Gly Ser Thr Val His Asn Val Glu Met Lys Pro Gly Lys Gly Gly Gln 150 155 Leu Ala Arg Ser Ala Gly Thr Tyr Val Gln Ile Val Ala Arg Asp Gly 165 170 Ala Tyr Val Thr Leu Arg Leu Arg Ser Gly Glu Met Arg Lys Val Glu 185 180 Ala Asp Cys Arg Ala Thr Leu Gly Glu Val Gly Asn Ala Glu His Met 195 200 Leu Arg Val Leu Gly Lys Ala Gly Ala Ala Arg Trp Arg Gly Val Arg 210 215 Pro Thr Val Arg Gly Thr Ala Met Asn Pro Val Asp His Pro His Gly 230 235 240 Gly Gly Glu Gly Arg Asn Phe Gly Lys His Pro Val Thr Pro Trp Gly 245 250 Val Gln Thr Lys Gly Lys Lys Thr Arg Ser Asn Lys Arg Thr Asp Lys 260 265 Phe Ile Val Arg Arg Arg Ser Lys

<210> 5987

<211> 114 <212> PRT

## <213> Enterobacter cloacae

```
<400> 5987
Glu Glu Glu Met Glu Thr Leu Ala Gln His Arq His Ala Arq Ser Ser
                                   10
Ala Gln Lys Val Arg Leu Val Ala Asp Leu Ile Arg Gly Lys Lys Val
                               25
Ser Gln Ala Leu Asp Ile Leu Thr Tyr Thr Asn Lys Lys Ala Ala Val
                           4.0
                                               4.5
Leu Val Lys Lys Val Leu Glu Ser Ala 1le Ala Asn Ala Glu His Asn
   50
                       55
Asp Gly Ala Asp Ile Asp Asp Leu Lys Val Ala Lys Ile Phe Val Asp
                                       75
                   7.0
                                                            80
Glu Gly Pro Ser Met Lys Arg Ile Met Pro Arg Ala Lys Gly Arg Ala
                                   90
               85
                                                        95
Asp Arg Ile Leu Lys Arg Thr Ser His Ile Thr Val Val Val Ser Asp
                                105
Arg
```

<210> 5988 <211> 90 <212> PRT <213> Enterobacter cloacae

Asp Phe Thr Asp Ser Glu Gly Gly Cys Val Met Thr Asp Lys Ile Arg Thr Leu Gln Gly Arg Val Val Ser Asp Lys Met Glu Lys Ser Ile Val 20 25 Val Ala Ile Glu Arg Phe Val Lys His Pro Ile Tyr Gly Lys Phe Ile 40 Lys Arg Thr Thr Lys Leu His Val His Asp Glu Asn Asn Glu Cys Gly 55 60

Ile Gly Asp Lys Val Glu Ile Arg Asp Ala Val Gln Val Asp Asp Tyr 7.0 Ser Trp Thr Leu Phe Ala Cys Lys Lys

85

<210> 5989 <211> 105 <212> PRT

<400> 5988

<213> Enterobacter cloacae

<400> 5989

Gly Asp Ala Gly Met Ile Arg Glu Glu Arg Leu Leu Lys Val Leu Arg Ala Pro His Val Ser Glu Lys Ala Ser Thr Ala Met Glu Lys Thr Asn 25 Thr Ile Val Leu Lys Val Ala Lys Asp Ala Thr Lys Ala Glu Ile Lys 3.5 40 4.5 Ala Ala Val Gln Lys Leu Phe Glu Val Glu Val Glu Val Val Asn Thr 55 Leu Val Val Lys Gly Lys Val Lys Arg His Gly Gln Arg Ile Gly Arg 70 7.5 Arg Ser Asp Trp Lys Lys Ala Tyr Val Thr Leu Lys Glu Gly Gln Asn 85 Leu Asp Phe Val Gly Gly Ala Glu

```
<211> 94
<212> PRT
<213> Enterobacter cloacae
<400> 5990
Ala Met Pro Arg Ser Leu Lys Lys Gly Pro Phe Ile Asp Leu His Leu
                                   10
Leu Lys Lys Val Glu Lys Ala Val Glu Ser Gly Asp Lys Lys Pro Leu
          20
                              25
                                                  30
Arg Thr Trp Ser Arg Arg Ser Thr Ile Phe Pro Asn Met Ile Gly Leu
      35
                       40
                                           4.5
Thr Ile Ala Val His Asn Gly Arg Gln His Val Pro Val Phe Val Thr
 50
                   5.5
                            60
Asp Glu Met Val Gly His Lys Leu Gly Glu Phe Ala Pro Thr Arg Thr
                  7.0
                                      7.5
Tyr Arg Gly His Ala Ala Asp Lys Lys Ala Lys Lys
               8.5
<210> 5991
<211> 68
<212> PRT
<213> Enterobacter cloacae
<400> 5991
Asp Gly Asp Val Met Lys Ala Lys Glu Leu Arg Glu Lys Ser Val Glu
Glu Leu Asn Ala Glu Leu Leu Asn Leu Leu Arg Glu Gln Phe Asn Leu
                               2.5
Arg Met Gln Ala Ala Ser Gly Gln Leu Gln Gln Thr His Leu Leu Lys
    3.5
                        4.0
Gln Val Arg Arg Asn Val Ala Arg Val Lys Thr Leu Leu Thr Gln Lys
 50
                       55
Ala Gly Ala
<210> 5992
<211> 436
<212> PRT
<213> Enterobacter cloacae
<400> 5992
Thr Leu Leu Pro Thr Arg Arg Leu Lys Leu Tyr Gly Glu Ser Phe
Ser Asp Ala His Leu Asn Val Leu Leu Thr Lys Leu Glu Lys Ala Ala
           20
Thr Asn Ile Thr Glu Lys Arg Lys Ser Gly Trp Asp Glu Lys Asp Val
                          4.0
Val Leu Ile Thr Tyr Ala Asp Gin Phe Ser Thr Lys Gly Glu Gln Ala
   5.0
                      55
Leu Pro Val Phe Thr Arg Phe Tyr Asn Glu Trp Leu Ser Arg Thr Phe
                   7.0
                                      75
                                                          8.0
Ser His Val His Leu Leu Pro Phe Tyr Pro Trp Ser Ser Asp Asp Gly
               85
                                  90
Phe Ser Val Ile Asp Tyr His Glu Val Ala Pro Glu Thr Gly Thr Trp
                               105
Arg Asp Val Ala Glu Leu Lys His Ser Ala Ser Leu Met Phe Asp Phe
       115
                           120
Val Cys Asn His Met Ser Ala Lys Ser Glu Trp Phe Ala Asn Tyr Leu
                       135
                                          140
Ala Gln Lys Pro Gly Tyr Glu Asp Phe Phe Ile Ser Val Asp Pro Glu
                   150
                                      155
                                                          160
```

```
Thr Asp Leu Ser Ala Val Thr Arg Pro Arg Ala Leu Pro Leu Leu Thr
         165 170
Pro Phe Thr Leu His Asp Gly Ser Val Arg His Leu Trp Thr Thr Phe
    180 185
                                        190
Ser Asp Asp Gln Ile Asp Leu Asn Phe Ala Ser Pro Gln Val Leu Ile
 195 200 205
Ala Met Val Asp Val Leu Leu His Tyr Leu Met Glu Gly Ala Arg Tyr
 210 215 220
Ile Arg Leu Asp Ala Val Gly Phe Met Trp Lys Ile Pro Gly Thr Thr
      230 235 240
Cys Ile His Leu Glu Gln Thr His Cys Leu Ile Gln Leu Phe Arg Ala
           245 250 255
Ile Thr Asp Ala Val Ala Pro Gly Thr Val Ile Ile Thr Glu Thr Asn
         260 265
                                         270
Val Pro His Lys Asp Asn Val Ser Tyr Phe Gly Asp Gly Glu Asn Glu
                      280
                                     285
Ala His Met Val Tyr Gln Phe Ser Leu Pro Pro Leu Val Leu His Ala
                   295
                                   300
Val His Arg Gln Asp Val Lys Thr Leu Cys Gln Trp Ala Gly Ser Leu
               310
                               315
                                                320
Ala Leu Pro Ser Thr His Thr Thr Trp Phe Asn Phe Leu Ala Ser His
            325
                            330
                                            335
Asp Gly Ile Gly Leu Asm Pro Leu Arg Gly Ile Leu Pro Glu Ser Glu
         340
                         345
                                         350
Ile Leu Ser Leu Val Glu Lys Leu Gln His Glu Cys Ala Leu Val Asn
355
                      360
                                      365
Trp Lys Asn Asn Pro Asp Gly Thr Arg Ser Pro Tyr Glu Ile Asn Val
                  375
   370
                                  380
Thr Tyr Leu Asp Ala Leu Ser Leu Arg Asp Ser Ser Tyr Asp Glu Arg
385
               390
                               395
                                               400
Ile Ala Arg Phe Ile Leu Ser His Ala Val Leu Leu Ser Phe Pro Gly
          405 410 415
Val Pro Ala Val Tyr Ile Gln Ser Ile Leu Gly Ser Arg Asn Asp Tyr
                         425
Glu Gly Val
     435
```

<210> 5993 <211> 125 <212> PRT <213> Enterobacter cloacae

<221>UNSURE <222>(32)

```
Leu Asn Pro Trp Gln Val Met Trp Ile Lys Glu Asn
                      120
<210> 5994
<211> 442
<212> PRT
<213> Enterobacter cloacae
<400> 5994
Cys Gly Leu Lys Lys Thr Lys Lys Asp Pro Lys Met Lys Met Pro Lys
                         10
Ile Val Leu Leu Ser Ala Leu Val Ser Cys Ala Leu Leu Ser Gly Cys
                      25
Lys Asp Asp Lys Ala Ser Gln Val Thr Ile Glu Phe Met His Ser Ser
           40
Val Glu Gln Glu Arg Gln Ala Val Ile Thr Lys Leu Ile Glu Lys Phe
50 55
Glu Lys Glu Asn Pro Thr Ile Thr Val Lys Gln Val Pro Val Glu Glu
       70
                   75
Asp Ala Tyr Asn Thr Lys Val Ile Thr Leu Ala Arg Thr Gly Ala Leu
                  90
          85
Pro Glu Val Ile Glu Val Ser His Asp Tyr Ala Lys Val Met Asp Lys
       100
                        105
                             110
Glu Gln Leu Leu Asp Arg Asp Ala Ile Gly Asn Ala Ile Lys Ala Val
115 120 125
Gly Glu Asp Thr Phe Tyr Asp Gly Ile Leu Arg Val Val Arg Thr Glu
130 135
                                  140
Asp Gly Lys Ala Trp Thr Gly Val Pro Val Ser Ala Trp Leu Ser Gly
               150
                               155
                                               160
Val Trp Tyr His Lys Asp Ala Leu Ala Ala Ala Gly Ile Glu Glu Pro
            165
                            170
His Asn Trp Glu Gln Leu Leu Lys Ala Ser Gln Ala Leu Asn Asp Pro
      180 185 190
Ala Lys Lys His Tyr Gly Ile Aia Leu Pro Thr Ala Glu Ser Val Met
    195
                   200
                                      205
Thr Glu Gln Ala Phe Ser Gln Phe Ala Leu Ser Gly Gly Ala Asn Val
Phe Asp Ala Asn Gly Asn Val Lys Ile Asp Thr Pro Glu Met Ser Lys
225
               230
                               235
                                               240
Ala Leu Ala Phe Tyr Arg Ala Leu Ala Ala Asn Thr Met Pro Gly Ser
         245
                            250
Asn Asp Val Met Glu Ile Lys Asp Ala Phe Met Asn Gly Cys Ala Pro
      260
                         265
Met Ala Val Tyr Ser Thr Tyr Ile Leu Pro Ala Val Tyr Lys Asp Gly
                     280
                                      285
Asn Pro Ala Asn Leu Gly Phe Val Val Pro Thr Glu Lys Ser Ser Ala
                  295
                                   300
Val Tyr Gly Met Ile Thr Ser Leu Thr Ile Thr Thr Gly Gln Thr Glu
               310
                               315
Glu Glu Thr Gln Ala Ala Glu Lys Phe Val Thr Trp Met Glu Gln Ala
            325
                            330
                                            335
Gln Asn Ala Ser Asp Trp Val Met Met Ser Pro Gly Ala Ala Leu Pro
        340
                         345
Leu Asn Lys Leu Val Val Gly Thr Glu Ser Trp Lys Asn Asn Asp Val
355
                      360
Ile Lys Ala Phe Gly Gln Leu Pro Tyr Glu Leu Ile Ala Gln Phe Pro
 370
                  375
Asn Val Gln Val Phe Gly Ala Val Gly Asp Lys Asn Phe Thr Arg Met
               390
                               395
```

Gly Asp Val Thr Gly Ser Gly Ile Ile Ser Ser Met Val His Asn Val

410

<221>UNSURE

```
Thr Val Gly Gln Lys Asp Leu Asn Ala Thr Leu Ser Asn Ser Gln Lys
     420 425
Lys Leu Thr Asp Leu Ile Ser Gln Arg
   435
<210> 5995
<211> 301
<212> PRT
<213> Enterobacter cloacae
<400> 5995
Glu Arg Phe Ala Lys Gly Ile Met Lys Thr Leu Phe Ser Gly Arg Ser
                            10
Asp Met Pro Phe Ala Met Leu Leu Leu Ala Pro Ser Leu Ile Leu Leu
                         25
Gly Gly Leu Val Ala Trp Pro Met Ile Ser Asn Ile Glu Ile Ser Phe
    3.5
                  4.0
Leu Arg Leu Pro Leu Asn Pro Arg Ile Asp Ala Val Phe Val Gly Leu
       55
Asp Asn Tyr Ile Arg Ile Leu Gly Asp Ala Ala Phe Trp His Ser Leu
65 70
                                 75
Trp Met Thr Phe Trp Tyr Thr Ala Leu Val Val Leu Gly Ser Thr Gly
             85
                              90 95
Leu Gly Leu Ala Val Ala Ile Phe Phe Asn Arg Glu Phe Arg Met Arg
         100
Lys Thr Ala Arg Ser Leu Val Ile Leu Ser Tyr Val Thr Pro Ser Ile
                     120 125
      115
Ser Leu Val Phe Ala Trp Lys Tyr Met Phe Asn Asn Gly Tyr Gly Ile
                    135
                                      140
Val Asn Tyr Leu Gly Val Asp Leu Leu His Leu Tyr Asp Gln Ala Pro
                150
                                  155
                                                   160
145
Leu Trp Phe Asp Asn Pro Gly Ser Ser Phe Val Leu Val Val Leu Phe
                               170
                                               175
             165
Ala Ile Trp Arg Tyr Phe Pro Tyr Ala Phe Ile Ser Phe Leu Ala Ile
          180
                           185
                                            190
Leu Gln Thr Ile Asp Lys Ser Leu Tyr Glu Ala Ala Glu Met Asp Gly
                               205
     195
Ala Asn Ala Trp Gln Arg Phe Arg Ile Val Thr Leu Pro Ala Ile Met
                    215
 210
                                      220
Pro Val Leu Ala Thr Val Val Tor Leu Arg Thr Ile Trp Met Phe Tyr
                 230
                                  235
Met Phe Ala Asp Val Tyr Leu Leu Thr Thr Lys Val Asp Ile Leu Gly
                               250
             245
Val Tyr Leu Tyr Lys Thr Ala Phe Ala Phe Asn Asp Leu Gly Lys Ala
          260
                           265 270
Ala Ala Ile Ser Val Val Leu Phe Val Ile Ile Phe Ala Val Ile Leu
                     280
Leu Thr Arg Lys Arg Val Asn Leu Asn Gly Asn Lys
                     295
<210> 5996
<211> 215
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(175)
<220>
```

```
<222>(176)
<220>
<221>UNSURE
<222>(182)
<220>
<221>UNSURE
<222>(203)
<400> 5996
Thr Ser Met Ala Thr Asn Lys Arg Val Leu Gly Arg Ile Gly Phe Tyr
Leu Gly Leu Ala Val Phe Leu Ile Ile Thr Leu Phe Pro Phe Phe Val
            20
                                25
                                                    30
Met Leu Met Thr Ser Phe Lys Ser Ala Lys Glu Ala Ile Ser Leu His
        35
                           4.0
                                                45
Pro Thr Ile Leu Pro Gln Glu Trp Thr Leu Gln His Tyr Ile Asp Ile
                       55
Phe Asn Pro Leu Ile Phe Pro Phe Val Asp Tyr Phe Arg Asn Ser Met
                    70
                                        75
                                                            80
Val Val Ser Leu Thr Ser Ser Val Ile Ala Val Phe Leu Gly Thr Leu
                                    90
                                                        95
Gly Ala Tyr Ala Leu Ser Lys Leu Arg Phe Lys Gly Arg Thr Thr Ile
            100
Asn Ala Ser Phe Tyr Thr Val Tyr Met Phe Ser Gly Ile Leu Leu Val
                            120
                                                125
Val Pro Leu Phe Lys Ile Ile Thr Ala Leu Gly Ile Tyr Asp Thr Glu
   130
                        135
Leu Ala Leu Ile Ile Thr Met Val Thr Gln Thr Leu Pro Thr Ala Val
                    150
                                        155
145
Phe Met Leu Arg Asn Tyr Phe Asp Thr Ile Pro Asp Glu Ile Xaa Xaa
                165
                                    170
Ala Pro Met Lys Asp Xaa Leu Lys Arg Leu Gln Ile Ile Phe Arg Ile
            180
                                185
                                                    190
Thr Leu Pro Leu Gly Asn Ser Gly Leu Val Xaa Val Phe Val His Cys
        195
Phe Met Val Gly Val Glu
    210
<210> 5997
<211> 153
<212> PRT
<213> Enterobacter cloacae
<400> 5997
Ser Phe Glu Ala Leu Lys Glu Tyr Tyr Pro Gln Ala Lys Lys Glu Asp
                                    10
Trp Arg Leu Trp Gln Ala Gly Gln Arg Val Gln Ile Ile Lys Arg Asp
                                25
                                                    30
            20
Pro Lys Glu Gly Gly Val Leu Arg Met Ser Thr Glu Val Val Ser Asp
                            40
                                                4.5
Lys Asp Gly Thr Ile Ala Val Leu Leu Gly Ala Ser Pro Gly Ala Ser
                       5.5
                                            60
Thr Ala Ala Pro Ile Met Leu His Leu Met Glu Lys Val Phe Lys Asp
                                        75
                    70
Lys Val Ser Ser Pro Glu Trp Gln Ala Lys Leu Lys Thr Ile Ile Pro
                85
                                    90
Ser Tyr Gly Thr Lys Leu Asn Gly Asn Val Glu Ala Thr Glu Gln Glu
                        105
Leu Glu Tyr Thr Ser Arg Val Leu Gln Leu Gln Tyr Val Lys Pro Gln
```

```
115
                         120
                                           125
Ala Ala Asp Ala Ala Pro Lys Ala Glu Leu Lys Pro Gln Ala Glu Ser
 130 135
Lys Pro Val Ala Asp Ile Ala Leu
                 150
<210> 5998
<211> 124
<212> PRT
<213> Enterobacter cloacae
<400> 5998
Cys Thr Ala Phe Val Phe Phe Tyr Trp Cys Leu Met Leu Trp Trp Ser
1
Arg Cys Gly Asp Arg Val Ile Leu Arg Val Asn Tyr Cys Tyr Leu Ser
       20
                             2.5
                                             30
Val Lys Gly Gly Asp Met Val Arg Glu Lys Leu Lys Thr Pro Glu Gly
       35
                         40
Arg Lys Phe Leu Leu Ala Leu Leu Val Val Phe Met Ile Ala Ala Ala
 50
           55
Cys Val Gly Arg Ala Thr lle Val Gly Val Ile Glu Gln Tyr Asn Ile
65
               7.0
                                  75
                                                      8.0
Pro Leu Ser Ala Trp Thr Thr Ser Met Phe Val Leu Gln Ser Ala Met
              85
                                 90
Ile Phe Val Tyr Ser Leu Val Phe Thr Val Leu Leu Ala Ile Pro Leu
           100
                          105
Gly Ile Phe Phe Leu Gly Gly Arg Glu Lys His
                          120
<210> 5999
<211> 137
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(137)
<400> 5999
Ile Pro Pro Gly Leu Lys Gly Glu Pne Ile Met Ser Leu Glu Ile Asn
                             10
Gln Ile Ala Leu His Gln Leu Ile Lys Arg Asp Glu Gln Thr Leu Glu
           20
                              25
Val Val Leu Arg Asp Ser Leu Leu Glu Pro Thr Pro Thr Val Val Glu
   3.5
Met Met Ala Glu Leu His Arg Val Tyr Ser Ala Lys Asn Lys Ala Tyr
                   5.5
Gly Leu Phe Ser Glu Glu Ser Glu Leu Ala Asp Ser Leu Arg Leu Gln
                                     75
                 70
Arg Gln Gly Glu Glu Asp Phe Leu Ala Phe Ser Arg Ala Ala Thr Gly
             85
                                90
Arg Leu Arg Asp Glu Leu Ala Lys Tyr Pro Phe Ala Asp Gly Gly Ile
                          105
          100
Val Leu Phe Cys His Tyr Arg Cys Pro Ala Val Val Phe Pro Gln Glu
    115
                         120
Leu Ala Ile Arg Glu Val Asn Arg Xaa
  130
<210> 6000
<211> 625
<212> PRT
```

## <213> Enterobacter cloacae

<400> 6000 Ser Ile Pro Ala Leu Leu Arg Leu Ser Val Arg Arg Ser Pro Asn Leu 10 Ser Pro Arg Leu Cys Ser Pro Pro Leu Ala Thr Thr Arg His Thr Lys 2.0 25 30 Gly Asn Glu Gln Gln Phe Met Val Thr Asn Arg Gln Arg Tyr Arg Glu 35 40 Lys Val Ser Gln Met Val Ser Trp Gly His Trp Phe Ala Leu Phe Asn 50 55 60 Ile Leu Leu Ala Met Val Leu Gly Cys Arg Tyr Leu Phe Val Ala Asp 70 75 Trp Pro Thr Thr Leu Thr Gly Arg Val Tyr Ser Trp Met Ser Leu Val 85 90 95 Gly His Phe Ser Phe Leu Val Phe Ala Thr Tyr Leu Leu Ile Leu Phe 100 105 110 Pro Leu Thr Phe Ile Val Met Ser Gln Arg Leu Met Arg Phe Leu Ser 115 120 125 Ala Ile Leu Ala Thr Ala Gly Met Thr Leu Leu Leu Ile Asp Ser Glu 130 135 140 Val Phe Thr Arg Phe His Leu His Leu Asn Pro Val Val Trp Glu Leu 145 150 155 160 Val Ile Asn Pro Asp Gln Asn Glu Thr Ala Arg Asp Trp Gln Leu Met 165 170 175 Phe Ile Ser Val Pro Ile Ile Leu Leu Ile Glu Met Leu Phe Ala Thr 180 185 190 Trp Ser Trp Gln Lys Leu Arg Ser Leu Thr Arg Arg Arg His Tyr Ala 195 200 205 Lys Pro Val Ala Ala Leu Phe Phe Ala Ser Phe Ile Gly Ser His Leu 210 215 220 Met Tyr Ile Trp Ala Asp Ala Asn Phe Tyr Arg Pro Ile Thr Met Gln 230 235 Arg Ala Asn Leu Pro Leu Ser Tyr Pro Met Thr Ala Arg Arg Phe Leu 245 250 255 Glu Lys His Gly Leu Leu Asp Ala Gln Glu Tyr Gln Arg Arg Leu Val 260 265 270 Glu Gln Gly Asn Pro Glu Ala Val Ser Val Gln Tyr Pro Leu Ser Asp 275 280 Leu Lys Tyr Arg Asp Met Gly Arg Gly Gln Asn Val Leu Leu Ile Thr 290 295 300 Val Asp Gly Leu Asn Tyr Ser Arg Tyr Glu Lys Gln Met Pro Ala Leu 310 315 305 Ala Glu Phe Ala Glu Asn Asn Ile Val Phe Thr Gln His Met Ser Ser 325 330 Gly Asn Ser Thr Asp Ala Gly Ile Phe Gly Leu Phe Tyr Gly Ile Ser 345 350 340 Pro Ser Tyr Met Asp Gly Val Leu Ser Ala Arg Ile Pro Ala Ala Leu 355 360 365 Ile Thr Gly Leu Asn Gln Gln Gly Tyr Gln Leu Gly Leu Phe Ala Ser 375 380 370 Asp Gly Phe Asn Ser Ser Leu Tyr Arg Gln Ala Leu Leu Ser Asp Phe 390 395 Ser Leu Pro Ala Ala Gln Ser Gln Ser Asp Asp Arg Thr Ala Asp Gln 410 415 Trp Ile Asp Trp Leu Lys Arg Tyr Ala Gln Glu Asp Asn Arg Trp Phe 425 430 Ser Trp Val Ala Phe Asn Gly Thr Thr Leu Asp Asp Ser Asn Gln Lys 440 445 Gly Phe Ala Arg Arg Tyr Ser Arg Ala Ala Gly Asp Val Asp Ala Gln 455 460

```
Ile Gly Arg Val Leu Thr Ala Leu Arg Asp Ala Gly Lys Leu Asp Asn
              470
                                475
Thr Val Val Ile Ile Thr Ala Gly His Gly Val Pro Leu Gly Asp Glu
           485
                             490
                                              495
Ala Lys Gly Met Glu Trp Ser Arg Pro Asn Leu His Val Pro Leu Val
        500
                          505
Ile His Trp Pro Gly Thr Pro Ala Gln Arg Ile Asn Met Leu Thr Asp
     515 520
                                       525
His Lys Asp Val Met Thr Thr Leu Met Gln Arg Leu Leu His Val Ser
 530 535
Thr Pro Ala Ile Glu Tyr Ser Gln Gly Gln Asp Leu Phe Ser Ala Thr
545 550 555
Arg Arg His Asn Trp Val Thr Ala Ala Gly Gly Asn Thr Leu Val Val
       565 570 575
Thr Thr Pro Thr Leu Ser Leu Val Leu Asn Ser Asn Gly Asn Tyr Gln
         580 585 590
Thr Tyr Ser Leu Glu Gly Glu Lys Leu Lys Asp Gln Lys Pro Gln Leu
    595 600 605
Ser Leu Leu Clu Val Leu Thr Asp Glu Lys Arg Phe Ile Ala Asn
          615
                                   620
625
<210> 6001
<211> 173
<212> PRT
<213> Enterobacter cloacae
<400> 6001
Gln Lys Gly Met Thr Val Lys Asn Ala Pro Lys Phe Ala Ile Ala Leu
                          10
Ile Ala Ala Ala Cys Ala Ser Ser Ser Ala Phe Ala Ser Glu Thr Gln
          20
                          25
                                   30
Lys Glu Gln Pro Leu Glu Lys Val Ala Pro Tyr Pro Gln Ala Asp Lys
 35
                       40
                                      4.5
Gly Met Lys Arg Gln Val Ile Gln Leu Pro Ala Gln Gln Asp Glu Ala
                   5.5
Asn Phe Lys Val Glu Leu Leu Ile Gly Gln Thr Leu Glu Val Asp Cys
                          75
                7.0
Asn Gln His Arg Leu Gly Gly Gln Leu Glu Ser Lys Thr Leu Glu Gly
                             90
             85
Trp Gly Tyr Asp Tyr Tyr Val Phe Asp Lys Val Thr Ser Pro Val Ser
                        105
         100
Thr Met Met Ala Cys Pro Asp Gly Lys Lys Glu Lys Lys Phe Ile Thr
                                       125
                       120
      115
Ala Tyr Leu Gly Asp Asn Ser Leu Leu Arg Tyr Asn Ser Lys Leu Pro
                   135
                        140
Ile Val Val Tyr Thr Pro Glu Asn Val Asp Val Lys Tyr Arg Val Trp
                150 155
145
Lys Ala Asp Glu Thr Val Gly Gln Ala Val Val Arg
             165
<210> 6002
<211> 77
```

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;400> 6002

Phe Met Pro Gln His Ser Arg Tyr Ser Asp Glu His Val Glu Gln Leu 1 5 10 15 Leu Ser Glu Leu Val Asn Val Leu Glu Lys His Lys Thr Pro Thr Asp

Leu Ser Leu Met Val Leu Gly Asn Met Val Thr Asn Leu Ile Asn Thr 35 4.0 Ser Val Ala Pro Ala Gln Arg Gln Ala Ile Ala Lys Ser Phe Ala Gln 55 Ala Leu Gln Ser Ser Val Ser Asp Asp Gln Ala His <210> 6003 <211> 486 <212> PRT <213> Enterobacter cloacae <4005 6003 Ala Lys Thr Asp Pro Tyr Arg Ser Arg Cys Arg Ile Cys Pro Gly Asp 1.0 Gln Arg Arg Val Arg Phe Lys Ile Ser Leu Thr Thr Arg Leu Ser Leu 25 30 Ile Phe Ser Ala Val Met Leu Thr Val Trp Trp Leu Ser Ser Phe Ile 40 4.5 35 Leu Ile Ser Tnr Leu Asn Gly Tyr Phe Asp Asn Gln Asp Arg Asp Phe 50 55 60 Leu Thr Gly Lys Leu Gln Leu Thr Glu Glu Phe Leu Lys Thr Glu Thr 7.0 75 Phe Arg Asn Lys Thr Asp Ile Lys Ser Leu Ser Glu Lys Ile Asn Asp 90 95 8.5 Ala Met Val Gly His Asn Gly Leu Phe Ile Ser Ile Lys Asn Met Glu 100 105 110 Asn Glu Lys Ile Val Glu Leu Tyr Ala Lys Asn Ser Val Val Pro Ala 115 120 125 Val Leu Leu Asn Lys Ser Gly Asp Ile Leu Asp Tyr Met Ile Gln Thr 130 135 140 Glu Glu Asn Asn Thr Val Tyr Arg Ser Ile Ser Arg Arg Val Ala Val 150 155 160 Thr Pro Glu Gln Gly Lys Ser Lys His Val Ile Ile Thr Val Ala Thr 165 170 175 Asp Thr Gly Tyr His Thr Leu Phe Met Asp Lys Leu Ser Thr Trp Leu 185 190 180 Phe Trp Phe Asn Ile Gly Leu Val Phe Ile Ser Val Phe Leu Gly Trp 195 200 205 Leu Thr Thr Arg Ile Gly Leu Lys Pro Leu Arg Glu Met Thr Ser Leu 220 Ala Ser Ser Met Thr Val His Ser Leu Asp Gln Arg Leu Asn Pro Asp 230 235 240 Leu Ala Pro Pro Glu Ile Ser Glu Thr Met Gln Glu Phe Asn Asn Met 250 255 245 Phe Asp Arg Leu Glu Gly Ala Phe Arg Lys Leu Ser Asp Phe Ser Ser 265 270 260 Asp Ile Ala His Glu Leu Arg Thr Pro Val Ser Asn Leu Met Met Gln 285 280 275 Thr Gln Phe Ala Leu Ala Lys Glu Arg Asp Val Ser His Tyr Arg Glu 300 295 Ile Leu Phe Ala Asn Leu Glu Glu Leu Lys Arg Leu Ser Arg Met Thr 310 315 Ser Asp Met Leu Phe Leu Ala Arg Ser Glu His Gly Leu Leu Arg Leu 335 325 330 Asp Lys His Asp Val Asp Leu Ala Ala Glu Leu Asn Glu Leu Arg Glu 350 340 345 Leu Phe Glu Pro Leu Ala Asp Glu Thr Gly Lys Thr Ile Thr Val Glu 360 365 355

Gly Glu Gly Val Val Ala Gly Asp Ser Asp Met Leu Arg Arg Ala Phe

```
380
Ser Asn Leu Leu Ser Asn Ala Ile Lys Tyr Ser Pro Asp Asn Thr Cys
                  395 400
       390
Thr Ala Ile His Leu Glu Arg Asp Arg Asp Cys Val Asn Val Met Ile
         405 410
Thr Asn Thr Met Ser Gly Gln Val Pro Ala Asn Leu Glu Arg Leu Phe
      420 425 430
Asp Arg Phe Tyr Arg Ala Asp Ser Ser Arg Phe Tyr Asn Thr Glu Gly
     435 440 445
Ala Gly Leu Gly Leu Ser Ile Thr Arg Ser Ile Ile His Ala His Gly
                     460
 450 455
Gly Glu Leu Ser Ala Glu Gln Gln Gly Arg Glu Ile Val Phe Lys Val
465 470
                            475
Arg Leu Leu Met Asp
           485
<210> 6004
<211> 244
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(99)
<400> 6004
Arg Lys Arg Gly Ser Gly Thr Pro Glu Val Lys Thr Ile His Val Ile
Glu Met Val Ile Glu Glu Thr Asp Val Gly Ile Ser Trp Ile Val Arg
20
                       2.5
Leu Cys Ala Leu Phe Thr Thr Leu Gly Ala Leu Phe Leu Tyr Thr Asn
35
                 40
Lys Arg Val Leu Ser Cys Leu Leu Met Thr Met Ser Gly Gly Val Ala
              5.5
50
                                60
Leu Ala Thr Leu Ala Trp Gly Gly His Ala Val Met His Asp Gly Leu
              70 75
His Tyr Tyr Leu His Leu Leu Ser Asp Leu Thr His Leu Gly Ala Ala
         85
                         9.0
Gly Ala Xaa Asp Arg Gly Phe Ala Leu Val Ala Phe Ala Ile Leu Leu
   100 105
                             110
Met Arg Arg Asn Glu His Asn Ala Gln Ser Val Ile Val Ile Ser Asp
 115 120
                                 125
Ser Leu Ala Lys Phe Ala Thr Ala Gly Thr Val Ile Val Val Ala Leu
 130 135
                                140
Ile Leu Thr Ala Leu Val Asn Tyr Leu Tyr Ile Ala Glu Gly Asn Leu
145 150 155
Thr Pro Leu Phe Asn Ser Ser Trp Gly Arg Ile Leu Leu Ala Lys Thr
     165 170 175
Ala Leu Phe Val Leu Met Leu Leu Leu Ala Ala Ala Asn Arg Phe His
     180 185 190
Leu Gly Pro Arg Leu Glu Val Met Val Arg Glu Gly Asn Tyr Asp Arg
  195 200 205
Ser Val Ala Leu Met Arg Asn Ser Ile Leu Thr Glu Phe Val Val Ala
  210 215 220
Ile Ile Ile Leu Gly Ala Val Ala Trp Leu Gly Met Leu Ala Pro Ser
             230
                     235
225
Gln Val Ser
```

<210> 6005 <211> 237 <212> PRT <213> Enterobacter cloacae

<400> 6005 Asp Phe Tyr Phe His Ile Ser Glu Leu Thr Met Gln Arg Ile Leu Ile 1.0 Val Glu Asp Glu Gln Lys Thr Gly Arg Tyr Leu Gln Gln Gly Leu Val Glu Glu Gly Tyr Gln Ala Asp Leu Phe Asn Asn Gly Arg Asp Gly Leu Gly Ala Ala Ser Lys Gly Glr Tyr Asp Leu Ile Ile Leu Asp Val Met 55 Leu Pro Phe Leu Asp Gly Trp Gln Ile Ile Ser Ala Leu Arg Glu Ser Gly His Glu Glu Pro Val Leu Phe Leu Thr Ala Lys Asp Asn Val Arg 90 85 Asp Lys Val Lys Gly Leu Glu Leu Gly Ala Asp Asp Tyr Leu Ile Lys 100 Pro Phe Asp Phe Thr Glu Leu Val Ala Arg Val Arg Thr Leu Leu Arg 115 Arg Ala Arg Ser Gln Ala Ala Thr Val Cys Thr Ile Ala Asp Met Thr 130 135 140 Val Asp Met Val Arg Arg Thr Val Ile Arg Ser Gly Lys Lys Ile His 150 Leu Thr Gly Lys Glu Tyr Val Leu Leu Glu Leu Leu Gln Arg Thr 165 170 Gly Glu Val Leu Pro Arg Ser Leu Ile Ser Ser Leu Val Trp Asn Met 180 185 190 Asn Phe Asp Ser Asp Thr Asn Val Ile Asp Val Ala Val Arg Arg Leu 200 195 205 Arg Ser Lys Ile Asp Asp Asp Phe Glu Pro Lys Leu Ile His Thr Val 210 Arg Gly Ala Gly Tyr Val Leu Glu Ile Arg Glu Glu 230

<210> 6006 <211> 138 <212> PRT <213> Enterobacter cloacae

<400> 6006 Trp Thr Leu Ser Met Ser Asn Thr Leu Gln Pro Arg Arg Ala Arg Ala Ser Tyr Ser Met Asp Phe Lys Leu Ala Leu Val Glu Lys Ser Tyr Gln 20 Pro Gly Ala Cys Val Ala Arg Leu Ala Arg Asp Asn Gly Ile Asn Asp 4.0 Asn Leu Leu Phe Thr Trp Arg Glr Arg Tyr Arg His Leu Leu Pro Asp 55 60 Glu Ile Gln Arg Ser Ile Arg Glu Gln Asp Ser Val Ile Pro Val Val 70 75 Leu Pro Asp Met Ala Leu Ser His His Ala Glu Pro His Tyr Glu Pro 8.5 90 Ala Ala Pro Ala Cys Arg Glu Ala Met Thr Cys Glu Val Thr Val Gly 100 105 Gly Ala Ser Leu Arg Leu Ser Gly Asp Leu Ser Pro Ala Leu Leu Lys 120 Thr Leu Ile Arg Glu Thr Leu Glu Lys Pro 130

<210> 6007

```
<211> 410
<212> PRT
<213> Enterobacter cloacae
```

<400> 6007 Arg Arg Tyr Pro Gln Val Lys Leu Asn Ala Arg Gln Val Asp Ala Ala 1.0 Lys Pro Lys Asp Lys Pro Tyr Lys Leu Ala Asp Gly Gly Gly Leu Tyr 25 Leu Leu Ile Lys Pro Asn Gly Gly Lys Tyr Trp Arg Leu Lys Tyr Arg 40 Val Ala Gly Lys Glu Lys Leu Leu Ala Leu Gly Val Tyr Pro Glu Val 55 60 Thr Leu Ala Asp Ala Arg Ala Lys Arg Glu Glu Ala Lys Arg Gly Ile 65 70 75 75 Ala Gly Gly Ile Asp Pro Met Glu Ala Lys Arg Glu Glu Lys Ile Ala 85 90 95 Arg Glu Ile Gln Leu Asn Asn Thr Phe Lys Asp Ile Ala Leu Glu Trp 100 105 110 His Ser Ser Lys Leu Lys Lys Trp Ser Ala Gly Tyr Ala Ser Asp Ile 115 120 125 Leu Glu Ala Phe Asn Lys Asp Val Phe Pro Tyr Ile Gly Lys Lys Pro 130 135 140 Ile Ala Glu Ile Lys Pro Leu Glu Leu Leu Asn Val Leu Arg Arg Ile 145 150 155 160 Glu Gly Arg Gly Ala Thr Glu Lys Ala Arg Lys Val Arg Gln Arg Cys 165 170 175 Gly Glu Val Phe Arg Tyr Ala Ile Val Thr Gly Arg Ala Glu Tyr Asn 180 185 190 Pro Ala Pro Asp Leu Thr Ser Ala Met Gln Gly His Glu Ser Asn His 195 200 205 Phe Pro Phe Leu Thr Pro Lys Gln Leu Pro Asp Phe Phe Asn Ala Leu 210 215 220 Ser Gly Tyr Ser Gly Ser Glu Leu Val Val Leu Ala Ala Arg Leu Leu 225 230 235 240 Ile Ile Thr Gly Leu Arg Pro Gly Glu Leu Arg Gly Ala Phe Trp Asp 245 250 255 Glu Ile Asn Ile Ser Lys Ala Val Trp Glu Ile Pro Ala Ser Arg Met 260 265 270 Lys Met Arg Arg Pro His Val Val Pro Leu Ser Arg Gln Ala Leu Thr 275 280 285 Leu Ile Gly Gln Ile Gln Glu Leu Thr Gly Asn Tyr Pro Leu Val Phe 290 295 300 Pro Gly Arg Asn Asp Pro Arg Lys Thr Met Ser Glu Ala Ser Ile Asn 305 310 315 Gln Val Phe Lys Arg Ile Gly Tyr Asn Gly Lys Val Thr Gly His Gly 325 330 335 Phe Arg His Thr Met Ser Thr Ile Leu His Glu Gln Gly Tyr Asn Thr 345 350 Ala Trp Ile Glu Thr Gln Leu Ala His Val Asp Lys Asn Ser Ile Arg 355 360 365 Gly Thr Tyr Asn His Ala Gln Tyr Leu Asp Gly Arg Arg Glu Met Leu 370 375 380 Gln Trp Tyr Ala Asp Tyr Met Glu Ala Leu Glu Asn Gly Glu Asn Val 385 390 395 Val His Gly Thr Phe Gly Lys Ser Ala 405

<210> 6008 <212> PRT

## <213> Enterobacter cloacae

```
<400> 6008
Thr Arg Phe Gly Leu Lys Trp Arg Ser Phe Pro Cys Gly Glu Lys Asn
                          10
Gly Leu Met Lys Lys Leu Gly Asp Tyr Val Glu Tyr His Ser Gln Glu
                       25
Ile Leu Leu Ala Asn Glu Gln Asp Leu Leu Glu Ala Arg Asn Gly
               40
                          4.5
Leu Ser Glu Ala Met Leu Asp Arg Leu Ala Leu Thr Pro Ala Arg Leu
              55
                          60
Lys Gly Ile Ala Asp Asp Val Arg Gln Val Cys Asn Leu Ala Asp Pro
   70
                  75
Val Gly Gln Val Ile Asp Gly Gly Val Leu Asp Ser Gly Leu Arg Leu
      85 90
Glu Arg Arg Arg Val Pro Leu Gly Val Ile Gly Val Ile Tyr Glu Ala
   100 105 110
Arg Pro Asn Val Thr Val Asp Val Ala Ser Leu Cys Leu Lys Thr Gly
115 120 125
Asn Ala Ala Ile Leu Arg Gly Gly Lys Glu Thr Trp Arg Thr Asn Ala
130 135 140
Ala Thr Val Asn Val Ile Gln Gln Ala Leu Glu Glu Cys Gly Leu Pro
145 150 155 160
Ala Gly Ala Val Gln Ala Ile Glu Ser Pro Asp Arg Ala Leu Val Asn
      165 170 175
Glu Met Leu Arg Met Asp Lys Tyr Ile Asp Met Leu Ile Pro Arg Gly
      180 185 190
Gly Ala Gly Leu His Lys Leu Cys Arg Glu Gln Ser Thr Ile Pro Val
195 200 205
Ile Thr Gly Gly Ile Gly Val Cys His Ile Val Val Asp Asp Thr Ala
210 215 220
Glu Val Glu Pro Ala Leu Lys Ile Ile Val Asn Ala Lys Thr Gln Arg
225 230 235 240
Pro Ser Thr Cys Asn Thr Val Glu Thr Leu Leu Val His Gln Gly Ile
         245 250 255
Ala Ser Thr Phe Leu Pro Ala Leu Ser Lys Gln Met Ala Glu Ser Gly
 260 265 270
Val Thr Leu His Ala Asp Glu Lys Ala Phe Ala Leu Leu Lys Asp Gly
275 280 285
Pro Ala Lys Val Val Pro Val Asn Ala Glu Gln Tyr Asp Asp Glu Tyr
 290 295 300
Leu Ser Leu Asp Leu Asn Val Lys Val Val Ala Asp Leu Asp Asp Ala
305 310
                            315
Ile Ala His Ile Arg Glu His Gly Thr Gln His Ser Asp Ala Ile Leu
           325
                         330
Thr Arg Thr Leu Arg Asn Ala Asp Arg Phe Val Asn Glu Val Asp Ser
      340 345 350
Ser Ala Val Tyr Val Asn Ala Ser Thr Arg Phe Thr Asp Gly Gly Gln
     355
                   360
                                  365
Phe Gly Leu Gly Ala Glu Val Ala Val Ser Thr Gln Lys Leu His Ala
370 375
                               380
Arg Gly Pro Met Gly Leu Glu Ala Leu Thr Thr Tyr Lys Trp Ile Gly
                           395
385 390
Phe Gly Asp Asp Thr Ile Arg Ala
           405
```

<sup>&</sup>lt;210> 6009

<sup>&</sup>lt;211> 133

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 6009
Arg Gln Met Ser Met Gln Asp Pro Ile Ala Asp Met Leu Thr Arg Ile
                                  1.0
Arg Asn Gly Gln Ala Ala Asn Lys Val Ala Val Thr Met Pro Ser Ala
           20
                            25
                                          30
Lys Leu Lys Val Ala Ile Ala Asn Val Leu Lys Glu Glu Gly Phe Ile
     35
                          40
Glu Asp Phe Lys Val Glu Gly Asp Thr Lys Pro Glu Leu Glu Leu Thr
                      5.5
Leu Lys Tyr Phe Gln Gly Lys Ala Val Val Glu Ser Ile Gln Arg Val
                 7.0
                                  75
Ser Arg Pro Gly Leu Arg Ile Tyr Lys Lys Lys Asp Glu Leu Pro Lys
               85
                                 90
Val Met Ala Gly Leu Gly Ile Ala Val Val Ser Thr Ser Lys Gly Val
          100
                       105 110
Met Thr Asp Arg Ala Ala Arg Gln Ala Gly Leu Gly Gly Glu Ile Ile
  115
Cys Tyr Val Ala
   130
<210> 6010
<211> 182
<212> PRT
<213> Enterobacter cloacae
<400> 6010
Ser Glu Glu Arg Met Ser Arg Val Ala Lys Ala Pro Val Val Ile Pro
Ala Gly Val Asp Val Lys Ile Asp Gly Gln Val Ile Thr Ile Lys Gly
          20
Lys Asn Gly Glu Leu Thr Arg Thr Leu Asn Lys Ala Val Glu Val Lys
 35
                          40
His Ala Asp Asn Ala Leu Thr Phe Gly Pro Arg Asp Gly Phe Val Asp
                      5.5
Gly Trp Ala Gln Ala Gly Thr Ala Arg Ala Leu Leu Asn Ser Met Val
                  7.0
                                      75
Val Gly Val Thr Glu Gly Phe Thr Lys Lys Leu Gln Leu Val Gly Val
               85
                                 90
Gly Tyr Arg Ala Ala Ile Lys Gly Asn Ala Val Gly Leu Ser Leu Gly
           100
                              105
Phe Ser His Pro Val Glu His Pro Leu Pro Ala Gly Ile Thr Ala Glu
                          120
Cys Pro Thr Gln Thr Glu Ile Val Leu Lys Gly Ala Asp Lys Gln Leu
   130
                       135
                                          140
Ile Gly Gln Val Ala Ala Asp Leu Arg Ala Tyr Arg Arg Pro Glu Pro
145
                          155
                  150
Tyr Lys Gly Lys Gly Val Arg Tyr Ala Asp Glu Val Val Arg Thr Lys
              165
                                  170
Glu Ala Lys Lys Lys
           180
<210> 6011
<211> 121
<212> PRT
<213> Enterobacter cloacae
<400> 6011
Gly Asn Thr Met Asp Lys Lys Ser Ala Arg Ile Arg Arg Ala Thr Arg
                                 10
Ala Arg Arg Lys Leu Lys Glu Leu Gly Ala Thr Arg Leu Val Val His
           20
                              25
```

```
Arg Thr Pro Arg His Ile Tyr Ala Gln Val Ile Ala Pro Asn Gly Ser
      35
                       40
Glu Val Leu Val Ala Ala Ser Thr Val Glu Lys Ala Ile Ser Glu Gln
                     5.5
                                      60
Leu Lys Tyr Thr Gly Asn Lys Asp Ala Ala Ala Ala Val Gly Lys Ala
                70 75
Val Ala Glu Arg Ala Leu Glu Lys Gly Ile Ser Asn Val Ser Phe Asp
             8.5
                   90
Arg Ser Gly Phe Gln Tyr His Gly Arg Val Gln Ala Leu Ala Asp Ala
         100 105
Ala Arg Glu Ala Gly Leu Gln Phe
<210> 6012
<211> 309
<212> PRT
<213> Enterobacter cloacae
<400> 6012
Gin Met Ala Lys Gin Pro Gly Leu Asp Phe Gin Ser Ala Lys Gly Gly
                                10
Phe Gly Glu Leu Lys Arg Arg Leu Leu Phe Val Ile Gly Ala Leu Ile
    20
                           25
Val Phe Arg Ile Gly Ser Phe Ile Pro Ile Pro Gly Ile Asp Ala Ala
35
                        40
Val Leu Ala Lys Leu Leu Glu Gln Gln Arg Gly Thr Ile Ile Glu Met
50
                    5.5
Phe Asn Met Phe Ser Gly Gly Ala Leu Ser Arg Ala Ser Ile Phe Ala
                                   75
Leu Gly Ile Met Pro Tyr Ile Ser Ala Ser Ile Ile Ile Gln Leu Leu
              85
                               90
Thr Val Val His Pro Ala Leu Ala Glu Leu Lys Lys Glu Gly Glu Ser
          100
                           105
Gly Arg Arg Lys Ile Ser Gln Tyr Thr Arg Tyr Gly Thr Leu Val Leu
       115
                                          125
Ala Ile Phe Gin Ser Ile Gly Ile Ala Thr Gly Leu Pro Asn Met Pro
  130
                    135
                                       140
Gly Met Gln Gly Leu Val Leu Asn Pro Gly Phe Ala Phe Tyr Phe Thr
145
              150
                                   155
Ala Val Val Ser Leu Val Thr Gly Thr Met Phe Leu Met Trp Leu Gly
              165
                               170
Glu Gln Ile Thr Glu Arg Gly Ile Gly Asn Gly Ile Ser Ile Ile Ile
                           185
                                       190
Phe Ala Gly Ile Val Ala Gly Leu Pro Pro Ala Ile Ala His Thr Ile
                        200
      195
                                   205
Glu Gln Ala Arg Gln Gly Asp Leu His Phe Leu Leu Leu Leu Leu Val
                     215
Ala Val Leu Val Phe Ala Val Thr Phe Phe Val Val Phe Val Glu Arg
              230
                      235
Gly Gln Arg Arg Ile Val Val Asn Tyr Ala Lys Arg Gln Gln Gly Arg
             245
                              250 255
Arg Val Tyr Ala Ala Gln Ser Thr His Leu Pro Leu Lys Val Asn Met
          260
                         265 270
Ala Gly Val Ile Pro Ala Ile Phe Ala Ser Ser Ile Ile Leu Phe Pro
                       280 285
Ala Thr Ile Ala Ser Trp Phe Gly Gly Gly Leu His His Thr Gly Arg
                    295
Lys Ser Asp Ala
```

```
<211> 170
<212> PRT
<213> Enterobacter cloacae
<400> 6013
Arg Cys Lys Met Ala His Ile Glu Lys Gln Ala Gly Glu Leu Gln Glu
                                 1.0
Lys Leu Ile Ala Val Asn Arg Val Ser Lys Thr Val Lys Gly Gly Arg
        2.0
                              25
Ile Phe Ser Phe Thr Ala Leu Thr Val Val Gly Asp Gly Asn Gly Arg
      35
                       40
                                             4.5
Val Gly Phe Gly Tyr Gly Lys Ala Arg Glu Val Pro Ala Ala Ile Gln
  50
                       5.5
Lys Ala Met Glu Lys Ala Arg Arg Asn Met Ile Asn Val Ala Leu Asn
                  70
                              75
Asn Gly Thr Leu Gln His Pro Val Lys Gly Val His Thr Gly Ser Arg
            85
Val Phe Met Gln Pro Ala Ser Glu Gly Thr Gly Ile Ile Ala Gly Gly
                              105
                                                  110
Ala Met Arg Ala Val Leu Glu Val Ala Gly Val His Asn Val Leu Ala
                          120
                                              125
Lys Ala Tyr Gly Ser Thr Asn Pro Ile Asn Val Val Arg Ala Thr Ile
                      135
                                         140
Asp Gly Leu Glu Asn Met Asn Ser Pro Glu Met Val Ala Ala Lys Arg
145 150
                                     155
                                                         160
Gly Lys Ser Val Glu Glu Ile Leu Gly
               165
<210> 6014
<211> 62
<212> PRT
<213> Enterobacter cloacae
<400> 6014
Leu Thr Met Ala Lys Thr Ile Lys Ile Thr Gln Thr Arq Ser Ala Ile
Gly Arg Leu Pro Lys His Lys Ala Thr Leu Leu Gly Leu Gly Leu Arg
          2.0
                              25
Arg Ile Gly His Thr Val Glu Arg Glu Asp Thr Pro Ala Val Arg Gly
                    4.0
Met Val Asn Ala Val Tyr Phe Met Val Lys Val Glu Glu
  50
<210> 6015
<211> 146
<212> PRT
<213> Enterobacter cloacae
<400> 6015
Glu Met Arg Leu Asn Thr Leu Ser Pro Ala Glu Gly Ser Lys Lys Ala
                                  10
Gly Lys Arg Leu Gly Arg Gly Ile Gly Ser Gly Leu Gly Lys Thr Gly
Gly Arg Gly His Lys Gly Gln Asn Ser Arg Ser Gly Gly Val Arg
                          40
Arg Gly Phe Glu Gly Gly Gln Met Pro Leu Tyr Arg Arg Leu Pro Lys
  50
                      55
Phe Gly Phe Thr Ser Arg Lys Ala Ala Ile Thr Ala Glu Ile Arg Leu
                   70
                                      75
Ser Asp Leu Ala Lys Val Glu Gly Gly Val Val Asp Leu Asn Thr Leu
               85
                                  90
```

```
Lys Ala Ala Asn Ile Ile Gly Ile Gln Ile Glu Phe Ala Lys Val Ile
                              105
Leu Ala Gly Glu Val Ser Thr Pro Val Thr Val Arg Gly Leu Arg Val
                            12C
Thr Lys Gly Ala Arg Ala Ala Ile Glu Ala Ala Gly Gly Lys Ile Glu
    130
            135
Glu
145
<210> 6016
<211> 91
<212> PRT
<213> Enterobacter cloacae
<400> 6016
Phe Gln Leu Ile Asn Lys Leu Ser Ala Ala Ala Val Ser Trp Arg Arg
               - 5
His Gly Val Ile Met Ala Gln Ile Ile Phe Asn Arg Glu Trp Val Val
           20
                            25
Glu Ala Glu Leu Thr Ala Leu Thr Gly Leu Ser Glu Arg Gln Ile Lys
      3.5
                          4.0
Ala Leu Arg Ser Gly Pro Trp Leu Glu Gly Ile His Phe Lys Arg Gln
50
                    55
Ser Met Lys Gly Gly Glu Thr Lys Arg Gly Leu Leu Trp Tyr Asn Tyr
                  7.0
                                       75
                                                           8.0
Pro Arg Ile Asn Gln Leu Val Gln Glu Leu
               85
<210> 6017
<211> 463
<212> PRT
<213> Enterobacter cloacae
<400> 6017
Arg Met Leu Pro Ala Arg Asn Gly Gly Gly Ile His Glu Arg Ala Ala
Arg Val Gly Ala Gln Arg Arg Thr Pro Lys Arg Met Leu Ala Trp Ile
                               25
                                                   30
Arg Lys Thr Met Leu Val Ser Thr Gln Trp Pro Glu Ile Lys Lys Gln
                           40
Leu Thr Lys Trp Leu Asp Thr Pro Pro Ala Lys Arg Glu Pro Val Asp
                      5.5
                                           60
Ile Asn Thr Glu Thr Lys Thr Asp Ser Gly Ala Thr Leu Gly Gly Gly
                   7.0
                                       75
                                                          8.0
Asn Gln Thr Asp Arg Ser Pro Asp Leu Val His Asn Leu Ala Thr Leu
               8.5
                                   90
Arg Ile Glu Tnr Ala Leu Gly Ile Ile Ala Ala Ala Met Asp Phe Asp
           100
                               105
Ile Tyr Ser Ile Pro Val Glu Ile Met Arg Arg Ala Lys Glu Leu Glu
       115
                           120
                                               125
Ser Ser Gly Gly Asp Pro Arg Phe Ser Ala Trp Trp Thr Lys Leu Arg
   130
                       135
                                           140
Val Thr Pro Gly Ile Leu Asp Tyr Ser Arg Ala Ala Ile Ile Ala Leu
                   150
                                       155
Ile Lys Ser Ala Pro Glu Asp Leu Tyr Leu Arg Pro Val Asp Leu Arg
                                   170
               165
                                                       175
Ala Tyr Ile Asn Arg Glu Leu Val Glu Ser Asp His Ala Lys Pro Asp
           180
                               185
Pro Lys Thr Val Ala Thr Ala Cys Gly Thr Ala Thr Thr Glu Gln Asn
       195
                           200
Asp Asp Gln Thr Gln Pro Ala Glu Lys Asp Lys Ala Asp Leu Pro Ala
```

```
Val Cys Pro Gly Arg Ala Ala Gln Leu Asp Lys Glu Leu Asn Glu Ala
             230
                       235
Phe Glu Lys Arg Pro Ser Val Glu Pro Gln Ala Ser Asp Gln Pro Gln
           245
                     250
                                255
Ile Glu Asn Leu Gly Gly Gly Val Phe Ser Val Glu Ala Leu Ile Asn
      260
                      265
Pro Pro Ser Ser Asm Glu Val Glu Lys Glm Glu Val Pro Pro Ala Leu
    275
           280
                        285
Thr Asp Arg Glu Ile Glu Ile Ala His Ala Leu Asn Asp Leu Ile Ala
 290
      295 300
Gly Arg Thr Arg Ile Met Asp Lys Glu Glu Ala Glu Gly Val Val Thr
      310 315
Thr Thr Gly His Ser Val Ser His Val Ile Pro Leu Leu Leu Ala Asp
          325 330 335
Ile Ser Thr Ala Glu Phe Cys Leu Ser Pro Asp Phe Ser Asp Glu Glu
      340
            345 350
Ile His Asp Val Ala Thr Thr Ile Leu Asp Ser Trp Ser Asp Asp Leu
 355 360
Cys Val Arg Gln Lys Ile Ala Leu Asp Ala Ile Val Glu Tyr Arg Arg
370 375 380
Pro Ala Pro Pro Lys Ala Val Val Leu Asp Pro Pro Phe Ile Thr Ala
385 390 395
Lys Pro Lys Lys Ala Ala Glu Pro Val Pro Glu Thr His Thr Ala Ala
        405 410 415
Pro Leu Asn Tyr Arg Gln Gln Leu Ile Leu Ala Ala Met Gln Gly Met
 420 425 430
Cys Ala Asn Pro Ser Tyr Arg Cys Asp Phe Glu Asp Leu Pro Ala Met
435 440 445
Ala Ile Glu Leu Ala Asp Ser Leu Ile Asn Gln Asp Gly Ile
                455
```

<210> 6018 <211> 464 <212> PRT

<213> Enterobacter cloacae

<400> 6018 Arg Tyr Thr Leu Gln Thr Pro Val Asn Glu Arg Arg Arg Asn Gln Thr Arg Ser Pro Leu Val Gln Leu Pro Ser His Lys Ser Val Ser Ala Gly 25 Ala Val Met Ser Phe Pro Thr Gly Val Glu Ile His Asn Gly Lys Ile 40 Arg Ile Ser Phe Thr Tyr Arg Gly Lys Arg Cys Arg Glu Val Leu Lys 5.5 60 Gly Trp Val Asn Thr Pro Ala Asn Ile Ile Lys Ala Gly Asn Leu Arg 70 75 Ala Leu Ile Val Ser Glu Ile Gin Met Gly Glu Phe Asp Tyr Ser Arg 8.5 90 Arg Phe Pro Glu Ser Lys Ala Val Gln Lys Phe Thr Ser Thr Arg Val 100 105 Ala Tyr Thr Trp Gly Asp Leu Asn Glu Leu Trp Leu Ala Ala Lys Glu 120 Glu Asp Val Ser Arg Asn Thr Met Thr Arg Leu Leu Ala Gln Leu Arg 135 140 Thr Ile Asn Arg Ile Val Gly Glu Asn Thr Leu Ile Val Asp Ile Thr 150 155 His Ser Asp Met Leu Arg Tyr Arg Lys Glu Leu Leu Arg Gly Glu Ser 165 170 Phe Tyr Ala Glu Gly Asn Lys Arg Lys Lys Thr Gly Arg Ser Val Asn

```
180
                        185
                                      190
Thr Val Asn Asp Tyr Ile Ser Val Val Cys Gln Met Leu Arg Phe Ala
                    200
                            205
His Arg Ser Arg Phe Ile Thr Glu Lys Pro Phe Glu His Ile Thr Lys
  210
      215
                        220
Leu His Lys Asp Arg Lys Lys Pro Asp Pro Leu Gln Arg Asp Glu Tyr
225
    230 235
Ala Thr Met Met Leu Ala Ile Asn Gly Gln Asp Arg Asn Leu Trp Gln
        245 250 255
Phe Ala Met Asn Ala Gly Pro Arg His Gly Glu Leu Ala Ala Leu Ala
    260 265 270
Trp Asp Asp Val Asp Leu Glu Ser Gly Lys Val His Ile Gln Arg Asn
 275 280
Arg Thr Ala Gln Gly Asp Phe Val Pro Pro Lys Thr Lys Ala Gly Asp
 290 295 300
Arg Val Ile Thr Leu Leu Ala Pro Ala Leu Asp Ala Leu Arg Ala Gln
305 310 315
Tyr Ala Leu Thr Gly His Leu Pro Glu Thr Glu Ile Val Gln His Phe
           325
                          330
                                335
Arg Glu Tyr Gly Lys Thr Glu Ile Gln Lys His Arg Phe Val Phe Leu
        340 345
                           350
Pro Gly Leu Lys Thr Lys Asn Pro Gly Arg Tyr Phe Ser Thr Gln Ser
    355 360
                                   365
Ile Ser Asp Arg Trp Asp Val Cys Val Glu Lys Ala Gly Ile Arg Arg
370 375
                                380
Arg Ala Pro Tyr Gln Ser Arg His Thr Phe Ala Cys Trp Ser Leu Ala
   390
                              395
Ala Gly Ala Asn Pro Ser Phe Ile Ala Ser Gln Leu Gly His Glu Asp
          405
                          410
Ala Glu Met Val Tyr Arg Val Tyr Ser Ala Trp Ile Lys Glu Phe Asp
        420
                       425
Gly Glu Gin Val Glu Leu Leu Asn Gln Arg Leu Gly Phe Ala Pro Asn
 435 440
Thr Pro Pro Glu Gly Lys Ile Ile Lys Ile Asn Glu Leu Asn Gln
                 455
```

<210> 6019 <211> 174 <212> PRT

<213> Enterobacter cloacae

<400> 6019 His Phe Asp Trp Phe Ala Ser His Ser Arg Gly Glu Asn Val Cys Arg Ile Leu Leu Thr Gly Trp Phe Met Ser Ala Asn Thr Glu Ala Gln Gly 20 25 Ser Gly Arg Gly Leu Glu Ala Met Lys Trp Val Val Val Ala Val Leu 35 40 45 Leu Ile Val Ala Ile Val Gly Asn Tyr Leu Tyr Arg Asp Met Met Leu 55 Pro Leu Arg Ala Leu Ala Val Val Ile Leu Ile Ala Ala Ala Gly Gly 70 75 Val Ala Leu Leu Thr Thr Lys Gly Lys Ala Thr Val Ala Phe Ala Arg 8.5 90 Glu Ala Arg Thr Glu Val Arg Lys Val Ile Trp Pro Thr Arg Gln Glu 100 105 110 Thr Leu His Thr Thr Leu Ile Val Ala Ala Val Asn Arg Cys Asn Val 120 125 Thr Asp Pro Val Gly Thr Gly Trp Tyr Ser Gly Ser Pro Gly Ile Leu 135 140

Tyr His Trp Pro Glu Val Leu Arg Cys Leu Lys Pro Leu Lys Ser Ala

2316 150 155 160 Gly Thr Ser Phe Arg Arg Phe Pro Val Leu Lys Ala Ala 165 <210> 6020 <211> 407 <212> PRT <213> Enterobacter cloacae <400> 6020 Tyr His Arg Phe Ile Arg Val Leu Glu Gly Gln Ser Met Ser Lys Glu 10 Lys Phe Glu Arg Thr Lys Pro His Val Asn Val Gly Thr Ile Gly His 20 25 3.0 Val Asp His Gly Lys Thr Thr Leu Thr Ala Ala Ile Thr Thr Val Leu 40 4.5 Ala Lys Thr Tyr Gly Gly Ala Ala Arg Ala Phe Asp Gln Ile Asp Asn 55 60 Ala Pro Glu Glu Lys Ala Arg Gly Ile Thr Ile Asn Thr Ser His Val 65 70 Glu Tyr Asp Thr Pro Thr Arg His Tyr Ala His Val Asp Cys Pro Gly 85 90 His Ala Asp Tyr Val Lys Asn Met Ile Thr Gly Ala Ala Gln Met Asp 100 105 110 Gly Ala Ile Leu Val Val Ala Ala Thr Asp Gly Pro Met Pro Gln Thr 115 120 Arg Glu His Ile Leu Leu Gly Arg Gln Val Gly Val Pro Tyr Ile Ile 130 135 140 Val Phe Leu Asn Lys Cys Asp Met Val Asp Asp Glu Glu Leu Leu Glu 145 150 155 Leu Val Glu Met Glu Val Arg Glu Leu Leu Ser Gln Tyr Asn Phe Pro 165 170 Gly Asp Asp Thr Pro Ile Val Arg Gly Ser Ala Leu Lys Ala Leu Glu 180 185 Gly Glu Ala Glu Trp Glu Glu Lys Ile Ile Glu Leu Ala Gly Tyr Leu 195 200 Asp Ser Tyr Ile Pro Glu Pro Glu Arg Ala Ile Asp Lys Pro Phe Leu 210 215 220 Leu Pro Ile Glu Asp Val Phe Ser Ile Ser Gly Arg Gly Thr Val Val 230 235 Thr Gly Arg Val Glu Arg Gly Ile Ile Lys Val Gly Glu Glu Val Glu 245 250 255 Ile Val Gly Ile Lys Glu Thr Ala Lys Ser Thr Cys Thr Gly Val Glu 265 270 Met Phe Arg Lys Leu Leu Asp Glu Gly Arg Ala Gly Glu Asn Val Gly 275 280 285 Val Leu Leu Arg Gly Ile Lys Arg Glu Glu Ile Glu Arg Gly Gln Val 290 295 300 Leu Ala Lys Pro Gly Ser Ile Lys Pro His Thr Lys Phe Glu Ser Glu 310 315 320 Val Tyr Ile Leu Ser Lys Asp Glu Gly Gly Arg His Thr Pro Phe Phe 330 335 325 Lys Gly Tyr Arg Pro Gln Phe Tyr Phe Arg Thr Thr Asp Val Thr Gly 340 345 350 Thr Ile Glu Leu Pro Glu Gly Val Glu Met Val Met Pro Gly Asp Asn 355 360 365 Ile Lys Met Val Val Thr Leu Ile His Pro Ile Ala Met Asp Asp Gly 370 375 380

Leu Arg Phe Ala Ile Arg Glu Gly Gly Arg Thr Val Gly Ala Gly Val 385 390 395 400

Val Ala Lys Val Leu Gly

```
<210> 6021
<211> 185
<212> PRT
<213> Enterobacter cloacae
<400> 6021
Gly Ser Glu Met Ser Glu Ala Pro Lys Lys Arg Trp Tyr Val Val Gln
       5
                                1.0
Ala Phe Ser Gly Phe Glu Gly Arg Val Ala Thr Ser Leu Arg Glu His
   20
                            25
                                               30
Ile Lys Leu His Asn Met Glu Glu Leu Phe Gly Glu Val Met Val Pro
 35 40
Thr Glu Glu Val Val Glu Ile Arg Gly Gly Gln Arg Arg Lys Ser Glu
                     5.5
                                       60
Arg Lys Phe Phe Pro Gly Tyr Val Leu Val Gln Met Val Met Asn Asp
                          7.5
Ala Ser Trp His Leu Val Arg Ser Val Pro Arg Val Met Gly Phe Ile
              8.5
                                90
Gly Gly Thr Ser Asp Arg Pro Ala Pro Ile Ser Asp Lys Glu Val Asp
         100
                            1.05
                                              110
Ala Ile Met Asn Arg Leu Gln Gln Val Gly Asp Lys Pro Arg Pro Lys
      115
                         120
                                           125
Thr Leu Phe Glu Pro Gly Glu Met Val Arg Val Asn Asp Gly Pro Phe
                                        140
Ala Asp Phe Asn Gly Val Val Glu Glu Val Asp Tyr Glu Lys Ser Arg
145 150 155
Leu Lys Val Ser Val Ser Ile Phe Gly Arg Ala Thr Pro Val Glu Leu
             165
Asp Phe Ala Gln Val Glu Lys Ala
          180
<210> 6022
<211> 103
<212> PRT
<213> Enterobacter cloacae
<400> 6022
Thr Pro Gly Leu Arg Ser Ser Asn Gly Gly Pro Val Val Leu Phe Thr
                                10
Gln Glu Asp Val Met Val Thr Ile Arg Leu Ala Arg His Gly Ala Lys
          20
                             25
                                               30
Lys Arg Pro Phe Tyr Gln Val Val Thr Asp Ser Arg Asn Ala Arg
       35
                         40
                                           4.5
Asn Gly Arg Phe Ile Glu Arg Val Gly Phe Phe Asn Pro Leu Ala Ala
 50
                     55
Gly Ala Glu Glu Glu Thr Arg Leu Asp Leu Asp Arg Ile Ala His Trp
65
                                75
              70
Val Gly Gln Gly Val Thr Val Ser Asp Arg Val Ala Thr Leu Ile Lys
              85
                                90
Ala Ala Asn Lys Ala Ala
          100
<210> 6023
<211> 185
<212> PRT
<213> Enterobacter cloacae
```

<400> 6023

Ser Val Thr Val Val Met Met Ser Asn Lys Ala Pro Val Glu Pro Ile

<220>

```
Val Leu Gly Lys Met Gly Ser Cys Tyr Gly Ile Arg Gly Trp Leu Arg
                         25
                                       30
Val Phe Ser Ser Thr Glu Asp Ala Asp Ser Ile Phe Asp Tyr Gln Pro
                  40
                                    4.5
Trp Phe Ile Gln Lys Ala Gly Lys Trp Glu Glu Val Glu Leu Glu Ser
           55
                            60
Trp Arg His His Asn Gln Asp Ile Ile Ile Lys Leu Lys Gly Ile Asp
    70
                       75
Asp Arg Asp Ala Ala Asn Ala Leu Thr Asn Cys Glu Ile Val Val Asp
         85 90
Ser Ser Gln Leu Pro Gln Leu Glu Glu Gly Asp Tyr Tyr Trp Lys Asp
     100 105
Leu Met Gly Cys Gln Val Val Thr Thr Glu Gly Tyr Ser Leu Gly Lys
 115 120 125
Val Ile Asp Met Met Glu Thr Gly Ser Asn Asp Val Leu Val Ile Lys
 130 135 140
Ala Asn Leu Lys Asp Ala Phe Gly Ile Lys Glu Arg Leu Val Pro Phe
145 150 155
Leu Asp Gly Gln Val Ile Lys Lys Val Asp Leu Thr Thr Gln Thr Ile
       165
                              170
Glu Val Asp Trp Asp Pro Gly Phe
         180
<210> 6024
<211> 147
<212> PRT
<213> Enterobacter cloacae
<400> 6024
Val Glu Ala Gln Asn Arg Glu Arg Asp Gly Val Leu Arg Ile Lys Ala
                             10
Glu Met Glu Asn Leu Arg Arg Thr Glu Leu Asp Val Glu Lys Ala
                                           3.0
His Lys Phe Ala Leu Glu Lys Phe Val Asn Glu Leu Leu Pro Val Ile
                    40
                                      45
Asp Ser Leu Asp Arg Ala Leu Glu Val Ala Asp Lys Ala Asn Pro Asp
                   55
Asn Ala Ala Met Ile Glu Gly Ile Glu Leu Thr Leu Lys Ser Met Leu
                70
                               75
Asp Val Val Arg Lys Phe Gly Val Glu Val Ile Ala Asp Thr Asp Val
           85
                             90
Pro Leu Asp Pro Asn Val His Gln Ala Ile Ala Met Val Glu Ser Glu
         100
                         105
Asp Val Ala Ala Gly Asn Val Leu Gly Val Met Gln Lys Gly Tyr Thr
    115 120
Leu Asn Gly Arg Thr Ile Arg Ala Ala Met Val Thr Val Ala Lvs Ala
 130
                   135
                                    140
Lys Ala
145
<210> 6025
<211> 463
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
```

<221>UNSURE <222>(105)

<400> 6025 Arg Phe Tyr Pro Arg Arg Glu Thr Met Phe Asp Asn Leu Thr Asp Arg 10 Leu Ser Arg Thr Leu Arg Asn Ile Ser Gly Arg Gly Arg Leu Thr Glu Glu Asn Ile Lys Glu Thr Leu Arg Glu Val Arg Met Ala Leu Leu Glu 4.0 Ala Asp Val Ala Leu Pro Val Val Arg Asp Phe Ile Asn Arg Val Lys 55 60 Glu Lys Ala Val Gly His Glu Val Asn Lys Ser Leu Thr Pro Gly Gln 70 7.5 Glu Phe Val Lys Ile Val Arg Asn Glu Leu Phe Ser Ala Met Gly Glu 8.5 90 95 Glu Asn Gln Val Xaa Asn Leu Ala Xaa Gln Pro Pro Ala Val Val Leu 100 105 110 Met Ala Gly Leu Gln Gly Ala Gly Lys Thr Thr Ser Val Gly Lys Leu 115 120 125 Gly Lys Phe Leu Arg Glu Lys His Lys Lys Lys Val Leu Val Val Ser 130 135 140 Ala Asp Val Tyr Arg Pro Ala Ala Ile Lys Gln Leu Glu Thr Leu Ala 145 150 155 160 Glu Gln Val Gly Val Asp Phe Phe Pro Ser Asp Val Ala Gln Lys Pro 165 170 175 Val Asp Ile Val Asn Ala Ala Leu Lys Glu Ala Lys Leu Lys Phe Tyr 180 185 190 Asp Val Leu Leu Val Asp Thr Ala Gly Arg Leu His Val Asp Glu Ala 195 200 205 Met Met Asp Glu Ile Lys Gln Val His Ala Ser Ile Asn Pro Val Glu 210 215 220 Thr Leu Phe Val Val Asp Ala Met Thr Gly Gln Asp Ala Ala Asn Thr 225 230 235 Ala Lys Ala Phe Asn Glu Ala Leu Pro Leu Thr Gly Val Val Leu Thr 245 250 255 Lys Val Asp Gly Asp Ala Arg Gly Gly Ala Ala Leu Ser Ile Arg His 260 265 270 Ile Thr Gly Lys Pro Ile Lys Phe Leu Gly Val Gly Glu Lys Thr Glu 275 280 285 Ala Leu Glu Pro Phe His Pro Asp Arg Ile Ala Ser Arg Ile Leu Gly 290 295 300 Met Gly Asp Val Leu Ser Leu Ile Glu Asp Ile Glu Ser Lys Val Asp 310 315 320 Arg Ala Gln Ala Glu Lys Leu Ala Ser Lys Leu Lys Lys Gly Asp Gly 325 330 335 Phe Asp Leu Thr Asp Phe Leu Glu Gln Leu Arg Gln Met Lys Asn Met 345 350 Gly Gly Met Ala Ser Leu Met Gly Lys Leu Pro Gly Met Gly Gln Ile 360 365 Pro Asp Asn Val Lys Ser Gln Met Asp Asp Lys Val Leu Val Arg Met 375 380 Glu Ala Ile Ile Asn Ser Met Thr Leu Lys Glu Arg Ala Lys Pro Glu 390 395 Ile Ile Lys Gly Ser Arg Lys Arg Ile Ala Ala Gly Cys Gly Met 405 410 415 His Val Gln Asp Val Asn Arg Leu Leu Lys Gln Phe Asp Asp Met Gln 420 425 Arg Met Met Arg Lys Met Lys Lys Ala Gly Met Ala Glu Asp Asp Ala

435 440 445 Arg His Glu Lys His Asp Ala Ala Pro Phe Ser Leu Gly Glu FU

175

14

6.75

1.5

10

10

15.3

460

<210> 6026

<211> 262 <212> PRT

<213> Enterobacter cloacae

<400> 6026

Thr Val Lys Asp Gly Ala Met Trp Ile Gly Ile Ile Ser Leu Phe Pro 10

Glu Met Phe Arg Ala Ile Thr Asp Tyr Gly Val Thr Gly Arg Ala Val 20 25 Lys Asn Gly Leu Leu Ser Ile Gln Ser Trp Ser Pro Arg Asp Phe Thr

35 40 45 His Asp Arg His Arg Thr Val Asp Asp Arg Pro Tyr Gly Gly Pro

50 55 60 Gly Met Leu Met Met Val Gln Pro Leu Arg Asp Ala Ile His Thr Ala

65 70 75 Lys Ala Ala Ala Gly Glu Gly Ala Lys Val Ile Tyr Leu Ser Pro Gln

85 90 Gly Arg Lys Leu Asp Gln Ala Gly Val Ser Glu Leu Ala Thr Asn Gln

100 105 110 Lys Leu Ile Leu Val Cys Gly Arg Tyr Glu Gly Ile Asp Glu Arg Val

115 120 Ile Gln Thr Glu Ile Asp Glu Glu Trp Ser Ile Gly Asp Tyr Val Leu

130 135 140 Ser Gly Gly Glu Leu Pro Ala Met Thr Leu Ile Asp Ser Val Ala Arg

150 155 160 Phe Ile Pro Gly Val Leu Gly His Glu Ala Ser Ala Thr Glu Asp Ser

165 170 175 Phe Ala Asp Gly Val Leu Asp Cys Pro His Tyr Thr Arg Pro Glu Val

180 185 190 Leu Glu Gly Met Glu Val Pro Ala Val Leu Leu Ser Gly Asn His Ala

195 200 205 Asp Ile Arg Arg Trp Arg Leu Lys Gln Ser Leu Gly Arg Thr Trp Leu

210 215 220

Arg Arg Pro Glu Leu Leu Glu Asn Leu Ala Leu Thr Glu Glu Gln Ala 225 230 235 240

Lys Leu Leu Ala Glu Phe Lys Thr Glu His Ala His Gln Gln His Glu 245 250

His Asp Gly Lys Ala 260

<210> 6027

<211> 296 <212> PRT

<213> Enterobacter cloacae

<400> 6027

His Glu Gly Ala Phe Val Val Met Gln Arg Leu Glu Gln Ala Ser Arg 10 Asn Val Ile Leu Leu Leu Phe Leu lle Lys Thr Thr Val Asp Ala Tyr

20 Met Pro Val Phe Ala Leu Ile Ala Leu Val Ala Tyr Ser Val Ser Leu 35

4.0 Ala Leu Ile Ile Pro Gly Leu Leu Gln Lys Asn Ser Gly Trp Arg Arg

Met Ala Ile Leu Ser Ala Val Ile Ala Leu Ile Ser His Ala Phe Ala 65 70

Leu Glu Ser Arg Ile Ile Pro Gly Asp Gly Ser Val Gln Asn Leu Ser 8.5 90

```
Val Leu Asn Val Gly Ser Leu Val Ser Leu Met Ile Cys Thr Val Met
       100
                105 110
Thr Ile Val Ala Ser Lys Asn Arg Gly Trp Leu Leu Pro Ile Val
     115 120 125
Tyr Ala Phe Ala Leu Ile Asn Leu Ala Leu Ala Thr Phe Met Pro Asn
 130 135 140
Glu Phe Ile Thr His Leu Glu Ala Thr Pro Gly Met Leu Val His Ile
145 150 155 160
Gly Leu Ser Leu Phe Ala Tyr Ala Thr Leu Ile Ile Ala Ala Leu Tyr
      165 170 175
Ala Met Gln Leu Ala Trp Ile Asp Tyr Gln Leu Lys Asn Lys Leu 180 185 190
Ala Phe Asn His Glu Met Pro Pro Leu Met Val Ile Glu Arg Lys Met
 195 200 205
Phe His Ile Thr Gln Val Gly Val Val Leu Leu Thr Leu Thr Leu Cys
 210
                  215 220
Thr Gly Leu Phe Tyr Met Lys Asn Leu Phe Ser Val Glu Asn Ile Asp
225 230 235
Lys Ala Val Leu Ser IIe Ile Ala Trp Phe Val Tyr Ile Val Leu Leu
          245
                            250 255
Trp Gly His Tyr His Glu Gly Trp Arg Gly Arg Arg Val Val Trp Phe
         260 265
                             270
Asn Val Ala Gly Ala Gly Ile Leu Thr Leu Ala Tyr Phe Gly Ser Arg
275 280
Phe Ile Gln Gln Phe Ala Gly
                   295
<210> 6028
<211> 434
<212> PRT
<213> Enterobacter cloacae
<400> 6028
Gln Lys Glu Phe Pro Leu Glu His Ile Ser Thr Thr Thr Leu Ile Val
                            10
Ile Leu Val Ile Met Val Val Ile Ser Ala Tyr Phe Ser Gly Ser Glu
                         25
       20
Thr Gly Met Met Thr Leu Asn Arg Tyr Arg Leu Arg His Arg Ala Lys
               40
Gln Gly Asn Arg Ala Ala Arg Arg Val Glu Lys Leu Leu Arg Lys Pro
                  55
Asp Arg Leu Ile Ser Leu Val Leu Ile Gly Asn Asn Leu Val Asn Ile
             70
65
                               75
Leu Ala Ser Ala Leu Gly Thr Ile Val Gly Met Arg Leu Tyr Gly Asn
            85
                            90
Ala Glv Val Ala Iie Ala Thr Glv Val Leu Thr Phe Val Val Leu Val
                         105
Phe Ala Glu Val Leu Pro Lys Thr Ile Ala Ala Leu Tyr Pro Glu Lys
         120
      115
                                    125
Val Ala Tyr Pro Ser Ser Phe Leu Leu Ala Pro Leu Leu Ile Leu Met
                 135
  130
                                140
Met Pro Leu Val Trp Leu Leu Asn Met Val Thr Arg Val Leu Met Arg
              150
                            155
Met Val Gly Ile Lys Ala Asp Val Thr Ile Ser Ser Ala Leu Ser Lys
            165 170 175
Asp Glu Leu Arg Thr Ile Val Asn Glu Ser Arg Ser Gln Ile Ser Arg
        180
             185 190
Arg Asn Gln Asp Met Leu Leu Ser Val Leu Asp Leu Glu Lys Val Ser
     195 200 205
Val Asp Asp Ile Met Val Pro Arg Asn Glu Ile Val Gly Ile Asp Ile
```

Asn Asp Asp Trp Lys Ala Ile Val Arg Gln Leu Thr His Ser Pro His 235 Gly Arg Ile Val Leu Tyr Arg Asp Ser Leu Asp Asp Ala Ile Ser Met 245 250 Leu Arg Val Arg Glu Ala Tyr Arg Leu Met Thr Glu Lys Asn Glu Phe 260 265 270 Thr Lys Glu Val Met Leu Arg Ala Ala Asp Glu Ile Tyr Tyr Val Pro 280 285 Glu Gly Thr Pro Leu Ser Thr Gln Leu Val Lys Phe Gln Arg Asn Lys 295 300 Lys Lys Val Gly Leu Val Val Asp Glu Tyr Gly Asp Ile Gln Gly Leu 310 315 Val Thr Val Glu Asp Ile Leu Glu Glu Ile Val Gly Asp Phe Thr Thr 325 330 335 Ser Met Ser Pro Ser Leu Ala Glu Glu Val Thr Pro Gln Asn Asp Gly 340 345 Ser Val Leu Ile Asp Gly Ser Ala Asn Ile Arg Glu Ile Asn Lys Ala 355 360 365 Phe Asn Trp His Leu Pro Glu Asp Glu Ala Arg Thr Met Asn Gly Met 370 375 380 Ile Leu Glu Ala Leu Glu Glu Ile Pro Ala Thr Gly Thr Arg Val Arg 385 390 395 Ile Glu Gln Tyr Asp Ile Asp Ile Leu Asp Val Gln Asp Asn Met Ile 405 410 415 Lys Gln Val Lys Val Leu Pro Val Lys Pro Leu Arg Glu Ser Ile Ala 420 425

<210> 6029 <211> 365 <212> PRT

<213> Enterobacter cloacae

<400> 6029

Arg Pro Arg Trp Gly Glu Lys Ile Lys Arg Phe Ser Asp Leu Ile Ile Lys Glu Ser Arg His His Met Ala Val Ala Lys Lys Ile Thr Ile Asn 25 3.0 Asp Val Ala Leu Ala Ala Gly Val Ser Val Ser Thr Val Ser Leu Val 40 4.5 Leu Ser Gly Lys Gly Arg Ile Ser Pro Ala Thr Gly Gln Arg Val Asn 5.5 60 Glu Ala Val Glu Gln Leu Gly Phe Val Arg Asn Arg Gln Ala Ser Ala 70 75 80 Leu Arg Gly Gly Gln Ser Gly Val Ile Gly Leu Ile Val Arg Asp Leu 8.5 90 Ala Ser Pro Phe Tyr Ala Glu Leu Thr Ala Gly Leu Thr Glu Ala Leu 105 Glu Ala Gln Gly Arg Met Val Phe Leu Leu His Gly Gly Arg Glu Pro 115 120 Glu Gln Leu Leu Ser Arg Leu Asp Leu Leu Leu Thr Gln Gly Val Asp 135 140 Gly Val Ile Val Ala Gly Ala Ser Gly Val Gly Ser Glu Leu Cys Glu 150 155 Arg Ala Ala Gln Lys Gly Val Pro Leu Val Pne Ala Ser Arg Ala Ser 170 165 Tyr Leu Asp Glu Ala Asp Thr Leu Arg Pro Asp Asn Met Gln Ala Ala 180 185 190 Gln Met Leu Thr Glu His Leu Ile His Arg Gly His Gln Arg Ile Ala

```
Trp Leu Gly Gly Lys Ser Ser Ser Leu Thr Arg Ala Glu Arg Val Gly
  210
              215
Gly Tyr Cys Ser Thr Leu Ile Lys Tyr Gly Leu Pro Phe His Ser Glu
                            235
                230
Trp Val Val Glu Cys Glu Ser Ser Gln Lys Lys Ala Ala Glu Ala Ile
       245 250
Gly Thr Leu Leu Arg Asn Ser Pro Thr Ile Ser Ala Val Ile Cys Tyr
         260 265
Asn Asp Val Ile Ala Met Gly Ala Trp Phe Gly Leu Ile Arg Ala Gly
    275
          280 285
Arg Gln Ser Gly Glu Gly Gly Val Glu Thr Phe Phe Gly His Gln Val
 290 295 300
Ala Leu Gly Ala Phe Ala Asp Val Gly Glu Asn Ala Leu Asp Asp Leu
305 310 315 320
Pro Ile Val Trp Ala Thr Thr Pro Ala Arg Glu Met Gly Tyr Thr Leu
       325 330
Ala Glu Arg Ile Met Gln Arg Ile Glu Asn Thr Asp Val Gln Ala Gly
         340 345
His Gln Ile Val Ala Ala Arg Leu Leu Thr Val Lys
                      360
<210> 6030
<211> 231
<212> PRT
<213> Enterobacter cloacae
<400> 6030
Ile Ser Phe Tyr Pro Leu Arg Ser Arg Phe Met Thr Thr Lys Ala Ala
          5 10
Gln Lys Ile Ser Leu Trp Glu Phe Phe Gln Gln Leu Gly Lys Thr Phe
                         25
                                         30
Met Leu Pro Val Ala Leu Leu Ser Phe Cys Gly Ile Met Leu Gly Ile
35
                    4.0
                                   4.5
Gly Ser Ser Leu Ser Ser His Asp Val Ile Thr Leu Ile Pro Phe Leu
50 55
                       . 60
Gly Asn Pro Val Leu Gln Ala Ile Phe Ile Trp Met Ser Lys Val Gly
    7.0
                             75
                                               80
Ser Phe Ala Phe Ser Phe Leu Pro Val Met Phe Cys Ile Ala Ile Pro
                            90
Leu Gly Leu Ala Arg Glu Asn Lys Gly Val Ala Ala Phe Ala Gly Phe
       100 105
                             110
Val Gly Tyr Ala Val Met Asn Leu Ala Val Asn Phe Trp Leu Thr Ala
     115 120
                               125
Lys Gly Ile Leu Pro Thr Thr Asp Ala Ala Val Val Lys Ala Asn Asn
                  135
                                  140
Ile Gln Ser Val Ile Gly Ile Gln Ser Ile Asp Thr Gly Ile Leu Gly
    150
                               155
Ala Val Ile Ala Gly Val Ile Ile Trp Met Leu His Glu Arg Phe His
            165
                            170
Asn Ile Arg Leu Pro Asp Ala Leu Ala Phe Phe Gly Gly Thr Arg Phe
        180
                         185
                                         190
Val Pro Ile Ile Thr Leu Val Val Met Gly Leu Phe Gly Leu Ile Ile
 195
                      200
Pro Leu Ile Trp Pro Ile Phe Ala Met Gly Asp His Arg Asp Trp Pro
                  215
His Tyr Gln Arg Arg Gly
<210> 6031
<211> 201
<212> PRT
```

## <213> Enterobacter cloacae

<400> 6031 Gly Gly Phe Thr Leu Arg Ser Thr Val Met Phe Asp Phe Ser Thr Val Val Asp Arg His Gly Thr Trp Cys Thr Gln Trp Asp Tyr Val Ala Asp 25 Arg Phe Gly Ala Ala Asp Leu Leu Pro Phe Thr Ile Ser Asp Met Asp 4.0 4.5 Phe Ala Thr Ala Pro Cys Ile Thr Asp Ala Leu His Gln Arg Ile Asn 5.5 His Gly Val Phe Gly Tyr Ser Arg Trp Lys Asn Asp Glu Phe Leu Ala 7.0 75 Ala Val Ala His Trp Phe Arg Gln Arg Phe Asn Ser Gln Ile Asp Thr 85 90 Glu Thr Val Val Tyr Gly Pro Ser Val Ile Tyr Met Val Ser Glu Leu 100 105 110 Ile Arg Leu Trp Ser Ser Pro Gly Asp Gly Val Val His Thr Pro 115 120 125 Ala Tyr Asp Ala Phe Tyr Lys Ala Ile Glu Gly Asn Gln Arg Thr Val 130 135 140 Val Ser Val Pro Met Gln Lys Thr Ala His Gly Trp Glu Gly Asp Met 145 150 155 Ala Ser Leu Glu Thr Ala Leu Ser Lys Pro Glu Asn Lys Val Leu Leu 165 170 175 Leu Cys Tyr Pro Gln Asn Pro Thr Gly Lys Ile Trp Thr Arg Glu Ala 180 185 190 Leu Asn Thr Met Gly Gly Pro Val 195

<210> 6032 <211> 331 <212> PRT

<213> Enterobacter cloacae

<400> 6032 Phe Gly Arg Phe Leu Pro Trp Gly Ile Thr Gly Ile Gly Arg Ile Ile 1.0 Asn Gly Ala Gly Asp Phe Gly Pro Met Ile Phe Gly Thr Gly Glu Arg 20 Leu Leu Pro Phe Gly Leu Gln His Ile Leu Val Ala Leu Ile Arg 3.5 40 Phe Thr Glu Ala Gly Gly Thr Met Asp Val Cys Gly His Ser Val Ser 5.5 Gly Ala Leu Thr Ile Phe Gln Ala Gln Leu Ser Cys Pro Thr Thr His 7.0 7.5 Gly Phe Ser Glu Ser Ala Thr Arg Phe Leu Ser Gln Gly Lys Met Pro 85 90 Ala Phe Leu Gly Gly Leu Pro Gly Ala Ala Leu Ala Met Tyr His Cys 100 105 Ala Arg Pro Glu Asn Arg His Lys Ile Lys Gly Leu Leu Ile Ser Gly 115 120 Val Ile Ala Cys Val Val Gly Gly Thr Thr Glu Pro Ile Glu Phe Leu 130 135 140 Phe Leu Phe Val Ala Pro Val Leu Tyr Leu Ile His Ala Val Leu Thr 150 155 Gly Leu Gly Phe Thr Val Met Ala Val Leu Gly Val Thr Ile Gly Asn 165 170 175 Thr Asp Gly Asn Val Ile Asp Phe Val Val Phe Gly Ile Leu His Gly 180 185

Leu Ser Thr Lys Trp Tyr Leu Val Pro Val Val Ala Ala Ile Trp Phe

```
200
Ala Val Tyr Tyr Gly Ile Phe Arg Phe Ala Ile Thr Arg Phe Asn Leu
  210
                 215
                          220
Lys Thr Pro Gly Arg Asp Thr Asp Thr Ala Thr Ser Val Glu Gln Ala
               230
                    235 240
Val Ala Gly Thr Val Gly Lys Ser Gly Tyr Asn Thr Pro Ala Ile Leu
            245 250 255
Ala Ala Leu Gly Gly Ala Asp Asn Ile Thr Ser Leu Asp Asn Cys Ile
      260 265 270
Thr Arg Leu Arg Leu Ser Val Ala Asp Met Ser Lys Val Asp Thr Asn
     275 280 285
Ala Leu Lys Ala Asn Arg Ala Ile Gly Val Val Gln Leu Asn Gln His
 290 295 300
Asn Leu Gln Val Val Ile Gly Pro Gln Val Gln Ser Val Lys Asp Glu
305 310 315
Leu Ala Thr Leu Met Arg Thr Val Glu Ala
            325
<210> 6033
<211> 345
<212> PRT
<213> Enterobacter cloacae
<400> 6033
Leu Ser Ala Arg Gly Gly Tnr Met Thr Gln Pro Leu Ala Gly Lys His
                            10
Ile Leu Ile Val Glu Asp Glu Pro Val Phe Arg Ser Leu Leu Asp Ser
 20
Trp Leu Ser Ser Leu Gly Ala Thr Thr Ser Leu Ala Glu Asp Gly Val
          4 0
Glu Ala Leu Glu Lys Met Ala Ser Met Ala Pro Asp Leu Met Ile Cys
 50 55
                            60
Asp Leu Glu Met Pro Arg Met Asp Gly Leu Met Leu Val Glu Asn Leu
65 70 75
Arg Asn Glu Gly Tyr Gln Thr Pro Ile Leu Val Ile Ser Ala Thr Glu
          85
                           90
Asn Met Ala Asp Ile Ala Lys Ala Leu Arg Leu Gly Val Gln Asp Ile
        100 105
Leu Leu Lys Pro Val Lys Asp Leu Asn Arg Leu Arg Glu Thr Val Leu
     115 120 125
Ala Cys Leu Tyr Pro Asn Met Phe Asn Ser Arg Val Glu Glu Glu Glu
  130 135 140
Arg Leu Phe Gln Asp Trp Asp Ala Leu Val Ser Asn Pro Leu Ala Ala
               150 155
Ala Lys Leu Leu Gln Giu Leu Gln Pro Pro Val Gln Gln Asn Ile Ser
      165 170
His Cys Arg Val Asn Tyr Arg Gln Leu Val Ala Ala Asp Gln Pro Gly
        180
            185
                                       190
Leu Val Leu Asp Ile Ala Pro Leu Ser Asp Ser Asp Leu Ala Phe Tyr
    195
                     200
                                    205
Cys Leu Asp Val Thr Arg Ala Gly Asp Asn Gly Val Leu Ala Ala Leu
  210
                  215
                                  220
Leu Leu Arg Ala Leu Phe Asn Gly Leu Leu Gln Glu Gln Leu Ser His
                            235
              230
Gln Gly Gln Arg Leu Pro Glu Leu Gly Ser Leu Leu Lys Gln Val Asn
            245
                           250
Gln Leu Phe Arg Gln Ala Asn Leu Pro Gly Gln Phe Pro Leu Leu Val
        260 265
Gly Tyr Tyr His Ser Gly Leu Asn Asn Leu Ile Leu Val Ser Ala Gly
            280
      275
Leu Asn Ala Thr Leu Asn Thr Gly Glu His His Ile Gln Val Ser Asn
```

```
295
Gly Val Pro Leu Gly Thr Leu Gly Asn Thr Tyr Leu Asn Gln Ile Ser
                     315
         310
His Arg Cys Thr Ser Trp Gln Cys Gln Ile Trp Gly Ala Gly Gly Arg
          325
                 330
Leu Arg Leu Met Leu Ser Thr Glu
         340
<210> 6034
<211> 318
<212> PRT
<213> Enterobacter cloacae
<400> 6034
Ala Gly Ala Leu Thr Leu Cys Arg Glu Ser Arg Gly Ser Lys Thr Gly
                           10
Leu Met Arg Lys Val Lys Ile Gly Leu Ala Leu Gly Ser Gly Ala Ala
Arg Gly Trp Ser His Ile Gly Val Ile Asn Thr Leu Asn Gln Met Gly
35
          40
Ile Asp Val Asp Ile Val Ala Gly Cys Ser Ile Gly Ser Leu Val Gly
                   5.5
                                   60
Ser Ala Tyr Ala Cys Gly Lys Leu Pro Glu Leu Glu Ser Trp Val Arg
                      75
               70
Ser Phe Ser Tyr Trp Asp Val Leu Arg Leu Met Asp Leu Ser Trp Gln
                            90
Arg Gly Gly Leu Leu Arg Gly Glu Arg Val Phe Asn Gln Phe Arg Lys
       100 105 110
Ile Met Pro Leu Ala Asp Phe Ser His Cys Gln Met Pro Phe Gly Ala
115 120
                                      125
Val Ala Thr Asn Leu Ser Thr Gly Arg Glu Leu Trp Leu Thr Glu Gly
 130 135
                                   140
Asp Ile His Leu Ala Val Arg Ala Ser Cys Ser Met Pro Gly Leu Met
               150
                               155
Ala Pro Val Pro His Asn Gly Tyr Trp Leu Val Asp Gly Gly Val Val
         165
                            170
                                            175
Asn Pro Val Pro Val Ser Leu Thr Arg Ala Met Gly Ala Asp Ile Val
         180
                        185
                                          190
Ile Ala Val Asp Leu Gln His Asp Ala His Leu Met Gln Gln Asp Leu
     195
                      200
                                       205
Met Pro Val Asn Leu Gln Ser Asp Asp Ala Glu Glu Glu Lys Leu Ala
 210 215
Trp His Ala Arg Leu Arg Gly Arg Ile Gly Arg Leu Ala Ala Arg Arg
225
      230
                                235
Ala Val Thr Ala Pro Asn Ala Ile Glu Ile Met Thr Thr Ser Ile Gln
            245 250 255
Ile Leu Glu Asn Arg Leu Lys Arg Asn Arg Met Ala Gly Asp Pro Pro
         260
                         265
                                          270
Asp Ile Leu Ile Gln Pro Tyr Cys Pro Gln Ile Ser Thr Leu Asp Phe
      275
                      280
His Arg Ala Glu Ala Ala Ile Ala Ala Gly Ser Leu Ala Val Glu Lys
 290 295 300
Lys Ile Asp Glu Leu Leu Pro Phe Val Arg Thr Ala Arg
               310
<210> 6035
<211> 280
<212> PRT
<213> Enterobacter cloacae
<400> 6035
```

```
Cys Cys Pro Arg Ser Lys Gln Ser Asp Phe Ile Phe Gln Ile Ala Leu
Pro Val Phe Leu Leu Ala Val Leu Leu Ser Leu Gln Val Ser Cys Val
Phe Val Leu Ile Asp Arg Gln Arg Val Leu Phe Arg Pro Val Leu Val
                      40
                                       45
Ala Glu Thr Val Tyr Ser Thr Arg Tyr Ser Met His Lys Ser Ser Lys
                   55
                                   60
Leu Glu Gln Phe Arg Arg Ile Ser Met Ala Ala Leu Asn Ser Lys Val
                                75
Arg Lys Ala Val Ile Pro Val Ala Gly Leu Gly Thr Arg Met Leu Pro
           8.5
                            90
Ala Thr Lys Ala Ile Pro Lys Glu Met Leu Pro Leu Val Asp Lys Pro
       100
             105 110
Leu Ile Gln Tyr Val Val Asn Glu Cys Ile Ala Ala Gly Ile Thr Glu
     115
                      120
                                      125
Ile Val Leu Val Thr His Ser Ser Lys Asn Ser Ile Glu Asn His Phe
 130 135
                                   140
Asp Thr Ser Phe Glu Leu Glu Ala Met Leu Glu Lys Arg Val Lys Arg
    150 155
Gln Leu Leu Glu Glu Val Gln Ser Ile Cys Pro Pro His Val Thr Ile
    165
                          170
Met Gln Val Arg Gln Gly Leu Ala Lys Gly Leu Gly His Ala Val Leu
180
              185
                                          190
Cys Ala His Pro Val Val Gly Asp Glu Pro Val Ala Val Ile Leu Pro
195
                      200
                                       205
Asp Val Ile Leu Asp Glu Tyr Glu Ser Asp Leu Ser Gln Glu Asn Leu
 210 215
                                   220
Ala Glu Met Ile Lys Arg Phe Asp Glu Thr Gly Ser Ser Gin Ile Met
                               235
             230
Val Glu Pro Val Asp Asp Val Thr Ala Tyr Gly Val Val Asp Cys Lys
            245
                            250
Gly Val Asp Leu Gln Pro Gly Glu Ser Val Pro Ile Val Val Phe Thr
                         265
Thr Gly Ala Asp Gly Ala Gly
```

<210> 6036 <211> 297 <212> PRT

<213> Enterobacter cloacae

<400> 6036 Cys Leu Thr Thr Gln Thr Ser Gln Ile His Lys Gln Asp Phe Pro Ala Met Gin Ser Leu Gin Arg Lys Val Leu Arg Thr Ile Cys Pro Asp Gin 25 Lys Gly Leu Ile Ala Arg Ile Thr Asn Ile Cys Tyr Lys His Glu Leu 4.0 Asn Ile Val Gln Asn Asn Glu Phe Val Asp His Arg Thr Gly Arg Phe 5.5 60 Phe Met Arg Thr Glu Leu Glu Gly Ile Phe Asn Asp Thr Thr Leu Leu 70 Ala Asp Leu Asp Ser Ala Leu Pro Glu Gly Ser Val Arg Glu Leu Asn 85 90 Pro Ala Gly Arg Arg Ile Val Ile Leu Val Thr Lys Glu Ala His 100 105 Cys Leu Gly Asp Leu Leu Met Lys Ala Asn Tyr Gly Gly Leu Asp Val 115 120 Glu Ile Ala Ala Val Ile Gly Asn His Glu Thr Leu Arg Thr Leu Val 130 135

```
Glu Arg Phe Asp Ile Pro Phe Glu Leu Val Ser His Glu Gly His Thr
145
       150 155
Arg Glu Glu His Asp Asn Leu Met Ala Ala Ala Ile Glu Ala His Asn
                            170
             165
                                            175
Pro Asp Tyr Val Val Leu Ala Lys Tyr Met Arg Val Leu Thr Pro Ser
             185
         180
                             190
Phe Val Ala Arg Phe Pro Asn Lys Ile Ile Asn Ile His His Ser Phe
      195
            200
                          205
Leu Pro Ala Phe Ile Gly Ala Arg Pro Tyr His Gln Ala Tyr Glu Arg
                   215
                       220
Gly Val Lys Ile Ile Gly Ala Thr Ala His Tyr Val Asn Asp Asn Leu
               230 235 240
Asp Glu Gly Pro Ile Ile Met Gln Asp Val Ile His Val Asp His Thr
          245 250 255
Tyr Thr Ala Glu Asp Met Met Arg Ala Gly Arg Asp Val Glu Lys Asn
       260 265 270
Val Leu Ser Arg Ala Leu Tyr Gln Val Leu Ala Gln Arg Val Phe Val
    275 280
                             285
Tyr Gly Asn Arg Thr Ile Ile Leu
  290
<210> 6037
<211> 165
<212> PRT
<213> Enterobacter cloacae
<400> 6037
Arg Leu Ile Phe Cys Ser Arg Lys Arg Ile Val Ser Gln Leu Cys Pro
1 5
                         10
                                         1.5
Cys Gly Ser Ala Leu Glu Tyr Ser Leu Cys Cys Gln Arg Tyr Leu Ser
 20
                      2.5
                                        30
Gly Lys Gln Val Ala Pro Asp Pro Ser His Leu Met Arg Ser Arg Tyr
 35
                    40 45
Thr Ala Phe Val Ile Lys Asn Ala Asp Tyr Leu Ile Lys Thr Trp His
                  55
Pro Ser Cys His Ala Ala Asp Phe Arg Gln Glu Ile Glu Ala Gly Phe
            70 75
Ala Asn Thr Val Trp Gln Gly Leu Thr Val Phe Glu Ala Ala Pro Gly
            85 90
Arg Asp Ala Asn Glu Gly Tyr Val Ser Phe Val Ala Arg Phe Ser Glu
       100 105 110
Gln Asn Lys Pro Gly Ala Ile Ile Glu Arg Ser Arg Phe Leu Lys Asp
                     120
                                     125
Ser Gly Gln Trp Tyr Tyr Ile Asp Gly Thr Arg Pro Gln Phe Gly Arg
                135
                                  140
Asn Asp Pro Cys Pro Cys Gly Ser Gly Lys Lys Phe Lys Lys Cys Cys
                               155
                                               160
Gly Ser Asn Ala
            165
<210> 6038
```

<211> 74 <212> PRT

<213> Enterobacter cloacae

<400> 6038 Gly Tyr Thr Arg Ala Thr Met Ala His Thr Lys Arg Ser Asp Leu Ala 10 Arg Ala Ser Gly Pro His Lys Val Arg Arg Ser Pro Asp Trp Ser Leu 20 25 Gln Leu Asp Ser Met Lys Ser Glu Ser Leu Val Ile Val Asp Gln Asn

```
40
Ala Thr Val Asn Thr Phe Pro Gly Leu Val His Thr Ala Arg His Thr
           55
Met Gly Val Gly Cys Lys Arg Ser Arg
<210> 6039
<211> 63
<212> PRT
<213> Enterobacter cloacae
<400> 6039
Glu Ser Gly Pro Cys Leu Ser Ser Ser Val Ala Gly His Pro Leu Arg
                       2.0
Pro Ala Arg Asp Arg Arg Leu Gly Glu Pro Leu Pro His Leu Leu Ala
 20
                         25
Asn Pro Ile Trp Ala His Pro Met Ala Arg Gly Pro Lys Val Pro Leu
 35
            4.0
Phe Gly Leu Ala Thr Leu Cys Gly Ile Ser Tyr Arg Phe Gln
 50
                  55
<210> 6040
<211> 215
<212> PRT
<213> Enterobacter cloacae
<400> 6040
Val Ser Gln Gln Val Ser Thr Val Leu Asn Lys Leu Ser Arg Leu Leu
                         10
Glu Gln Ala Gly Ile Ser Leu Thr Asp His Gln Lys Asn Gln Leu Val
20 25
                                       30
Ala Tyr Val Asp Met Leu Asn Lys Trp Asn Lys Ala Tyr Asn Leu Thr
35 40
                                    4.5
Ser Val Arg Asp Pro Asn Glu Met Leu Ile Arg His Ile Leu Asp Ser
50 55
Ile Val Val Ala Pro Tyr Leu Asn Gly Glu Arg Phe Ile Asp Val Gly
65 70
                             75
                                             80
Thr Gly Pro Gly Leu Pro Gly Val Pro Leu Ser Ile Val Arg Pro Glu
                            90
Ser His Phe Thr Leu Leu Asp Ser Leu Gly Lys Arg Val Arg Phe Leu
      100 105
                                110
Arg Gln Val Gln His Glu Leu Lys Leu Glu Asn Ile Thr Pro Val Gln
115 120
                           125
Ser Arg Val Glu Glu Phe Pro Ala Glu Pro Pro Phe Asp Gly Val Ile
 130 135
Ser Arg Ala Phe Ala Ser Leu Asn Asp Met Val Ser Trp Cys Lys His
145 150
                                155
                                                160
Leu Pro Ala Glu Lys Gly Arg Phe Tyr Ala Leu Lys Gly Gln Leu Pro
                 170
         165
Gly Asp Glu Ile Glu Gln Leu Pro Asp Gly Phe Ala Val Glu Ser Ile
       180
                         185
                              190
Glu Lys Leu Gln Ile Pro Gln Leu Glu Gly Glu Arg His Leu Val Ile
                      200
Ile Lys Pro Asn Thr Phe
   210
                  215
<210> 6041
<211> 137
<212> PRT
<213> Enterobacter cloacae
```

```
<400> 6041
Gln Arg Val Lys Gly Ile Met Ala Ser Glu Asn Met Thr Pro Gln Asp
                                 10
Tyr Ile Gly His His Leu Asn Asn Leu Gln Leu Asp Leu Arg Thr Phe
           20
                             25
Ser Leu Val Asp Pro His Asn Pro Pro Ala Thr Phe Trp Thr Ile Asn
      35
                      4.0
Ile Asp Ser Met Phe Phe Ser Val Val Leu Gly Leu Leu Phe Leu Ala
               5.5
 5.0
                                        60
Met Phe Arg Ser Val Ala Lys Lys Ala Thr Ser Gly Val Pro Gly Lys
           70
                                  7.5
Phe Gln Thr Phe Ile Glu Met Ile Ile Gly Phe Val His Gly Ser Val
                   90
            85
Lys Glu Leu Tyr His Gly Lys Ser Lys Leu Ile Ala Pro Leu Ala Leu
          100 105 110
Asn Val Phe Val Trp Val Phe Leu Met Thr Leu Met Asp Leu Leu Pro
                 120
Ile His Phe Leu Pro Trp Asp Arg
<210> 6042
<211> 649
<212> PRT
<213> Enterobacter cloacae
<400> 6042
Asn Pro Arg Pro Gly Leu Gln Ser Ile Phe Ile Pro Leu Tyr Ala Arg
Gln Thr Thr Met Phe Tyr Gln Asp Pro Phe Asp Val Ile Ile Ile Gly
       20
                             25
                                                 30
Gly Gly His Ala Gly Thr Glu Ala Ala Met Ala Ala Ala Arg Met Gly
 35
                         4.0
Gln Gln Thr Leu Leu Leu Thr His Asn Ile Asp Thr Leu Gly Gln Met
Ser Cys Asn Pro Ala Ile Gly Gly Ile Gly Lys Gly His Leu Val Lys
                  70
Glu Val Asp Ala Leu Gly Gly Leu Met Ala Lys Ala Ile Asp His Ala
                                 90
              85
Gly Ile Gin Phe Arg Ile Leu Asn Ala Ser Lys Gly Pro Ala Val Arg
           100
                             105
Ala Thr Arg Ala Gln Ala Asp Arg Val Leu Tyr Arg Gln Ala Val Arg
                         120
       115
Thr Ala Leu Glu Asn Gln Pro Asn Leu Met Ile Phe Gln Gln Ala Val
                      135
                                         140
Glu Asp Leu Ile Val Glu Asn Asp Arg Val Val Gly Ala Val Thr Gln
                                                        160
Met Gly Leu Lys Phe Arg Ala Lys Ala Val Val Leu Thr Val Gly Thr
                                 170
               165
Phe Leu Asp Gly Lys Ile His Ile Gly Leu Asp Asn Tyr Ser Gly Gly
           180
                              185
Arg Ala Gly Asp Pro Pro Ser Ile Pro Leu Ser Arg Arg Leu Arg Glu
      195
                          200
                                            205
Leu Pro Leu Arg Val Ser Arg Leu Lys Thr Gly Thr Pro Pro Arg Ile
                      215
                                         220
Asp Ala Arg Thr Ile Asp Phe Ser Val Leu Ala Gln Gln His Gly Asp
                  230
                                     235
Asn Pro Met Pro Val Phe Ser Phe Met Gly Asn Ala Ala Gln His Pro
                                 250
             245
Gln Gln Val Pro Cys Tyr Ile Thr His Thr Asn Glu Lys Thr His Asp
         260
                             265
```

Val Ile Arg Asn Asn Leu Asp Arg Ser Pro Met Tyr Ala Gly Val Ile

```
280
                                  285
Glu Gly Ile Gly Pro Arg Tyr Cys Pro Ser Ile Glu Asp Lys Val Met
                    300
         295
Arg Phe Ala Asp Arg Asn Gln His Gln Ile Phe Leu Glu Pro Glu Gly
      310 315
Leu Thr Ser Asn Glu Ile Tyr Pro Asn Gly Ile Ser Thr Ser Leu Pro
         325 330 335
Phe Asp Val Gln Met Gln Ile Val Arg Ser Met Gln Gly Met Glu Asn
   340 345 350
Ala Lys Ile Val Arg Pro Gly Tyr Ala Ile Glu Tyr Asp Phe Phe Asp
 355 360 365
Pro Arg Asp Leu Lys Pro Thr Leu Glu Ser Lys Phe Ile Gln Gly Leu
 370 375 380
Phe Phe Ala Gly Gln Ile Asn Gly Thr Thr Gly Tyr Glu Glu Ala Ala
385 390 395 400
Ala Gln Gly Leu Leu Ala Gly Leu Asn Ala Ala Arg Phe Ser Ala Glu
        405 410 415
Lys Glu Gly Trp Ala Pro Ala Arg Ser Gln Ala Tyr Leu Gly Val Leu
  420 425 430
Val Asp Asp Leu Cys Thr Leu Gly Thr Lys Glu Pro Tyr Arg Met Phe
 435 440 445
Thr Ser Arg Ala Glu Tyr Arg Leu Met Leu Arg Glu Asp Asn Ala Asp
 450 455 460
Leu Arg Leu Thr Glu Val Gly Arg Glu Leu Gly Leu Val Asp Asp Glu
465 470 475
Arg Trp Ala Arg Phe Asn Glu Lys Leu Glu Arg Ile Glu Gln Glu Arg
         485 490
Gln Arg Leu Lys Thr Thr Trp Val Asn Pro Gln Ala Glu Thr Ala Ala
      500 505 510
Glu Val Asn Ala His Leu Thr Ala Pro Leu Ser Arg Glu Ala Ser Gly
515 520
                                 525
Glu Asp Leu Leu Arg Arg Pro Glu Val Thr Tyr Glu Asn Leu Val Lys
 530 535 540
Leu Thr Ala Phe Ala Pro Gly Leu Glu Asp Ala Glu Ala Ala Glu Gln
545 550 555 560
Val Glu Ile Gln Val Lys Tyr Glu Gly Tyr Ile Ala Arg Gln Gln Asp
           565
                         570 575
Glu Ile Glu Lys Gln Gln Arg Asn Glu Asn Thr Leu Leu Pro Glu Met
        580 585 590
Leu Asp Tyr Arg Gln Val Thr Gly Leu Ser Asn Glu Val Ile Ala Lys
 595 600 605
Leu Asn Asp His Lys Pro Val Ser Ile Gly Gln Ala Ser Arg Ile Ser
 610 615 620
Gly Val Thr Pro Ala Ala Ile Ser Ile Leu Leu Val Trp Leu Lys Lys
625 630
                           635
Gln Gly Met Leu Arg Arg Ser Ala
           645
<210> 6043
<211> 152
<212> PRT
<213> Enterobacter cloacae
<400> 6043
Cys Leu Thr Leu Ser Leu Lys Gly Arg Phe Ile Arg His Ala Ala Tyr
                         10
Leu Glu Gly Ser Arg Ser Lys Asn Val Met Ser Val Ser Leu Leu Ser
                      25
Arg Asn Val Ala Arg Lys Leu Leu Phe Ile Gln Phe Leu Ala Val Ile
                   4.0
```

Ala Ser Gly Leu Leu Phe Ser Leu Lys Asp Pro Phe Trp Gly Ile Ser

```
Ala Ala Cys Gly Gly Leu Ala Val Val Leu Pro Asn Val Leu Phe Met
                70
                               7.5
Ile Phe Ala Trp Arg His Gln Ala His Thr Pro Ala Lys Gly Arg Val
             8.5
                             90
Ala Trp Ser Phe Ala Leu Gly Glu Val Cys Lys Val Leu Leu Thr Phe
        100
                         105
Ala Leu Leu Val Met Ala Leu Ala Val Leu Lys Val Val Phe Met Pro
              120 125
Leu Ile Ala Thr Trp Val Leu Val Leu Val Val Gln Val Leu Ala Pro
 130 135
Ala Val Ile Asn Asn Lys Gly
<210> 6044
<211> 256
<212> PRT
<213> Enterobacter cloacae
<400> 6044
Arg Ile Pro Phe Pro Thr Cys Asn Asn Asp Tyr Ser Gly Ser Val Phe
Ala Glu Pro Val Phe Lys Val Ala Ile Met Leu Asn Ala Ile Leu Leu
20
                         25
                                         30
Ala Gly Leu Leu Ser Thr Gly His Ser Trp Ala Asn Ile Val Ile
35 40
Asn Gly Thr Arg Val Leu Tyr Pro Glu Asn Asn Lys Glu Val Ile Val
50 55
                                  60
Gln Leu Met Asn Thr Gly Asp Ala Pro Ala Leu Val Gln Ser Trp Ile
65 70
                                7.5
                                                8.0
Asp Asp Gly Asp Ile Asn Ser Thr Pro Glu Thr Ala Asn Val Pro Phe
          85
                            90
Leu Leu Ser Pro Pro Val Ile Lys Val Asn Glu His Asn Gly Gln Gln
        100
                       105
                              110
Leu Arg Ile Lys Lys Leu Pro Ser Ser Leu Pro Ala Asp Arg Glu Ser
 115 120 125
Val Phe Phe Leu Asn Val Leu Asp Ile Pro Pro Arg Pro Glu Asn Leu
130 135 140
Gln Asn Gln Asn Thr Val Gln Leu Ala Ile Lys Ser Arg Ile Lys Leu
               150
                                155
                                              160
Phe Tyr Arg Pro Ala Ala Leu Lys Gly Thr Leu Asp Asp Ala Val Ala
            165 170 175
Lys Leu Thr Leu Ala Ala Glu Gly Asp Arg Phe Arg Ile Thr Asn Asn
   180
                         185
                                          190
Ser Pro Phe His Ile Thr Val Ala Asn Ile Ser Leu Gly Lys Thr Lys
    195
                      200
                             205
Leu Leu Gln Glu Ser Pro Met Val Ser Pro Phe Gly Gln Leu Thr Val
 210
                   215
                                   220
Ala Ala Lys Asn Thr Val Lys Arg Gly Gln Thr Phe Gln Leu Met Tyr
             230 235
Val Asp Asp Leu Gly Ala Tyr Lys Thr Arg Thr Phe Thr Ser Gln
            245
                             250
<210> 6045
<211> 836
<212> PRT
<213> Enterobacter cloacae
<400> 6045
Ser Glu Arg Leu Thr Met Lys Met Lys Gln Asn Arg Leu Cys Leu Leu
```

Ala Val Cys Thr Leu Leu Ser His Lys Ser Gly Ala Val Ser Phe Asp Pro Ser Leu Leu Ala Gly Ala Ser Gly Glu Ser Asp Leu Ser Arg Phe Ser Glu Asn Asn Ala Met Pro Ala Gly Ser Gln Glu Met Asp Ile Tyr Val Asn Gly Ser Trp Lys Gly Arg Tyr Thr Val Ile Tyr Gly Glu 70 75 Gln Arg Asp Asp Ile Arg Ile Ala Trp Lys Asp Ala Arg Ser Leu Gly 90 8.5 Ile Asn Thr Thr Ser Val Pro Ala Pro Ala Ile Ala His Gly Gln Val 100 105 Gln Leu Arg Asp Leu Val Gln Gly Gly Glu Val Lys Thr Asp Thr Ser 115 120 125 Thr Leu Ser Leu Ala Leu Thr Val Pro Gln Ala Ala Val Leu Arg Thr 130 135 140 Glu Glu Gly Tyr Ile Ala Arg Gln Pne Trp Asp Glu Gly Ile Pro Ala 145 150 155 Leu Met Leu Ser Trp Asn Thr Thr Trp Tyr Asn Thr Arg Ala Lys Gly 165 170 175 Ala Ala Lys Asp Thr Asn Asp Asp Phe Tyr Ala Gly Leu Asp Ser Gly 180 185 190 Ala Asn Leu Phe Gly Trp Gln Phe Arg Asp Ser Ser Ala Trp Arg Lys 195 200 205 Thr Ala Ser Gly Glu Ser Ser Trp Gln Asn Asn Thr Arg Tyr Leu Arg 210 215 220 Arg Pro Leu Ala Ser Leu Lys Ser Asn Leu Thr Leu Gly Asp Phe Tyr 230 235 Ile Pro Gly Asp Leu Phe Asp Ser Leu Arg Val Arg Gly Val Ser Leu 245 250 255 Ala Ser Asp Met Lys Met Arg Pro Asn Ser Gln Gln Gly Phe Ser Pro 260 265 270 Val Val His Gly Val Ala Arg Thr Asn Ala Leu Val Lys Val Ile Gln 275 280 285 Asn Gly Asn Val Ile Tyr Glr Glu Asn Val Pro Pro Gly Gln Phe Thr 295 300 Leu Asp Ser Ile Gln Pro Thr Gly Ser Ala Gly Asp Leu Leu Val Val 310 315 Val Arg Glu Ala Asp Gly Ser Gln Gln Ser Phe Thr Val Pro Phe Ser 325 330 335 Ala Val Pro Gly Met Leu Lys Glu Gly Val Ser Gln Tyr Ser Val Val 345 340 350 Ala Gly Lys Val His Gln Asn Thr Leu Asp Ala Glu Pro Ala Phe Met 355 360 365 Gln Ala Thr Leu Arg Tyr Gly Phe Asn Asn Leu Ile Thr Gly Tyr Thr 375 380 Gly Thr Ile Ile Ser Asp Asn Tyr Gln Ala Gly Leu Val Gly Thr Gly 390 395 Trp Asn Leu Pro Phe Gly Ala Val Ser Phe Asp Val Thr His Ala Lys 405 410 415 Thr Thr Leu Gln Asp Arg Thr Ser Ser Gly Gln Ser Tyr Arg Val Ser 425 430 420 Tyr Ser Lys Phe Ile Asp Thr Thr Ala Thr Asn Phe Thr Leu Ala Ala 440 Tyr Arg Tyr Ser Thr Lys Gly Tyr Tyr Ser Phe Ser Asp Ala Leu Tyr 450 455 460 Ser Arg Glu Gly Tyr Gln Arg Leu Arg Ala Gln Tyr Asp Asp Tyr Glu 470 475 Asp Arg Phe Gly Val Ala Pro Asp Met Ser Leu Ser Thr Trp Asp Ala 485 490 Met Arg Ala Ala Gln Pro Lys Asn Thr Phe Thr Leu Asn Leu Asn Gln

```
505
Arg Leu Leu Asn Asn Trp Gly Thr Val Phe Val Ser Gly Thr Gln Arg
          520
                           525
Asp Tyr Trp Asn Ser Gln Gln Thr Thr Arg Glu Tyr Gln Met Gly Tyr
  530
       535
                      540
Ser Asn Ala Ile Gly Arg Ala Ser Tyr Thr Leu Ser Ala Ser Arg Val
    550 555
Arg Asn Arg Asp Ser Glu Glu Glu Thr Arg Leu Tyr Leu Ser Leu Ser
      565 570 575
Leu Pro Phe Ser Leu Phe Asp Asn Asn Ala Trp Ile Thr Ser Ser Leu
      580 585 590
Thr Ala Ser Asp Ser His Tyr Glu Gln Ser Asn Ile Ser Met Ser Gly
   595 600 605
Asn Ala Leu Ala Ser Asn Arg Leu Ser Tyr Thr Leu Ser Gly Ser Asn
 610 615 620
Ala Arg Gly Gly Lys Asn Ala Ala Ser Val Asn Ala Ala Tyr Arg Ser
625 630 635
Asn Phe Ala Thr Leu Gly Gly Ser Tyr Ser Glu Ser Ser Asp Tyr Arg
           645 650 655
Gln Thr Gly Leu Ser Gly Arg Gly Ser Leu Val Ala Tyr Pro Trp His
       660 665
Val Leu Ala Ser Asn Glu Thr Gly Thr Thr Met Thr Ile Val Asp Ala
675 680 685
Pro Lys Ala Glu Gly Leu Met Val Asn Gly Asp Glu Ser Ile Met Thr
                      700
 690 695
Asn Arg Asp Gly Val Ala Leu Val His Asn Ala Thr Arg Ile Cys Lys
705 710 715
Asn Ala Ile Thr Leu Thr Glu Thr Glu Asn Ser Ala Gly Ala Glu Val
           725
                          730
Ile Gly Asn Met Ala Asn Val Ala Pro Tyr Asp Gly Ala Val Ser Tyr
      740 745
Ile Arg Phe Glu Thr Asp Lys Arg Gln Ser Trp Val Leu His Ala Thr
755 760 765
Arg Ala Asp Gly Lys Pro Leu Pro Phe Gly Thr Glu Val Leu Asp Glu
770 775
                                780
His Gly Glu Ser Val Gly Tyr Val Gly Gln Ala Ser Val Leu Tyr Ile
    790
                             795
Arg Ala Glu Arg Pro Pro Arg Ala Leu Asn Val His Leu Arg Gly Gly
           805 810 815
Lys Cys Glu Ile Ser Ser Pro Ala Trp Gly Leu Asn Ser Pro Ser Ser
                       825
Val Cys His
     835
<210> 6046
<211> 360
<212> PRT
<213> Enterobacter cloacae
<400> 6046
Leu Arg Ile Ile Lys Met Leu Arg Ser Phe Met Phe Leu Leu Thr
                          10
Ser Val Ser Gly Met Ser Tyr Ala Thr Cys Ser Gly Ser Ser Ile Val
        20
                       25
                                     3.0
Tyr Gly Thr Pro Ile Thr Ile Asp Leu Ser Asp Lys Leu Ser Pro Ala
     35
                    4.0
                                   45
Thr Pro Thr Trp Thr Gly Ser Phe Thr Thr Gln Tyr Ser Gly Ser Phe
                55
                               60
Asn Cys Thr Thr Gly Asn Ser Glu Phe Ser Tyr Thr Pro Ile Leu Ser
              70
```

Thr Asp Ser Lys Tyr Ala Thr Ile Leu Gly Phe Ser Asn Asn Lys Tyr

```
90
Met Val Arg Ala Giu Ile Thr Asn Pro Pro Ala Asn Lys Thr Leu Ser
        100
                   105 110
Ala Ser Gly Ser His Thr Ala Ser Glu Leu Asn Thr Pro Phe Thr Val
     115
                       125
Arg Phe Thr Leu Val Asn Gln Ser Gly Thr Thr Leu Thr Gly Asp Thr
      135 140
Ala Asn Met Ser Asp Val Leu Phe Val Ser Asp Met Ser Gly Leu Ser
145 150 155 1600
Ile Trp Glu Ile Ile Thr Trp Pro Ile Asn Gln Val Ile Lys Ile Ala
      165 170 175
Gln Trp Leu Phe Ser Gly Phe Lys Trp Pro Tyr Asp Asn Arg Asp Met
   180 185 190
Phe Gly Gln Pro Met Ile Ile Lys Tyr Ala Pro Lys Leu Thr Thr Cys
195 200 205
Ser Phe Asp Asn Ala Gly Leu Thr Val Ala Leu Pro Thr Leu Gly Ile
210 215 220
Pro Gln Leu Ser Ala Ser Ser Gln Pro Gly Leu Thr Pro Phe Ser Leu
225 230 235 240
Asn Met Ser Cys Gln Asn Val Gly Val Asn Gly Asn Ser Asp Arg Ala
         245 250 255
Ile Glu Met Phe Leu Ser Ser Thr Gln Leu Leu Ser Thr Asp Ser Ser
 260 265 270
Val Leu Ile Asp Ser Ser Ser Ser Ala Ala Gln Gly Val Gly Leu Arg
   275 280
                       285
Leu Ile Lys Arg Asp Ala Pro Gln Thr Pro Val Thr Phe Ser Asn Ser
290 295 300
Thr Thr Ser Arg Gly Asn Ala Thr Met Ile Phe Ser Val Ala Ala Gly
305 310
                          315 320
Ala Ala Leu Asp Glu His Phe Thr Leu Pro Met Ala Ala Tyr Tyr Tyr
                         330
Val Trp Ala Pro Ala Gln Val Ser Gln Gly Lys Ile Asn Thr Ser Ala
     340
                      345
Thr Leu Asn Ile Ile Tyr Pro
<210> 6047
```

<211> 166

<212> PRT <213> Enterobacter cloacae

## <400> 6047

Asp Leu Ser Phe Asn Glu Leu Asn Asn Leu Leu Asn His Lys Gly Met 10 Glu Arg Gly Gly Pro His Arg Phe Thr Ser Leu Cys Lys Thr Leu Asn 20 Val Arg Arg Val Leu Leu Cys Pro Glu Leu His Tyr Gly Leu Leu Lys 35 40 Lys Val Leu Glu Met Lys Phe Glu Leu Thr Ile Ser Gln Gln Asp Glu 50 55 Leu Thr Glu Leu Lys Lys Glu Leu Pro Ala Leu Leu Met Ala Asp Gly 65 70 75 Gln Lys Pro Ser Ile Tyr Ser Trp Leu Arg Arg Val Met Arg Ser Gly 85 90 Ser Arg Ala Arg Ser Ile Leu Ser Ala Arg Glu Trp Glu Val Leu His 100 105 110 Leu Ile Val Glu Gly Phe Ser Thr Thr Glu Ile Ala Arg His Arg Asn 120 Arg Ser Val Ser Thr Ile Ala Thr Gln Lys His Asn Ala Met Lys Lys 135 140

Leu Asn Leu Ser Asn His Ser Glu Leu Ile Lys Tyr Val Gln Thr Val

3.0

150 155 145 160 Gly Lys Met Glu Glu 165

<210> 6048 <211> 515 <212> PRT

<213> Enterobacter cloacae

<400> 6048 Asn Cys Val Ala Ile Thr Phe Pro Pro Gly Trp Asn Cys Ala Gly Lys 10 Cys Ser Phe Arg Arg Ala Ser Arg Arg Ser Thr Lys Lys Arg Val 25 Val Pro Ala Gly Lys Val Phe Ala Asn Pro Arg Asn Ala Ala Ala Gly

4.0 Ser Leu Arg Gln Leu Asp Pro Arg Ile Thr Ala Lys Arg Pro Leu Thr 5.0 55 60 Phe Phe Cys Tyr Gly Val Gly Ile Leu Glu Gly Gly Asp Leu Pro Asp

70 75 Thr His Leu Gly Arg Leu Met Gln Phe Lys Glu Trp Gly Leu Pro Val 90 85

Ser Asn Arg Val Gln Leu Cys Asp Ser Pro Glu Ala Val Leu Ala Phe 100 105

Tyr His Lys Val Glu Glu Asp Arg Pro Thr Leu Gly Phe Asp Ile Asp 115 120 Gly Val Val Ile Lys Val Asn Ser Leu Ala Leu Gln Glu Gln Leu Gly 135 140

Phe Val Ala Arg Ala Pro Arg Trp Ala Val Ala Phe Lys Phe Pro Ala 145 150 155 Gln Glu Gln Met Thr Phe Val Arg Asp Val Glu Phe Gln Val Gly Arg

165 170 175 Thr Gly Ala Ile Thr Pro Val Ala Arg Leu Glu Pro Val Gln Val Ala

185 190 Gly Val Leu Val Ser Asn Ala Thr Leu His Asn Ala Asp Glu Ile Ala

195 200 205 Arg Leu Gly Leu Arg Ile Gly Asp Lys Val Val Ile Arg Arg Ala Gly 210 215 220

Asp Val Ile Pro Gln Val Val Asn Val Val Glu Ser Glu Arg Pro Ala 225 230 235 Asp Thr Arg Ala Ile Glu Phe Pro Ala His Cys Pro Val Cys Gly Ser

245 250 255 Asp Val Glu Arg Val Glu Gly Glu Ala Val Thr Arg Cys Thr Gly Gly

260 265 270 Leu Ile Cys Gly Ala Gln Arg Lys Glu Ser Leu Lys His Phe Val Ser

275 280 285 Arg Arg Ala Met Asp Val Asp Gly Met Gly Asp Lys Ile Ile Asp Gln 295 300

Leu Val Glu Lys Glu Tyr Val His Thr Pro Ala Asp Leu Phe Thr Leu 310 315

Thr Ala Gly Lys Leu Thr Gly Leu Asp Arg Met Gly Pro Lys Ser Ala 325 330 335 Gln Asn Ile Val Asn Ala Leu Glu Ala Ala Lys Asn Thr Thr Phe Ala

340 345 350 Arg Phe Leu Tyr Ala Leu Gly Ile Arg Glu Val Gly Glu Ala Thr Ala

360 Ala Gly Leu Ala Ala Tyr Phe Gly Thr Leu Asp Ala Leu Glu Lys Ala 375

Thr Ile Asp Glu Leu Gln Lys Val Pro Asp Val Gly Ile Val Val Ala 385 390 395 400 Thr His Val Phe Asn Phe Phe Ala Glu Glu Ser Asn Arg Glu Val Ile

```
405
                              410
Gly Lys Leu Leu Glu Gln Gly Ile His Trp Pro Ala Pro Val Val Val
         420
                          425
                                      430
Asn Ala Glu Glu Ile Asp Ser Pro Phe Ala Gly Lys Thr Val Val Leu
      435
                   440
Thr Gly Ser Leu Ser Gln Leu Ser Arg Asp Ala Lys Ala Arg Leu
 4.50
                455
                                    460
Val Ala Leu Gly Ala Lys Val Ala Gly Ser Val Ser Lys Lys Thr Asp
      470 475
Leu Val Ile Ala Gly Glu Ala Ala Gly Ser Lys Leu Ala Lys Ala Gln
          485 490
                                   495
Glu Leu Gly Ile Glu Ile Ile Asp Glu Ala Glu Met Met Arg Leu Leu
          500
                          505 510
Gly Glu
      515
<210> 6049
<211> 201
<212> PRT
<213> Enterobacter cloacae
<400> 6049
Trp Cys Asp Met Asp Ser Ile Glu Gln Gln Leu Thr Glu Leu Arg Thr
                             10
Thr Leu Arg His His Glu Tyr Leu Tyr His Val Met Asp Ala Pro Glu
                        2.5
Val Pro Asp Ala Glu Tyr Asp Arg Leu Met Arg Glu Leu Arg Glu Leu
                                      4.5
 3.5
                      40
Glu Ala Gln His Pro Glu Leu Ile Thr Pro Asp Ser Pro Thr Gln Arg
 5.0
                   55
                                    60
Val Gly Ala Glu Pro Leu Gly Ala Phe Ser Gln Val Arg His Glu Val
                70
                          75
Pro Met Leu Ser Leu Asp Asn Val Phe Asp Glu Glu Ser Phe Leu Ala
                              90 95
             8.5
Phe Asn Lys Arg Val Gln Asp Arg Leu Lys Ser Val Asp Asn Leu Ser
              105
         100
Trp Cys Cys Glu Leu Lys Leu Asp Gly Leu Ala Val Ser Ile Leu Tyr
       115 120
                                        125
Glu Asn Gly Val Met Val Arg Ala Ala Thr Arg Gly Asp Gly Thr Thr
                    135
                                     140
  130
Gly Glu Asp Ile Thr Thr Asn Val Arg Thr Ile Arg Ala Ile Pro Leu
145
                150
                                 155
                                                  160
Lys Leu Arg Gly Asp Asn Ile Pro Ala Arg Leu Glu Leu Arg Gly Glu
             165
                              170 175
Val Phe Leu Pro Gln Ala Gly Phe Glu Lys Ile Asn Glu Glu Ala Arg
    180 185
Arg Thr Gly Gly Glu Ser Val Cys
      195
<210> 6050
<211> 317
<212> PRT
<213> Enterobacter cloacae
<400> 6050
Ile Lys Gln Met Asn Tyr Ser Leu Arg Gln Leu Arg Val Phe Val Thr
                              10
Val Ala Gln Ala Arg Ser Pne Ser Arg Ala Gly Glu Ile Ile Gly Leu
                           25
                                            30
Ser Gln Ser Ala Val Ser His Ser Val Lys Glu Leu Glu Thr Gln Thr
                       40
```

Gly Val Lys Leu Leu Asp Arg Thr Thr Arg Glu Val Val Leu Thr Glu 60 Ala Gly Gln Gln Leu Ala Met Arg Leu Glu Arg Leu Leu Asp Glu Leu 70 Asn Ser Thr Leu Arg Asp Val Gly Arg Leu Gly Gln Gln Leu Ser Gly 90 85 Thr Val Arg Val Ala Ala Ser Gln Thr Ile Ser Ala His Leu Ile Pro 105 110 100 Gln Cys Ile Ala Glu Ser Asn His Arg Tyr Pro Asp Ile Asp Phe Val 115 120 Leu His Asp Arg Pro Gln Gln Trp Val Leu Glu Ser Ile Arg Gln Gly 140 130 135 Asp Val Asp Phe Gly Ile Val Ile Asp Pro Gly Ala Val Ser Asp Leu 145 150 155 Glu Cys Glu Val Val Leu Ser Glu Pro Phe Leu Leu Cys Arg Asp 165 170 175 Asp Asp Pro Leu Ala Ser Leu Pro Gln Val Ala Trp Gln Ala Leu Gln 180 185 190 Gly Ala Asn Leu Val Leu Gln Asp Tyr Ala Ser Gly Ser Arg Pro Leu 195 200 205 Ile Asp Ala Ala Leu Thr Ala Gln Gly Val Lys Ala Thr Ile Val Gln 210 215 220 Glu Ile Gly His Pro Ala Thr Leu Phe Pro Met Val Glu Ala Gly Ile 225 230 235 Gly Ile Ser Val Leu Pro Ala Leu Ala Leu Pro Leu Pro Gln Gly Ser 245 250 255 Arg Leu Thr Val Lys Arg Phe Val Pro Cys Val Glu Arg Gln Leu Met 260 265 270 Leu Val Arg Arg Lys Asn Arg Ser Leu Ser Gly Ala Ala His Ala Cys 275 280 285 Trp Asp Val Val Arg Met Gln Ala Glu Arg Leu Met Glu Ala Arg Thr 290 295 300 Arg Asp Pro Leu Phe Asn Glu Thr Asn Asn Gln Thr 310

<210> 6051 <211> 340 <212> PRT <213> Enterobacter cloacae

<400> 6051 Arg His Leu Phe Ser Gly Val Ile Met Lys Leu Phe Arg Ile Leu Asp Pro Phe Thr Leu Thr Leu Ile Gly Val Val Leu Leu Ala Ser Phe Phe 2.0 Pro Ala Arg Gly Ser Phe Val Pro Val Ile Glu Gly Leu Thr Thr Ala 35 40 Ala Ile Ala Leu Leu Phe Phe Met His Gly Ala Lys Leu Ser Arg Glu 55 60 Ala Ile Ile Ala Gly Gly Ser His Trp Arg Leu His Leu Trp Val Met 70 75 Cys Ser Thr Phe Ile Leu Phe Pro Val Leu Gly Val Leu Phe Ala Trp 90 85 Trp Ala Pro Val Asn Val Asp Pro Ala Leu Tyr Thr Gly Phe Leu Tyr 100 105 Leu Cys Ile Leu Pro Ala Thr Val Gln Ser Ala Ile Ala Phe Thr Ser 115 125 Leu Ala Gly Gly Asn Val Ala Ala Ala Val Cys Ser Ala Ser Ala Ser 130 135 140 Ser Leu Leu Gly Ile Phe Val Ser Pro Leu Leu Val Gly Leu Leu Met 150 155

```
Asn Met His Gly Ala Glu Gly Asn Leu Glu Gln Val Gly Lys Ile Cys
           165
                           170
Leu Gln Leu Leu Pro Phe Val Leu Gly His Leu Ser Arg Pro Trp
        180
                        185
                                        190
Ile Gly Glu Phe Val Ala Lys His Lys Lys Trp Ile Gly Lys Thr Asp
 195 200
                                     205
Gln Ser Ser Ile Leu Leu Val Val Tyr Thr Ala Phe Ser Glu Ala Val
 210 215
                                  220
Val Asn Gly Ile Trp His Arg Val Gly Ala Gly Ser Leu Leu Phe Ile
   230 235
Val Val Val Ser Ile Val Leu Leu Ala Ile Val Ile Ala Val Asn Val
      245 250 255
Phe Val Ala Arg Lys Cys Gly Phe Asn Lys Ala Asp Glu Ile Thr Ile
      260 265 270
Val Phe Cys Gly Ser Lys Lys Ser Leu Ala Asn Gly Ile Pro Met Ala
    275 280 285
Asn Ile Leu Phe Pro Thr Ser Val Ile Gly Met Met Val Leu Pro Leu
290 295 300
Met Ile Phe His Gln Ile Gln Leu Met Val Cys Ala Val Leu Ala Arg
305 310 315 320
Arg Tyr Lys Ala Gln Thr Glu Lys Leu Ala Gln Glu Glu Thr His Ala
                   330 335
           325
Ala Lys Val
<210> 6052
<211> 529
<212> PRT
<213> Enterobacter cloacae
<400> 6052
Leu Ser Ser Gly Ile Ser Gly Ile Thr Thr Ser Met Leu Thr Arg Tyr
Phe Ser Ser Asn Arg Lys Ile Leu Phe Ile Ser Phe Leu Thr Gly Leu
20
                        25
Phe Thr Ala Leu Leu Gly Ala Leu Gln Phe Tyr Trp Ser Tyr His
               40
35
Lys Arg Asp Val Arg Phe Asp Thr Leu Ile Thr Asp Leu Ser Val Tyr
 50
                5.5
Met Glu Ser Tyr Phe Asp Glu Leu Lys Met Ser Ile Asp Thr Leu Gln
             70
                   7.5
Pro Leu Thr Leu Asn Ser Cys Glu Glu Val Ser Ala Ala Leu Thr Ser
                   90
            8.5
Arg Ala Ala Phe Ser Ile Asn Val Arg Ala Phe Leu Leu Val Arg Asp
                        105 110
         100
Lys Gln Ala Phe Cys Ser Ser Ala Thr Gly Pro Met Asn Thr Pro Met
                     120
                                     125
      115
Glu Lys Leu Ile Pro Gln Leu His Ile Ser Lys Pro Val Asp Ile Ala
                  135
                                  140
Leu Leu Pro Gly Thr Pro Met Leu Pro Asp Lys Pro Ala Ile Ala Ile
               150
                              155
145
Trp Tyr Arg Asn Pro Leu Val Lys Asp Gly Gly Val Phe Thr Ser Val
           165
                           170
Asn Leu Asn Leu Ser Pro Tyr Leu Leu Tyr Thr Ser Arg Gln Asp Glu
                                        190
       180
                        185
Phe Ala Gly Ile Ser Ile Val Ile Gly Asp Ser Ala Leu Ser Thr Gln
 195
                      200 205
Ser Gly Met Leu Ile Gln Ala Arg Asp Leu Pro Asp Val Pro Ala Arg
                  215
                                  220
Ser Ala Thr Leu Lys Asn Ile Pro Leu Thr Val Asn Val Tyr Ala Gln
```

230

Ala Trp Thr Thr Asp Glu Leu Leu Tyr Ala Val Phe Phe Gly Leu Val 245 250 Cys Gly Ile Ala Ala Gly Leu Leu Asn Pne Tyr Ile Leu Thr Ile Arg 260 265 270 Leu Asn Pro Gly Lys Glu Ile Leu Thr Ala Ile Lys His Asp Gln Phe 275 280 285 Tyr Val Val Tyr Gln Pro Val Val Asp Ala Gln Ser Leu Arg Met Thr 295 300 Gly Leu Glu Val Leu Met Arg Trp Lys His Pro Val Met Gly Glu Ile 305 310 315 Pro Pro Asp Ala Phe Ile Asn Phe Ala Glu Ala Gln Lys Leu Ile Val 325 330 335 Pro Leu Thr Leu His Leu Phe Asp Leu Ile Ile Arg Asp Ala Pro Val 340 345 350 Leu Gln Thr Val Leu Pro Pro Gly Ala Lys Phe Gly Ile Asn Ile Ala 355 360 365 Pro Gly His Leu His Ala Glu Ser Phe Lys Glu Asp Met Arg Ala Phe 375 380 370 Leu Ala Ala Leu Pro Pro Asp His Phe Gin Ile Val Leu Glu Ile Thr 395 390 Glu Arg Asp Met Ile Asn His Arg Glu Ala Asn Gln Leu Phe Glu Trp 410 415 405 Val His Asn Glu Gly Phe Glu Ile Thr Ile Asp Asp Phe Gly Thr Gly 425 430 420 His Ser Ala Leu Ile Tyr Leu Glu Arg Phe Thr Met Asp Tyr Leu Lys 440 445 435 Ile Asp Arg Gly Phe Val Asn Ala Ile Gly Thr Glu Thr Val Thr Ser 455 460 450 Pro Val Leu Asp Ala Val Leu Tar Leu Ala Glu Arg Leu Asn Met Ile 470 475 Thr Val Ala Glu Gly Val Glu Thr Pro Glu Gln Ala Ala Trp Leu Arg 485 490 Glu His Gly Val Asn Tyr Leu Gln Gly Tyr Trp Ile Gly Arg Pro Met 510 500 505 Pro Leu Glu Gln Phe Arg Thr Trp Gln Pro Asp Ile Thr Leu Gly Glu 515 520

<210> 6053 <211> 627 <212> PRT <213> Enterobacter cloacae

<400> 6053 Phe His Asn His Glv Ala Val Pro Tvr Tvr Ser Val Gln Pro Ser Leu 1.0 Ser Val Asn Lys Gly Ile Arg Arg Thr Met Ile Met Arg Val Val Leu 25 Thr Leu Leu Ala Leu Val Ser Leu Ser Ser Gln Ala Gln Thr Ile Lys 35 40 Glu Ser Thr Ala Phe Ala Val Ile Gly Glu Pro Lys Tyr Ala Val Asn 50 55 Phe Asn His Tyr Asp Tyr Val Asn Pro Ala Ala Pro Lys Gly Gly Asn 7.0 Val Thr Leu Ser Ala Thr Gly Thr Phe Asp Asn Phe Asn Arg Phe Ala 90 85 Leu Arg Gly Val Ala Ala Ala Arg Thr Glu Ser Leu Tyr Asp Thr Leu 100 105 Phe Val Thr Ser Asp Asp Glu Pro Gly Ser Tyr Tyr Pro Leu Val Ala 120

Glu Asn Val Arg Tyr Ala Glu Asp Phe Ser Trp Val Glu Ile Ala Ile 135 140 130 Asn Pro Arg Ala Arg Phe His Asp Gly Thr Pro Val Ser Ala Arg Asp 150 155 160 Val Ala Phe Thr Phe His Lys Phe Met Thr Glu Gly Val Pro Gln Phe 165 170 175 Arg Leu Val Tyr Lys Gly Thr Thr Val Lys Ala Ile Ala Pro Leu Thr 180 185 190 Val Arg Ile Glu Leu Pro Glu Ala Asn Lys Glu Asn Met Leu Ser Leu 195 200 205 Phe Ser Leu Pro Val Met Pro Glu Ser Phe Trp Lys Asn His Lys Leu 210 215 220 Ser Asp Pro Leu Ser Thr Pro Pro Leu Ala Gly Gly Pro Tyr Arg Ile 225 230 235 Thr Asp Trp Arg Met Gly Gln Tyr Val Ile Tyr Ser Arg Val Lys Asp 245 250 255 Tyr Trp Ala Ala Thr Leu Pro Val Asn Arg Gly Arg Trp Asn Phe Asp 260 265 270 Thr Ile Arg Tyr Asp Tyr Tyr Leu Asp Asp Asn Val Ala Phe Glu Ala 280 285 275 Phe Lys Ala Gly Ala Phe Asp Leu Arg Val Glu Asn Ser Ala Lys Asn 295 300 290 Trp Ala Thr Arg Tyr Ile Gly Lys Asn Phe Ala Lys Gly Tyr Ile Val 305 310 315 Lys Asp Glu His Lys Asn Glu Ser Ala Gln Asp Thr Arg Trp Leu Ala 325 330 335 Phe Asn Ile Gln Arg Pro Val Phe Ser Asp Arg Arg Val Arg Glu Ala 345 350 340 Ile Thr Leu Ala Phe Asp Phe Glu Trp Met Asn Lys Ala Leu Phe Tyr 355 360 365 Gly Ala Tyr Ser Arg Ala Asn Ser Tyr Phe Gln Asn Thr Glu Tyr Ala 370 375 380 Ala Arg Asp Tyr Pro His Ala Asp Glu Leu Val Leu Leu Ala Pro Leu 390 395 400 Lvs Ala Glu Leu Pro Pro Glu Val Phe Thr Arg Ile Phe Glu Pro Pro 405 410 Lys Ser Asp Gly Asn Gly Phe Asp Arg Asp Asn Leu Leu Lys Ala Ser 420 425 430 Ser Leu Leu Asp Asp Ala Gly Trp Val Leu Lys Asn Arg Gln Arg Val 440 445 Asn Ala Gln Thr Gly Lys Pro Leu Ser Phe Glu Leu Leu Ile Ala Ser 455 460 Gly Ala Asn Asp Gln Trp Val Leu Pro Phe Lys Lys Asn Leu Ala Arg 470 475 Leu Gly Val Thr Met Asn Ile Arg Glr. Val Asp Met Ala Gln Leu Thr 485 490 Asn Arg Lys Arg Ser Arg Asp Tyr Asp Met Met Gln Thr Leu Trp Ala 500 505 510 Ala Gln Pro Trp Pro Ser Ser Asp Leu Gln Ile Ser Trp Ala Ser Gly 520 525 515 Tyr Ile Asp Ser Ser Tyr Asn Ala Pro Gly Val Lys Ser Pro Val Ile 535 540 Asp Ala Leu Ile Ala Lys Ile Val Ala Ala Gln Gly Asp Lys Asn Lys 550 555 560 Leu Leu Pro Leu Gly Arg Ala Leu Asp Arg Val Leu Thr Trp Asn Tyr 565 570 Tyr Met Leu Pro Met Trp Tyr Met Gly Glu Asp Arg Val Ala Arg Trp 580 585 590 Asp Lys Phe Ser Leu Pro Ala Val Arg Pro Val Tyr Thr Leu Gly Phe 595 600 Asp Thr Trp Trp Tyr Asp Val Asn Lys Ala Val Lys Leu Pro Ala Glu

50

```
610
                 615
                                620
Arg Arg
625
<210> 6054
<211> 278
<212> PRT
<213> Enterobacter cloacae
<400> 6054
Gly Val Thr Met Gly Ala Tyr Leu Ile Arg Arg Leu Leu Leu Val Ile
                                        15
                     10
Pro Thr Leu Trp Ala Ile Ile Thr Ile Asn Phe Phe Ile Val Gln Ile
      20 25
                           3.0
Ala Pro Gly Gly Pro Val Asp Gln Ala Ile Ala Ala Ile Glu Phe Gly
         40
                           4.5
His Ala Gly Gly Met Pro Gly Gly Gly Gly Glu Gly Met Gly Ala Ser
 50 55
His Ala Arg Thr Gly Val Gly Asn Ile Ser Glu Ser His Tyr Arg Gly
65 70
                  7.5
Gly Arg Gly Leu Asp Pro Glu Val Ile Ala Glu Ile Thr His Arg Tyr
          85
                          90 95
Gly Phe Asp Lys Pro Leu His Glu Arg Tyr Cys Arg Met Leu Trp Asp
        100 105 110
Tyr Val Arg Phe Asp Phe Gly Asp Ser Leu Phe Arg Ser Ala Ser Val
                    120 125
115
Leu Thr Leu Ile Lys Gla Ser Leu Pro Val Ser Ile Thr Leu Gly Leu
130
                135
                                140
Trp Gly Thr Leu Ile Ile Tyr Leu Val Ser Ile Pro Leu Gly Ile Arg
              150 155 160
145
Lys Ala Val Tyr Asn Gly Ser Arg Phe Asp Ile Trp Ser Ser Thr Phe
           163 170 175
Ile Ile Ile Gly Tyr Ala Ile Pro Ala Pne Leu Phe Ala Val Leu Leu
        180 185 190
Ile Val Phe Phe Ala Gly Gly Ser Tyr Phe Asp Leu Phe Pro Leu Arg
 195
                    200 205
Gly Leu Val Ser Ala Asp Phe Ser Thr Leu Pro Trp Tyr Gln Lys Ile
  210
                 215 220
Thr Asp Tyr Phe Trp His Ile Thr Leu Pro Val Leu Ala Thr Val Ile
            230 235
225
Gly Gly Phe Ala Ala Leu Thr Met Leu Thr Lys Asn Ala Phe Leu Asp
           245 250 255
Glu Ile Arg Lys Gln Iyr Val Val Thr Ala Arg Ala Lys Gly Val Gly
        260
                     265
Glu Lys Gln Ile Gly
   275
<210> 6055
<211> 98
<212> PRT
<213> Enterobacter cloacae
<400> 6055
His Ile Cvs Glv Ser Ala Pro Leu Ser Lys Arg Arg Glv Pro Ser Gly
                          10
Leu Asn Leu Pro Arg Ser Thr Tyr Glu Gln Gln Glu Met Gly Lys Ser
    20
                      25
                                       30
Ile Ser Arg Thr Lys Leu Arg Thr Gly Asp Leu Val Leu Phe Arg Ala
                    40
                               4.5
Gly Ser Thr Gly Arg His Val Gly Ile Tyr Ile Gly Asn Asp Gln Phe
```

55

Val His Ala Ser Thr Ser Ser Gly Val Thr Ile Ser Ser Met Asn Glu 65 70 75 80 Pro Tyr Trp Lys Lys Arg Tyr Asn Glu Ala Arg Arg Val Leu Ser Arg 85 90 95

Ser

<210> 6056 <211> 504 <212> PRT

<213> Enterobacter cloacae

<400> 6056 Pro Gly Arg Thr Ser Thr Ile Met Glu Leu Asn Val Pro Gln Val Ala 5 10 Ala Cys Ile Ile Asn Ser Gin Asp Trp Asp Val Met Lys Lys Gly Leu 20 25 3.0 Ser Val Trp Pro Ala Leu Ser Thr Val Ala Tyr Gly Val Phe Ser Ala 4.5 35 40 Leu Phe Tyr Ala Phe Gly Val His Ala Asp Asp Asp Ile Gln Phe Asp 50 55 60 Ser Asn Phe Leu Arg Ile Ser His Pro Glu Asn Val Asp Leu Ser Ala 70 75 80 Tyr Met Asn Asn Ala Leu Pro Ala Gly Arg Tyr Arg Ala Asp Ile Tyr 85 90 95 Leu Asn Asp Lys Leu Val Met Ile Asp Asp Ile Arg Ile Ser Gly Lys 100 105 110 Asp Ala Arg Ser Gln Arg Ile Leu Leu Ser Gln Ala Thr Val Thr Gly 115 120 125 Leu Gln Leu Lys Lys Ser Arg Leu Cys Ala Thr Asn Ala Gly Gln Trp 130 135 140 Cys Asp Leu Gln Ala Val Leu Pro Glu Ser Arg Leu Lys Phe Asn Gly 145 150 155 160 Gly Arg Gln Arg Leu Asp Val Ser Ile Pro Gln Ala Met Leu Gln His 165 170 175 Val Ala Arg Gly Ser Val Asn Pro Val Leu Trp Asp Ala Gly Ile Pro 180 185 190 Ala Leu Met Leu Gly Tyr Asn Val Asn Gly Tyr Arg Ser Glu Asn Ser 195 200 205 Ser Gly Glu Tyr Asn Asn Leu Tyr Ala Ala Leu Asn Gly Gly Leu Asn 210 215 220 Ile Gly Ala Trp Tyr Phe Arg His Asn Gly Thr Leu Ser Trp Gln Gln 230 235 240 225 Gln Asn Gly Thr Gln Gln Lys Lys Tyr Thr Val Leu Asn Ser Tyr Val 245 250 255 Gln His Pro Leu Ala Gly Ile Glu Gly Asn Leu Ile Leu Gly Glu Ser 260 265 270 Asn Thr Ser Gly Gln Leu Phe Asp Ser Val Ser Phe Thr Gly Ala Ser 275 280 285 Val Ala Ser Asp Asp Arg Met Leu Pro Ala Ser Arg Arg Gly Tyr Ala 290 295 300 Pro Glu Ile Arg Gly Val Ala Gln Thr Asn Ala Lys Val Thr Ile Arg 305 310 315 320 Gln Asn Gly Lys Val Ile Tyr Glu Thr Thr Val Ser Pro Gly Ala Phe 325 330 Val Ile Asn Asp Leu Tyr Pro Ser Gly Tyr Gly Gly Asp Leu Asn Val 340 345 350 Thr Val Arg Glu Ala Asp Gly Ser Gln His Phe Phe Asp Val Pro Tyr 355 360 365 Ala Ser Val Ala Gln Leu Leu Arg Pro Gly Ala Ser Arg Tyr Ser Ala

```
Thr Ala Gly Arg Leu Arg Gly Asp Tyr Leu Ser Glu Arg Pro Ala Phe
               390
                               395
Ser Glu Val Thr Tyr Gln Arg Gly Leu Thr Asn Ser Leu Thr Gly Ser
            405
                            410
                                             415
Gly Gly Ile Gln Ala Thr Ser Phe Tyr Gln Ala Met His Ala Gly Leu
                425
         420
Ala Val Gly Thr Ala Val Gly Thr Val Ser Leu Asp Thr Thr Trp Ser
           440
                                      445
      435
Gln Thr Gln Val Arg Glu Lys Thr Thr Arg Gly Arg Lys His Gln Val
                       460
                455
Glu Leu Gln Gln Ile Tyr Ser Arg Lys Pro Asp Ala Val Phe Thr Gly
465 470 475
His Leu Ala Ile Phe Asp Gly Glu Leu Ser Phe Ser Asp Gly Cys His
         485
                 490
Pro Val Thr Ser Ala Ala Ala
        500
<210> 6057
<211> 200
<212> PRT
<213> Enterobacter cloacae
<400> 6057
Leu Ile Arg Arg Asn Asn Val Arg Lys Leu Met Lys Val Leu Val Cys
                 10
          5
Val Phe Thr Asp Asn Glu Phe Phe Phe Ser Ala Met Met Glu Leu Leu
             25
                                   30
       20
Ser Ser His Thr Leu Leu Ala Glu Lys Tyr Thr Leu Cys Lys Ile Arg
                     40
Ser Asp Glu Ile Gly Ala Trp Met His Thr Ala Asp Asn Asn Met Met
                55
Ile Met Ala Gly Pro Asp Met Glu Ser Leu Val Arg Phe Phe Cys Leu
65 70 75
Glu Lys Arg Trp Asp Tyr Leu Thr Thr Arg Phe Ser Ala Ser Glu Met
                 90
           85
Gln Asp Phe Leu Ala Gln Lys Ile Asn Arg Gln His Glu Val Lys Lys
       100
                       105 110
Asn Leu Ile Arg Thr Arg Thr His Leu Lys Leu Ser Lys Gln Glu Leu
115 120 125
Asn Val Leu Ser Trp Phe Met His Gly Leu Ser Pro Tyr Ser Met Ser
 130 135 140
Arg Tyr Tyr Gly Leu Ser Val Lys Thr Ile Ser Thr Phe Lys Arg Arg
             150 155
Leu Met Asp Lys Leu Tyr Ile Lys Ser Asp Ala Glu Leu Phe Arg Val
            165 170 175
Gly Trp Thr Tyr Lys Met Tyr Gln Asn Ser Gly His Leu Arg Gly Arg
         180
Asp Glu Asn Phe Arg Met Asp
<210> 6058
<211> 403
<212> PRT
<213> Enterobacter cloacae
<400> 6058
Glu Lys Lys Gln Pro Gly Gly Glu Ser Ile Arg Leu Ser Tyr Ser Lys
```

Glu Lys Lys Gln Pro Gly Gly Glu Ser Ile Arg Leu Ser Tyr Ser Lys 1  $1 ext{Tyr}$  Ile Pro Ala Ser Arg Thr Gln Phe Ser Leu Ala Thr Trp Arg Tyr  $20 ext{20}$   $30 ext{Ser}$  Fr Fr Gly Asn Tyr Leu Ser Leu Met Asp Ala Thr Leu Leu His Gln

Gln Arg Pro Asp Glu Thr Ala Asp Gly His Thr Gly Arg Thr Arg Asn 55 60 Arg Val Thr Leu Thr Leu Asn Gln Gly Leu Pro Asp Lys Trp Gly Gln 7.5 70 Leu Tyr Val Thr Gly Ile Leu Gln Asp Tyr Trp Gly Arg Lys Gly Tyr 8.5 90 Asp Gln Gln Tyr Gln Ala Gly Tyr Thr Leu Thr Thr Gly Arg Val Asn 100 105 Trp Ser Leu Gly Val Asn Arg Ser Arg Ser Ser Gly Gly Glu Phe Gln 115 120 125 Asn Ile Trp Thr Leu Ser Phe Asn Met Pro Leu Gly Ser Ala Ser Thr 130 135 140 Pro Leu Leu Thr Gly Gln Val Ser Arg Asp Gly Gln Gly His Phe Ser 145 150 155 Glu Gln Val Ala Leu Ser Gly Ser Ala Gly Glu Arg Gln Gln Phe Ser 165 170 175 Trp Asn Ala Gly Ala Ser His Gln Tyr His Ser Gly Asp Ser Gly Gln 180 185 190 Ile Gly Gly Ser Trp Thr Gly Pro Val Ser Thr Leu Thr Ala Asn Tyr 195 200 205 Ala Gln Gly Lys Ala Trp Lys Ser Gly Ser Val Gly Val Ser Gly Thr 215 220 210 Ala Val Ala His Ser Asp Gly Val Thr Phe Ser Pro Trp Thr Gly Asn 225 230 235 Thr Phe Ala Leu Val Glu Ala Lys Gly Ala Glu Gly Ala Glu Ile Pro 245 250 255 Gly Tyr Ala Gly Thr Arg Val Asp Gly Ser Gly Tyr Ala Leu Val Pro 265 270 260 Asn Leu Met Pro Tyr Gln Lys Asn Ala Ile Ser Ile Asp Thr Thr Ser 275 280 285 Val Glu Asp Asp Leu Asp Leu Asp Ser Thr Ser Gln Gln Val Ile Pro 290 295 300 Tyr Ala Gly Ala Val Val Lys Val Lys Tyr Arg Ala Thr Ala Gly Val 310 315 Pro Val Leu Ile Lys Val Thr Arg Ser Asn Gly Glu Gly Val Pro Phe 325 330 335 Ser Ala Arg Ala Thr Asp Ala Asn Lys Asn Ile Val Gly Tyr Val Gly 345 350 340 Gln Gly Ser Arg Leu Tyr Ala Arg Leu Ala Gln Gln Asn Gly Val Val 360 365 355 Glu Leu Arg Trp Ala Glu Gly Glu Gly Ala Arg Cys Lys Met Lys Tyr 375 380 Ser Leu Pro Ser Thr Ala Gly Lys Lys Leu Leu Ile Phe Asn Ala Ile 390

```
<210> 6059
<211> 387
<212> PRT
<213> Enterobacter cloacae
```

Cvs Asn

Asn Ile Ser Ser Ile Ala Val Ser Asn Asp Ile Pro Asp Gly Thr Ile

```
Ile Tyr Gln Gln Lys Tyr Ile Pro Gly Tyr Ser Ser Ile Ser Val Asn
                              75
             70
Cys Asp Glu Ser Arg Ser Trp Tyr Tyr Val Met Ser Leu Thr Asn Thr
                            90
           85
Pro Met Pro Leu Ser Ser Trp Thr Gly Thr Ile Ile Ser His Glu Ser
        100
                      105
                                         110
Trp Val Ala Glu Tyr Ser Trp Asp Gly Tyr Ile Tyr Glu Thr Gly Ile
   115
                  120
Pro Gly Ile Gly Ile Thr Ile Ser Met Met Ser Val Arg Arg Pro Ala
      135 140
Pro Gly Ile Val Gly Thr Asn Cys Phe Ala Ser Lys Ser Cys Thr Asp
      150 155
                                               160
Thr Gly Met Lys Ala Arg Ala Ile Ile Ala Leu Val Lys Thr Gly Pro
          165 170
Ile Ser Ala Gly Val Ile Asn Ala Gly Asn Phe Pro Thr Met Lys Val
      180 185 190
Ala Leu Gly Arg Glu Ala Thr Asn Ile Thr Leu Tyr Thr Leu Ser Phe
    195 200 205
Thr Gly Ser Leu Asn Val Thr Leu Pro Thr Cys Thr Thr Pro Asp Phe
210 215 220
Asn Val Ser Leu Gly Lys Trp Thr Thr Glu His Phe Thr Gly Lys Gly
225 230 235
Ser Ser Thr Pro Trp Val Ala Ala Asn Ile Val Leu Ser Asn Cys Gly
           245 250 255
Asp Phe Ile Gly Ser Asn Val Ser Gly Asp Met Ser Asp Gly Asn Tyr
        260 265
Trp Ser Asp Asn Gly Ser Ser Phe Ser Ser Thr Met Gln Trp Asn Thr
275 280 285
Trp Ser Ile Thr Leu Ser Pro Val Ser Ser Val Leu Asp Ser Ala Ser
                295
                                  300
Gly Ile Met Ser Val Asp Thr Ser Val Pro Ser Ala Ala Thr Gly Ile
305
               310 315
Gly Ile Gln Ile Ser Ser Gly Asp Thr Thr Ser Ala Asp Ser His Ile
            325 330 335
Ile Asp Phe Gly Asn Ala Leu Thr Gly Thr Phe Asn Ser Asp Gly Ser
         340 345 350
Ser Ser Val Thr Ile Pro Leu Ser Ala Arg Tyr Ile Gln Thr Glu Asp
                   360
Ser Val Thr Ala Gly Met Ala Asn Gly Lys Leu Val Tyr Thr Ile Ser
                   375
 370
Tyr Tyr
385
<210> 6060
<211> 405
<212> PRT
<213> Enterobacter cloacae
<400> 6060
Gln Val Met Ile Lys Lys Lys Gly Leu Gly Phe Asn Ala Ile Thr Ala
Leu Ile Met Leu Thr Thr Ser Asn Cys Val Ile Ala Glu Glu Tyr Gln
                      25
                                         3.0
         20
Leu Pro Ala Thr Ile Asn Asn Pro Val Val Met Pro Val Gly Ala Asp
      35
                      40
Gly Phe Gln Asn Gly Ala Ala Lys Ala Ile Ile Pro Gly Gln Ala Gly
                5.5
                                   60
Ser Glu Gln Ser Gly Ala Gln Thr Asn Leu Ser Glu Ala Gly Asn Ala
                              75
                70
```

Gin Gly Gln Lys Pro Thr Tnr Asp Leu Pro Thr Val Gln Leu Ser Pro

```
Ala Ser Asn Ala Ser Pro Ala Val Ser Ala Ile Thr Gly Ala Leu Ser
                         105
       100
Asn Asn Pro Ser Leu Pro Gly Phe Asp Ala Gln Thr Arg Ser Gly Ala
                     120
      115
Ile Asp Ser Tyr Gly Arg Pro Thr Gly Thr Ser Ser Gln Gln Asn Ala
                                  140
                  135
Thr Asn Ala Thr Ala Thr Ser Lys Ala Asp Glu Leu Tyr Val Glu Ala
          150
                               155
Arg Asn Arg Tyr Lys Glu Val Gln Arg Val Asn Val Pro Pro Gly Gly
          165
                            170
                                   175
Asn Val Val Leu Pro Val Ser Arg Gly Leu Gln Asn Arg Ile Ser Thr
                         185
                                         190
        180
Ser Phe Lys Asn Ala Ser Val Ser Thr Ser Thr Pro Ala Glu Glu Ala
                      200
                                205
 195
Ser Ile Phe Val Asn Gly Gly Asp Val Phe Ile Ser Thr Asn Thr Asp
 210 215
                                  220
Lys Pro Ile Gly Ile Met Leu Ser Glu Asp Gln Val Pro Glu Ser Thr
225 230 235
Tyr Asn Leu Thr Leu Val Pro Leu Asp Val Pro Gly Ala Met Ile Ser
      245 250
                                 255
Val Thr Thr Ser Leu Ser Pro Ser Met Gln Ala Lys Arg Glu Thr Ser
   260 265
                             270
Leu Asp Lys Gln Asn Tyr Glu Glu Met Leu Ala Arg Ser Gln Ser Glu
275 280 285
Glu Leu Ala Pro Thr Asp Pro Lys Gln Asp Asp His Lys Gln Arg Ile
290 295
                        300
Ile Asp Leu Leu Thr Pro Val Ala Leu Gly Glu Val Pro Ser Gly Phe
305 310
                               315
Ser Leu Gln Gln Asp Arg Leu Ser Arg Ile Pro Ala Pro Glu Gln Ser
        325 330 335
Pro Cys Asn Phe Asn Met Tyr Ala Lys Leu Gly Gln Arg Leu Val Gly
    340 345 350
Ser Arg Glu Leu Ile Asp Val Ile Leu Val Lys Asn Asp Lys Pro Tyr
     355 360 365
Gly Gln Ile Val Ala Asp Gln Gln Cys Met Ala Glu Gly Val Ile Ala
 370 375 380
Ser Ala Leu Phe Asp Lys Ala Tyr Leu Gln Pro Gly Glu Glu Thr Glu
Leu Tyr Ile Val Arg
            405
<210> 6061
<211> 301
<212> PRT
<213> Enterobacter cloacae
<400> 6061
Lys Ser Tyr His Arg Arg Val Lys Leu Met Ile Lys Asn Asn Glu Leu
                            10
Ile His Pro Phe Asp Val Thr Ser Asn Glu Ser Gly Lys Thr Tyr Gln
         2.0
                         25
Leu Thr Pro Asn Ser Ser Lys Ser Val Gln Pro Val Ala Leu Leu Arg
 3.5
                      4.0
Leu Ser Val Phe Thr Pro Val Gly Thr Lys Glu Asn Arg Asp Arg Asn
                  55
 5.0
```

Phe Glu Val Asp Ala Ser Asp Glu Leu Ser Cys Met Glu Ile Ala Arg

Ser Glu Gly Tyr Asp Asp Ile Lys Ile Thr Gly Val Lys Leu Ser Met

Ser Thr Asp Phe Lys Cys Trp Leu Gly Ile Ile Met Ala Phe Ser Lys

8.5

210

```
100
Tyr Gly Phe Thr Ser Glu Lys Ile Ser Leu Thr Phe Asn Glu Phe Ala
               120
      115
Lys Met Cys Gly Ile Ser Ser Thr Asn Ile Asn Lys Arg Thr Arg Ala
              135
                        140
Arg Phe Lys Glu Ser Leu Met Asn Leu Ala Ser Val Val Leu Ala Phe
       150 155
Ser Asp Ser Arg Ser Gly Arg Phe Thr Val Thr His Leu Val Gln Lys
          165 170
Ala Met Ile Asp Pro Lys Ser Asp Thr Val Glu Leu Val Gly Asp Pro
      180
                       185
                              190
Ser Met Trp Glu Leu Tyr Arg Tyr Asp His Lys Thr Leu Leu Ser Leu
               200
                                   205
     195
Gln Val Leu Tyr Ile Leu Ala Lys Lys Glu Ala Ala Gln Ser Leu Tyr
 210 215
                          220
Ile Tyr Phe Glu Ala Met Pro Ala Gly Thr Leu Phe Val Asn Met Lys
225 230
                              235
Arg Leu Arg Glu Arg Leu Leu Leu Thr Thr Pro Ile Arg Thr Gln Asn
                                    255
         245 250
Gln Ile Ile Arg Lys Ala Met Arg Glu Leu Glu Ser Ile Gly Tyr Leu
 260 265 270
Asp Tyr Gln Glu Val Lys Lys Gly Arg Asp Ile Gln Phe Gln Ile Phe
 275 280 285
Lys Arg Ser Pro Lys Leu Ala Leu Ala Lys Gln Gly
 290 295
<210> 6062
<211> 263
<212> PRT
<213> Enterobacter cloacae
<400> 6062
Met Lys Met Leu Ser Gly Ile Asn Ile Pro Phe Phe Lys Lys Ser Lys
                          10
Lys Asp Glu Asn Gly Asp Leu Glu Gln Ser Tyr Val Lys Lys Asp Glu
                  25
Ser Ala Lys Gly Arg Phe Leu Asp Ile Lys Lys Arg Phe Ser Pro Gln
               40
                                   4.5
Ala Glu Ala Ser Gly Ala Gly Ile Thr Tyr Ser Ala Leu Ile Asn Arg
               55
                                60
Asp Thr Lys Leu Ile Arg Ile Asn Thr Val Ser Ile Ala Val Ile Gly
                   75
              7.0
Leu Leu Val Ala Lys Ile Leu Phe Phe Thr Asp Pro Val Thr Ile Val
         85 90 95
Thr Pro Pro Asn Met Asn Glu Glu Ile Thr Val Val Gly Asn Lys Ala
        100 105 110
Ser Glu Ser Tyr Lys Thr Gln Trp Ala Leu Phe Phe Ser Thr Leu Leu
      115 120 125
Gly Asn Ile Asn Pro Thr Asn Ile Ser Phe Val Thr Ala Tyr Val Leu
 130 135 140
Asp Ala Leu Ser Pro Glu Leu Gln Ala Lys Thr Ser Glu Ser Leu Gln
             150 155 160
Glu Gln Ile Asn Ile Met Gln Ala Arg Gly Val Glu Gln Thr Phe Lys
           165 170 175
Pro Asn Asp Ile Tyr Pne Asp Pro Lys Asn Asp Met Val Tyr Val Trp
         180 185 190
Gly Thr Lys Thr Thr Arg Leu Val Asn Val Pro Asp Lys Thr Glu Ser
   195 200 205
```

Ser Lys Trp Thr Tyr Glu Trp Val Leu Gly Met Lys Asn Gly Arg Pro

Arg Ile Ala Tyr Val Asn Gln Tyr Ser Gly Thr Pro Asn Ile Lys Lys

```
230
                                235
Ile Thr Ile Asn Gly Lys Glu Gln Leu Ala Thr Leu Asp Asn Pro Pro
       245
Pro Ser Thr Gly Asn Lys
         260
<210> 6063
<211> 214
<212> PRT
<213> Enterobacter cloacae
<400> 6063
Gln Glu Leu Arg Met Ile Asp Leu Tyr Tyr Ala Pro Thr Pro Asn Gly
His Lys Ile Thr Leu Phe Leu Glu Glu Ala Glu Val Asp Tyr Arg Ile
Ile Arg Val Asp Ile Ser Lys Gly Asp Gln Phe Arg Pro Val Phe Leu
      35
Ala Ile Ser Pro Asn Asn Lys Ile Pro Ala Ile Ile Asp Asn Leu Pro
Ser Asp Gly Gly Lys Pro Leu Ser Leu Phe Glu Ser Gly Glu Ile Leu
                70
Leu Tyr Leu Ala Glu Lys Thr Gly Lys Leu Leu Ser Gly Glu Leu Arg
           85
                             90
Glu Arg His His Thr Leu Gln Trp Leu Phe Trp Gln Ser Ser Gly Leu
   100 105
Gly Pro Met Leu Gly Gln Asn His His Phe Thr Ala Tyr Ala Pro Gln
115 120
                                       125
Thr Ile Pro Tyr Ala Ile Glu Arg Tyr Gln Val Glu Thr Gln Arg Leu
130 135
                                    140
Tyr Gly Val Leu Asn Arg Arg Leu Glu Lys Ser Pro Trp Leu Gly Gly
145 150
                                155
Glu His Tyr Ser Ile Ala Asp Ile Ala Cys Trp Pro Trp Ile Asn Thr
      165 170 175
His Glu Arg His Arg Ile Asp Leu Ala The Tyr Pro Ala Val Asn Asn
   180 185 190
Trp Phe Glu Arg Ile Arg Thr Arg Pro Ala Thr Glu Arg Ala Met Gln
  195 200
Lys Ile His Gln Ile
 210
<210> 6064
<211> 148
<212> PRT
<213> Enterobacter cloacae
<400> 6064
Ser Cys Ala Pro Leu Gly Ala Gly Val Leu Leu Met Tyr Asp Glu Val
1 5
                    10
Lys Ile Leu Thr Arg Arg Arg Pro Val Met Ser Gln His Asp Ala Ile
      20
                      25
Ile Arg Ile Lys Asn Leu Arg Leu Arg Thr Phe Ile Gly Ile Lys Glu
                      4.0
Glu Glu Ile Ala Asn Arg Gln Asp Ile Val Val Asn Val Val Ile His
                   5.5
Tyr Pro Ala Asp Lys Ala Arg Ala Ser Glu Asp Ile Asn Asp Ala Leu
                              75
65 70
Asn Tyr Arg Thr Ile Thr Lys Ser Ile Ile Gln Tyr Val Glu Asn Asn
                             90
Arg Phe Ala Leu Leu Glu Lys Leu Thr Gln Asp Val Leu Asp Ile Ala
```

Arg Glu His His Trp Val Thr Tyr Ala Glu Val Glu Ile Asp Lys Leu 120 115 His Ala Leu Arg Tyr Ala Asp Ser Val Ser Met Thr Leu Ser Trp Gln 135 140 130 Arg Gln Ala 145 <210> 6065 <211> 171 <212> PRT <213> Enterobacter cloacae <400> 6065 Tyr Gly Val Thr Met Ala Thr Ile Thr Thr Thr Arg Leu Asn Leu Thr 10 Pro Phe Glu Pro Ser Asp Trp Ala Phe Phe Arg Ser Leu Arg Glu Asp 25 20 30 Pro Ala Ile Met Arg Tyr Met Ala Ala Ile Thr Pro Glu Lys Glu Thr 35 40 4.5 Arg Arg Val Phe Ala Ala Arg Leu Met Ala Glu His Val Phe Val Ile 50 55 60 Arg Leu His Asn Asp Val Lys Pro Leu Gly Asp Ile Gly Leu Gln Ile 70 75 Ser Ala Ala Asn Arg Glu Glu Ala Asp Ile Gly Tyr Thr Val Val Pro 90 95 85 Ala Ala Gln Gly Lys Gly Ile Ala Ser Glu Ala Leu Arg Ala Val Cys 105 100 Glu Tyr Ala Phe Asn Gln Thr Gly Val Lys Ala Ile Asn Ala Tyr Val 125 120 Leu Ala Asp Asn Val Gly Ser Val Arg Val Leu Glu Lys Ala Gly Phe 135 140 Val Arg Thr Gln Val Leu Glu Lys Ala Tyr Glu Ile Asn Gly Val Arg 150 155 Tyr Asp Asp Trp Val Tyr Arg Leu Glu Cys <210> 6066 <211> 309 <212> PRT <213> Enterobacter cloacae <400> 6066 Ala Gly Ser Ala Arg Arg Lys Pro Gly Gly Cys Met Lys Ile Leu Leu 10 Thr Gly Gly Thr Gly Leu Ile Gly Arg His Leu Ile Pro Arg Leu Gln 20 2.5 Ala Leu His His Asp Ile Thr Val Val Thr Arg Ser Pro Glu Lys Ala 40 Arq Gln Val Leu Gly Thr Gly Val Glu Ile Trp Lys Gly Leu Ala Glu 50 55 60 Arg Gln Asp Leu Asn Gly Phe Asp Ala Val Ile Asn Leu Ala Gly Glu 70 75 Pro Ile Ala Asp Lys Arg Trp Thr Glu Glu Gln Lys Gln Arg Leu Cys 90 85 Ser Ser Arg Trp Asn Met Thr Glu Arg Leu Val Glu Leu Ile Arg Asn 100 105 110 Ser Glu Thr Pro Pro Ser Val Leu Ile Ser Gly Ser Ala Thr Gly Tyr 120 125 Tyr Gly Asp Leu Gly Glu Val Val Val Thr Glu Glu Glu Pro Pro His

135

Asn Glu Phe Thr His Lys Leu Cys Ala Gln Trp Glu Arg Ile Ala Cys

```
155
                 150
Gly Ala Gln Ser Asp Asn Thr Arg Val Cys Leu Leu Arg Thr Gly Val
           165
                              170
Val Leu Ala Pro Lys Gly Gly Ile Leu Gly Lys Met Leu Pro Pro Phe
                           185
                                         190
         180
Lys Met Gly Leu Gly Gly Pro Ile Gly Asn Gly Arg Gln Tyr Leu Ala
      195
              200
Trp Ile His Ile Asp Asp Met Val Asn Gly Ile Leu Trp Leu Leu Asp
 210 215
                                  220
Asn Asp Leu Arg Gly Pro Phe Asn Met Val Ser Pro Tyr Pro Val Arg
       230
                               235
Asn Glu Gln Phe Ala His Ala Leu Gly His Ala Leu His Arg Pro Ala
          245 250 255
Val Leu Arg Val Pro Ala Thr Ala Ile Arg Leu Leu Met Gly Glu Ser
         260 265
                                            270
Ser Val Leu Val Leu Gly Gly Gln Arg Ala Leu Pro Lys Arg Leu Glu
 275 280 285
Ala Ala Gly Phe Thr Phe Arg Trp Tyr Asp Leu Glu Glu Ala Leu Gly
                 295
Asp Val Val Gln
305
<210> 6067
<211> 168
<212> PRT
<213> Enterobacter cloacae
<400> 6067
Arg Cys Gly Pro Met Arg Thr Pne Phe Ser Pro Tyr Val Met Ser Val
                              10
Tyr Val Ala Leu Ala Glu Lys Gly Leu Thr Phe Thr Leu Lys Thr Val
                           25
                                            3.0
Asp Leu Asp Ser Gly Glu His Leu Lys Pro Gln Trp Gln Gly Tyr Ala
                       40
35
Leu Thr Arg Arg Val Pro Val Leu Glu Ile Asp Gly Phe Glu Leu Ser
 50
                    55
Glu Ser Ser Ala Ile Asp Glu Tyr Leu Glu Asp Arg Phe Ala Pro Pro
                 7.0
                                 7.5
Glu Trp Glu Arg Ile Tyr Pro His Asp Leu Gln Lys Arg Ala Arg Ala
             85
                              90
Arg Gln Ile Gln Ala Trp Leu Arg Ser Asp Leu Val Pro Ile Arg Thr
                           105 110
         100
Glu Arg Ser Thr Asp Val Val Pae Ala Gly Val Lys Lys Pro Ala Leu
       115
                        120
Ser Glu Glu Gly Leu Ser Ser Ala Arg Lys Leu Ile Glu Thr Ala Ser
   130
                    135
                                     140
Ser Leu Leu Ala Gln Gly Asn Pro Ser Phe His Arg Arg Arg His Glu
               150
                                  155
145
Gly Lys Thr Tyr Lys Pro Gly Gly
             165
<210> 6068
<211> 240
<212> PRT
<213> Enterobacter cloacae
<400> 6068
Glu Val Leu Lys Gly Val Ser Leu Glu Ala Asn Ala Gly Asp Val Ile
                            10
Ser Ile Ile Gly Ser Ser Gly Ser Gly Lys Ser Thr Phe Leu Arg Cys
          20
                           25
                                             30
```

```
Ile Asn Phe Leu Glu Lys Pro Ser Glu Gly Ser Ile Val Val Ser Gly
                   40
     3.5
Gln Asn Ile Asn Met Val Arg Asp Lys Asp Gly Gln Leu Lys Val Ala
                   5.5
Asp Lys Asn Gln Leu Arg Leu Leu Arg Thr Arg Leu Thr Met Val Phe
               70
Gln His Phe Asn Leu Trp Ser His Met Thr Val Leu Glu Asn Val Met
                             90
          85
Glu Ala Pro Val Gln Val Leu Gly Leu Ser Lys Gln Glu Ala Arg Glu
                          105
         100
Arg Ala Val Lys Tyr Leu Ala Lys Val Gly Ile Asp Glu Arg Gln Gln
              120
                                       125
Ile Lys Tyr Pro Val His Leu Ser Gly Gly Gln Gln Gln Arg Val Ser
 130
                                    140
Ile Ala Arg Ala Leu Ala Met Glu Pro Glu Val Leu Leu Phe Asp Glu
                                 155
145 150
Pro Thr Ser Ala Leu Asp Pro Glu Leu Val Gly Glu Val Leu Arg Ile
       165
                             170
Met Gln Lys Leu Ala Glu Glu Gly Lys Thr Met Val Val Val Thr His
 180
                          185
                                           190
Glu Met Gly Phe Ala Arg Asn Val Ser Asn His Val Ile Phe Leu His
195 200
                                       205
Gln Gly Lys Ile Glu Glu Gln Gly His Pro Asp Glu Val Leu Ala Asn
210 215
                        220
Pro Gln Ser Pro Arg Leu Gln Gln Phe Leu Lys Gly Ser Leu Lys
225 230 235
<210> 6069
<211> 350
<212> PRT
<213> Enterobacter cloacae
```

<220> <221>UNSURE <222>(336)

<400> 6069 His Asn Leu Leu Phe Gln Thr Arg Gln Asp Lys Gln Thr Asn Leu Ile 1 5 10 Asp Ile Asn Phe Leu Ala Leu Pro Met Asn Leu Arg Asp Asp Arg Arg 25 3.0 Ile Asp Met Arg Asn Ser Met Asn Ala Phe Ser Pro Ala Gln Phe Arg 40 Ala Gln Phe Pro Ala Leu Ala Asp Ala Gly Ile Tyr Leu Asp Ser Ala 55 60 Ala Thr Ala Leu Lys Pro Gln Ala Val Ile Glu Ala Thr Arg Gln Phe 75 80 65 70 Tyr Ser Leu Ser Ala Gly Asn Val His Arg Ser Gln Tyr Ala Asp Ala 85 90 Gln Arg Leu Thr Ala Gln Tyr Glu Ala Ala Arg Asp Gln Val Ala Arg 105 110 100 Leu Ile Asn Ala Asp Ser Gly Lys Asn Ile Val Trp Thr Arg Gly Thr 115 120 Thr Glu Ala Ile Asn Met Val Ala Gln Cys Tyr Ala Arg Pro Leu Leu 130 135 140 Gln Pro Gly Asp Glu Ile Ile Val Ser Glu Ala Glu His His Ala Asn 145 150 155 160 Leu Val Pro Trp Leu Met Val Ala Glu Gln Thr Gly Ala Gln Val Val 165 170 175 Lys Leu Pro Leu Gly Ala Asp Phe Leu Pro Asp Val Ala Arg Leu Pro

```
Glu Leu Ile Thr Pro Arg Ser Arg Ile Leu Ala Leu Gly Gln Met Ser
             200
 195
Asn Val Thr Gly Gly Cys Pro Asp Leu Ala Arg Ala Ile Glu Ile Ala
                   215
                                    220
His Ala Ser Gly Val Val Val Met Val Asp Gly Ala Gln Gly Val Val
                230
                                235
225
His Phe Pro Ala Asp Val Gin Ala Leu Asp Ile Asp Phe Tyr Ala Phe
                 250
            245
Ser Gly His Lys Leu Tyr Gly Pro Thr Gly Ile Gly Ala Leu Tyr Gly
         260
             265
Lys Pro Glu Leu Leu Ala Arg Met Thr Pro Trp Leu Gly Gly Gly Lys
   275
                      280
Met Ile Thr Glu Val Thr Phe Asp Gly Phe Lys Thr Gln Asp Val Pro
290
                   295
                                    300
Tyr Arg Leu Glu Ala Gly Thr Pro Asn Val Ala Gly Val Ile Gly Leu
305 310
Ser Ala Ala Leu Glu Trp Leu Ala Lys Thr Asp Val Val Gln Ala Xaa
      325 330
Ser Trp Asn Arg Gly Leu Ala Thr Leu Val Glu Lys Asp
  340
               345
<210> 6070
<211> 167
<212> PRT
<213> Enterobacter cloacae
<400> 6070
Arg Arg Cys Ala Gly Phe Arg Arg Pro Arg Pro Gly Ile Thr Gly
       5
                            1.0
Gly Leu Met Thr Ser Ser Ala Leu Ala Gly His Pro Phe Gly Thr Val
                    25
                                          3.0
   20
Ile Thr Glu Glu Thr Leu Lys Gln Thr Phe Val Pro Leu Thr Gln Trp
                                  4.5
                    4.0
Glu Asp Lys Tyr Arg Gln Leu Ile Leu Leu Gly Lys Gln Leu Pro Ala
                5.5
                                   60
Leu Ser Asp Glu Leu Lys Leu Gln Ala Lys Glu Ile Ala Gly Cys Glu
               70
                                7.5
Asn Arg Val Trp Leu Gly Phe Ser Val Ser Gly Glu Lys Leu His Phe
            8.5
                             90
Phe Gly Asp Ser Glu Gly Arg Ile Val Arg Gly Leu Leu Ala Val Leu
        100 105 110
Leu Thr Ala Ile Glu Gly Lys Ser Ala Ala Glu Leu Leu Ala His Ser
     115 120 125
Pro Leu Ala Leu Phe Asp Glu Leu Gly Leu Arg Thr Gln Leu Ser Ala
 130 135 140
Ser Arg Gly Gln Gly Leu Ile Ala Leu Asn Asp Ala Val Leu Asp Ala
145 150
                       155
Ala Arg Gln Ala Gln Ala
            165
<210> 6071
<211> 70
<212> PRT
<213> Enterobacter cloacae
<400> 6071
Phe Arg Gly Arg Ala His Ser Asp Met Val Thr Leu Leu Ala Gly Tyr
                             10
Gly Ile Ala Leu Arg Ala Gly Gln His Cys Ala Gln Pro Leu Leu Ala
```

25 Ala Ile Gly Val Ser Gly Thr Leu Arg Ala Ser Phe Ala Pro Tyr Asn

2.0

4.0 Thr Lys Ser Asp Val Asp Ala Leu Val Ser Ala Val Asp Arg Ala Leu 5.5 Glu Leu Leu Val Asp <210> 6072 <211> 378 <212> PRT <213> Enterobacter cloacae <400> 6072 Gly Gly Gly Thr Thr Thr Ser Ala Pro Gly Glu Asp Asn Glu Arg Ser 10 Trp Ala Lys Tyr Leu Met Thr Gly Ala Met Val Ala Ile Leu Ala Ala 20 Cys Ser Ser Lys Pro Thr Asp Arg Gly Gln Gln Tyr Lys Asp Gly Lys 35 40 Leu Ser Gln Pro Phe Ser Leu Val Asn Gln Pro Asp Ala Val Gly Ala 50 55 60 Pro Ile Asn Ala Gly Asp Phe Ser Glu Gln Val Tyr Gln Ile Arg Lys 70 75 Ala Ser Pro Arg Leu Tyr Gly Ala Gln Asn Asn Val Tyr Ser Ala Val 8.5 90 Gln Asp Trp Leu Arg Ala Gly Gly Asp Thr Arg Asn Met Arg Gln Phe 100 105 110 Gly Ile Asp Ala Trp Gln Met Glu Gly Ala Asp Asn Tyr Gly Asn Val 125 115 120 Gln Phe Thr Gly Tyr Tyr Thr Pro Val Val Gln Ala Arg His Thr Arg 130 135 140 Gln Gly Glu Phe Gln Tyr Pro Ile Tyr Arg Met Pro Pro Lys Arg Gly 145 150 150 155 Arg Leu Pro Ser Arg Ala Glu Ile Tyr Ala Gly Ala Leu Ser Glu Asn 165 170 175 Tyr Val Leu Ala Tyr Ser Asn Ser Lei Met Asp Asn Phe Ile Met Asp 180 185 190 Val Gln Gly Ser Gly Tyr Ile Asp Phe Gly Asp Gly Ser Pro Leu Asn 205 195 200 Phe Phe Ser Tyr Ala Gly Lys Asn Gly His Ala Tyr Arg Ser Ile Gly 215 220 Lys Val Leu Ile Asp Arg Gly Glu Val Lys Arg Glu Asp Met Ser Met 230 235 225 Gln Ala Ile Arg Glu Trp Gly Glu Lys His Ser Glu Ala Glu Vəl Arg 245 250 255 Glu Leu Leu Glu Gln Asn Pro Ser Phe Val Phe Phe Lys Pro Gln Asn 260 265 270 Phe Ala Pro Val Lys Gly Ala Ser Ala Val Pro Leu Ile Gly Arg Ala 285 280 Ser Val Ala Ser Asp Arg Ser Ile Ile Pro Ala Gly Thr Thr Leu Leu 295 300 Ala Glu Val Pro Leu Leu Asp Asn Asn Gly Lys Phe Asn Gly Lys Tyr 310 315 Glu Leu Arg Leu Met Val Ala Leu Asp Val Gly Gly Ala Ile Lys Gly 330 335 325 Gln His Phe Asp Ile Tyr Gln Gly Ile Gly Pro Asp Ala Gly His Arg 340 345 350 Ala Gly Trp Tyr Asn His Tyr Gly Arg Val Trp Val Leu Lys Thr Ala 360 355 Pro Gly Thr Gly Asn Val Phe Ser Gly 370 375

<211> 154 <212> PRT

```
<210> 6073
<211> 271
<212> PRT
<213> Enterobacter cloacae
<400> 6073
Gly Phe Met Ser Val Val Ile Ser Asp Ala Trp Arg Gln Arg Phe Gly
Gly Thr Ala Arg Leu Tyr Gly Glu Lys Ala Leu Gln Leu Phe Ala Asp
         20
                           25
Ala His Val Cys Val Val Gly Ile Gly Gly Val Gly Ser Trp Ala Ala
 3.5
                       4.0
Glu Ala Leu Ala Arg Thr Gly Ile Gly Ala Ile Thr Leu Ile Asp Met
                   55
                                     60
Asp Asp Val Cys Val Thr Asn Thr Asn Arg Gln Ile His Ala Leu Arg
              7.0
                                  75
Asp Asn Val Gly Leu Ala Lys Ser Glu Val Met Ala Glu Arg Ile Arg
            85
                90
Leu Ile Asn Pro Glu Cys Arg Val Thr Val Ile Asp Asp Phe Val Thr
    100 105 110
Ala Asp Asn Val Ala Glu Tyr Met Ser Lys Gly Tyr Ser Tyr Val Ile
115 120 125
Asp Ala Ile Asp Ser Val Arg Pro Lys Ala Ala Leu Ile Ala Tyr Cys
130 135
                                    140
Arg Arg Tyr Lys Val Pro Leu Val Thr Thr Gly Gly Ala Gly Gly Gln
145 150 155
Ile Asp Pro Thr Gln Ile Gln Val Ala Asp Leu Ala Lys Thr Ile Gln
          165 170 175
Asp Pro Leu Ala Ala Lys Leu Arg Glu Arg Leu Lys Ser Asp Phe Asn
                         185 190
Val Val Lys Asn Ser Lys Gly Lys Leu Gly Val Asp Cys Val Phe Ser
195 200 205
Thr Glu Ala Leu Val Tyr Pro Gln Ala Asp Gly Ser Val Cys Ala Met
                   215 220
Lys Ser Thr Ala Glu Gly Pro Lys Arg Met Asp Cys Ala Ser Gly Phe
225 230 235
Gly Ala Ala Thr Met Val Thr Ala Ser Phe Gly Phe Val Ala Val Ser
           245 250 255
His Ala Leu Lys Lys Met Met Ala Lys Ala Glu Arg Gln Ala
                           265
<210> 6074
<211> 69
<212> PRT
<213> Enterobacter cloacae
<400> 6074
Leu Leu Lys Glu Ile Ile Met Lys Lys Thr Ala Ala Ile Ile Ser Ala
                           1.0
Cys Ala Leu Thr Phe Ala Leu Ser Ala Cys Ser Gly Asn Asn Tyr Val
          20
                          25
Met His Thr Asn Asp Gly Arg Ser Ile Val Ser Glu Gly Lys Pro Thr
                       40
                                        4.5
Thr Asp Asn Asp Thr Gly Met Ile Cys Leu His Thr Arg Arg Trp Lys
 50
                    55
Ile Arg Tyr Cys Val
<210> 6075
```

```
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(93)
<220>
<221>UNSURE
<222>(135)
<220>
<221>UNSURE
<222>(142)
<400> 6075
His Leu Leu Cys Ile Asp Ser Lys Thr His Glu Phe Arg Leu Pro Glu
                                    10
Arg Pro Arg Ala Ser Asn Leu Ala Arg Tyr Phe Leu Pro Pro Val Asn
                               25
                                                   3.0
Arg Ile Thr Ala Met Pro Arg Ala Asn Glu Ile Lys Lys Gly Met Val
Leu Asn Tyr Asn Gly Lys Leu Leu Ile Val Lys Asp Ile Asp Ile Gln
                        55
                                           60
Ala Pro Ser Ala Arg Gly Ala Ala Thr Leu Tyr Lys Met Arg Phe Ser
                                        75
                    70
Asp Val Arg Thr Gly Leu Lys Val Glu Glu Arg Phe Xaa Gly Asp Asp
                                                        95
                85
                                    90
Ile Val Asp Thr Val Thr Leu Thr Arg Arg Tyr Val Asp Phe Ser Tyr
                                105
Ile Asp Gly Asn Glu Tyr Val Phe Met Asp Lys Glu Asn Tyr Pro Arg
                            120
        115
Ile Ser Ser Pro Lys Ile Xaa Ser Lys Lys Ser Cys Cys Xaa Phe Leu
Lys Val Gly Cys Arg Thr Cys Arg Cys
                    150
145
<210> 6076
<211> 424
<212> PRT
<213> Enterobacter cloacae
<400> 6076
Phe Phe Val Ala Ile Leu Thr Leu Pro Ser Val Tyr Leu Met Thr Gly
                                    10
Gly Val Asn Ser Ala Ser Leu Cys Tyr Ser Gln Arg Leu Asn Met His
                                 25
                                                    30
            20
Asn Thr Pro Ala Ala Ala Ser Pro Lys Pro Phe Asp Leu Thr Ser Thr
                            40
                                                45
Ala Phe Leu Ile Val Ala Phe Leu Thr Gly Ile Ala Gly Ala Leu Gln
                                             60
                        55
Thr Arg Thr Leu Ser Leu Phe Leu Thr Asn Glu Val His Ala Arg Pro
                                        7.5
                    70
 Ala Met Val Gly Phe Phe Phe Thr Gly Ser Ala Ile Ile Gly Ile Phe
                                    90
                8.5
 Val Ser Gln Phe Leu Ala Gly Arg Ser Asp Arg Lys Gly Asp Arg Lys
                                 105
                                                     110
            100
 Ser Leu Ile Val Phe Cys Cys Leu Leu Gly Val Phe Ala Cys Leu Leu
                                                125
                             120
 Phe Ala Trp Asn Arg Asn Tyr Phe Ile Leu Leu Phe Val Gly Val Phe
                                            140
                         135
 Leu Ser Ser Phe Gly Ser Thr Ala Asn Pro Gln Met Phe Ala Leu Ala
```

```
150
Arg Glu His Ala Asp His Thr Gly Arg Glu Ala Val Met Phe Ser Ser
         165
Ile Leu Arg Ala Gln Val Ser Leu Ala Trp Val Ile Gly Pro Pro Leu
                        185
                                       190
         180
Ala Tyr Ala Leu Ala Met Gly Phe Gly Phe Thr Val Met Tyr Leu Ser
                     200
      195
Ala Ala Val Ala Phe Val Val Cys Gly Ala Met Val Trp Phe Phe Leu
                          220
        215
Pro Ser Met Arg Lys Glu Pro Lys Val Ala Thr Gly Thr Leu Glu Ala
225 230 235
Pro Arg Arg Asn Arg Arg Asp Ala Leu Leu Leu Phe Ile Ile Cys Thr
         245 250
Leu Met Trp Gly Thr Asn Ser Leu Tyr Ile Ile Asn Met Pro Leu Phe
                      265
                               270
      260
Ile Ile Asp Glu Leu His Leu Pro Glu Lys Leu Ala Gly Ile Met Met
                             285
   275 280
Gly Thr Ala Ala Gly Leu Glu Ile Pro Thr Met Leu Ile Ala Gly Tyr
 290 295
                                  300
Tyr Ala Lys Arg Phe Gly Lys Arg Phe Leu Met Arg Val Ala Ala Val
305 310
                   315
Ala Gly Leu Leu Phe Tyr Val Gly Met Leu Thr Val His Thr Pro Ala
       325 330
Leu Leu Leu Ala Leu Gln Leu Leu Asn Ala Ile Tyr Ile Gly Ile Leu
 340 345
Ala Gly Ile Gly Met Leu Tyr Phe Gln Asp Leu Met Pro Gly Gln Ala
 355 360 365
Gly Ser Ala Thr Thr Leu Tyr Tnr Asn Thr Thr Arg Val Gly Trp Ile
 370 375
                                 380
Ile Ala Gly Ser Leu Ala Gly Val Val Ala Glu Ile Trp Asn Tyr His
385 390 395
Thr Val Phe Trp Ile Ala Leu Val Met Cys Val Met Thr Leu Ser Cys
         405
Leu Thr Arg Ile Lys Asp Val
         420
```

<210> 6077 <211> 332 <212> PRT <213> Enterobacter cloacae

<400> 6077 Thr Gly Ala Glu Ser Asp Trp Arg Arg His Arg Gly Arg Ser Gly Gly 1.0 Gly Arg Ile Met Ser Arg Arg Val Ala Thr Ile Thr Leu Asn Pro Ala 25 Tyr Asp Leu Val Gly Phe Cys Pro Glu Ile Glu Arg Gly Glu Val Asn 4.0 4.5 Leu Val Arg Thr Thr Gly Leu His Ala Ala Gly Lys Gly Ile Asn Val 55 60 Ala Lys Val Leu Lys Asp Leu Gly Ile Asp Val Thr Val Gly Gly Phe 70 75 Leu Gly Lys Asp Asn Gln Asp Gly Phe Gln Gln Leu Phe Ser Glu Leu 85 90 Gly Ile Ala Asn Arg Phe Gln Val Val Gln Gly Arg Thr Arg Ile Asn 105 110 100 Val Lys Leu Thr Glu Lys Asp Gly Glu Val Thr Asp Leu Asn Phe Ser 115 120 125 Gly Phe Glu Val Thr Pro Ala Asp Trp Glu Arg Phe Val Ala Asp Ser 1.35 Leu Ser Trp Leu Gly Gln Phe Asp Met Val Cys Val Ser Gly Ser Leu

150 155 Pro Ser Gly Val Ser Pro Glu Ala Phe Thr Asp Trp Met Thr Arg Leu 165 170 Arg Ser Gln Cys Pro Cys Ile Ile Phe Asp Ser Ser Arg Asp Ala Leu 185 180 Val Ala Gly Leu Lys Ala Ser Pro Trp Leu Val Lys Pro Asn Arg Arg 195 200 Glu Leu Glu Ile Trp Ala Gly Arg Lys Leu Pro Glu Leu Lys Asp Val 215 220 Ile Asp Ala Ala His Ala Leu Arg Glu Gln Gly Ile Ala His Val Val 225 230 235 Ile Ser Leu Gly Ala Glu Gly Ala Leu Trp Val Asn Ala Ser Gly Glu 245 250 255 Trp Ile Ala Lys Pro Pro Ser Met Glu Val Val Ser Thr Val Gly Ala 265 260 270 Gly Asp Ser Met Val Gly Gly Leu Ile Tyr Gly Leu Leu Met Arg Glu 280 285 Ser Ser Glu His Thr Leu Arg Leu Ala Thr Ala Val Ala Ala Leu Ala 300 290 295 Val Ser Gln Ser Asn Val Gly Ile Thr Asp Arg Thr Gln Leu Ala Ala 305 310 315 Met Met Ala Arg Val Asp Leu Lys Pro Phe Asn 325 <210> 6078 <211> 389 <212> PRT <213> Enterobacter cloacae <400> 6078 Ala Glu Thr Ile Gln Phe Gln Glu Glu Arg Arg Ile Met Phe Gln Leu 10 Ser Val Gln Asp Ile His Pro Gly Glu Gln Ala Gly Asn Lys Glu Glu 20 25 30 Ala Ile Arg Gln Val Ala Ala Ala Leu Val Gln Ala Gly Asn Val Ala 35 40 4.5 Asp Gly Tyr Val Asn Gly Met Leu Ala Arg Glu Gln Gln Thr Ser Thr 50 55 60 Phe Leu Gly Asn Gly Ile Ala Ile Pro His Gly Thr Thr Asp Thr Arg 70 75 Asp Gln Val Leu Lys Thr Gly Val Gln Val Phe Gln Phe Pro Gln Gly 85 90 Val Leu Trp Gly Glu Gly Gln Val Ala Tyr Val Ala Ile Gly Ile Ala 100 105 110 Ala Ser Gly Asp Glu His Leu Gly Leu Leu Arg Gln Leu Thr His Val 115 120 125 Leu Ser Asp Asp Ala Val Ala Glu Gln Leu Lys Ser Ala Thr Thr Ala 130 135 140 Lys Leu Asp Asn Glu Thr Leu Thr Leu Asp Val Val Ala Ser Asp Leu 165 170 175 Val Thr Leu Gln Ala Leu Asn Ala Ala Arg Leu Lys Glu Val Gly Ala 180 185 190 Ala Asp Ser Ala Phe Val Thr Arg Ala Ile Asn Asp Lys Pro Leu Asn 195 200 205 Leu Gly Gln Gly Ile Trp Leu Asn Asp Ser Ala Glu Gly Asn Leu Arg 210 215 220 Ser Ala Ile Ala Val Ser Arg Ala Ala Val Ala Phe Glu Thr Asp Gly

Glu Arg Ala Ala Met Leu Val Thr Val Ala Met Thr Asp Asp Gln Pro

235 240

250 Val Ser Val Leu Lys Arg Leu Gly Asp Leu Leu Leu Asn Asn Lys Ala 265 260 Glu Lys Leu Leu Asn Ala Asp Ala Ala Thr Val Leu Ala Leu Leu Thr 280 285 Ser Asp Asp Ala Leu Thr Asp Asp Leu Leu Ser Ala Glu Tyr Val Val 300 290 295 Arg Asn Glu His Gly Leu His Ala Arg Pro Gly Thr Met Leu Val Asn 310 315 Thr Ile Lys Gln Phe Glu Ser Glu Ile Thr Val Thr Asn Leu Asp Gly 330 325 335 Ser Gly Lys Pro Ala Asn Gly Arg Ser Leu Met Lys Val Val Ala Leu 340 345 350 Gly Val Lys Lys Gly His Arg Leu Arg Phe Thr Ala Gln Gly Ala Asp 365 355 360 Ala Glu Gln Ala Leu Lys Ala Ile Gly Asp Ala Ile Ala Ala Gly Leu 375 370 Gly Glu Gly Ala 385

<210> 6079

<211> 585 <212> PRT

<213> Enterobacter cloacae

<400> 6079 Asn Leu Leu Thr Asn Ser Arg Gly Ile Met Lys Thr Leu Leu Ile 10 Ile Asp Ser Gly Leu Gly Gln Ala Arg Ala Tyr Met Ala Lys Thr Leu 25 3.0 Leu Gly Ala Ala Ala Gln Lys Ala His Leu Asp Ile Ile Asp Asn Pro 4.0 Gly Asp Ala Glu Met Ala Ile Val Leu Gly Asp Lys Ile Pro Ala Asp 60 50 55 Ser Ala Leu Asn Gly Lys Lys Val Trp Leu Gly Asp Ile Asn Arg Ala 65  $\phantom{-}70\phantom{0}$  70  $\phantom{-}75\phantom{0}$  80 Val Ala His Pro Glu Leu Phe Leu Ser Glu Ala Lys Gly His Ala Thr 85 90 95 Val Tyr Ser Ala Pro Val Glu Ala Ala Pro Val Ala Ala Val Gly Pro 100 105 110 Lys Arg Ile Val Ala Val Thr Ala Cys Pro Thr Gly Val Ala His Thr 115 120 125 Phe Met Ala Ala Glu Ala Ile Glu Thr Glu Ala Lys Lys Arg Gly Trp 130 135 140 Trp Val Lys Val Glu Thr Arg Gly Ser Val Gly Ala Gly Asn Ala Ile 150 155 Thr Pro Glu Glu Val Ala Glu Ala Asp Leu Val Ile Val Ala Ala Asp 165 170 175Ile Glu Val Asp Leu Ala Lys Phe Ala Gly Lys Pro Met Tyr Arg Thr 180 185 190 Ser Thr Gly Leu Ala Leu Lys Lys Thr Ala Gln Glu Phe Asp Lys Ala 195 230 205 Leu Ala Glu Ala Lys Pro Tyr Gln Ala Thr Gly Ala Ala Lys Thr Ala 210 215 220 Thr Glu Gly Lys Lys Glu Ser Ala Gly Ala Tyr Arg His Leu Leu Thr 230 235 240 Gly Val Ser Tyr Met Leu Pro Met Val Val Ala Gly Gly Leu Cys Ile 245 250 255 Ala Leu Ser Phe Ala Phe Gly Ile Glu Ala Phe Lys Glu Pro Gly Thr 260 265 Leu Ala Ala Ala Leu Met Gln Ile Gly Gly Gly Ser Ala Phe Ala Leu

```
280
Met Val Pro Val Leu Ala Gly Phe Ile Ala Phe Ser Ile Ala Asp Arg
                295
                               300
Pro Gly Leu Tnr Pro Gly Leu 11e Gly Gly Met Leu Ala Val Ser Thr
             310
                             315
Gly Ser Gly Phe Ile Gly Gly Ile Ile Ala Gly Phe Leu Ala Gly Tyr
          325
                         330
Val Ala Lys Leu Ile Ser Ser Lys Leu Lys Leu Pro Gln Ser Met Glu
       340
                     345
Ala Leu Lys Pro Ile Leu Ile Ile Pro Leu Ile Ser Ser Leu Val Val
    355 360 365
Gly Leu Ala Met Ile Tyr Leu Ile Gly Lys Pro Val Ala Gly Ile Leu
 370 375
                     380
Glu Gly Leu Thr His Trp Leu Gln Thr Met Gly Thr Ala Asn Ala Val
      390
                            395
Leu Leu Gly Ala Ile Leu Gly Gly Met Met Cys Thr Asp Met Gly Gly
         405 410 415
Pro Val Asn Lys Ala Ala Tyr Ala Phe Gly Val Gly Leu Leu Ser Thr
       420 425 430
Gln Thr Tyr Ala Pro Met Ala Ala Ile Met Ala Ala Gly Met Val Pro
435 440 445
Pro Leu Ala Leu Gly Leu Ala Tar Ile Ile Ala Arg Arg Lys Phe Asp
450 455 460
Lys Ala Gln Gln Glu Gly Gly Lys Ala Ala Leu Val Leu Gly Leu Cys
465 470 475 480
Phe Ile Thr Glu Gly Ala Ile Pro Phe Ala Ala Arg Asp Pro Met Arg
           485 490 495
Val Leu Pro Cys Cys Ile Val Gly Gly Ala Val Thr Gly Ala Ile Ser
        500 505 510
Met Ala Val Gly Ala Lys Leu Met Ala Pro His Gly Gly Leu Phe Val
     515 520 525
Leu Leu Ile Pro Gly Ala Ile Thr Pro Val Leu Gly Tyr Leu Leu Ala
 530 535 540
Ile Val Ala Gly Thr Leu Val Ala Gly Leu Ser Tyr Ala Val Leu Lys
545 550 555
Arg Pro Glu Ala Glu Val Val Ala Lys Ala Pro Ser Val Phe Ser Thr
           565 570
Arg Arg Arg Gly Ser Ala Leu Ser Gln
```

<210> 6080 <211> 832 <212> PRT

<213> Enterobacter cloacae

580

<400> 6080

Lys Arg Trp Gly Cys His Cys Trp Arg Ser Leu Val Leu Lys Leu Thr 10 Thr Leu Leu Val Pro Trp Arg Ala Lys Arg Lys Lys Ala Ser Arg Pro 20 25 Val Leu Ile Ser Thr Gly Asp Lys Asp Met Ala Gln Leu Val Thr Pro 40 35 Gly Ile Thr Leu Ile Asn Thr Met Thr Asn Thr Ile Leu Gly Pro Glu 60 Glu Val Val Ala Lys Tyr Gly Val Pro Pro Glu Leu Ile Ile Asp Phe 70 Leu Ala Leu Met Gly Asp Ser Ser Asp Asn Ile Pro Gly Val Pro Gly 90 8.5 Val Gly Glu Lys Thr Ala Gln Ala Leu Leu Gln Gly Leu Gly Gly Leu 105 Asp Thr Leu Tyr Ala Glu Ser Asp Lys Ile Ala Gly Leu Thr Phe Arg

```
Gly Ala Lys Thr Met Ala Gly Lys Leu Ala Asp Asn Lys Glu Val Ala
               135
                                140
Tyr Leu Ser Tyr Gln Leu Ala Thr Ile Lys Thr Asp Val Lys Leu Glu
145 150
                        155
Leu Thr Cys Glu Gln Leu Glu Val Gln Glu Pro Ala Ala Asp Glu Leu
       165 170 175
Leu Gly Leu Phe Arg Lys Tyr Glu Phe Lys Arg Trp Thr Ala Asp Val
   180 185 190
Glu Ala Gly Lys Trp Leu Gln Ala Lys Gly Ala Lys Pro Ala Ala Lys
     195 200 205
Pro Lys Glu Thr Ile Val Val Asp Ala Glu Glu Gln Ala Glu Glu
 210 215 220
Ala Ile Ala Leu Ser Phe Asp Asn Tyr Glu Thr Ile Leu Glu Glu Ser
225 230 235
Arg Leu Val Ala Trp Ile Glu Lys Leu Lys Lys Ala Pro Val Phe Ala
           245 250 255
Phe Asp Thr Glu Thr Asp Ser Leu Asp Asn Ile Thr Ala Asn Met Val
      260 265 270
Gly Leu Ser Phe Ala Thr Glu Pro Gly Val Ala Ala Tyr Val Pro Val
  275 280 285
Ala His Asp Tyr Leu Asp Ala Pro Glu Gln Ile Ser Arg Glu Arg Ala
      295 300
Leu Glu Leu Leu Lys Pro Ile Leu Glu Tyr Glu Lys Ala Leu Lys Val
    310 315 320
Gly Gln Asn Leu Lys Tyr Asp Arg Gly Ile Leu Gln Asn Tyr Gly Ile
         325 330 335
Glu Leu Arg Gly Ile Ala Phe Asp Thr Met Leu Glu Ser Tyr Ile Leu
         340
            345 350
Asp Ser Val Ala Gly Arg His Asp Met Asp Ser Leu Ser Asp Arg Trp
                    360 365
355
Leu Lys His Lys Thr Ile Thr Phe Glu Glu Ile Ala Gly Lys Gly Lys
               375
Asn Gln Leu Thr Phe Asn Gln Ile Ala Leu Glu Glu Ala Gly Arg Tyr
                             395
    390
Ala Ala Glu Asp Ala Asp Val Thr Leu Gln Leu His Leu Lys Met Trp
               410 415
           405
Pro Lys Leu Gln Lys His Glu Gly Pro Leu Asn Val Phe Arg Asn Ile
                       425 430
        420
Glu Met Pro Leu Val Pro Val Leu Ser Arg Ile Glu Arg Asn Gly Val
                    440
Lys Ile Asp Pro Thr Val Leu His Asn His Ser Gly Glu Leu Ala Gln
                 455 460
Arg Leu Thr Glu Leu Glu Gln Lys Ala His Glu Leu Ala Gly Glu Ala
                              475
              470
465
Phe Asn Leu Ser Ser Pro Lys Gln Leu Gln Thr Ile Leu Phe Glu Lys
                490
            485
Gln Gly Ile Lys Pro Leu Lys Lys Thr Pro Gly Gly Ala Pro Ser Thr
                           510
            505
        500
Ser Glu Glu Val Leu Glu Glu Leu Ala Leu Asp Tyr Pro Leu Pro Lys
                                    525
 515
                     520
Val Ile Leu Gln Tyr Arg Gly Leu Ala Lys Leu Lys Ser Thr Tyr Thr
 530
                  535
                              540
Asp Lys Leu Pro Leu Met Ile Asn Pro Lys Thr Gly Arg Val His Thr
            550
                             555
Ser Tyr His Gln Ala Val Ala Ala Thr Gly Arg Leu Ser Ser Thr Asp
      5.65
                  570
                                          575
Pro Asn Leu Gln Asn Ile Pro Val Arg Asn Glu Glu Gly Arg Arg Ile
    580
                        585
                                       590
Arg Gln Ala Phe Ile Ala Pro Glu Asp Tyr Leu Ile Val Ser Ala Asp
                     600
```

```
Tyr Ser Gln Ile Glu Leu Arg Ile Met Ala His Leu Ser Arg Aso Lys
             615
   610
Gly Leu Leu Thr Ala Phe Ala Glu Gly Lys Asp Ile His Arg Ala Thr
                                 635
                630
Ala Ala Glu Val Phe Gly Leu Pro Leu Glu Ser Val Thr Asn Glu Gln
             645
                              650
Arg Arg Ser Ala Lys Ala Ile Asn Phe Gly Leu Ile Tyr Gly Met Ser
                          665
Ala Phe Gly Leu Ser Arg Gln Leu Asn Ile Pro Arg Lys Glu Ser Gln
                       680
      675
Lys Tyr Met Asp Leu Tyr Phe Glu Arg Tyr Pro Gly Val Leu Glu Tyr
                   695
 690
Met Glu Arg Thr Arg Ala Gln Ala Lys Glu Lys Gly Tyr Val Glu Thr
705 710
                                 715
Leu Asp Gly Arg Arg Leu Tyr Leu Pro Asp Ile Lys Ser Ser Asn Ala
             725
                              730
Ala Arg Arg Ala Gly Ala Glu Arg Ala Ala Ile Asn Ala Pro Met Gln
         740 745
                                            750
Gly Thr Ala Ala Asp Ile Ile Lys Arg Ala Met Ile Ala Val Asp Ala
     755 760 765
Trp Leu Glu Lys Glu Lys Pro Arg Val Lys Met Ile Met Gln Val His
 770 775 780
Asp Glu Leu Val Phe Glu Val His Lys Asp Asp Leu Glu Thr Val Ser
785 790 795 800
Gln Lys Ile His Glu Leu Met Glu Asn Ser Met Lys Leu Asp Val Pro
  805 810 815
Leu Leu Val Glu Val Gly Ser Gly Glu Asn Trp Asp Gln Ala His
                          825
<210> 6081
<211> 86
<212> PRT
<213> Enterobacter cloacae
<400> 6081
Asn Ile Met Lys Lys Pro Thr Ser Ala Ala Gly Ala Lys Arg Pro Ala
                           10
Lys Ala Arg Arg Lys Thr Arg Glu Glu Leu Asn Gln Glu Ala Arg Asp
                          25
                                           3.0
Arg Lys Arg Asp Lys Lys His Arg Gly His Ala Ala Gly Ser Arg Ala
                  40
                                  4.5
Asn Gly Gly Gly Ala Pro Ser Ala Ser Gly Lys Arg Gln Pro Ala Glu
                55
Lys Ile Leu Val Ser Ala Ile Lys Thr Pro Ile Gln Leu Gly Arg Glu
Arg His Pro Gly His
<210> 6082
<211> 157
<212> PRT
<213> Enterobacter cloacae
<400> 6082
Cys Phe His Pro Ser Val Ala Ser Phe Thr His Lys Phe Ile Thr Gly
                              10
Thr Asp Ile Met Val Gln Ile Pro Glu Asn Pro Leu Ile Leu Val Asp
       2.0
Gly Ser Ser Tyr Leu Tyr Arg Ala Tyr His Ala Phe Pro Pro Leu Thr
      35
                       4.0
Asn Ser Ala Gly Glu Pro Thr Gly Ala Met Tyr Gly Val Leu Asn Met
```

```
Leu Arg Ser Leu Ile Leu Gln Tyr His Pro Thr His Ala Ala Val Val
                70
                                 75
Phe Asp Ala Lys Gly Lys Thr Phe Arg Asp Glu Leu Phe Glu His Tyr
                             90
            85
Lys Ser His Arg Pro Pro Met Pro Asp Asp Leu Arg Ala Gln Ile Glu
                          105
         100
Pro Leu His Ala Met Val Lys Ala Met Gly Leu Pro Leu Leu Ala Val
                                  125
 115
                 120
Ser Gly Val Glu Ala Asp Asp Val Ile Gly Thr Leu Ala Arg Glu Ala
                 135
                                 140
Glu Lys Ser Lys Pro Pro Gly Ser Asp Gln Tyr Arg
<210> 6083
<211> 221
<212> PRT
<213> Enterobacter cloacae
<400> 6083
Ser Pro Gln Ile Thr Ile Phe Gly Asp Asp His Val Thr Thr Trp Asn
Tyr Gln Gln Thr His Phe Val Thr Ser Ala Pro Asp Ile Arg His Leu
 20
                          25
Pro Ser Asp Thr Gly Ile Glu Val Ala Phe Ala Gly Arg Ser Asn Ala
35
                                       45
                 4.0
Gly Lys Ser Ser Ala Leu Asn Thr Leu Thr Asn Gln Lys Asn Leu Ala
50 55
                                   60
Arg Thr Ser Lys Thr Pro Gly Arg Thr Gln Leu Ile Asn Leu Phe Glu
                                 7.5
             70
Val Ala Glu Gly Lys Arg Leu Val Asp Leu Pro Gly Tyr Gly Tyr Ala
                             90
            85
Gln Val Pro Glu Glu Met Lys Ile Lys Trp Gln Arg Ala Leu Gly Glu
         100 105
                                          110
Tyr Leu Glu Lys Arg Met Cys Leu Lys Gly Leu Val Val Leu Met Asp
 125 120
                                     125
Ile Arg His Pro Leu Lys Asp Leu Asp Gln Gln Met Ile Asp Trp Ala
 130 135 140
Val Ala Ser Asp Ile Ala Val Leu Val Leu Leu Thr Lys Ala Asp Lys
145 150
                               155
Leu Ala Ser Gly Ala Arg Lys Ala Gln Val Asn Lys Val Arg Glu Ala
            165 170 175
Val Leu Ala Phe Asn Gly Asp Val Gln Val Glu Pro Phe Ser Ser Leu
         180 185 190
Lys Lys Gln Gly Val Asp Lys Leu Arg Gln Lys Leu Asp Ser Trp Phe
    195 200 205
Asn Asp Leu Glu Pro Ala Thr Glu Ala Glu Ala Glu
  210
                    215
<210> 6084
<211> 216
<212> PRT
<213> Enterobacter cloacae
<400> 6084
Thr Arg Trp Ile Phe Ala Gly Val Val Lys Thr Gly Glu Thr Leu Asp
                       10
Asn Glu Leu Leu Asp Glu Leu Ser His Ser Pro Glu Met Gln Gln Thr
                        25
Trp Glu Ser Tyr His Leu Ile Arg Asp Thr Leu Arg Gly Asp Thr Ser
```

```
Glu Val Leu His Phe Asp Ile Ser Ala Arg Val Met Ala Ala Ile Glu
                  55
Asn Glu Pro Val His Gln Thr Thr Pro Leu Ile Pro Glu Ala Gln Pro
                               75
               7.0
Ala Pro His Gln Trp Gln Lys Met Pro Phe Trp His Lys Val Arg Pro
                            90
            85
Trp Ala Ser Gln Leu Thr Gln Met Gly Val Ala Ala Cys Val Ser Leu
              105
Ala Val Ile Val Gly Val Gln His Tyr Asn Thr Gln Ser Glu Ala Asn
                     120
      115
Gln Gln Pro Glu Ala Pro Val Phe Asn Thr Leu Pro Met Met Gly Lys
 130 135
Ala Ser Pro Val Ser Leu Gly Val Pro Ala Asp Ala Ser Ala Ser Gly
145 150
                              155
Gly Gln Gln Gln Gln Val Gln Glu Gln Arg Arg Ile Asn Ala Met
      165 170
Leu Gln Asp Tyr Glu Leu Gln Arg Arg Leu His Ser Glu Gln Leu Gln
                             190
    180 185
Phe Glu Gln Ala Gln Thr Gln Gln Ala Ala Val Gln Val Pro Gly Asn
 195 200 205
Gln Thr Leu Gly Thr Gln Ser Gln
<210> 6085
<211> 544
<212> PRT
<213> Enterobacter cloacae
<400> 6085
Leu Phe Asn Tyr Met Lys Asn Ile Arg Asn Phe Ser Ile Ile Ala His
                         10
Ile Asp His Gly Lys Ser Thr Leu Ser Asp Arg Ile Ile Gln Ile Cys
                      25
 20
                                        3.0
Gly Gly Leu Ser Asp Arg Glu Met Ala Ala Gln Val Leu Asp Ser Met
                  40
                                   45
Asp Leu Glu Arg Glu Arg Gly Ile Thr Ile Lys Ala Gln Ser Val Thr
                  55
Leu Asp Tyr Lys Ala Ser Asp Gly Glu Thr Tyr Gln Leu Asn Phe Ile
             70
                            75
Asp Thr Pro Gly His Val Asp Phe Ser Tyr Glu Val Ser Arg Ser Leu
            8.5
               90
Ala Ala Cys Glu Gly Ala Leu Leu Val Val Asp Ala Gly Gln Gly Val
        100 105
                                        110
Glu Ala Gln Thr Leu Ala Asn Cys Tyr Thr Ala Met Glu Met Asp Leu
     115 120 125
Glu Val Val Pro Val Leu Asn Lys Ile Asp Leu Pro Ala Ala Asp Pro
 130 135
                       140
Glu Arg Val Ala Glu Glu Ile Glu Asp Ile Val Gly Ile Asp Ala Thr
145 150 155 160
Asp Ala Val Arg Cys Ser Ala Lys Thr Gly Val Gly Val Pro Asp Val
           165 170 175
Leu Glu Arg Leu Val Arg Asp Ile Pro Pro Pro Glu Gly Asp Pro Asp
        180 185
                             190
Ala Pro Leu Gln Ala Leu Ile Ile Asp Ser Trp Phe Asp Asn Tyr Leu
          200 205
    195
Gly Val Val Ser Leu Val Arg Ile Lys Asn Gly Thr Met Arg Lys Gly
 210 215 220
Asp Lys Ile Lys Val Met Ser Thr Gly Gln Val Tyr Asn Ala Asp Arg
             230 235
Leu Gly Ile Phe Thr Pro Lys Gln Val Asp Arg Thr Glu Leu Lys Cys
```

```
Gly Glu Val Gly Trp Leu Val Cys Ala Ile Lys Asp Ile Leu Gly Ala
                  265
        260
Pro Val Gly Asp Thr Leu Thr Gly Ala Arg Asn Pro Ala Asp Lys Ala
                    280
   275
Leu Pro Gly Phe Lys Lys Val Lys Pro Gln Val Tyr Ala Gly Leu Phe
                                300
      295
Pro Val Ser Ser Asp Asp Tyr Glu Asn Phe Arg Asp Ala Leu Gly Lys
                  315
305 310
Leu Ser Leu Asn Asp Ala Ser Leu Phe Tyr Glu Pro Glu Ser Ser Thr
      325 330
Ala Leu Gly Phe Gly Phe Arg Cys Gly Phe Leu Gly Leu Leu His Met
                                      350
        340
                       345
Glu Ile Ile Gln Glu Arg Leu Glu Arg Glu Tyr Asp Leu Asp Leu Ile
                                  365
     355 360
Thr Thr Ala Pro Thr Val Val Tyr Glu Val Glu Thr Thr Ser Lys Glu
      375
                                380
Val Ile Tyr Val Asp Ser Pro Ser Lys Leu Pro Pro Leu Asn Asn Ile
385 390
                             395
Gln Glu Leu Arg Glu Pro Ile Ala Glu Cys His Met Leu Leu Pro Gln
     405 410 415
Glu Phe Leu Gly Asn Val Ile Thr Leu Cys Ile Glu Lys Arg Gly Val
            425
                            430
 420
Gln Thr Asn Met Val Tyr His Gly Asn Gln Val Ala Leu Thr Tyr Glu
 435 440 445
Ile Pro Met Ala Glu Val Vai Leu Asp Phe Phe Asp Arg Leu Lys Ser
 450 455 460
Thr Ser Arg Gly Tyr Ala Ser Leu Asp Tyr Asn Phe Lys Arg Phe Gln
465 470 475 480
Ala Ser Asn Met Val Arg Val Asp Val Leu Ile Asn Gly Glu Arg Val
      485 490 495
Asp Ala Leu Ala Leu Ile Thr His Asn Asp Asn Ala Pro Tyr Arg Gly
        500 505 510
Arg Glu Leu Val Glu Lys Met Lys Asp Leu Ile Pro Arg Gln Gln Phe
 515 520 525
Asp Ile Ala Ser Leu His Thr Arg Leu Ala Gly Ser Ala Leu Arg Tyr
```

535

```
530
<210> 6086
<211> 164
<212> PRT
```

130

<213> Enterobacter cloacae

<400> 6086 Ile Gln Gly Cys Ala Met Ile Lys Glu Trp Ala Thr Val Val Ser Trp 10 Gln Asp Gly Val Ala Leu Val Ser Cys Asp Val Lys Ala Ser Cys Ser 25 20 Ser Cys Ala Ser Arg Ala Gly Cys Gly Ser Arg Val Leu Asn Lys Leu 40 4.5 Gly Pro Gln Thr Ser His Thr Ile Thr Val Pro Ser Ala Gln Pro Leu 55 Val Ala Gly Gln Lys Val Glu Leu Gly Ile Ala Glu Gly Ser Leu Leu 70 75 Thr Ser Ala Met Leu Val Tyr Leu Ser Pro Leu Ala Gly Leu Phe Val 90 Met Gly Gly Val Phe Gln Met Leu Phe Gly Thr Asp Leu Ala Ala Met 110 100 Cys Gly Ala Ala Leu Gly Gly Val Gly Gly Phe Trp Leu Ala Lys Gly 125 115 120 Val Ser Pro Arg Leu Ala Ala Arg Glu Ala Trp Gln Pro Val Ile Leu 135

```
Ser Val Ala Leu Ala Pro Asp Gln Leu Arg Val Glu Thr Leu Ser Ser
145 150
                            155
Lys Ala Arg
<210> 6087
<211> 341
<212> PRT
<213> Enterobacter cloacae
<400> 6087
Ala Gly Pro Asn Pro Ala Gly Cys Cys Ala Gly Ala Arg Lys Pro Asn
     5
                        10
Phe Arg Asn Ala Ile Ala Val Met Lys Gln Leu Trp Phe Ala Met Ser
      20 25 30
Leu Met Ala Gly Ser Leu Phe Phe Ser Ala Asn Ala Ser Ala Asp Val
35 40 45
Ser Ser Gly Ala Leu Leu Gln Gln Met Asn Leu Ala Ser Gln Ser Leu
               55 60
Asn Tyr Glu Leu Ala Phe Ile Ser Ile Asn Lys Gln Gly Val Glu Ser
65 70 75
Leu Arg Tyr Arg His Ala Arg Leu Asp Asn Gln Pro Leu Ala Gln Leu
          85 90 95
Leu Gln Met Asp Gly Pro Arg Arg Glu Val Val Gln Arg Gly Asn Glu
      100 105 110
Ile Ser Tyr Phe Glu Pro Gly Leu Glu Pro Phe Thr Leu Asn Gly Asp
115 120 125
Tyr Ile Val Asp Ser Leu Pro Ser Leu Ile Tyr Thr Asp Phe Lys Arg
 130 135
                                140
Leu Ala Pro Tyr Tyr Asp Phe Ile Ser Val Gly Arg Thr Arg Ile Ala
           150
                             155
Asp Arg Leu Cys Glu Val Ile Arg Val Val Ala Arg Asp Gly Thr Arg
           165
                          170 175
Tyr Ser Tyr Ile Val Trp Ile Asp Ala Glu Thr Lys Leu Pro Met Arg
      180 185 190
Val Asp Leu Leu Asp Arg Asp Gly Glu Thr Leu Glu Gln Phe Arg Val
     195 200
                                  205
Ile Ser Phe Asp Val Asn Ser Gln Val Gly Asn Ser Met Gln Tyr Leu
  210
               215 220
Ala Lys Ala Ser Leu Pro Pro Leu Leu Ser Val Pro Ala Gly Asp Ser
                             235
225
           230
Val Asn Phe Asn Trp Val Pro Ser Trp Ile Pro Gln Gly Phe Ser Glu
           245
                          250
Val Ser Ser Ser Arg Arg Gln Leu Pro Thr Ile Glu Thr Pro Val Glu
        260 265
Ser Arg Leu Tyr Ser Asp Gly Leu Phe Ser Phe Ser Val Asn Ile Asn
                    280
                        285
Arg Ala Thr Ala Asn Ser Ser Glu Gln Met Leu Arg Thr Gly Arg Arg
                 295
 290
                                300
Thr Val Ser Thr Thr Val Arg Asp Asn Ala Glu Ile Thr Ile Val Gly
              310
                             315
Glu Leu Pro Pro Pro Thr Ala Lys Arg Ile Ser Asp Ser Ile Lys Phe
                          330
                                         335
Arg Ala Ala Gln
        340
```

<sup>&</sup>lt;210> 6088 <211> 81

<sup>&</sup>lt;211> 81 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6088
Arg Leu Ser Leu Leu Val Gly Arg His Leu Lys Ile Tyr Phe Val Pherson Inc.
5
10
15
15
16
17
18
19
10
15
15
16
17
18
19
19
19
19
10
10
15
15
16
17
18
19
19
19
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10
10

<210> 6089 <211> 272 <212> PRT <213> Enterobacter cloacae

<400> 6089 Asp Ile Thr Ser Glu Asn Leu Asp Ala Arg Leu Glu Arg Thr Arg Val 10 Pro Ile Glu Leu Glu Gln Leu Val Ile Ser Phe Asn His Met Ile Gly 20 25 Lys Ile Glu Asp Val Phe Thr Arg Gln Ala Asn Phe Ser Ala Asp Ile 40 4.5 Ala His Glu Ile Arg Thr Pro Ile Thr Asn Leu Val Thr Gln Thr Asp 55 60 Ile Ala Leu Ser Gln Asp Arg Thr Gln Arg Glu Leu Glu Asp Val Leu 70 75 Tyr Ser Ser Leu Glu Glu Tyr Asn Arg Met Thr Lys Met Val Ser Asp 85 90 Met Leu Phe Leu Ala Gln Ala Asp Asn Asn Gln Leu Ile Pro Asp Arg 105 110 100 Val Met Phe Asp Leu Arg Ala Glu Val Met Lys Val Phe Glu Phe Phe 115 120 125 Glu Ala Trp Ala Glu Glu Arg Asn Ile Thr Leu Lys Phe Asn Gly Met 135 140 Pro Cys Leu Val Glu Gly Asp Pro Gln Met Phe Arg Arg Ala Ile Asn 150 155 Asn Leu Leu Ser Asn Ala Leu Arg Tyr Thr Pro Glu Gly Gln Ala Ile 165 170 175 Thr Val Ser Ile Arg Glu Gln Glu Ser Phe Phe Asp Leu Val Ile Glu 185 190 180 Asn Pro Gly Lys Pro Ile Pro Glu Glu His Leu Ser Arg Leu Phe Asp 200 205 195 Arg Phe Tyr Arg Val Asp Pro Ser Arg Gln Arg Lys Gly Glu Gly Ser 210 220 Gly Ile Gly Leu Ala Ile Val Lys Ser Ile Val Glu Ala His His Gly 230 235 Arg Val Gln Val Glu Ser Asp Val His Ser Thr Arg Phe Ile Leu Ser 245 250 255 Val Pro Arg Leu Glu Lys Met Ile Pro Asp Thr Gln Cys Trp Glu 260 265

<210> 6090 <211> 148

<211> 140 <212> PRT

<212> PRT <213> Enterobacter cloacae

<400> 6090

```
Pro Asp Ile Trp Gln His Leu Cys Pro Leu Gln Gly His Phe Tyr Gln
Ile Leu Leu Gln Leu Thr Gly Ile Asn Ala Lys Arg Ile Phe Phe Met
                          25
Lys Ala Arg Asn Thr Leu Phe Ala Val Leu Met Leu Ser Leu Pro Ala
   35
                      40
Ile Ser Ala Glu His Ser Glu Met Lys Met Thr Asp Met Ser Thr Ser
Ala Ser Ser Gln Glu Tyr Met Ala Gly Met Lys Asp Met His Asp Lys
Met Met Ala Ala Val Asn Glu Ser Asp Pro Asp Lys Ala Phe Ala Lys
        85
                             90
Gly Met Val Ala His His Glu Gly Ala Ile Ala Met Ala Glu Thr Glu
        100 105
Leu Lys Tyr Gly Lys Asp Pro Lys Met Arg Lys Leu Ala Gln Asp Ile
     115 120
                           125
Ile Lys Ala Gln Lys Gly Gl: Ile Glu Gln Met Asn Lys Trp Leu Asp
                135
Ser Gln Lys
145
<210> 6091
<211> 234
<212> PRT
<213> Enterobacter cloacae
<400> 6091
Phe Arg Thr Pro Ser Ala Gly Asn Lys Asp Leu Asn Asp Lys Asp Val
                             10
Ile Ser Leu Ser Cys Ser Lys Gln Lys Pro Phe Asp Ile Ile Ser Ala
                        25
                                          30
Thr Tyr Gln Glu Gly Trp Ile Ala Leu Ser Ile Ser Gly Val Ser Gly
                                    4.5
   35 40
Arg Gln Glu Met Asn Ile Gln Ser Pro Pro Gly Glu Ile Asn Thr Ser
                  55
                                    60
Glu Pro Val Ser Val Met Glu Leu Lys Thr Pro Val Val Leu Pro Arg
                70 75
Thr Ser Leu Ile Lys Lys Trp Arg Val Ile Met Lys Asn Ile Val Leu
             85
                      90 95
Ala Ser Leu Leu Gly Phe Gly Leu Ile Ser Ser Ala Trp Ala Thr Glu
       100 105 110
Thr Val Asn Ile His Glu Arg Val Asn Asn Ala Gln Ala Pro Ala His
                      120 125
    115
Gln Met Gln Ser Ala Ala Ala Pro Val Gly Ile Gln Gly Thr Ala Pro
                 135
                                  140
Arg Met Ala Gly Met Asp Gln His Glu Gln Ala Ile Ile Ala His Glu
                150 155 160
145
Thr Met Thr Asn Gly Ser Ala Asp Ala His Gln Lys Met Val Glu Ser
            165 170 175
His Gln Arg Met Met Gly Ser Gln Thr Val Ser Pro Thr Gly Pro Ser
              185 190
          180
Lys Ser Leu Ala Ala Met Asn Glu His Glu Arg Ala Ala Val Ala His
                       200 205
      195
Glu Phe Met Asn Asn Gly Gln Ser Gly Pro His Gln Ala Met Ala Glu
                   215
Ala His Arg Arg Met Leu Ser Ala Gly
                 230
<210> 6092
<211> 132
```

<212> PRT

## <213> Enterobacter cloacae

```
<400> 6092
Leu Gly Arg Val Ala Cys Gly Leu Leu Leu Leu Ala Gly Cys Arg Cys
Cys Val Gly Phe Pro Gly Gly Ala Ala Leu Arg Leu Ala Val Arg Val
                               25
                                                   30
Arg Phe Cys Arg Cys Phe Ala Gly Arg Leu Leu Arg Ala Leu Leu Pro
        35
                           40
Leu Leu Pro Ser Leu Ser Val Gly Ala Gly Gly Gly Leu Ala Pro Phe
                       5.5
                                           60
Phe Phe Ser Ala Cys Ala Leu Pro Phe Phe Leu Pro Ser Ser Phe
                   70
                                       75
Pro Ser Leu Pro Tyr Ser Val Tyr Thr Ile Asp Glu His Leu Asp Met
                                   90
               8.5
Leu Met Val Cys His His Leu Asp Pro Asp Ile Ala Glu Asp Val Ala
                                                 110
            100
                        105
Phe Ala Glu Ser Arg Ile Arg Arg Glu Thr Ile Ala Ala Glu Asp Val
                           120
     115
Leu His Asp Ile
    130
<210> 6093
<211> 256
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(45)
<220>
<221>UNSURE
<222>(46)
<220>
<221>UNSURE
<222>(47)
<220>
<221>UNSURE
<222>(48)
<220>
<221>UNSURE
<222>(49)
<220>
<221>UNSURE
<222>(50)
<220>
<221>UNSURE
<222>(51)
<220>
<221>UNSURE
<222>(52)
```

<220> <221>UNSURE

```
<222>(53)
<220>
<221>UNSURE
<222>(54)
<221>UNSURE
<221>UNSURE
<222>(56)
<220>
<221>UNSURE
<222>(57)
<220>
<221>UNSURE
<222>(58)
<400> 6093
Arg Tyr Arg Thr Pro Leu Pro Ala Leu Pro Arg Thr Tyr Gln Tyr Ala
                            10
Arg Pro Leu Phe Leu His Ala Gly Arg Thr Gly Asp Gln Arg Thr Ser
                           25
                                30
          20
Glu Thr Ile Lys Arg Gly Val Arg Gly Arg Lys Arg Xaa Xaa Xaa Xaa
       35
                       4.0
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Ala Ala Pro Gly Ser
                  55
Arg Ser Met Gln Glu Trp Arg Pro Ala Arg Arg Arg Arg Ala His Arg
                                75
65
Ala Arg Phe Val Val Gln Thr Tyr Val Gly Pro Phe Glu Phe Gly Leu
                               90 95
              85
Asp Ser Val Thr Leu Leu Pro Tyr Ser Cys Thr Glu Ser Ser Asp Met
                            105 110
          100
Glu Asn Asn Leu Glu Asn Leu Thr Ile Gly Val Phe Ala Lys Ala Ala
                        120 125
Gly Val Asn Val Glu Thr Ile Arg Phe Tyr Gln Arg Lys Gly Leu Leu
                     135
                                     140
   130
Arg Glu Pro Asp Lys Pro Tyr Gly Ser Ile Arg Arg Tyr Gly Glu Ala
                                155
                 150
Asp Val Val Arg Val Lys Phe Val Lys Ser Ala Gln Arg Leu Gly Phe
                               170
              165
Ser Leu Asp Glu Ile Ala Glu Leu Leu Arg Leu Asp Asp Gly Thr His
                            185
          180
Cys Glu Glu Ala Ser Ser Leu Ala Glu His Lys Leu Lys Asp Val Arg
                        200 205
  195
Glu Lys Met Ala Asp Leu Ala Arg Met Glu Thr Val Leu Ser Glu Leu
                                      220
  210
                    215
Val Cys Ala Cys His Ala Arg Lys Gly Asn Val Ser Cys Pro Leu Ile
                               235
225
                 230
Ala Ser Leu Gln Gly Glu Ala Gly Leu Ala Arg Ser Ala Met Pro
                               250
              245
<210> 6094
<211> 117
<212> PRT
```

<sup>&</sup>lt;213> Enterobacter cloacae

```
A SECTION OF SECTION S
```

<220> <221>UNSURE

```
<400> 6094
Ala Phe Ile Arg Arg Thr Ile Met Glu Asn Ile Ala Leu Ile Gly Ile
               5
                                   10
Asp Leu Gly Lys Asn Ser Phe His Ile His Cys Gln Asp Arg Arg Gly
            20
                              25
Lys Ala Val Tyr Arg Lys Lys Phe Thr Arg Pro Lys Leu Ile Glu Phe
                          4.0
Leu Ala Thr Cys Pro Ala Thr Thr Ile Ala Met Glu Ala Cys Gly Gly
                                          60
                   55
    5.0
Ser His Phe Met Ala Arg Lys Leu Glu Glu Leu Gly His Phe Pro Lys
                            75
65
                   70
Leu Ile Ser Pro Gln Phe Val Arg Pro Phe Val Asn Tyr Ile Lys Asn
                                  90
                                           95
               8.5
Asp Phe Val Asp Ala Glu Ala Ile Cys Glu Ala Ala Ser Arg Pro Ser
                               105
            100
Met Arg Phe Val His
<210> 6095
<211> 1074
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(1060)
<220>
<221>UNSURE
<222>(1061)
<220>
<221>UNSURE
<222>(1062)
<220>
<221>UNSURE
<222>(1063)
<220>
 <221>UNSURE
 <222>(1064)
 <220>
 <221>UNSURE
 <222>(1065)
 <220>
 <221>UNSURE
 <222>(1066)
 <220>
 <221>UNSURE
 <222>(1067)
 <220>
 <221>UNSURE
 <222>(1068)
```

<222>(1069) <220> <221>UNSURE <220> <221>UNSURE <220> <221>UNSURE <222>(1072) <400> 6095 Pro Lys Ser Arg Ile Lys Met Tyr Leu Lys Ser Asn Ile Gly Gln Leu Met Ser Ile Ile Thr Asn Leu Arg Phe Asn Arg His Ile Asn Val Thr 30 25 20 Val Leu Arg Cys Pro Ile Ile Tyr Asn Ile Ser Tyr Gly Trp Lys Asn 4.0 4.5 35 Val Thr Lys Cys Pro Ser Gly Arg Glu Ala Asp Met Pro Val Asp Phe 55 Leu Thr Thr Glu Gln Thr Glu Ser Tyr Gly Arg Phe Thr Gly Glu Pro 7.5 70 Asp Glu Leu Gln Leu Ala Arg Tyr Phe His Leu Asp Glu Ala Asp Lys 85 90 Glu Phe Ile Gly Lys Ser Arg Gly Asp His Asn Arg Leu Gly Ile Ala 100 105 110 Leu Gln Ile Gly Cys Val Arg Phe Leu Gly Thr Phe Leu Thr Asp Met 115 120 125 Asn His Ile Pro Ser Gly Val Arg His Phe Thr Ala Arg Gln Leu Gly 130 135 140 Ile Arg Asp Ile Thr Val Leu Ala Glu Tyr Gly Gln Arg Glu Asn Thr 150 155 145 Arg Arg Glu His Ala Ala Leu Ile Arg Gln His Tyr Gln Tyr Arg Glu 165 170 175 Phe Ala Trp Pro Trp Thr Phe Arg Leu Thr Arg Leu Leu Tyr Thr Arg 180 185 190 Ser Trp Ile Ser Asn Glu Arg Pro Gly Leu Leu Phe Asp Leu Ala Thr 195 200 205 Gly Trp Leu Met Gln His Arg Ile Ile Leu Pro Gly Ala Thr Thr Leu 215 220 210 Thr Arg Leu Ile Ser Glu Val Arg Glu Lys Ala Thr Leu Arg Leu Trp 235 240 230 225 Asn Lys Leu Ala Leu Ile Pro Ser Ala Glu Gln Arg Ser Gln Leu Glu 245 250 255 Met Leu Leu Gly Pro Thr Asp Cys Ser Arg Leu Ser Leu Leu Glu Ser 260 265 270 Leu Lys Lys Gly Pro Val Thr Ile Ser Gly Pro Ala Phe Asn Glu Ala 280 285 Ile Glu Arg Trp Lys Thr Leu Asn Asp Phe Gly Leu His Ala Glu Asn 295 300 290 Leu Ser Thr Leu Pro Ala Val Arg Leu Lys Asn Leu Ala Arg Tyr Ala 310 315 320 Gly Met Thr Ser Val Phe Asn Ile Ala Arg Met Ser Pro Gln Lys Arg 330 335 325 Met Ala Val Leu Val Ala Phe Val Leu Ala Trp Glu Thr Leu Ala Leu

343 350

Asp Asp Ala Leu Asp Val Leu Asp Ala Met Leu Ala Val Ile Ile Arg

360

340

```
Asp Ala Arg Lys Ile Gly Gln Lys Lys Arg Leu Arg Ser Leu Lys Asp
                 375
Leu Asp Lys Ser Ala Leu Ala Leu Ala Ser Ala Cys Ser Tyr Leu Leu
                             395
              390
Lys Glu Glu Thr Pro Asp Glu Ser Ile Arg Ala Glu Val Phe Ser Tyr
                        410
           405
Ile Pro Arg Gln Lys Leu Ala Glu Ile Ile Thr Leu Val Arg Glu Ile
        420
                      425
Ala Arg Pro Ser Asp Asp Asn Phe His Glu Glu Met Val Glu Gln Tyr
  435 440 445
Gly Arg Val Arg Arg Phe Leu Pro His Leu Leu Asn Thr Val Lys Phe
       455
                     460
 450
Ser Ser Ala Pro Ala Gly Val Thr Thr Leu Asn Ala Cys Asp Tyr Leu
465 470
                            475
Ser Arg Glu Phe Ser Ser Arg Arg Gln Phe Phe Asp Asp Ala Pro Thr
        485
                          490
Glu Ile Ile Ser Arg Ser Trp Lys Arg Leu Val Ile Asn Lys Glu Lys
                       505
        500
His Ile Thr Arg Arg Gly Tyr Thr Leu Cys Phe Leu Ser Lys Leu Gln
 515
Asp Ser Leu Arg Arg Arg Asp Val Tyr Val Thr Gly Ser Asn Arg Trp
 530 535
                                540
Gly Asp Pro Arg Ala Arg Leu Leu Gln Gly Ala Asp Trp Gln Ala Asn
545 550 555
Arg Ile Lys Val Tyr Arg Ser Leu Gly His Pro Thr Asp Pro Gln Glu
      565 570 575
Ala Ile Lys Ser Leu Gly His Gln Leu Asp Ser Arg Tyr Arg Gln Val
      580 585 590
Ala Ala Arg Leu Cys Glu Asn Glu Ala Val Glu Leu Asp Val Ser Gly
 595 600
                                   605
Pro Lys Pro Arg Leu Thr Ile Ser Pro Leu Ala Ser Leu Asp Glu Pro
 610 615 620
Asp Ser Leu Lys Arg Leu Ser Lys Met Ile Ser Asp Leu Leu Pro Pro
625 630 635
Val Asp Leu Thr Glu Leu Leu Glu Ile Asn Ala His Thr Gly Phe
      645 650
                                       655
Ala Asp Glu Phe Phe His Ala Ser Glu Ala Ser Ala Arg Val Asp Asp
        660 665
Leu Pro Val Ser Ile Ser Ala Val Leu Met Ala Glu Ala Cys Asn Ile
     675 680 685
Gly Leu Glu Pro Leu lle Arg Ser Asn Val Pro Ala Leu Thr Arg His
  - 690 695 700
Arg Leu Asn Trp Thr Lys Ala Asn Tyr Leu Arg Ala Glu Thr Ile Thr
705 710 715
Ser Ala Asn Ala Arg Leu Val Asp Phe Gln Ala Thr Leu Pro Leu Ala
            725 730
Gln Ile Trp Gly Gly Gly Glu Val Ala Ser Ala Asp Gly Met Arg Phe
         740 745 750
Val Thr Pro Val Arg Thr Ile Asn Ala Gly Pro Asn Arg Lys Tyr Phe
                    760 765
      755
Gly Asn Asn Arg Gly Ile Thr Trp Tyr Asn Phe Val Ser Asp Gln Tyr
                 775 780
Ser Gly Phe His Gly Ile Val Ile Pro Gly Thr Leu Arg Asp Ser Ile
               790
                             795 800
Phe Val Leu Glu Gly Leu Leu Glu Gln Glu Thr Gly Leu Asn Pro Thr
            805 810 815
Glu Ile Met Thr Asp Thr Ala Gly Ala Ser Glu Leu Val Phe Gly Leu
         820
                       825 830
Phe Trp Leu Leu Gly Tyr Gln Phe Ser Pro Arg Leu Ala Asp Ala Gly
      835 840
Ala Ser Val Phe Trp Arg Met Asp His Asp Ala Asp Tyr Gly Val Leu
```

```
850
              855
Asn Asp Ile Ala Arg Gly Gln Ser Asp Pro Arg Lys Ile Val Leu Gln
   870 875
Trp Asp Glu Met Ile Arg Thr Ala Gly Ser Leu Lys Leu Gly Lys Val
       885 890 895
Gln Val Ser Val Leu Val Arg Ser Leu Leu Lys Ser Glu Arg Pro Ser
     900
          905
                       910
Gly Leu Thr Gln Ala Ile Ile Glu Val Gly Arg Ile Asn Lys Thr Leu
  915 920 925
Tyr Leu Leu Asn Tyr Ile Asp Asp Glu Asp Tyr Arg Arg Arg Ile Leu
 930
            935
                  940
Thr Gln Leu Asn Arg Gly Glu Ser Arg His Ala Val Ala Arg Ala Ile
   950 955
Cys His Gly Gln Lys Gly Glu Ile Arg Lys Arg Tyr Thr Asp Gly Gln
        965 970 975
Glu Asp Gln Leu Gly Thr Leu Gly Leu Val Thr Asn Ala Val Val Leu
   980 985 990
Trp Asn Thr Ile Tyr Met Gln Ala Ala Leu Asp His Leu Arg Ala Gln
 995 1000 1005
Gly Glu Thr Leu Asn Asp Glu Asp Ile Ala Arg Leu Ser Pro Leu Cys
1010 1015 1020
His Gly His Ile Asn Met Leu Gly His Tyr Ser Phe Thr Leu Ala Glu
1025 1030 1035 1040
Leu Val Thr Lys Gly His Leu Arg Pro Leu Lys Glu Ala Ser Glu Ala
     1045 1050 1055
1060 1065 1070
Tyr
```

<210> 6096 <211> 133 <212> PRT

<213> Enterobacter cloacae

<400> 6096

Arg Asp Gln Arg Ala Gly Asn Ile Pro Leu Ser Cys Met Ala Gly Ala 10 His Glu Phe Arg Gln His Gly Phe His Ala Arg Gln Val Gly His Leu 25 Leu Ala His Val Leu Glu Leu Val Phe Gly Gln Ala Ala Gly Leu Leu 4.0 Ala Val Gly Ala Ile Val Glu Pro Gln Gln Leu Gly Asn Leu Val Gln 55 Thr Glu Pro Gln Pro Leu Cys Arg Phe His Glu Phe His Pro Asn His 70 75 Val Arg Leu Pro Ile Ala Ala Asp Ala Ala Val Arg Leu Val Arg Phe 85 90 Pro Gln Gln Ala Leu Ala Leu Ile Glu Ala Asp Cys Leu His Val Asp 100 105 110 Pro Gly Arg Leu Gly Lys Asn Ala Asn Gly Gln Val Phe Gln Ile Ile 120 115 Phe His Ile Ala 130

<210> 6097 <211> 146

<212> PRT

<213> Enterobacter cloacae

<400> 6097

```
Arg Ala Arg Phe Phe Arg Arg Thr Ala Gly Ser Val Leu Arg Phe Ser
                               10
Ala Cys Arg Pro Lys Ser Phe Arg Val Phe Gln Arg Ser Ile Ala Ser
                                             3.0
         2.0
Leu Asn Ala Gly Pro Leu Met Val Thr Gly Pro Phe Phe Ser Asp Ser
                        40
Ser Lys Asp Arg Arg Leu Gln Ser Val Gly Pro Ser Ser Ile Ser Ser
 50 55
Cys Glu Arg Cys Ser Ala Asp Gly Ile Ser Ala Ser Leu Phe His Arg
           70
                                   75
Arg Asn Val Ala Phe Ser Leu Thr Ser Glu Ile Asn Arg Val Ser Val
                               9.0
           8.5
Val Ala Pro Gly Arg Ile Ile Arg Cys Cys Ile Ser His Pro Val Ala
         100 105
                                             110
Arg Ser Lys Ser Arg Pro Gly Arg Ser Leu Leu Ile Gln Leu Arg Val
     115 120
Tyr Lys Arg Arg Val Arg Arg Asn Val Gln Gly Gln Ala Asn Ser Arg
            135
Tyr
145
<210> 6098
<211> 213
<212> PRT
<213> Enterobacter cloacae
<400> 6098
Ile Ile Gly His Arg Lys Thr Val Thr Leu Ile Cys Leu Leu Asn Arg
                               10
Lys Phe Val Iie Ile Asp Met Ser Cys Pro Ile Phe Asp Leu Arg Tyr
                                            30
         20
                           25
Ile Phe Met Arg Leu Phe Gly Tyr Ala Arg Val Ser Thr Ser Gln Gln
 35
                       40
                                    4.5
Ser Leu Asp Leu Gln Val Arg Ala Leu Lys Asp Ala Gly Val Lys Ala
                  55
Asn Arg Ile Phe Thr Asp Lys Ala Ser Gly Ser Ser Thr Asp Arg Glu
                                  75
                  70
Gly Leu Asp Leu Leu Arg Met Lys Val Glu Glu Gly Asp Val Ile Leu
                          90 95
              85
Val Lys Lys Leu Asp Arg Leu Gly Arg Asp Thr Ala Asp Met Ile Gln
                          105
          100
 Leu Ile Lys Glu Phe Asp Ala Gln Gly Val Ala Val Arg Phe Ile Asp
                                         125
                        120
Asp Gly Ile Ser Thr Asp Gly Asp Met Gly Gln Met Val Val Thr Ile
                    135 140
   130
 Leu Ser Ala Val Ala Gln Ala Glu Arg Arg Arg Ile Leu Glu Arg Thr
                                  155 160
       150
 Asn Glu Gly Arg Gln Glu Ala Lys Leu Lys Gly Ile Lys Phe Gly Gly
                               170 175
              165
 Pro Arg Gln Ala Tyr Arg Gly Gln Glu Arg Arg Ala Asp Ala Ser Ser
                          185 190
         180
 Glu Gly His Trp Cys Asn Gly Asn Cys Ser Ser Ala Gln Tyr Cys Pro
                         200
       195
 Leu His Gly Leu
    210
```

<sup>&</sup>lt;210> 6099 <211> 99

<sup>&</sup>lt;211> 99 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 6099
Gly Ile Ala Asp Leu Ala Arg Pro Ala Ser Pro Cys Ser Asp Ala Ile
Asn Gly Gln Glu Thr Phe Pro Phe Arg Ala Trp Gln Ala His Thr Ser
Ser Asp Ser Thr Val Ser Met Arg Ala Lys Ser Ala Ile Phe Ser Arg
                          40
Thr Ser Leu Ser Leu Cys Ser Ala Arg Leu Leu Ala Ser Ser Gln Trp
                   5.5
                                       60
Val Pro Ser Ser Ser Arg Asn Ser Ser Ala Ile Ser Ser Arg Leu Asn
               70
                                  75
Pro Ser Arg Cys Ala Asp Phe Thr Asn Phe Thr Arg Thr Thr Ser Ala
Ser Pro
<210> 6100
<211> 234
<212> PRT
<213> Enterobacter cloacae
<400> 6100
Leu Arg Leu Ala Asp Asn Pro Ser Ile Arg Leu Gln Ser Val Gln Gln
                                  10
Val Phe Ser Ile Leu Asn Gln Glu Thr Glu Met Ser Tyr Ser Gly Glu
                              25
Arg Asp Asn Phe Ala Pro His Met Ala Leu Val Pro Met Val Ile Glu
                          40
Gln Thr Ser Arg Gly Glu Arg Ser Phe Asp Ile Tyr Ser Arg Leu Leu
                      55
                                         60
Lys Glu Arg Val Ile Phe Leu Thr Gly Gln Val Glu Asp His Met Ala
                  70
                                      75
Asn Leu Ile Val Ala Gln Met Leu Phe Leu Glu Ala Glu Asn Pro Glu
                                  90
               85
Lys Asp Ile Tyr Leu Tyr Ile Asn Ser Pro Gly Gly Val Ile Thr Ala
           100
                              105
Gly Met Ser Ile Tyr Asp Thr Met Gln Phe Ile Lys Pro Asp Val Ser
                          120
                                              125
       115
Thr Ile Cys Met Gly Gln Ala Ala Ser Met Gly Ala Phe Leu Leu Thr
                       135
                                          140
Ala Gly Ala Lys Gly Lys Arg Phe Cys Leu Pro Asn Ser Arg Val Met
145
                                     155
Ile His Gln Pro Leu Gly Gly Tyr Gln Gly Gln Ala Thr Asp Ile Glu
               165
Ile His Ala Arg Glu Ile Leu Lys Val Lys Ala Arg Met Asn Glu Leu
           180
                              185
                                                  190
Met Ala Gln His Thr Gly Gln Pro Leu Glu Gln Ile Glu Arg Asp Thr
                          200
       195
                                             205
Glu Arg Asp Arg Phe Leu Ser Ala Pro Glu Ala Val Glu Tyr Gly Leu
                   215
Val Asp Ser Ile Leu Thr His Arg Asn
                  230
<210> 6101
<211> 444
<212> PRT
<213> Enterobacter cloacae
<400> 6101
Glu Trp His Leu Arg Arg His Val Arg His Ile Glu Leu Lys Lys Arg
```

```
Phe Gly Leu Met Thr Asp Lys Arg Lys Asp Gly Ser Gly Lys Leu Leu
                  2.5
Tyr Cys Ser Phe Cys Gly Lys Ser Gin His Glu Val Arg Lys Leu Ile
                    4.0
Ala Gly Pro Ser Val Tyr Ile Cys Asp Glu Cys Val Asp Leu Cys Asn
                 55
Asp Ile Ile Arg Glu Glu Ile Lys Glu Val Ala Pro His Arg Glu Arg
              70
Ser Ala Leu Pro Thr Pro His Glu Ile Arg His His Leu Asp Asp Tyr
                          90
           8.5
Val Ile Gly Gln Glu Gln Ala Lys Lys Val Leu Ala Val Ala Val Tyr
        100 105
Asn His Tyr Lys Arg Leu Arg Asn Gly Asp Thr Ser Asn Gly Val Glu
         120
Leu Gly Lys Ser Asn Ile Leu Leu Ile Gly Pro Thr Gly Ser Gly Lys
                                140
Thr Leu Leu Ala Glu Thr Leu Ala Arg Leu Leu Asp Val Pro Phe Thr
145
    150
                           155
Met Ala Asp Ala Thr Thr Leu Thr Glu Ala Gly Tyr Val Gly Glu Asp
     165 170
Val Glu Asn Ile Ile Gln Lys Leu Leu Gln Lys Cys Asp Tyr Asp Val
 180 185 190
Gln Lys Ala Gln Arg Gly Ile Val Tyr Ile Asp Glu Ile Asp Lys Ile
195 200
                         205
Ser Arg Lys Ser Asp Asn Pro Ser Ile Thr Arg Asp Val Ser Gly Glu
210 215
                               220
Gly Val Gin Gin Ala Leu Leu Lys Leu Ile Glu Gly Thr Val Ala Ala
225 230 235
Val Pro Pro Gln Gly Gly Arg Lys His Pro Gln Glu Phe Leu Gln
   245 250 255
Val Asp Thr Ser Lys Ile Leu Phe Ile Cys Gly Gly Ala Phe Ala Gly
 260 265
                           270
Leu Asp Lys Val Ile Ser His Arg Val Glu Thr Gly Ser Gly Ile Gly
* 275 280 285
Phe Gly Ala Thr Val Lys Ala Thr Ser Glu Lys Pro Asn Glu Gly Gln
 290 295 300
Leu Leu Ala Gln Val Glu Pro Glu Asp Leu Ile Lys Phe Gly Leu Ile
             310 315 320
Pro Glu Phe Ile Gly Arg Leu Pro Val Val Ala Thr Leu Asn Glu Leu
     325 330 335
Ser Glu Asp Ala Leu Ile Gln Ile Leu Lys Glu Pro Lys Asn Ala Leu
        340 345 350
Thr Lys Gln Tyr Gln Ala Leu Phe Asn Leu Glu Gly Val Glu Leu Glu
 355 360 365
Phe Arg Asp Glu Ala Leu Asp Ala Ile Ala Lys Lys Ala Met Ala Arg
 370 375 380
Lys Thr Gly Ala Arg Gly Leu Arg Ser Ile Val Glu Ala Ala Leu Leu
385 390
                             395
Asp Thr Met Tyr Asp Leu Pro Ser Met Glu Asp Val Glu Lys Val Val
           405 410 415
Ile Asp Glu Ser Val Ile Gly Gly Gln Thr Lys Pro Leu Leu Ile Tyr
    420 425
Gly Lys Pro Glu Ala Gln Gln Ala Ser Gly Glu
                   440
<210> 6102
```

<211> 565

<212> PRT

<213> Enterobacter cloacae

<400> 6102

Pro Val Tyr Leu Ala Asp Thr Lys Leu Arg Glu Ser Ser Met Asn Pro 10 Glu Arg Ser Glu Arg Ile Glu Ile Pro Val Leu Pro Leu Arg Asp Val 25 Val Val Tyr Pro His Met Val Ile Pro Leu Phe Val Gly Arg Glu Lys 4.0 Ser Ile Arg Cys Leu Glu Ala Ala Met Asp His Asp Lys Lys Ile Met 55 Leu Val Ala Gln Lys Glu Ala Ser Thr Asp Glu Pro Gly Val Asn Asp 70 75 Leu Phe Thr Val Gly Thr Val Ala Ser Ile Leu Gln Met Leu Lys Leu 85 90 Pro Asp Gly Thr Val Lys Val Leu Val Glu Gly Leu Gln Arg Ala Arg 100 105 Ile Thr Thr Leu Ser Asp Asp Gly Glu His Phe Ser Ala Lys Ala Glu 115 125 Tyr Leu Asp Ser Pro Glu Leu Asp Glu Arg Glu Gln Glu Val Leu Val 135 140 Arg Thr Ala Ile Ser Gln Phe Glu Gly Tyr Ile Lys Leu Asn Lys Lys 150 155 160 Ile Pro Pro Glu Val Leu Thr Ser Leu Asn Ser Ile Asp Asp Pro Ala 165 170 175 Arg Leu Ala Asp Thr Ile Ala Ala His Met Pro Leu Lys Leu Ala Asp 180 185 190 Lys Gln Ser Val Leu Glu Met Ser Asp Val Asn Glu Arg Leu Glu Tyr 195 200 205 Leu Met Ala Met Met Glu Ser Glu Ile Asp Leu Leu Gln Val Glu Lys 210 215 220 Arg Ile Arg Asn Arg Val Lys Lys Gln Met Glu Lys Ser Gln Arg Glu 225 230 235 Tyr Tyr Leu Asn Glu Gln Met Lys Ala Ile Gln Lys Glu Leu Gly Glu 245 250 255 Met Asp Asp Ala Pro Asp Glu Asn Glu Ala Leu Lys Arg Lys Ile Asp 260 265 270 Ala Ala Lys Met Pro Lys Glu Ala Lys Glu Lys Ala Glu Ala Glu Leu 275 280 285 Gln Lys Leu Lys Met Met Ser Pro Met Ser Ala Glu Ala Thr Val Val 290 295 300 Arg Gly Tyr Ile Glu Trp Met Val Gln Val Pro Trp Asn Ala Arg Ser 310 315 Lys Val Lys Lys Asp Leu Arg Gln Ala Gln Glu Ile Leu Asp Thr Asp 325 330 335 His Tyr Gly Leu Glu Arg Val Lys Asp Arg Ile Leu Glu Tyr Leu Ala 340 345 350 Val Gln Ser Arg Val Asn Lys Ile Lys Gly Pro Ile Leu Cys Leu Val 355 360 Gly Pro Pro Gly Val Gly Lys Thr Ser Leu Gly Gln Ser Ile Ala Lys 370 375 Ala Thr Gly Arg Lys Tyr Ile Arg Met Ala Leu Gly Gly Val Arg Asp 390 395 Glu Ala Glu Ile Arg Gly His Arg Arg Thr Tyr Ile Gly Ser Met Pro 405 410 415 Gly Lys Leu Ile Gln Lys Met Ala Lys Val Gly Val Lys Asn 2ro Leu 420 425 430 Phe Leu Leu Asp Glu Ile Asp Lys Met Ser Ser Asp Met Arg Gly Asp 435 440 445 Pro Ala Ser Ala Leu Leu Glu Val Leu Asp Pro Glu Gln Asn Val Ala 450 455 4.60 Phe Ser Asp His Tyr Leu Glu Val Asp Tyr Asp Leu Ser Asp Val Met 470 475

Phe Val Ala Thr Ser Asn Ser Met Asn Ile Pro Ala Pro Leu Leu Asp

```
And the second s
```

```
490
Arg Met Glu Val Ile Arg Leu Ser Gly Tyr Thr Glu Asp Glu Lys Leu
                          505
Asn Ile Ala Lys Gln His Leu Leu Pro Lys Gln Ile Glu Arg Asn Ala
                         520
                                            525
Leu Lys Ala Asn Glu Leu Thr Val Glu Asp Ser Ala Ile Val Gly Ile
   530 535
                                    540
Ile Arg Tyr Tyr Thr Arg Glu Ala Gly Gly Leu His His Gly Ala Gly
545
               550
Arg Ile Arg Pro
              565
<210> 6103
<211> 75
<212> PRT
<213> Enterobacter cloacae
<400> 6103
Ile Ser Asn Gly Leu Val Trp Pro Pro Met Thr Asp Ser Ser Ile Thr
                                 1.0
Thr Phe Ser Thr Ser Ser Ile Glu Gly Arg Ser Tyr Ile Val Ser Ser
       20
                              25
                                                3.0
Asn Ala Ala Ser Thr Ile Glu Arg Arg Pro Arg Ala Pro Val Leu Arg
35
                         4.0
                                        4.5
Ala Ile Ala Phe Leu Ala Ile Ala Ser Asn Ala Ser Ser Arg Asn Ser
50 55
Ser Ser Thr Pro Ser Arg Leu Asn Ser Ala
                  7.0
<210> 6104
<211> 64
<212> PRT
<213> Enterobacter cloacae
<400> 6104
Ile Asn Ala Ser Ser Leu Ser Ser Phe Arg Val Ala Thr Thr Gly Arg
                          10
Arg Pro Ile Asn Ser Gly Ile Lys Pro Asn Leu Ile Arg Ser Ser Gly
          20
                           25
Ser Thr Cys Ala Ser Ser Trp Pro Ser Phe Gly Phe Ser Asp Val Ala
    3.5
                  40 45
Phe Thr Val Ala Pro Lys Pro Met Pro Glu Pro Val Ser Thr Arg
 50
<210> 6105
<211> 161
<212> PRT
<213> Enterobacter cloacae
<400> 6105
Asp Asp Arg Gly Gly Pro Leu His Lys Arg Gly Leu Arg Pro Leu Gly
                                 10
Ala Leu Pro Ala His Ala Thr Ser Val Leu Leu Asn Met Leu Leu Cys
                             2.5
                                                3.0
Ser Arg Pro Gly Lys Pro Gly Phe Val Phe Cys Ala Phe Tyr Pro Leu
                         40
Phe Pro Gly Glu Arg Val Arg Val Arg Gly Ser Gly Arg Thr Glu Leu
                    55
                                        60
His Ile Ala Pro Gly Gly Ile Asp Ser Leu Arg Ser Pro Cys Gly Gln
                                    7.5
Pro Val Arg Tyr Ala Leu Ser Leu Ser Asn Trp Leu Arg Gln Leu Ser
```

Asn Pro Gly Arg Gly Phe Ser Phe Pro Ala Lys Ala Tyr Asn Met Arg 100 105 110 Lys Lys Ser Pro His Phe His Ala Ser Ser Ser Ser Asn Met Ala Val 115 120 125 Arg Gly Gly Phe Glu Pro Pro Ile Arg Cys Arg Ile His Thr Phe Gln 130 135 140 Ala Cys Ser Phe Ser His Ser Asp Thr Ser Pro Tyr Cys Phe Ala Ala

<210> 6106 <211> 373 <212> PRT <213> Enterobacter cloacae <400> 6106 Glu Lys Thr Ala Val Val Pro Gly Ser Asp Val Asn Ser Leu Trp Arg 10 Ser Arg Met Val Ala Ser Cys Thr Gly Gln Gly Lys His Ile Asn Arg 25 20 30 Ser Thr Arg Arg Gly Gly Ser Asp Ser Gly Ser Asp Phe Phe Thr Thr 35 40 4.5 Lys Phe Ser Pro Ser Pro Gln Gln Pro Phe Ser Thr Asp Val His Asn 50 55 60 Gly Ala Arg Ser Arg Cys Ile Ser Ser Ser Gly Asn Ala Ser Asn Gly 70 7.5 Leu Gln Gly Ser Gln Pro Ser Asp Val Arg Ala His Asn Arg Ala Asp 8.5 90 Ala Gly Ala Cys Asp Glu Tyr Gln Gln Leu Lys Val Leu Ser Met Gly 100 105 Arg Gln Lys Ala Val Ile Lys Ala Arg Arg Glu Ala Lys Arg Val Leu 115 120 125 Arg Arg Asp Ser Arg Ser His Lys Gln Arg Glu Glu Glu Ser Val Thr 130 135 140 Ser Leu Val Gln Met Ser Gly Val Glu Ser Ile Gly Met Ala Arg Asp 145 150 155 Ser Arg Asp Ala Ser Pro Ile Val Ala Arg Asn Glu Ala Gln Ala His 165 170 Tyr Leu Asn Ala Ile Glu Ser Lys Gln Leu Ile Phe Ala Thr Gly Glu 180 185 190 Ala Gly Cys Gly Lys Thr Trp Ile Ser Ala Ala Lys Ala Ala Glu Ala 195 200 205 Leu Ile His Lys Asp Val Glu Arg Ile Ile Val Thr Arg Pro Val Leu 215 Gln Ala Asp Glu Asp Leu Gly Phe Leu Pro Gly Asp Ile Ser Glu Lys 230 235 Phe Ala Pro Tyr Phe Arg Pro Val Tyr Asp Val Leu Val Lys Arg Leu 245 250 Gly Ala Ser Phe Met Gin Tyr Cys Leu Arg Pro Glu Ile Gly Lys Val 260 265 270 Glu Ile Ala Pro Phe Ala Tyr Met Arg Gly Arg Thr Phe Glu Asn Ala 280 285 Val Val Ile Leu Asp Glu Ala Gln Asn Val Thr Ala Ala Gln Met Lys 290 295 300

Met Phe Leu Thr Arg Leu Gly Glu Asn Val Thr Val Ile Val Asn Gly

Asp Ile Thr Gln Cys Asp Leu Pro Ser Gly Val Lys Ser Gly Leu Ser 330

Asp Ala Met Ser Arg Phe Glu Glu Asp Glu Met Ile Gly Val Val Arg

310

```
345
Phe Thr Lys Glu Asp Cys Val Arg Ser Ala Leu Cys Gln Arg Thr Leu
       355
                           360
Gln Ala Tyr Tyr
   370
<210> 6107
<211> 62
<212> PRT
<213> Enterobacter cloacae
<400> 6107
His Arg Gly Gly Leu Thr Arg Cys Ala Arg Pro Ala Gly Ser Leu Phe
                                10
Ala Thr Leu Ser Val Cys Pro Thr Gly Cys Ala Ser Cys Arg Thr Pro
          20
                               25
Val Gly Gly Ser His Ser Pro Gin Arg Arg Thr Thr Cys Glu Lys Lys
     35 40
Ala Arg Ile Phe Met Arg Ala Leu Leu Gln Ile Trp Arg
                       55
<210> 6108
<211> 90
<212> PRT
<213> Enterobacter cloacae
<400> 6108
Arg Leu Val Ala Ala Gly Leu Ala Ala Gly Ala Ile Arg Ala Phe His
Glu Ala Gly Leu Trp Asn His Phe Gln Asp Val Ala Phe Asp Leu Ser
           20
                               25
                                                   30
Asn Val Leu Ser Thr His Ser Leu Thr Gly Thr Leu Leu Glu Gly Ile
      35
                           4.0
Phe Gly Tyr Gln Glu Thr Pro Ser Val Ser Glu Val Ala Met Tyr Phe
                       55
Ile Tyr Leu Val Pro Ala Leu Ile Leu Phe Ala Met Pro Pro Arg Thr
                   7.0
                                       75
Gly Ser Gln Thr Ser Arg Val Ala Pro
               85
<210> 6109
<211> 385
<212> PRT
<213> Enterobacter cloacae
<400> 6109
Leu Gln His Thr Leu Lys Gly Arg Val Met Ala Ile Gln Phe Arg Arg
Ser Ala Leu Cys Ala Gly Ile Ala Ala Leu Phe Val Ser Ala Phe Ala
Ala Gln Ala Ala Asp Ile Pro Gln Val Lys Val Thr Val Asn Asp Lys
Gln Cys Glu Pro Met Thr Ile Thr Val Asn Ser Gly Lys Thr Gln Phe
                       55
Ile Ile Gln Asn His Ser Gln Lys Ala Leu Glu Trp Glu Ile Leu Lys
                   70
                                       75
                                                          80
Gly Val Met Val Val Glu Glu Arg Glu Asn Ile Ala Pro Gly Phe Ser
               8.5
                                   90
Gln Lys Met Thr Ala Asn Leu Gln Pro Gly Glu Tyr Asp Met Thr Cys
                               105
Gly Leu Leu Thr Asn Pro Lys Gly Lys Leu Ile Val Lys Gly Ala Ala
```

```
Thr Ala Asp Ala Ala Lys Gly Thr Ala Leu Leu Ser Leu Gly Asp Ala
                 135
                               140
Ile Thr Ala Tyr Lys Ala Tyr Val Thr Lys Glu Thr Ala Asp Leu Val
              150
                            155
Ala Gly Thr Lys Ala Phe Thr Asp Ala Val Lys Ala Gly Asp Ile Glu
                 170
           165
Lys Ala Lys Ser Leu Tyr Ala Pro Thr Arg Gln His Tyr Glu Arg Ile
        180
            185
Glu Pro Ile Ala Glu Leu Phe Ser Asp Leu Asp Gly Ser Ile Asp Ala
     195
         200
Arg Glu Asp Asp Tyr Glu Gln Lys Ala Ala Asp Pro Lys Phe Thr Gly
  210
               215
                       220
Phe His Arg Leu Glu Lys Ala Leu Phe Gly Asp Asn Ser Thr Arg Gly
     230
                   235
Met Glu Lys Tyr Ala Glu Gln Leu Asn Ser Asp Val Leu Glu Leu Gln
           245
               250 255
Lys Arg Ile Ser Glu Leu Ala Phe Pro Pro Ser Lys Val Val Gly Gly
       260
            265 270
Ala Ala Gly Leu Ile Glu Glu Val Ala Ala Ser Lys Ile Ser Gly Glu
 275 280 285
Glu Asp Arg Tyr Ser His Thr Asp Leu Trp Asp Phe Gln Ala Asn Val
290 295 300
Asp Gly Ala Gln Lys Ile Val Asp Leu Leu Arg Pro Gln Leu Gln Lys
305 310 315 320
Glu Asn Gly Glu Leu Leu Ala Lys Val Asp Ala Asn Phe Lys Lys Val
        325 330 335
Asp Ala Ile Leu Ala Lys Tyr Arg Thr Lys Asp Gly Phe Glu Thr Tyr
 340 345 350
Asp Lys Leu Thr Asp Ala Asp Arg Asn Ala Leu Lys Gly Pro Ile Thr
 355 360 365
Thr Leu Ala Glu Asp Leu Ser Leu Leu Arg Gly Val Leu Gly Leu Asp
  370 375
```

385

<210> 6110 <211> 429 <212> PRT

<213> Enterobacter cloacae

<400> 6110 Ala Met Asn Glu His Asp Glu Tyr Asp Val Ala Glu Pro Ser Arg Arg 10 Arg Leu Leu Lys Gly Val Gly Ala Leu Gly Gly Ala Phe Ala Leu Ala 20 25 Gly Gly Cys Pro Val Ala His Ala Ala Lys Pro Gln Ser Ala Pro Gly 40 Thr Leu Ser Pro Asp Ala Arg Met Glu Thr Gln Pro Phe Tyr Gly Glu 50 55 60 His Gln Ala Gly Ile Leu Thr Pro Gln Gln Ala Ser Met Met Leu Val 65 70 75 Ala Phe Asp Ser Leu Ala Ser Asp Lys Ala Asp Leu Glu Arg Leu Phe 8.5 90 Arg Leu Leu Thr Thr Arg Ile Ala Phe Leu Thr Ala Gly Gly Pro Ala 100 110 105 Pro Glu Thr Pro Asn Pro Arg Leu Pro Pro Met Asp Ser Gly Ile Leu 115 120 125 Gly Ala Phe Ile Ala Pro Asp Asn Leu Thr Ile Thr Val Ser Val Gly 130 135 140 Glu Ser Leu Phe Asp Asp Arg Tyr Gly Leu Ala Lys Gln Lys Pro Lys

<212> PRT

<213> Enterobacter cloacae

```
155
               150
Ala Leu Gln Lys Met Thr Arg Phe Pro Asn Asp Ser Leu Asp Ala Ala
          165
                          170
Leu Cys His Gly Asp Leu Leu Eln Ile Cys Ala Asn Thr Gln Asp
               185
        180
                               190
Thr Val Ile His Ala Leu Arg Asp Ile Ile Lys His Thr Pro Asp Leu
            200
Leu Ser Val Arg Trp Lys Arg Glu Gly Phe Ile Ser Asp His Ala Ala
            215
Arg Ser Lys Gly Lys Glu Thr Pro Val Asn Leu Leu Gly Phe Lys Asp
        230
                             235
Gly Thr Ala Asn Pro Asp Ser Ser Asn Thr Ala Leu Met Asn Lys Val
         245 250 255
Val Trp Val Thr Ala Asp Gln Gly Glu Pro Ala Trp Ala Val Gly Gly
        260 265 270
Ser Tyr Gln Ala Val Arg Ile Ile Gln Phe His Val Glu Phe Trp Asp
 275 280 285
Arg Thr Pro Leu Lys Glu Gln Gln Thr Ile Phe Gly Arg Asp Lys Gln
290 295 300
Thr Gly Ala Pro Leu Gly Met Lys Leu Glu His Asp Glu Pro Asp Tyr
305 310 315
Ala Arg Asp Pro Asn Gly Asp Val Ile Ala Leu Asp Ser His Ile Arg
      325 330 335
Leu Ala Asn Pro Arg Thr Lys Glu Thr Gln Ser Ser Leu Met Met Arg
 340 345 350
Arg Gly Tyr Ser Tyr Ser Leu Gly Val Thr Asn Ser Gly Gln Leu Asp
355 360 365
Met Gly Leu Leu Phe Val Cys Tyr Gln His Asp Leu Glu Lys Gly Phe
370 375 380
Leu Thr Val Gln Lys Arg Leu Asn Gly Glu Ala Leu Glu Glu Tyr Ile
385 390 395
Lys Pro Ile Gly Gly Gly Tyr Phe Phe Ala Leu Pro Gly Ala Arg Asp
 405 410
Ala Asn Ala Trp Leu Ala Gln Gly Leu Ile Glu Ala
<210> 6111
<211> 104
<212> PRT
<213> Enterobacter cloacae
<400> 6111
Leu Ala Ala Leu Ala Leu Arg Ala Ala Cys Ser Leu Arg Ser Gln Ser
                        10
Val Gln Leu Ala Ala Pro Val Val Glu Pro Arg Ser Gly Val Leu Ile
 20 25
Pro Arg Lys Gly Val Gin His Ala Lys Lys Lys Pro Ala Phe Ser Cys
                    40
                            4.5
Glu Leu Phe Phe Lys Tyr Gly Gly Glu Gly Gly Ile Arg Thr Pro Asp
                55
Thr Leu Pro Tyr Thr His Phe Pro Gly Val Leu Leu Gln Pro Leu Gly
         70 75 80
His Leu Thr Ile Leu Phe Cys Cys Leu Thr Ala Trp Gly Ala Thr Gly
          8.5
Arg Tyr Tyr Arg Glu Leu Arg
         100
<210> 6112
<211> 603
```

<400> 6112 Arg Arg Gly Ile Ser Ser Ala Ala Phe Phe Cys Ser Asn Cys Pro His 10 Tyr Phe Leu Pro Gly Arg Phe Lys Gly Cys His Tyr Val Arg Leu Ile Arg Ser Tyr Ala Val Ile Arg Cys Leu Arg Phe Glu Glu Ser Thr Met 3.5 4.0 Ser Glu Ala Glu Ala Arg Pro Ser Asn Phe Ile Arg Gln Ile Ile Asp 55 Glu Asp Leu Ala Ser Gly Lys His Tnr Thr Val His Thr Arg Phe Pro 70 75 Pro Glu Pro Asn Gly Tyr Leu His Ile Gly His Ala Lys Ser Ile Cys 85 90 Leu Asn Phe Gly Ile Ala Gln Asp Tyr Gln Gly Gln Cys Asn Leu Arg 105 Phe Asp Asp Thr Asn Pro Val Lys Glu Asp Ile Glu Tyr Val Glu Ser 120 125 115 Ile Lys Asn Asp Val Gln Trp Leu Gly Phe Asn Trp Ser Gly Asp Ile 130 135 140 Cys Tyr Ser Ser Asp Tyr Phe Asp Gln Leu Tyr Ala Tyr Ala Val Glu 145 150 155 Leu Ile Asn Lys Gly Leu Ala Tyr Val Asp Glu Leu Ser Ala Asp Glu 165 170 175 Ile Arg Glu Tyr Arg Gly Thr Leu Thr Gln Pro Gly Lys Asn Ser Pro 180 185 190 Phe Arg Asp Arg Ser Val Glu Glu Asn Leu Ala Leu Phe Glu Lys Met 195 200 205 Arg Ala Gly Gly Phe Glu Glu Gly Lys Ala Cys Leu Arg Ala Lys Ile 210 215 220 Asp Met Ala Ser Pro Phe Ile Val Met Arg Asp Pro Val Leu Tyr Arg 225 230 235 Ile Lys Phe Ala Glu His His Gln Thr Gly Asn Lys Trp Cys Ile Tyr 245 250 255 Pro Met Tyr Asp Phe Thr His Cys Ile Ser Asp Ala Leu Glu Gly Ile 260 265 270 Thr His Ser Leu Cys Thr Leu Glu Phe Gln Asp Asn Arg Arg Leu Tyr 275 280 285 Asp Trp Val Leu Asp Asn Ile Thr Ile Pro Val His Pro Arg Gln Tyr 290 295 300 Glu Phe Ser Arg Leu Asn Leu Glu Tyr Thr Val Met Ser Lys Arg Lys 305 310 315 Leu Asn Leu Leu Val Thr Asp Lys His Val Glu Gly Trp Asp Asp Pro 325 330 335 Arg Met Pro Thr Ile Ser Gly Leu Arg Arg Arg Gly Tyr Thr Ser Ala 340 345 350 Ser Ile Arg Glu Phe Cys Lys Arg Ile Gly Val Thr Lys Gln Asp Asn 355 360 365 Thr Ile Glu Met Ala Ser Lea Glu Ser Cys Ile Arg Glu Asp Leu Asn 375 380 Glu Asn Ala Pro Arg Ala Met Ala Val Ile Asp Pro Val Lys Leu Val 385 390 395 400 Ile Glu Asn Tyr Pro Gln Gly Gly Ser Glu Gln Val Ser Met Pro Asn 405 410 415 His Pro Asn Lys Pro Glu Met Gly Thr Arg Asp Val Pro Phe Ser Gly 420 425 430 Glu Ile Trp Ile Asp Arg Ala Asp Phe Arg Glu Glu Ala Asn Lys Gln 435 440 445 Tyr Lys Arg Leu Val Leu Gly Lys Glu Val Arg Leu Arg Asn Ala Tyr
450 460 455 Val Ile Lys Ala Glu Arg Val Glu Lys Asp Ala Glu Gly Asn Ile Thr

```
And the second s
```

```
470
Thr Ile Phe Cys Thr Tyr Asp Ala Glu Thr Leu Ser Lys Asp Pro Ala
            485
                             490
Asp Gly Arg Lys Val Lys Gly Val Ile His Trp Val Ser Ala Gln His
          500
                  505 510
Ala Leu Pro Val Glu Ile Arg Leu Tyr Asp Arg Leu Phe Ser Val Pro
              520
                            525
Asn Pro Gly Ala Ala Glu Asp Phe Leu Ala Val Ile Asn Pro Glu Ser
        535 540
Leu Île Île Lys Gln Gly Tyr Ala Glu Pro Ser Leu Lys Ala Ala Glu
545 550
                     555 560
Ala Gly Lys Ala Pne Gln Phe Glu Arg Glu Gly Tyr Phe Cys Leu Asp
         565 570 575
Ser Arg Tyr Ser Thr Ala Glu Lys Pro Val Phe Asn Arg Thr Val Gly
        580 585
Leu Arg Asp Thr Trp Thr Lys Ile Gly Glu
<210> 6113
<211> 205
<212> PRT
<213> Enterobacter cloacae
<220>
<222>(176)
<220>
<221>UNSURE
<222>(185)
<400> 6113
Ser Met Arg Thr Phe Ser Gly Lys Arg Ser Ala Leu Ala Leu Ala Ile
Ala Gly Val Thr Ala Met Ser Gly Leu Val Val Ala Pro Gln Ala Lys
                          25
                                          30
Ala Ala Gly Phe Ile Glu Asp Ser Thr Leu Thr Gly Gly Ile Tyr Tyr
     35
                      4.0
Trp Gln Arg Glu Arg Asp Arg Lys Asp Val Thr Glu Asp Lys Tyr Lys
                  55
                                    60
Thr Asn Leu Ser His Ser Thr Trp Asn Ala Asn Leu Asp Phe Gln Ser
                70
                              75 80
Gly Tyr Ala Ala Asp Met Phe Gly Ile Asp Ile Ala Ala Phe Thr Ala
                             90
             85
Ile Glu Met Ala Glu Asn Gly Asp Ser Gly His Pro Asn Glu Ile Ala
         100
                          105
Phe Ser Ser Asn Lys Ala Tyr Asp Glu Asp Trp Ser Gly Asp Lys
      115
                      120
Ser Gly Ile Ser Leu Tyr Lys Ala Ala Ala Lys Phe Lys Tyr Gly Pro
  130
                   135
Val Trp Ala Arg Gly Ser Tyr Ile Gln Pro Thr Gly Gln Thr Leu Leu
                150
                                 155
Ala Pro His Trp Ser Phe Met Pro Gly Thr Tyr Gln Gly Ala Glu Xaa
            165
                             170
Gly Ala Asn Phe Asp Tyr Gly Glu Xaa Gly Gly Val Ser Phe Ser Tyr
    180
                         185
Met Trp Asn Asn Glu Val Thr Ser Ala Val Ala His
      195
                       200
```

<210> 6114 <211> 667 <212> PRT <213> Enterobacter cloacae

<400> 6114 Lys His Ser Leu Cys Ala Ser Leu Asn Lys Gly Ser Arg Arg Gly Asn 10 5 Arg Met Asn Ile Leu Gly Phe Phe Gln Arg Leu Gly Arg Ala Leu Gln 20 25 Leu Pro Ile Ala Val Leu Pro Val Ala Ala Leu Leu Leu Arg Phe Gly 35 40 Gln Pro Asp Leu Leu Asn Val Pro Phe Ile Ala Gln Ala Gly Gly Ala 50 55 60 Ile Phe Asp Asn Leu Ala Leu Ile Phe Ala Ile Gly Val Ala Ser Ser 70 75 80 Trp Ser Lys Asp Ser Ala Gly Ala Ala Ala Leu Ala Gly Ala Val Gly 90 Tyr Phe Ile Leu Thr Lys Ala Met Val Thr Ile Asn Pro Glu Ile Asn 100 105 Met Gly Val Leu Ala Gly Ile Ile Thr Gly Leu Val Gly Gly Ala Val 115 120 125 Tyr Asn Arg Trp Ala Gly Ile Lys Leu Pro Asp Phe Leu Ser Phe Phe 130 140 135 Gly Gly Lys Arg Phe Val Pro Ile Ala Thr Gly Phe Phe Cys Leu Ile 145 150 155 Leu Ala Ala Ile Phe Gly Tyr Val Trp Pro Pro Val Gln His Ala Ile 165 170 His Ala Asp Gly Glu Trp Ile Val Ser Ala Gly Ala Met Gly Ala Gly 180 185 190 Ile Phe Gly Phe Ile Asn Arg Leu Leu Ile Pro Thr Gly Leu His Gln 195 200 205 Val Leu Asn Thr Ile Ala Trp Phe Gln Ile Gly Glu Phe Thr Asn Ala 210 215 220 Ala Gly Ala Val Phe His Gly Asp Ile Asn Arg Phe Tyr Ala Gly Asp 235 230 Gly Thr Ala Gly Met Phe Met Ser Gly Phe Phe Pro Ile Met Met Phe 245 250 Gly Leu Pro Gly Ala Ala Leu Ala Met Tyr Leu Ala Ala Pro Lys Ala 260 265 270 Arg Arg Pro Met Val Gly Gly Met Leu Leu Ser Val Ala Ile Thr Ala 275 280 285 Phe Leu Thr Gly Val Thr Glu Pro Leu Glu Phe Leu Phe Met Phe Leu 295 300 Ala Pro Leu Leu Tyr Leu Met His Ala Ile Leu Thr Gly Ile Ser Leu 310 Phe Val Ala Thr Leu Leu Gly Ile His Ala Gly Phe Ser Phe Ser Ala 325 330 Gly Ala Ile Asp Tyr Val Trp Met Tyr Asn Leu Pro Ala Ala Ser Ile 340 345 350 Ser Val Trp Ile Leu Met Val Met Gly Leu Ile Phe Cys Val Ile Tyr 355 360 365 Phe Val Leu Phe Ser Ala Val Val Arg Met Phe Asn Leu Lys Thr Pro 375 380 Gly Arg Glu Asp Ala Lys Asp Asp Val Val Thr Ser Glu Ala Asn Ser 390 395 Asn Thr Glu Glu Gly Leu Thr Gln Leu Ala Thr Thr Tyr Ile Ala Ala 405 410 Val Gly Gly Thr Asp Asn Leu Lys Ala Ile Asp Ala Cys Ile Thr Arg 425 430 Leu Arg Leu Thr Val Gly Asp Ser Ala Arg Val Ser Asp Ala Met Cys 440

Lys Arg Leu Gly Ala Ser Gly Val Val Lys Leu Asn Lys Gln Thr Ile

```
455
Gln Val Ile Val Gly Ala Lys Ala Glu Ser Ile Gly Asp Glu Met Lys
              470
                       475
Lys Val Val Ala Arg Gly Pro Val Ala Ala Ala Ser Thr Asp Asn Ala
         485
                         490
Pro Val Ala Asp Ala Pro Val Ala Lys Pro Gln Ala Val Pro Asn Ala
              505
        500
Val Thr Ile Ala Ala Leu Val Ser Pro Val Thr Gly Asp Val Val Ala
         520
Leu Glu Gln Val Pro Asp Glu Ala Phe Ala Ser Lys Ala Val Gly Asp
         535 540
Gly Val Ala Val Lys Pro Thr Asp Lys Thr Val Val Ser Pro Ala Ala
   550 555
Gly Thr Ile Val Lys Ile Phe Asn Thr Asn His Ala Phe Cys Leu Glu
         565 570 575
Thr Glu Lys Gly Ala Glu Ile Val Val His Met Gly Ile Asp Thr Val
       580 585 590
Ala Leu Asn Gly Gln Gly Phe Thr Arg Leu Val Glu Glu Gly Ala Glu
 595 600 605
Val Ala Ala Gly Gln Pro Ile Leu Glu Met Asp Leu Asp Phe Leu Asn
 610 615 620
Ala Asn Ala Arg Ser Met Ile Ser Pro Val Val Cys Ser Asn Ile Asp
625 630 635
Asp Phe Ser Gly Leu Val Ile Gln Ala Gln Gly Gln Val Val Ala Gly
  645 650
Gln Thr Pro Leu Tyr Glu Ile Lys Gly Lys
<210> 6115
<211> 287
<212> PRT
<213> Enterobacter cloacae
<400> 6115
Asn Val Pro Glu Glu Asn Asn Gly Gly Asn Cys Cys Lys Lys Arg
1 5
Arg Arg Ile Ser Pro Ala Ala Lys Gly Ile Thr Leu Leu Arg Ser Asp
 20 25
Tyr Leu Pro Leu Ile Ser Tyr Ser Gly Val Trp Pro Ala Thr Thr Cys
                  40 45
Pro Cys Ala Trp Ile Thr Arg Pro Leu Lys Ser Ser Met Leu Leu His
 50 55
Thr Thr Gly Leu Ile Met Glu Arg Ala Leu Ala Phe Arg Lys Ser Arg
65 70
                     75 80
Ser Ile Ser Arg Ile Gly Trp Pro Ala Ala Thr Ser Ala Pro Ser Ser
           85
                         90 95
Thr Arg Arg Val Lys Pro Trp Pro Phe Ser Ala Thr Val Ser Ile Pro
        100 105 110
Ile Trp Thr Thr Ile Ser Ala Pro Phe Ser Val Ser Arg Gln Asn Ala
     115 120 125
Trp Leu Val Leu Lys Ile Phe Thr Ile Val Pro Ala Ala Gly Glu Thr
               135 140
Thr Val Leu Ser Val Gly Phe Thr Ala Thr Pro Ser Pro Thr Ala Leu
145 150 155 160
Leu Ala Asn Ala Ser Ser Gly Thr Cys Ser Ser Ala Thr Thr Ser Pro
           165 170 175
Val Thr Gly Glu Thr Ser Ala Ala Met Val Thr Ala Phe Gly Thr Ala
      180 185 190
```

Cys Gly Phe Ala Thr Gly Ala Ser Ala Thr Gly Ala Leu Ser Val Glu

Ala Ala Ala Thr Gly Pro Arg Ala Thr Thr Phe Phe Ile Ser Ser Pro

205

Ile Asp Ser Ala Phe Ala Pro Thr Ile Thr Trp Met Val Cys Leu Phe 230 235 Ser Phe Thr Thr Pro Asp Ala Pro Arg Arg Leu His Ile Ala Ser Leu 245 250 255 Thr Arg Ala Glu Ser Pro Thr Val Arg Arg Arg Arg Val Ile Gln Ala 260 265 270 Ser Ile Ala Phe Arg Leu Ser Val Pro Pro Thr Ala Ala Met 280 285 <210> 6116 <211> 367 <212> PRT <213> Enterobacter cloacae <400> 6116 Ala Gly Asp Gly Gly Asp His Pro Gly Ser Ala Gly Cys Ala Asp Gly 10 Gly Ser Arg Pro Phe Thr Ala Leu Leu Ser Lys Ile Asn Pro His Thr 25 Ser Gln Gln Gly Lys Asp Ile Met Lys Ser Arg Ala Ala Val Ala Phe 40 45 Gly Pro Gly Gln Pro Leu Lys Ile Val Glu Ile Asp Val Ala Pro Pro 50 55 Lys Lys Gly Glu Val Leu Ile Lys Ile Thr His Thr Gly Val Cys His 7.0 75 Thr Asp Ala Phe Thr Leu Ser Gly Asp Asp Pro Glu Gly Val Phe Pro 85 90 Ala Val Leu Gly His Glu Gly Gly Gly Val Val Val Glu Val Gly Glu 100 105 110 Gly Val Thr Ser Leu Lys Pro Gly Asp His Val Ile Pro Leu Tyr Thr 115 120 125 Ala Glu Cys Gly Glu Cys Lys Pne Cys Lys Ser Gly Lys Thr Asn Leu 130 135 140 Cys Gln Ala Val Arg Ala Thr Gln Gly Lys Gly Leu Met Pro Asp Gly 145 150 155 160 Thr Thr Arg Phe Ser Tyr Asn Gly Glu Pro Ile Tyr His Tyr Met Gly 165 170 175 Thr Ser Thr Phe Ser Glu Tyr Thr Val Cys Ala Glu Ile Ser Leu Ala 180 185 Lys Val Asn Pro Gln Ala Pro Leu Asp Lys Val Cys Leu Leu Gly Cys 195 200 Gly Val Thr Thr Gly Ile Gly Ala Val His Asn Thr Ala Lys Val Lys 215 220 Glu Gly Asp Thr Val Ala Val Phe Gly Leu Gly Gly Ile Gly Leu Ala 225 230 235 Val Ile Gln Gly Ala Val Gln Ala Lys Ala Gly Arg Ile Ile Ala Val 245 250 Asp Thr Asn Pro Glu Lys Phe Lys Leu Ala Gly Glu Met Gly Ala Thr 260 265 270 Asp Phe Ile Asn Pro Lys Asp Tyr Asp Lys Pro Val Gln Glu Val Ile 275 280 285 Val Glu Leu Thr Asp Gly Gly Val Asp Phe Ser Phe Glu Cys Ile Gly 290 295 300 Asn Val Tyr Val Met Arg Ser Ala Leu Glu Cys Cys His Lys Gly Trp 310 315 Gly Glu Ser 11e 11e Ile Gly Val Ala Gly Arg Gly Ser Gly Asp Gln 325 330 335 Asn Pro Ser Leu Pro Ser Gly Asp Arg Gly Arg Met Ala Arg Val Gly 340 345 Ile Trp Arg Arg Glu Arg Pro Tyr Pro Ala Ala Gly His Gly

```
355
                           360
                                               365
<210> 6117
<211> 104
<212> PRT
<213> Enterobacter cloacae
<400> 6117
Lys Ile Gln Tyr Pro Pro Ile Val Ser Gly Gly Arg Met Pro His Ser
                              10
Pro Glu Asp Lys Lys Arg Ile Leu Thr Arg Val Arg Arg Ile Arg Gly
           20
                              25
                                                  3.0
Gln Val Asp Ala Leu Glu Arg Ala Leu Glu Ser Gly Asp Pro Cys Leu
       35
                          40
                                             4.5
Ala Ile Leu Gln Gln Ile Ala Ala Val Arg Gly Ala Ala Asn Gly Leu
                      5.5
                                          60
Met Gly Glu Met Val Glu Ile His Leu Lys Asp Glu Leu Val Thr Gly
                  70
                               7.5
Glu Thr Thr Pro Asp Gln Arg Ala Val Arg Met Ala Glu Val Gly His
  85
Leu Leu Arg Ser Tyr Leu Lys
          100
<210> 6118
<211> 104
<212> PRT
<213> Enterobacter cloacae
<400> 6118
Cys Ala Gln Arg Leu Ser Ala Ala Thr Lys Ala Gly Ala Arg Ala Ser
1 5
                                   10
Leu Ser Val Trp Pro Ala Ala Gly Gln Glu Ile Lys Thr Arg Pro Tyr
His Leu Val Thr Gly Gly Val Trp Arg Gly Ser Ala Phe Gly Gly Val
                          40
                                              45
Lys Gly Arg Thr Gln Leu Pro Gly Met Val Glu Asp Ala Met Val Gly
                    55
Lys Ile Gln Leu Asp Pro Phe Ile Thr His Arg Leu Pro Leu Glu Gln
                  70
                                      75
Ile Asn Glu Ala Phe Asp Leu Met His Glu Gly Lys Ser Ile Arg Thr
              85
Val Ile His Phe Gly Asp Asn
           100
<210> 6119
<211> 517
<212> PRT
<213> Enterobacter cloacae
<400> 6119
Ser Phe Leu Lys Cys Asp Leu Ser Gly Ala Phe Asn Arg Asn Leu Ile
                                   10
                                                     1.5
Leu Arg Arg Ala Asp Asp Ser Phe Thr Gly Val Phe Leu Arg Ile Leu
          20
                               25
                                                  30
Pro Ile Arg Glu Ser Thr Val Met Asp Asn Thr Thr Ser Met Gln Ala
                          4.0
Gln His Lys Leu Ser Phe Leu His His Ile Arg Leu Val Pro Leu Phe
                      5.5
                                          60
Ser Ser Ile Leu Gly Gly Ile Ile Leu Leu Phe Ala Leu Ser Ser Gly
                   70
Leu Ala Gly Tyr Phe Leu Leu Gln Ala Asp Asn Asp Gln Gln Asp Val
```

```
Thr Ala Glu Ile Gln Val Arg Thr Gly Leu Ser Asn Ser Ser Asn His
   100
              105 110
Leu Arg Thr Ala Arg Ile Asn Met Ile His Ala Gly Ala Ala Ser Arg
 115 120 125
Ile Ala Glu Met Glu Ala Met Lys Gln Asn Ile Ala Glu Ala Glu Thr
 130 135 140
Arg Ile Arg Gln Ser Gln Asp Gly Phe Ala Ala Tyr Met Lys Arg Thr
145 150 155 160
Ile Arg Thr Pro Ala Asp Glu Ala Leu Asp Gly Asp Leu Lys Ala Arg
     165 170 175
Tyr Asp Ala Tyr Ile Ala Gly Met Gln Pro Met Leu Lys Tyr Ala Lys
  180 185 190
Asn Gly Met Phe Glu Ala Ile Ile Asn His Glu Asn Glu Thr Ala Arg
195 200 205
Pro Leu Asp Asp Ala Tyr Asn Ala Val Leu Leu Lys Ala Ile Lys Ile
210 215 220
Arg Thr Glu Arg Ala Asn Ala Leu Thr Ala Gln Ala His Thr Arg Thr
225 230 235 240
Arg Leu Gly Leu Met Pne Met Pne Gly Ala Phe Gly Leu Ala Leu Ala
        245 250
Leu Ala Val Ile Thr Phe Val Val Leu Arg Arg Thr Val Ile Asn Pro
 260 265 270
Leu Gln Arg Ala Ala Thr Arg Ile Glu Asn Ile Ala Lys Gly Asp Leu
275 280
                               285
Thr Met Pro Asp Glu Pro Thr Gly Arg Ser Glu Ile Gly Arg Leu Thr
290 295 300
Arg Asp Leu Gln Thr Met Gln His Ala Leu Val Thr Thr Val Gly Thr
                 315
305 310
Val Arg Gln Gly Ala Glu Glu Ile Tyr Arg Gly Thr Ser Glu Ile Ser
          325 330
Ala Gly Asn Thr Asp Leu Ser Ser Arg Thr Glu Gln Gln Ala Ala Ala
   340 345
                                    350
Ile Glu Gln Thr Ala Ala Ser Met Glu Gln Leu Thr Ala Thr Val Lys
    355 360
                                 365
Gln Asn Ala Asp Asn Ala His His Ala Ser Lys Leu Ala Glu Asp Ala
370
                375
                               380
Ser Gly Lys Ala Ser Arg Gly Gly Gln Met Val Ser Gly Val Val Lys
  390
                           395
                                        400
Thr Met Gly Asn Ile Ser Thr Ser Ser Lys Lys Ile Ser Glu Ile Thr
               410
          405
Ala Val Ile Asn Ser Ile Ala Phe Gln Thr Asn Ile Leu Ala Leu Asn
     420
           425
Ala Ala Val Glu Ala Ala Arg Ala Gly Glu Gln Gly Arg Gly Phe Ala
   435 440
                                 445
Val Val Ala Ser Glu Val Arg Thr Leu Ala Ser Arg Ser Ala Asn Ala
450 455
Ala Lys Glu Ile Glu Ser Leu Ile Asn Glu Ser Val Ser Leu Ile Asp
                    475 480
465 470
Gln Gly Ser Gly Glu Val Val Ala Ala Gly Asn Thr Met Asn Glu Ile
          485 490 495
Val Glu Ala Val Lys Arg Val Thr Asp Ile Met Ser Ser Ala Arg Gly
       500
                      505
Glv Ser Thr Glu Ser
     515
```

<210> 6120 <211> 167

<sup>&</sup>lt;212> PRT <213> Enterobacter cloacae

```
2391
<400> 6120
Lys Asp Phe Leu Leu Pro Pro Asn Cys Pro Gln Ser Val Phe Cys Pro
                                10
Gln Ile Cys Pro Arg Asn Leu Leu Phe Cys Val Ala Pro Ser Ser Phe
        20
                     25
                                     30
Glu Ser His Leu Phe Thr Gln Phe Arg Leu Ile Ser Ile Ile Ala Thr
      3.5
                 40
                                    4.5
Asn Pro Phe Val Arg Leu Asn Gln Arg Ala Leu Leu Phe Pro Thr Asn
                 55
Leu Tyr Phe Gln Ser Asp Thr Arg Leu Glu Val Ser Met Cys Gly Arg
               7.0
                             75
Phe Ala Gln Ala Gln Thr Arg Glu Glu Tyr Leu Ala Tyr Phe Ala Asp
                               90
             8.5
Glu Ala Val Arg Asp Ile Ala Tyr Asp Pro Glu Pro Ile Gly Arg Tyr
         100
                            105
                                             110
Asn Val Ala Pro Gly Ser Lys Val Leu Leu Leu Ser Glu His Asp Glu
                        120
                                           125
       115
Gln Leu His Leu Asp Pro Val Phe Trp Gly Tyr Pro Pro Gly Trp Trp
                 135
 130
                                       140
Asp Lys Ala Pro Leu Ile Asn Ala Arg Val Glu Thr Ala Ala Thr Ser
145 150
                                   155
Arg Met Phe Lys Pro Leu
              165
<210> 6121
<211> 111
<212> PRT
<213> Enterobacter cloacae
```

<400> 6121 Gln His Gly Arg Ala Ile Cys Phe Ala Asp Gly Trp Phe Glu Tro Lys Arg Glu Glu Gly Lys Lys Gln Pro Tyr Phe Ile His Arg Ala Asp Gly 20 Gln Pro Ile Phe Met Ala Ala Ile Gly Ser Thr Pro Phe Glu Arg Gly 40 Asp Glu Ala Glu Gly Phe Leu Ile Val Thr Ser Ala Ala Asp Lys Gly 55 60 Leu Val Asp Ile His Asp Arg Arg Pro Leu Val Leu Ser Pro Glu Ala 65 70 Ala Arg Glu Trp Met Arg Gln Glu Val Gly Gly Lys Glu Ala Glu Gln 85 90

Ile Ala Ala Asp Gly Val Ser Thr Arg Gln Gly Glu Val Gln Arg

105

<210> 6122 <211> 143 <212> PRT <213> Enterobacter cloacae

100

<400> 6122 Asn Ser Ala Ser Gln Lys Glu Ile Ala Met Thr Leu Pro Ser Gly His 10 Pro Lys Ser Arg Leu Ile Lys Lys Phe Met Ala Leu Gly Pro Tyr Ile 20 25 Arg Glu Glu Gln Cys Glu Glu Asn Arg Phe Phe Phe Asp Cys Leu Ala 40 Val Cys Val Asn Val Lys Pro Ala Pro Glu Lys Arg Glu Phe Trp Gly 5.0 55 Trp Trp Met Glu Met Glu Ala Gln Glu Asn Arg Phe Thr Tyr Ser Tyr 7.0

```
Gln Phe Gly Leu Phe Asn Lys Asp Gly His Trp Gln Ala Thr Ser Ile
              85
Lys Asp Gln Glu Val Ile Asp Arg Leu Glu His Thr Leu Lys Glu Phe
           100
                             105
His Gly Lys Ala Arg Asp Leu Leu Ala Thr Leu Asp Leu Lys Leu Glu
Pro Ala Asp Asp Phe Ser Ser Glu Ala Val Lys Leu Arg Ala
                      135
<210> 6123
<211> 169
<212> PRT
<213> Enterobacter cloacae
<400> 6123
Leu Arg Pro Arg Pro Ala Ile Lys Ala Leu Glu Asn Ile Pro Trp Val
Asp His Thr Arg Val Gly Ala Phe Gly Phe Arg Phe Gly Ala Asn Val
          20
                           25
                                                30
Ala Val Arg Leu Ala Tyr Leu Glu Ser Ser Arg Leu Lys Ala Val Ala
                       40
Cys Leu Gly Pro Val Val His Ala Leu Leu Ser Asp Pro Ala Arg Gln
                      55
Gly Ser Val Pro Glu Met Tyr Leu Asp Val Leu Ala Ser Arg Leu Gly
                  70
                                  75
Met His Asp Ala Ser Asp Glu Ala Leu Arg Ile Glu Leu Asn Arg Tyr
                                90
            85
Ser Leu Lys Thr Gln Gly Leu Leu Gly Arg Arg Cys Pro Thr Pro Met
          100
                           105
Met Ser Gly Phe Trp Lys Asn Asp Pro Phe Ser Pro Glu Glu Glu Ser
      115 120 125
Arg Leu Ile Thr Ser Ser Ser Ser Asp Gly Lys Leu Leu Glu Val Pro
130 135
Phe Ser Pro Val Tyr Gln Asn Phe Asp Lys Ala Leu Lys Glu Ile Thr
                  150
Arg Trp Ile Thr Gln Arg Leu Cys
              165
<210> 6124
<211> 381
<212> PRT
<213> Enterobacter cloacae
<400> 6124
Leu Thr Ser Phe Ser Leu Ile Val Glu Arg Gln Arg Ile Met Ser Asp
                                  10
Ser Gln Thr Leu Val Val Lys Leu Gly Thr Ser Val Leu Thr Gly Gly
                              25
Ser Arg Arg Leu Asn Arg Ala His Ile Val Glu Leu Val Arg Gln Cys
                          40
                                             45
Ala Gln Leu His Ala Ala Gly His Arg Ile Val Ile Val Thr Ser Gly
                      5.5
                                         60
Ala Ile Ala Ala Gly Arg Glu His Leu Gly Tyr Pro Glu Leu Pro Ala
                  7.0
                                      75
Thr Ile Ala Ser Lys Gln Leu Leu Ala Ala Val Gly Gln Ser Arg Leu
              8.5
                                 9.0
```

Ile Gln Leu Trp Glu Gln Leu Phe Ser Ile Tyr Gly Ile His Val Gly

Gln Met Leu Leu Thr Arg Ala Asp Met Glu Asp Arg Glu Arg Phe Leu 120

Asn Ala Arg Asp Thr Leu Arg Ala Leu Leu Asp Asn His Ile Val Pro

105

110

125

100

```
1.35
Val Ile Asn Glu Asn Asp Ala Val Ala Thr Ala Glu Ile Lys Val Gly
      150
                          155
Asp Asn Asp Asn Leu Ser Ala Leu Ala Ala Ile Leu Ala Gly Ala Asp
                      170
        165
                                        175
Lys Leu Leu Leu Thr Asp Gln Gln Gly Leu Phe Thr Ala Asp Pro
      180
                   185
                                     190
Arg Ser Asn Pro Gln Ala Glu Leu Ile Lys Asp Val His Gly Ile Asp
     195 200
                           205
Asp Ala Leu Arg Ala Ile Ala Gly Asp Ser Val Ser Gly Leu Gly Thr
 210 215
                               220
Gly Gly Met Gly Thr Lys Leu Gln Ala Ala Asp Val Ala Cys Arg Ala
            230
                  235
Gly Ile Asp Thr Ile Ile Ala Ala Gly Ser Arg Pro Gly Val Ile Gly
        245
                         250 255
Asp Val Met Glu Gly Ile Ser Val Gly Thr Arg Phe His Ala Gln Ala
     260
            265 270
Ser Pro Leu Glu Asn Arg Lys Arg Trp Ile Phe Gly Ala Pro Pro Ala
     275 280
                        285
Gly Glu Leu Thr Val Asp Glu Gly Ala Thr Ala Ala Ile Leu Glu Arg
 290 295 300
Gly Ser Ser Leu Leu Pro Lys Gly Ile Lys Ser Val Thr Gly Asn Phe
305 310 315 320
Ser Arg Gly Glu Val Ile Arg Ile Arg Asn Leu Glu Gly Arg Asp Ile
        325 330 335
Ala His Gly Val Ser Arg Tyr Asn Ser Asp Ala Leu Arg Arg Ile Ala
      340 345 350
Gly His His Ser Gln Gln Ile Asp Ala Ile Leu Gly Tyr Glu Tyr Gly
 355 360 365
Pro Val Ala Val His Arg Asp Asp Met Ile Ile Arg
370
                375
<210> 6125
```

<211> 360 <212> PRT

<213> Enterobacter cloacae

<400> 6125 Arg Val Phe Ile Lys Ser Gly Leu Lys Met Lys Lys Ser Thr Leu Ala 10 Leu Val Val Met Gly Val Val Ala Ser Ala Ser Val Gln Ala Ala Glu 20 25 Val Tyr Asn Lys Asn Gly Asn Lys Leu Asp Val Tyr Gly Lys Val Lys 35 40 45 Ala Met His Tyr Ile Arg Asp Asp Asp Ala Lys Asp Gly Asp Gln Thr 50 55 60 Tyr Val Arg Phe Gly Phe Lys Gly Glu Thr Gln Ile Asn Asp Gln Leu 7.0 Thr Gly Tyr Gly Arg Trp Glu Ala Glu Phe Ala Gly Asn Lys Ala Glu 85 90 Ser Asp Ser Ser Gln Lys Thr Arg Leu Ala Phe Ala Gly Leu Lys Leu 100 105 110 Lys Asp Phe Gly Ser Leu Asp Tyr Gly Arg Asn Leu Gly Ala Leu Tyr 115 120 125 Asp Val Ala Ala Tyr Thr Asp Met Phe Pro Glu Phe Gly Gly Asp Gly 130 135 140 Leu Ala Gln Thr Asp Asn Phe Met Thr Lys Arg Ala Ser Gly Leu Ala 145 150 155 160 Thr Tyr Arg Asn Thr Asp Phe Phe Gly Leu Val Asp Gly Leu Asn Met 165 170 175 Thr Leu Gln Tyr Gln Gly Lys Asn Glu Asn Arg Asp Val Lys Lys Gln

```
185
Asn Gly Asp Gly Phe Gly Thr Ser Leu Ser Tyr Asp Phe Gly Gly Ser
                     200
     195
                                    205
Asp Phe Ser Val Ile Gly Ala Tyr Ala Ser Ser Asp Arg Thr Asn Glu
                 215
                                  220
Gln Asn Leu Gln Ala Arg Gly Glu Gly Lys Lys Ala Glu Gly Trp Ala
225 230
                              235
Thr Gly Leu Lys Tyr Asp Ala Asn Asp Ile Tyr Leu Ala Thr Ile Tyr
         245 250
                                  255
Ser Glu Thr Arg Asn Met Ala Pro Ile Ser Gly Gly Phe Ala Asn Lys
      260 265
                               270
Ala Gln Asn Phe Glu Val Val Ala Gln Tyr Gln Phe Asp Phe Gly Leu
 275 280
                            285
Arg Pro Ser Leu Gly Tyr Val Gln Ser Lys Gly Lys Asp Ile Glu Gly
 290 295 300
Ile Gly Asp Glu Asp Ile Val Lys Tyr Ile Asp Val Gly Ala Thr Tyr
305 310 315 320
Tyr Phe Asn Lys Asn Met Ser Ala Phe Val Asp Tyr Lys Ile Asn Gln
      325 330 335
Ile Asp Asp Asp Asn Lys Leu Gly Val Ser Ser Asp Asp Ile Val Ala
      340 345 350
Leu Gly Met Thr Tyr Gln Phe
                     360
<210> 6126
<211> 244
<212> PRT
<213> Enterobacter cloacae
<400> 6126
Arg Lys Gly Tyr Pro Phe His Lys Glu Ser Ile Val Lys Lys Ala Leu
Leu Ser Ala Leu Ala Val Thr Ser Leu Phe Ala Leu Phe Gly Cys Asn
                     2.5
                                       3.0
Asn Arg Ser Glu Thr Gln Val Leu Gln Pro Thr Gln Asn Glu Glu Leu
35 40
                             4.5
Lys Pro Met Gln Gln Ser Trp Arg Gly Val Leu Pro Cys Ala Asp Cys
                  55
Glu Gly Ile Glu Thr Ser Leu Phe Leu Gln Lys Asp Gly Thr Trp Val
                              75
               7.0
Met Asn Gln Arg Tyr Gln Gly Ala Lys Glu Pro Ser Ser Phe Ala Ser
85 90 95
Tyr Gly Thr Trp Ala Arg Thr Ala Glu Lys Leu Val Leu Thr Asp Thr
        100 105 110
Thr Gly Asp Lys Thr Phe Phe Arg Ala Lys Gly Glu Gly Met Glu Met
    115 120 125
Leu Asp Arg Glu Gly Asn Pro Ile Glu Ser Gln Phe Asn Tyr Thr Leu
 130
                 135 140
Ala Pro Val Lys Ala Thr Leu Pro Ala Thr Pro Met Ala Met Arg Gly
145 150 155
Met Tyr Phe Tyr Met Ala Asp Ala Ala Ile Phe Thr Asp Cys Ala Thr
           165 170 175
Gly Lys Lys Val Ser Val Ala Asn Asn Ala Gln Leu Glu Arg Asp Tyr
        180 185 190
Ala Val Ala Arg Gly Asn Asp Ser Lys Pro Val Leu Leu Thr Val Glu
                     200 205
      195
Gly His Phe Thr Leu Glu Pro Asn Pro Asp Ser Gly Glu Leu Val Lys
 210
                  215 220
Thr Leu Val Ala Asp Lys Asp Ala Lys Phe Ala Ala Gly Lys Asp Cys
225
               230
                               235
Glu Ser Lys
```

```
<210> 6127
<211> 151
<212> PRT
<213> Enterobacter cloacae
<400> 6127
Ser Gly Asn Ser Ser His Gly Leu Ala Ala Arg Ile Met Ile Val Leu
                         10
Ser Arg Asn Val Ser Ile Pro Asp Asn Glu Leu Glu Ile Thr Ala Ile
      2.0
                           25
                                            30
Arg Ala Gln Gly Ala Gly Gly Gln His Val Asn Lys Ala Ser Thr Ala
      35
                       4.0
                               45
Ile His Leu Arg Phe Asp Ile Arg Ala Ser Ser Leu Pro Glu Tyr Tyr
             55 60
Lys Glu Ser Leu Leu Ala Ala Ser His His Leu Ile Thr Ser Glu Gly
65 70 75
Val Ile Val Ile Lys Ala Gln Glu Tyr Arg Ser Gln Glu Leu Asn Arg
          85 90
Glu Ala Ala Thr Ala Arg Leu Val Ala Val Ile Lys Glu Leu Thr Ala
 100 105 110
Val Gln Lys Ser Arg Arg Ala Thr Arg Pro Thr Arg Ala Ser Lys Glu
115 120 125
Arg Arg Leu Ser Ser Lys Ala Gln Lys Ser Thr Val Lys Ser Leu Arg
130 135
Gly Lys Val Arg His Pro
<210> 6128
<211> 188
<212> PRT
<213> Enterobacter cloacae
<400> 6128
Phe Glu Arg Ser Ser Leu Met Ala Leu Lys Ala Thr Ile Tyr Lys Ala
                              10
Val Val Asn Val Ala Asp Leu Asp Arg Asn Gln Phe Leu Asp Ala Ser
          20
                           2.5
                                            3.0
Leu Thr Leu Ala Arg His Pro Ser Glu Thr Gln Glu Arg Met Met Leu
                                   45
                       4.0
Arg Leu Leu Ala Trp Ile Lys Tyr Ala Asp Glu Arg Leu Gln Phe Thr
                    55
                                     60
Arg Gly Leu Ser Ala Glu Asp Glu Pro Glu Ala Trp Leu Arg Asn Asp
                70
                                  75
                                                  80
His Leu Gly Ile Asp Leu Trp Ile Glu Leu Gly Leu Pro Asp Glu Arg
            8.5
                              90
                                               95
Arg Ile Lys Lys Ala Cys Thr Gin Ser Ala Glu Val Ala Leu Phe Ala
                          105
Tyr Asn Gln Arg Ala Ala Asp Ile Trp Trp Gln Gln Asn Lys Asn Lys
 115
                       120
Cys Ala Gln Phe Lys Asn Leu Thr Val Trp Tyr Leu Asp Asp Glu Gln
   130
                 135
                                     140
Leu Ala Gln Leu Ser Ala Phe Ala Ser Arg Thr Met Ala Leu Gln Ala
                150
                                 155
Thr Ile Gln Asp Gly Ala Ile Trp Leu Ser Asp Ser Gln Asn Asa Leu
             165
                    170
Glu Ile His Leu Thr Ala Trp Gln Pro Ala Ser
          180
                           185
```

```
<211> 61
<212> PRT
<213> Enterobacter cloacae
<400> 6129
Arg Pro Thr Asn Gln Asp Ser Pro Pro Asn Ile Pro Thr Ala Arg Lys
                                   1.0
Arg Met Gln Ile Asn Ala Ser Lys Met Lys Ala Asn Ala Val Leu Leu
                              25
                                               30
         20
His Thr Cys Glu Val Thr Ser Gly Thr Pro Gly Cys Tyr Arg Gln Ala
      35
                          4.0
Val Cys Ile Gly Ser Ala Leu Asn Ile Thr Ala Lys
    50
<210> 6130
<211> 98
<212> PRT
<213> Enterobacter cloacae
<400> 6130
Ala Leu Ser Ala Pro Leu Ile Lys Lys Ser Ser Pro Cys Arg Val Ser
Arg Val Trp Ser Phe Thr Ala Ala Ala Ser Phe Ile Leu Ser Arg Arg
           20
                               25
                                                   3.0
Ile Thr Arg Pro Met Gln Cys Ala Gly Leu Arg Arg Ser Ala Ile Tyr
       35
                           4.0
Gly Trp Ser Leu Cys Phe Thr Arg Pro Trp Lys Ala Ala Gly Val Pro
   50
                       55
                                           60
Leu Cys Val Leu Leu Val Trp Ala Glu Met Pro Glu Trp Gly Ser Leu
65
                  7.0
                                       75
Pro Pro Ala Gln Pro Phe Val Pro Thr Pro Ser Glu Cys Arg Trp Ser
               8.5
                                   90
Ser
<210> 6131
<211> 595
<212> PRT
<213> Enterobacter cloacae
<400> 6131
Thr Thr Phe Phe Val Ser Gly Trp Cys Phe Ser Leu Phe Gln Ser Ser
                                   10
                                                15
Lys Trp Asn Arg Asn Asn Met Arg Thr Ser Gln Tyr Leu Leu Ser Thr
            20
Leu Lys Glu Thr Pro Ala Asp Ala Glu Val Ile Ser His Gln Leu Met
Leu Arg Ala Gly Met Ile Arg Lys Leu Ala Ser Gly Leu Tyr Thr Trp
                       55
Leu Pro Thr Gly Val Arg Val Leu Lys Lys Val Glu'Asn Ile Val Arg
                                       75
                                                           80
Glu Glu Met Asn Asn Ala Gly Ala Ile Glu Val Leu Met Pro Val Val
               85
                                   90
Gln Pro Ser Glu Leu Trp Gln Glu Ser Gly Arg Trp Glu Gln Tyr Gly
           100
                              105
Pro Glu Leu Leu Arg Ile Ala Asp Arg Gly Asp Arg Pro Phe Val Leu
                           120
       115
                                              125
Gly Pro Thr His Glu Glu Val Ile Thr Asp Leu Ile Arg Asn Glu Leu
  130
                      135
                                        140
Ser Ser Tyr Lys Gln Leu Pro Leu Asn Phe Phe Gln Ile Gln Thr Lys
```

```
Phe Arg Asp Glu Val Arg Pro Arg Phe Gly Val Met Arg Ser Arg Glu
         165 170
Phe Leu Met Lys Asp Ala Tyr Ser Phe His Thr Ser Gln Glu Ser Leu
                      185
        180
Gln Glu Thr Tyr Asp Lys Met Tyr Ala Ala Tyr Ser Lys Ile Phe Ser
   195
         200
Arg Met Gly Leu Asp Phe Arg Ala Val Gln Ala Asp Thr Gly Ser Ile
        215
                              220
Gly Gly Ser Ala Ser His Glu Phe Gln Val Leu Ala Gln Ser Gly Glu
             230
                 235
Asp Asp Val Ile Phe Ser Asp Ser Ser Asp Tyr Ala Ala Asn Ile Glu
        245 250 255
Phe Ala Glu Ala Leu Ala Pro Lys Glu Pro Arg Gly Ala Ala Thr Gln
        260 265
                          270
Glu Met Thr Leu Val Asp Thr Pro Asn Ala Lys Thr Ile Ala Glu Leu
   275 280
                                 285
Val Glu Gln Phe Thr Leu Pro Ile Glu Lys Thr Val Lys Thr Leu Leu
             295 300
Val Lys Ser Ala Glu Gly Ser Ala Tyr Pro Leu Val Ala Leu Leu Val
305 310 315 320
Arg Gly Asp His Glu Leu Asn Glu Val Lys Ala Glu Lys Leu Pro Gln
    325 330 335
Val Ala Ser Pro Leu Thr Phe Ala Thr Glu Ala Glu Ile Arg Ala Val
 340 345 350
Val Asn Ala Gly Pro Gly Ser Leu Gly Pro Val Asn Met Pro Val Pro
355 360 365
Val Val Ile Asp Arg Thr Val Ala Ala Met Ser Asp Phe Ala Ala Gly
370 375
                              380
Ala Asn Ile Asp Gly Lys His Tyr Phe Gly Ile Asn Trp Asp Arg Asp
385 390 395
Val Ala Thr Pro Glu Val Ala Asp Ile Arg Asn Val Val Ala Gly Asp
      405 410 415
Pro Ser Pro Asp Gly Lys Gly Thr Leu Met Ile Lys Arg Gly Ile Glu
 420 425 430
Val Gly His Ile Phe Gln Leu Gly Asp Lys Tyr Ser Arg Ala Met Asn
435 440 445
Ala Ala Val Gln Gly Glu Asp Gly Arg Asn Gln Val Leu Thr Met Gly
450 455 460
Cys Tyr Gly Ile Gly Val Thr Arg Val Val Ala Ala Ile Glu Gln
465 470 475 480
Asn Tyr Asp Glu Arg Gly Ile Val Trp Pro Asp Asn Ile Ala Pro Phe
     485 490 495
Gln Val Ala Ile Leu Pro Met Asn Met His Lys Ser Tyr Arg Val Gln
     500 505
Glu Leu Ala Glu Lys Leu Tyr Ala Glu Leu Ser Ala Lys Gly Ile Asp
    515 520 525
Val Leu Met Asp Asp Arg Lys Glu Arg Pro Gly Val Met Phe Ala Asp
 530 535
                              540
Met Glu Leu Ile Gly Ile Pro His Thr Ile Val Ile Gly Asp Arg Asn
            550 555
Leu Asp Ser Asp Glu Ile Glu Tyr Lys Tyr Arg Arg Asn Gly Glu Lys
          565 570 575
Gln Met Ile Lys Thr Gly Asp Ile Leu Asp Tyr Leu Val Lys Ala Ile
        580
                     585
                                    590
Lys Gly
<210> 6132
```

<sup>&</sup>lt;211> 75 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 6132
Val Ser Thr Leu Ala Gly Gly Asp Val Asn Asn Tyr Cys Glu Leu Ile
Arg Arg Arg Tyr Ala Glu Ile Ala Ser Gly Asp Leu Gly Tyr Ile Pro
           20
Asp Ala Leu Gly Cys Val Leu Asn Val Leu Asn Glu Val Ala Ser Asp
                          40
Glu Ser Leu Ser Glu Ser Val Ser Gly Thr Ala Gly Phe Gln His Ala
                       55
Ala Pro Asp His Thr Val Leu Ser Pro Gly Gly
                   7.0
<210> 6133
<211> 240
<212> PRT
<213> Enterobacter cloacae
<400> 6133
His Tyr Gly Glu Met Ser Ser Phe Gln Phe Glu His Ile Gly Val Ile
Arg Ser Pro Tyr Lys Glu Lys Pne Ala Val Pro Arg Gln Pro Gly Leu
           20
                           25
Val Ile His Gly Gly Gly Glu Leu His Leu Val Ala Pro Tyr Asn Gln
      35
                       4.0
Ala Asp Ala Val Arg Gly Leu Glu Ala Phe Ser His Leu Trp Val Val
                      55
Phe Val Phe His Gln Thr Met Glu Gly Gly Trp Arg Pro Thr Val Arg
                  7.0
                                      75
Pro Pro Arg Leu Gly Gly Asn Ala Arg Met Gly Val Phe Ala Thr Arg
             8.5
                                  90
Ser Thr Phe Arg Pro Asn Pro Ile Gly Met Ser Leu Val Glu Leu Lys
        100
                             105
Gly Ile Arg Cys Gln Arg Asp Gln Val Ile Leu Glu Leu Gly Ser Leu
       115
                          120
                                             125
Asp Leu Val Asp Gly Thr Pro Val Ile Asp Ile Lys Pro Tyr Leu Pro
                      135
                                          140
Phe Ala Glu Ala Leu Pro Asp Ala Arg Ala Ser Tyr Ala Gln Asp Ala
                  150
                                  155
                                                         160
Pro Gln Ala Asp Met Pro Val His Phe Thr Ser Glu Ile Thr Thr Gln
               165
                                 170
Ile Ser Glu Leu Glu Lys Arg Tyr Pro Arg Leu Arg Asp Phe Ile Val
           180
                              185
Glu Val Leu Ala Gln Asp Pro Arg Pro Ala Tyr Arg Lys Glu Glu Glu
                           200
Ala Gly Lys Thr Tyr Ala Val Trp Leu Leu Asp Phe Asn Val Arg Trp
                      215
                                          220
Arg Val Thr Ala Ala Gly Phe Glu Val Phe Ala Leu Glu Pro Arg
                   230
<210> 6134
<211> 147
<212> PRT
<213> Enterobacter cloacae
<400> 6134
Glu Arg Asn Trp Gly Met Lys Ser Lys Ile Arg Tyr Val Leu Ser Gly
Phe Val Val Leu Cys Ala Phe Ala Gly Val Tyr Lys Ile Leu Asn Asn
                              25
```

Val Pro Val Lys Pro Asp Leu Leu Asp Phe Thr Gly Asn Thr Phe Lys

Lys Thr Ser Leu Phe Leu Pro Cys Asp Lys Ser Ser Pro Ser Leu Asn Ile Lys Ile Ala Asp Asn Glu Lys Ile Val Ile Asn Gly Ile Ala Ser 7.0 75 Lys Val Thr Phe Val Glu Lys Ala Asp Pro Val Lys Ser Pro Gly Phe 85 90 Cys Asp Asp Leu Asp Leu Asn Asn Ser Arg Leu Val His Thr Ala Ser 100 105 Tyr Ser Leu Val Ile Ser Glu Thr Lys Thr Gly Phe Thr Leu Ser Asn 115 120 125 Phe Lys His Leu Ala Asp Asp Glu Ser Leu Gly Gly Met Trp Phe Tyr 130 Gln Lys 145 <210> 6135 <211> 1226 <212> PRT <213> Enterobacter cloacae <400> 6135 Phe Cys Ser Glu Lys Gln Val Phe Val Met Arg Lys Ser Gly Leu Gly 1.0 Leu Ala Leu Leu Phe Ser Leu Ile Ala Pro Ile Lys Ala Val Tyr Ala 20 25 Glu Ala Ile Met Ile Ser Gly Lys Leu Gln Ala Asp Leu Pro Ala Val 35 40 Ser Phe Asp Pro Gly Pro Gly Asp Phe Val Ala Tyr Val Asn Ser Asn 55 Thr Ile Thr Ala Ser Gly Ala Gly Thr Ala Cys Asn Val Thr Val Asp 65 70 75 Asp Arg Ala Thr Ser Ser Val Asp Asn Leu Val Cys Phe Phe Glu Trp 85 90 95 Leu Pro Asn Thr Leu Gly Leu Tar Ser Asa Gly Phe Ile Leu Ser Gly 100 105 Val Pro Tyr Thr Thr Gly Asp Leu Lys Leu Pro Tyr Lys Ile Ser Tyr 115 120 125 Phe Ser Gly Ser Glu Arg Lys Lys Val Glu Ile Val Lys Gly Glu Tyr Ser Ile Lys Ser Val Ala Pro Val Lys Pro Thr Ile Thr Gly Leu Lys 150 155 Ser Ser Leu Asn Gly Leu Val Tyr Asp Gly Phe Ser Phe Lys Ser Tyr 165 170 175 Leu Lys Asp Glu Ala Ile Lys Asp Ile Ala Val Ser Val Glu Pro Arg 180 185 190 Asn Tyr Ile Gln Tyr Ile Ser Ile Gly Ser Gly Ser Ala Cys Glu Val 195 200 205 Pro Ile Gly Gly Thr Ser Cys Thr Ile Glu Val Gly Ser Ile Lys Ala 215 220 Ser Asp Thr Asp Glu Leu Leu Gly Ser Arg Asp Ile Thr Ile Thr Ala 230 235 240 Asn Ser Lys Asn Asn Tyr Phe Ala Pro Pro Glu Ser Lys Lys Leu Val 245 250 255 Val Asn Trp Asp Tyr Arg Pro Pro Val Val Asp His Thr Leu Trp Asn 260 265 Phe Thr Asp Glu Ala Lys Thr Ile Lys Val Gly Gly Gln Asp Ile Tyr 280 285 Thr Gly Ala Lys Thr Val Ala Val Ala Val Lys Val Pro Gln Gln Glu 300 295 Thr Glu Gly Glu Trp Trp Leu Pro Thr Ala Met Ser Leu Thr Met Thr

```
315
              310
Pro Asp Gly Val Phe Lys Pro Thr Thr Lys Val Thr Leu Asp Asp Gly
                  330
          325
Thr Glu Ile Asp Phe Lys Gln Ser Trp Ala Thr Pro Leu Arg Arg Thr
       340
               345
                                     350
Leu Gln Pro Val Ser Gly Pro Gln Lys Val Gly Asp Glu Tyr Leu Tyr
 355 360 365
Ile Phe Asp Leu Thr Asp Leu Ile Asn Gly Ser Tyr Ala Ala Thr Phe
370 375 380
Thr Val Glu Asn Thr Ser Lys Asn Ser Ser Thr Tyr Thr Glu Pro Glu
385 390 395
Ser Lys Leu Met Leu Ser Asp Asn Pro Thr Leu Met Val Leu Lys Asp
      405 410 415
Gly Gln Val Leu Thr Lys Arg Ala Pro Val Tyr Phe Leu Asn Glu Ile
      420 425 430
Ile Val Ala Ala Phe Gln Gly Gln Ala Gly Val Ala Asp Ile Lys Ser
435 440 445
Val Thr Ile Asp Asn Lys Val Val Ser Leu Thr Pro Thr Asn Tyr Lys
 450 455 460
Gly Ile Tyr Tyr Leu Pro Val Gly Asp Asp Leu Ala Val Asn Ser Asp
465 470 475 480
His Glu Ile Thr Val Val Ala Glu Asn Leu Tyr Gly Lys Asn Val Asn
         485 490 495
Phe Ser Thr Val Phe Thr Tyr Gln Pro Thr Gly Phe Thr Leu Lys Asn
 500 505 510
Leu Glu Lys Asn Val Thr Leu Tyr Ser Arg Val Arg Gln Tyr Thr Asp
515 520 525
Leu Leu Ser Gln Thr Ala Gly Asp Lys Cys Thr Leu Phe Thr Thr Glu
530 535 540
Glu Asn Ala Asn Ala Tyr Leu Ala Trp Tyr Gly Glu Lys Ser Asp Val
545 550 555
Thr Ala Cys Tyr Pro Gln Trp Asn Asn Val Pro Asp Gly Leu Glu Phe
           565 570 575
Tyr Phe Lys Gly Arg Thr Pro Gly Leu Thr Gly Phe Phe Asn Lys Thr
     580 585 590
Gly Glu Asn Leu Leu Asp Tyr Gln Val Tyr Met Ile Asn Gly Lys Gly
     595 600 605
Ser Lys Ala Val Ser Ala Arg Asn Arg Arg Thr Leu Thr Thr Gln Leu
 610 615 620
Pro Tyr Asn Pro Ile Ile Ser Tyr Lys Lys Asn Lys Val Ile Ala Gly
625 630 635
Ile Asn Pro Asn Thr Ala Leu Ala Tyr Thr Thr Gly Gly Glu Ala Ala
           645 650 655
Arg Ile Leu Ala Lys Val Val Pro Ala Asp Val Thr Met Ile Val Ser
                      665 670
      660
Gln Asn Gly Ser Glu Ala Val Lys Thr Ser Phe Lys Asn Arg Ser Ser
675
                   680
                       685
Asn Asn Asp Ala Thr Thr Phe Val Gln Arg Val Lys Val Ala Ala Ala
              695 700
Pro Leu Trp Thr Lys Asn Val Phe Asp Ile Ala Val Glu Tyr Ser Lys
705 710 715
Asp Pro Glu Leu Arg Thr Thr Asp Thr Leu Asn Val Tyr Thr Val Pro
           725 730
Asp Phe Asn Ile Arg Ala Ser Met Glu Val Asp Asp Lys Lys Thr Ala
740 745 750
Thr Ser Leu Glu Val Pro Leu Lys Val Thr Val Gly Arg Tyr Asn Asn
                 760
     755
                                  765
Ser Thr Arg Lys Ser Ala Phe Asp Arg Lys Thr Met Gly Glu Trp Asp
               775 780
Val Thr Ile Tyr Ser Gln Lys Ser Val Tyr Gly Lys Asp Pro Glu Thr
              790
                             795
```

```
Gly Arg Tyr Lys Thr Thr Tyr Glu Arg Thr Ala Leu Thr Glu Ala Leu
                         810
        805
Pro Val Asn Asp Ala Gly Ile Val Glu Thr Lys Ile Lys Ile Glu Asn
       820
                      825
Met Asp Leu Gly Asn Met Arg Leu Val Gly Val Ala Lys Val Arg Ser
  835 840 845
Pro Phe Ser Asp Phe Glu Met Lys Arg Glu Thr Ser Ala Val Gly Ile
 850 855 860
Arg Ile Tyr Lys Gly Glu Glu Leu Glu Gly Asn Leu Ser Lys Ser Leu
865 870 875 880
Ile Ile Gly Arg Ile Pro Leu Ser Thr Leu Val Ser Phe Lys Ser Ala
     885 890 895
Ser Thr Ala Asn Ser Asp Ala Leu Ala Pro Thr Glu Trp Gln Gln Ser
      900 905 910
Ser Asp Asn Gly Gln Thr Trp Thr Met Leu Ser Asp Met Thr Gly Lys
    915 920 925
Arg Ser Val Ser Ile Lys Lys Thr Glu Val Gly Lys Trp Leu Tyr Arg
 930 935 940
Ala Lys Met Thr Asn Lys Phe Thr Ser Lys Ile Ser Tyr Thr Asp Ala
           950 955
Leu Thr Val Val Thr Tyr Lys Gln Pro Lys Leu Ser Ile Asp Val Thr
           965 970 975
Asp Ile Leu Gln Gly Ser Asp Ile Pro Val Thr Leu Leu Asp Asn Asp
        980 985 990
Glu Pro Ile Pro Ala Gly Thr Ala Glu Val Leu Trp Ser Glu Asp Lys
995 1000 1005
Val Asn Trp Val Gln Gly Asp Thr Thr Tyr Thr Val Ala Ser Ala Asp
1010 1015 1020
Thr Leu Pro Ser Thr Ile Tyr Ala Arg Met Arg Tyr Leu Asp Ser Asp
1025 1030 1035 1040
Glu Leu Ala Glu Glu Ser Ser Trp Lys Glu Thr Ser Ala Arg Leu Ala
     1045 1050 1055
Ala Ala Lys Pro Lys Arg Leu Ser Val Ser Val Thr Gly Val Ser Lys
       1060 1065 1070
Val Glu Val Gly Gln Lys Val Thr Leu Glu Gly Lys Phe Thr Asn Pro
     1075 1080 1085
Asn Ser Lys Tyr Gln Asn Gly Asn Asn Val Val Glu Glu Trp Lys Thr
 1090 1095 1100
Pro Asp Gly Gln Thr Phe Lys Gly Ser Ser Leu Ser Val Thr Leu Thr
             1110 1115 1120
1105
Glu Gln Met Leu Asp Lys Gln Gly Tyr Ala Ala Phe Glu Tyr Ser Ala
          1125 1130 1135
Trp Leu Ala Asp Asn Lys Glu Asn Thr Val Ser Thr Arg Arg Val Ser
        1140 1145 1150
Val Lys Ser Trp Val Tyr Lys Phe Pro Glu Met Lys Ile Ser Ser Lys
     1155 1160 1165
Leu Lys Tyr Asp Met Ala Pro Thr Thr Leu Arg Val Ala Leu Ser Gly
  1170 1175 1180
Ile Lys Asp Gly Asp Tyr Pro Gly Val Thr Tyr Ser Arg Glu Trp Ile
1185 1190 1195 120
Tyr Asp Lys Glu Asn Leu Val Ile Thr Thr Asp Val Phe Thr Thr Glu
      1205 1210
                                        1215
Leu Ala Gly Pro Ala Pro Lys Gly Met Gly
        1220
                       1225
```

<sup>&</sup>lt;210> 6136

<sup>&</sup>lt;211> 160

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
Leu Ile Ile Ile Lys Ala Asp Arg Met Leu Ser Arg Asn Ser Leu
                            10
Ile His Gly Leu Arg Arg Asp Gln Leu Ile Gly Val Leu Thr Ile Ser
         20
Glu Phe Pro Val Val Met Val Glu Ser His Phe Ile Gln Ser Glu Val
                      40
Met Gly Ile Lys Pro Val Ile Phe Asn Ile Asp Glu Leu Leu Val Ser
                   55
Ile Ser Pro Ile Ser Ser Leu Lys Phe Asp Trp Glu Trp Ala Pro Val
                                75
                7.0
Asp Thr Ile Leu Ile Glu Val Ile Ile Pro Pro Val Glu Ser Asp Leu
           85
                             90
Val Ser Ala Glu Asn Asp Phe Leu Arg Asp Ser Gly Ile Gly His Ile
              105
         100
Gln Cys Glu Pro Gly Gly Ala Ser Ile Arg Arg Thr Val Thr Phe Val
                                       125
    115
               120
Gly Gly Ile Thr Ala Asp Asn Leu Leu Tyr Gln Leu Arg Leu Met Cys
 130 135
                                   140
Val Ser Ala Leu Lys Leu Leu Gly Glu Glu Leu Gly Asp Glu Val
145 150
                                155
<210> 6137
<211> 199
<212> PRT
<213> Enterobacter cloacae
<400> 6137
Ile Ile Arg Arg Tyr Val Val Leu Ser Lys Val Thr Phe Tyr Met Ala
                            10
Thr Ser Asp Phe Ala Leu Lys Asn His Asn Val Lys Ala Phe Gly Gln
      20
                      25
Asp Ala Ala Leu Val Ile Glu Met Asn Asn Glu Asp Val Ser Ser Ser
                         4.5
35 40
Lys Pro Ser Pro Phe Ser Asn Glu Ile Asp Asn Tyr Tyr Leu Thr Leu
50 55
His Val Ala Pro Arg Asn Ala Lys Lys Asp Tyr Asp Trp Gly Ser Asn
          70
                              7.5
Arg Ser Val Leu Leu Lys Leu Ser Thr Asn Glu Val Met Gln Met Ala
            85
                         90
Ser Val Phe Leu Arg Ile Met His Thr Leu Lys Ile Asp Lys Arg Lys
        100
                         105 110
Thr Ser His His Gly His Val Val Tyr Lys Asn Ile Ser Val Thr Pro
                      120
                                      125
 115
Asn Glu Arg Gly Gly Leu Leu Ser Ala Gly Ile Val Pro Val Asp
                 135 140
Lys Asp Gly Leu Lys Pro Phe Met His Met Val Pro Val Ser Gln Met
              150 155 160
Asp Cys Val Lys Ile Gly Leu Tyr Ile Leu Gly Tyr Leu Ala Gln Lys
            165 170 175
Thr Pro Trp Val Ser Ser Glu Ser Ile Ile Thr Ala Leu Arg Leu Ser
        180 185 190
Glu Ala Lvs Asn Ser Lvs
      195
<210> 6138
<211> 173
<212> PRT
```

<400> 6138

<213> Enterobacter cloacae

Gln Phe Lys Leu Leu Asn Pro Leu Lys Gly Val Phe Met Ala Ile Pro

Ala Tyr Leu Trp Leu Lys Asp Asp Gly Gly Ala Asp Ile Lys Gly Ala 25 Val Asp Val Gln Asp Arg Glu Gly Ser Ile Glu Val Leu Gly Phe Gly 40 His Gly Leu His Leu Pro Thr Asp Asn Met Thr Gly Lys Ile Thr Gly 55 Thr Arg Val His Ser Ala Leu Val Phe Glu Lys Glu Phe Asp Ser Ser 70 7.5 Ser Pro Tyr Leu Tyr Lys Ala Val Ala Lys Gly Gln Thr Leu Lys Ser 90 8.5 Ala Glu Phe Lys Trp Tyr Lys Ile Asn Asp Ala Gly Gln Glu Ala Glu 100 105 110 Tyr Phe Asn Met Lys Leu Glu Asn Val Lys Val Val Ser Ile Cys Pro 115 120 125 Met Met His Asp Val Lys Asn Pro Ala Thr Glu Lys His Asn His Leu 130 135 140 Glu Ser Val Ala Leu Arg Tyr Glu Lys Ile Thr Trp Lys His Cys Asp 145 150 155 Gly Asn Ile Ile Phe Ser Asp Glu Trp Lys Asp Arg 165

<211> 428 <212> PRT <213> Enterobacter cloacae

<210> 6139

<400> 6139 Ile Cys Glu Leu Asn Met Phe Ala Leu Cys Asp Val Asn Ser Phe Tyr
1 5 10 15 Ala Ser Cys Glu Thr Val Phe Arg Pro Asp Leu Arg Gly Arg Pro Val 25 Val Val Leu Ser Asn Asn Asp Gly Cys Val Ile Ala Arg Ser Ala Glu 35 40 Ala Lys Ala Ala Gly Ile Thr Met Gly Glu Pro Phe Phe Lys Gln Lys 50 55 Glu Leu Phe Arg Arg Ala Gly Val Val Cys Phe Ser Ser Asn Tyr Glu 65 70 75 Leu Tyr Ala Asp Met Ser Asn Arg Val Met Thr Thr Leu Glu Glu Met 90 Ser Pro Arg Val Glu Ile Tyr Ser Ile Asp Glu Ala Phe Cys Asp Leu 100 105 110 Thr Gly Val Arg Asn Cys Arg Asp Leu Thr Glu Phe Gly Lys Glu Ile 115 120 125 Arg Ala Thr Val Leu Lys Arg Thr His Leu Thr Val Gly Val Gly Ile 135 140 Ala Gln Thr Lys Thr Leu Ala Lys Leu Ala Asn His Ala Ala Lys Lys 150 155 Trp Gln Arg Gln Thr Gly Gly Val Val Asp Leu Ser Asn Ile Asp Arg 165 170 175 Gln Arg Arg Leu Leu Ala Leu Val Pro Val Glu Asp Val Trp Gly Val 180 180 190 Gly Arg Arg Ile Ser Lys Lys Leu Asn Ala Met Gly Ile Lys Thr Ala 195 200 205 Leu Asp Leu Ser Glu Gln Ser Thr Trp Ile Ile Arg Lys His Phe Asn 210 215 220 Val Val Leu Glu Arg Thr Val Arg Glu Leu Arg Gly Glu Pro Cys Leu 230 235 Glu Leu Glu Glu Phe Ala Pro Ala Lys Gln Glu Ile Val Cys Ser Arg 245 250 Ser Phe Gly Glu Arg Val Thr Glu Tyr Glu Gln Met Arg Gln Ala Ile

```
265
         260
Cys Ser Tyr Ala Ala Arg Gly Ala Glu Lys Leu Arg Gly Glu His Gln
                      280
                                285
      275
Tyr Cys Arg Phe Ile Ser Ala Phe Val Lys Thr Ser Pro Phe Ala Leu
                                   300
                   295
Asn Glu Val Tyr Tyr Gly Asn Ser Ala Ser Met Lys Leu Leu Thr Pro
               310
                                315
Thr Gln Asp Ser Arg Asp Ile Ile Asn Ala Ala Val Lys Cys Leu Asp
            325
                    330
                                            335
Lys Ile Trp Lys Asp Gly His Arg Tyr Gln Lys Ala Gly Ile Met Leu
         340 345
Gly Asp Phe Phe Ser Gln Gly Val Ala Gln Leu Asn Leu Phe Asp Glu
      355 360 365
Asn Ala Pro Arg Ala Gly Ser Glu Arg Leu Met Glu Val Leu Asp His
370 375
                                   380
Leu Asn Ala Lys Asp Gly Lys Gly Thr Leu Tyr Phe Ala Gly Gln Gly
385 390
                    395 400
Val Gln Gln Gln Trp Gln Met Lys Arg Glu Met Leu Ser Pro Arg Tyr
       405 410
Thr Thr Arg Ile Ser Asp Ile Leu Lys Val Arg
<210> 6140
<211> 158
<212> PRT
<213> Enterobacter cloacae
<400> 6140
Ser Leu Ser Gln Leu Lys Leu Leu Tyr Ile Lys Thr Val Phe Glu Val
                           10
Cys Asn Met Glu Phe Ile Arg Pro Ala Glu Leu Arg Glu Ile Ile Ala
20
                        25
                                          3.0
Leu Pro Leu Phe Ser Asp Leu Val Gln Cys Gly Phe Pro Ser Pro Ala
3.5
                    4.0
                                     45
Ala Asp Tyr Val Glu Glu Arg Ile Asp Leu Asn Glu Leu Leu Val Ala
50
                   55
                                   60
His Pro Ser Ser Thr Tyr Pne Val Lys Ala Ala Gly Asp Ser Met Ile
               70
                       75
Glu Ala Gly Ile Ser Asp Gly Asp Leu Leu Val Val Asp Ser Ser Arg
                            90
            85
Thr Ala Glu His Gly Asp Ile Val Ile Ala Ala Val Glu Gly Glu Phe
         100 105
                                         110
Thr Val Lys Arg Leu Gln Leu Arg Pro Lys Val Gln Leu Asn Pro Met
 115 120 125
Asn Ser Ala Tyr Ser Pro Ile Val Val Gly Ser Glu Asp Thr Leu Asp
                 135 140
Val Phe Gly Val Val Thr Phe Ile Val Lys Ser Ala Ser
                150
<210> 6141
<211> 316
<212> PRT
<213> Enterobacter cloacae
<400> 6141
Arg Lys Glu Phe Cys Met Asn Val Lys Pro Ser Leu Asp Glu Leu Phe
1 5
                    10
Glu Arg Arg Ile Asn Phe Pro Asp Phe Glu Pro Gln Glu Arg Leu Ala
                   25
Arg Leu Val Gly Leu Asp Glu His Lys Asp Arg Leu Ser Lys Ile Leu
```

```
Gly Leu Leu Val Asn Pro Tyr Gly Ile Gln Glu Trp Ala Lys Lys Tyr
His Pro Asp Ala Arg Ala Ala Val Asp Thr Val Leu Arg Arg Pro Pro
              7.0
                             75
Leu Val Val Leu Ala Gly Asp Val Gly Ser Gly Lys Thr Glu Leu Ala
         8.5
               90
Glu Thr Ile Gly Asp Ala Val Ala Arg Gln Glu Asp Ile Asp Ile Thr
                           110
      100 105
Leu Tyr Pro Leu Ser Leu Ala Thr Arg Gly Gln Gly Arg Val Gly Glu
115 120 125
Met Thr Gln Leu Val Ser Ala Ala Phe Asp Tyr Thr Ile Glu Ala Ala
130 135 140
Asp Lys Leu Lys Asn Thr Asn Gly Lys Ala Arg Gly Ala Val Leu Leu 145 150 155 160
Leu Ile Asp Glu Ala Asp Ala Leu Ala Gln Ser Arg Glu Asn Ala Gln
          165 170 175
Met His His Glu Asp Arg Ala Gly Val Asn Ala Phe Ile Arg Gly Ile
        180 185 190
Asp Arg Ile Ala Asn Gln Lys Leu Pro Ala Ala Val Leu Met Cys Thr
195 200 205
Asn Arg Leu Lys Ala Leu Asp Pro Ala Val Gln Arg Arg Ala Ala Glu
210 215 220
Val Leu Thr Phe Ser Arg Pro Asn Asp Glu Gln Arg His Tyr Leu Leu
225 230 235
His Ser Lys Leu Thr Gly Leu Gly Leu Asn Ser Thr Ala Ile Glu Glu
           245 250
Leu Val Arg Leu Thr Gly Pro Arg Asp Thr Asn Ser Pro Gly Phe Thr
260 265
                                      270
Phe Ser Asp Ile Thr Gln Arg Leu Ile Pro Ser Ile Ile Leu Thr Ala
275
                   280
                                   285
Tyr Pro Tyr Ser Ala Val Ser Val His Ser Ala Leu Gln Val Val Asn
290 295 300
Lys Met Thr Pro Thr Pro Ala Phe Ile Asp Arg
              310
                             315
```

<210> 6142 <211> 174 <212> PRT

<213> Enterobacter cloacae

## <400> 6142

Asn Ser Asn Leu Leu Asn Asn Arg Thr Ile Cys Pro Gln Val Arg Met 1 10 His Met Ser Gly Phe Gln Glu Trp Leu Leu Ser Lys Ala Thr Gly Asn 20 25 3.0 Tyr Phe Leu Tyr Ile Lys Arg Leu Ser Ala Asn Asp Thr Gly Ala Thr 35 40 Gly Gly His Gln Val Gly Leu Tyr Ile Pro Ser Gly Ile Val Ala Glu 50 55 Leu Phe Pro Ser Ile Asp Asn Thr Lys Glu Gln Asn Pro Ser Val Phe 70 65 7.5 Leu Asn Ala Thr Tyr Ser Ser His Val Cys Ser Asp Ser Glu Ala Arg 8.5 90 Ala Ile Tyr Tyr Asn Gly Ser Phe Phe Gly Lys Thr Arg Asn Glu Lys 100 105 Arg Ile Thr Arg Trp Gly Pro Gly Ser Pro Leu Gln Asp Pro Glu Asn 115 120 125 Thr Gly Gly Leu Ser Ile Leu Ala Phe Glu His Glu Pro Gly Ser Asp 130 135 140 Ser Lys Asn Val Asp Val Trp Val Cys Lys Asn Pro Asp Glu Glu Asp 150 155

```
2406
Ile Val Glu Ser Ile Leu Gly Glu Ile Ile Pro Gly Ala Leu
              165
<210> 6143
<211> 81
<212> PRT
<213> Enterobacter cloacae
<400> 6143
Pro Lys Ser Leu Leu Ile Gln Leu Gly Pro Asn Pro Gly Thr Phe Arg
              5
                                 10
Arg Val Leu Asn Asn Lys Lys Phe His Leu Pro Phe Pro Asn Gln Lys
           20
                              25
Pro Asn Glu Phe Gly Ser Leu Asn Thr Pro Gln Leu Pro Asn Gly Ser
                    40
Phe Pro Gly Val Pro Gly Ala Asn Thr Pro Ala Gly Val Leu Ser Ile
                    5.5
                                   60
Pro Leu Leu Pro Thr Gly Asp Ile Phe Pro Ala Arg Tyr Glu Leu
65
Val
<210> 6144
<211> 105
<212> PRT
<213> Enterobacter cloacae
<400> 6144
Thr Met Ile Cys Ala Ala Cys Arg Lys Pro Ala Val Gly Ala Gly Met
Thr Ile Thr Arg Ser Gly Val Met Arg Arg Ala Pro Leu Ala Met Arg
          20
                              25
                                                  3.0
Leu Arg Ala Asn Ser Thr Trp Ala Met Leu Glu Phe Val Phe Asn Gly
35
                          40
                                              4.5
Met Val Phe Leu Leu Gly Leu Gln Leu Pro Gly Gln Leu Trp Lys
50
                      55
                                          60
Ser Ser Ala Glu Leu Pro Ala Gln Ser Arg Phe Gln Asn Leu Gly Asn
                                      75
65
                   7.0
Ser Gly Ile Pro Ile Asn Arg Asn Pro Cys Ser Ser Asn Leu Ala Leu
              8.5
Ile Leu Val Leu Ser Gly Gly Phe
           100
                               105
<210> 6145
<211> 98
<212> PRT
<213> Enterobacter cloacae
<400> 6145
Cys Leu His Lys Pro His Glu Asp Ile Pro Met Lys Lys Arg Phe Ser
                                  10
Asp Glu Gln Ile Ile Ser Ile Leu Arg Glu Ala Glu Ala Gly Val Pro
                              25
Ala Arg Glu Leu Cys Arg Lys His Ala Ile Ser Asp Ala Thr Phe Tyr
                          40
Ile Trp Arg Lys Lys Tyr Gly Gly Met Glu Val Pro Glu Val Lys Arg
                       55
Leu Lys Ser Leu Glu Glu Glu Asn Ala Arg Leu Lys Lys Leu Leu Ala
                  70
                                      75
Glu Ala Met Leu Asp Lys Glu Ala Leu Gln Val Ala Leu Gly Arg Lys
               85
                                  90
```

Tyr

```
<210> 6146
<211> 703
<212> PRT
<213> Enterobacter cloacae
```

<400> 6146 Pro Glu Arg Gly Trp Glu Pro Ile Met Ser Asp Ser Lys Arg Thr Asn Leu His Ala Glm Glu Asn Phe Tyr Arg Pro Ile Leu Glu Tyr Arg Ser 25 Ala Ser Ile Leu Leu Ile Cys Ser Val Ser Met Leu Tyr Met Gly Leu 40 45 Ser Ser Asp Gly Leu Asp Ile Ala Pro Ile Val Leu Phe Thr Ser Ile 50 55 Leu Leu Phe Leu Leu Cys Leu Tyr Arg Cys Lys Thr Ala Ala Pro Phe 65 70 75 80 Leu Met Ala His Trp Arg Val Phe Lys Arg His Phe Met Phe Val Ser 90 95 85 Leu Asp Ser Leu Arg Val Ile Asn Lys Ser Asn Phe Phe Ser Asn Glu 105 110 100 Arg Lys Tyr Arg Gln Leu Val Gln Asp Tyr Gln Asn Lys Asn Lys Asp 115 120 125 Ile Pro Glu Arg Lys Ser Tyr Phe Cys Asp Gly Phe Glu Trp Gly Pro 130 135 140 Glu His Ala Asp Arg Ala Tyr Gln Ile Ala Asn Leu Ser Ser Asp Lys 150 155 1.60 145 Arg Glu Ile Glu Leu Pro Phe Val Pne Asn Pro Ile Lys Arg His Phe 165 170 175 Asp Ala Met Ala Arg Lys Met Gly Gly Ser Asn Ala Ile Phe Ala Val 180 185 190 Glu Arg Arg Glu Pro Ile Phe Val Thr Glu Asp Asn Trp Phe Gly His 205 195 200 Thr Leu Ile Thr Gly Asn Val Gly Thr Gly Lys Thr Val Leu Gln Arg 215 Leu Leu Ser Ile Ser Met Leu His Leu Gly His Val Val Val Ile 225 230 235 Asp Pro Lys Asn Asp Ala Glu Trp Arg Glu Ser Leu Met Glu Glu Ala 250 255 245 Lys Thr Leu Gly Leu Pro Phe Tyr Lys Phe His Pro Gly Gln Pro Ala 260 265 Ser Ser Val Cys Ile Asp Val Cys Asn Thr Tyr Thr Asn Val Ser Asp 280 275 Leu Thr Ser Arg Leu Leu Ser Leu Val Thr Val Pro Gly Glu Val Asn 295 300 Pro Phe Val Gln Tyr Ala Lys Ala Leu Val Ser Asn Val Ile Ser Gly 310 315 Leu Ser Tyr Ile Glu Lys Lys Pro Ser Ile Tyr Leu Ile His Lys Asn 330 325 Met Lys Ser His Met Ser Ile Val Asn Leu Thr Val Lys Val Met Glu 345 Ser Cys Tyr Ala Arg Tyr Tyr Gly Tyr Asp Val Trp Thr Glu Lys Val 360 355 Lys Tyr Val Ala Asn Asp Thr Leu Pro Val Arg Phe Lys Arg Leu Ala 375 380 Glu Trp Phe Thr Ala His Phe Met Asn Tyr Glu Gly Ser Glu Gln Ile 390 395 Asp Trp Leu Asp Thr Val Ser Gln Leu Ile Asp Tyr Ser Met Ser Asp

410

```
Pro Glu His Met Ala Lys Met Thr Ala Gly Ile Met Pro Val Phe Asp
                      425
                                430
    420
Met Leu Ile Glu Lys Pro Leu Asn Glu Leu Leu Ser Pro Asn Pro Asn
   435
                     440
                                     445
Ser Val Ser Ser Arg Glu Ile Val Thr Ser Glu Gly Met Phe Ser Thr
      455 460
 450
Gly Gly Val Leu Tyr Ile Ser Leu Asp Gly Leu Ser Asn Pro Asp Tnr 465 \hspace{0.5cm} 470 \hspace{0.5cm} 475 \hspace{0.5cm} 480
Ala Ala Ala Ile Ser Gln Leu Ile Met Ser Asp Leu Thr Ser Cys Ala
      485 490 495
Gly Ser Arg Tyr Asn Ala Gin Asp Gly Asp Met Ser Ala Asn Ser Arg
        500 505 510
Ile Ser Ile Phe Val Asp Glu Ala His Ser Ala Ile Asn Asn Pro Met
   515 520 525
Ile Asn Leu Leu Ala Gln Gly Arg Ala Ala Lys Ile Ala Leu Phe Ile
530 535 540
Cys Thr Gln Thr Ile Ser Asp Phe Ile Ala Ala Ala Ser Val Glu Thr
545 550 555 560
Ala Asn Arg Ile Thr Gly Leu Cys Asn Asn Tyr Ile Ser Leu Arg Val
            565 570 575
Asn Asp Thr Pro Thr Gln Thr Leu Val Val Glu Asn Phe Gly Lys Ser
 580 585 590
Ala Ile Ser Thr Asn Met Val Thr Tyr Thr Thr Gly Ser Glu Thr Ser
595
                     600 605
Leu Pro His Asn Asn Phe Ser Gly Ser Ile Ser Glu Arg Lys Gln Thr
                615
                                 620
Thr Leu Glu Glu Ser Ile Pro Lys Asp Leu Leu Gly Gln Val Pro Met
              630 635
Phe His Ile Val Ala Arg Leu Gln Asp Gly Arg Lys Val Val Gly Gln
           645
                           650 655
Ile Pro Ile Ala Val Ala Glu Lys Gln Met Lys Pro Asn Thr Thr Leu
         660
                        665 670
Ser Glu Met Leu Phe Lys Lys Ala Gly Lys Val Thr Leu Arg Gln Asn
 675 680 685
Leu Asp Ile Lys Asn Leu Asn Lys Phe Leu Arg Lys Leu His
                  695
  690
```

<210> 6147 <211> 871

130

<212> PRT <213> Enterobacter cloacae

<400> 6147 Arg Pro Ser Thr Ser Arg Leu Pro Ala Ser Gly Leu Ser Ser Val Leu 10 Ser Pro Lys Ser His Leu Lys Arg Leu Phe Ile Gln His Gly Phe Gly 20 25 Lys Gln Leu Leu Glu Ser Gly Val Leu Phe Leu Lys Arg Leu Gln Ala 40 4.5 3.5 Leu Asn Phe Arg His Leu His Thr Ala Ile Leu Leu Thr Pro Asp Val 60 5.5 Lys Arg Gly Ile Gly Asn Gly Met Leu Ala Ala Glu Phe Thr Gly Gly 7.0 7.5 65 Tyr Pro Ser Phe Gly Phe Ala Glu Asn Thr Asp Asp Leu Phe Val Gly 90 8.5 Lys Thr Leu Leu His Gly Asp Val Leu Met Trp Leu Met Lys Thr Leu 105 110 100 Leu Thr Ser Gly Cys Thr Asn Gln Arg Gly Ala Gly Gln Arg Asp Pro 125 115 120 Ile Met Gly Leu Arg Ser Asn Asp Ala Ala Ala Arg Ala Ile Ser Thr

140

135

Ile Lys His Asn Phe Thr Ser Ile Asn Ile Asn Asn Tyr Asn Ala Lys 150 155 Pro Met His Ile Ile Ile Val Asn Gly Glu Val Tyr Leu Asn Glu Asn 165 Ala Phe Leu Asp Phe Val Leu Asn Asp Phe Glu Leu His Lys Tyr Asn 180 185 190 Phe Pro Gln Gly Glu Ala Gly Lys Thr Val Leu Val Glu Ser Leu Val 195 200 205 Gln Arg Gly Tyr Val Glu Pro Tyr Asp Asp Glu Arg Val Val His Tyr 210 215 220 Phe Ile Pro Gly Ile Tyr Ser Glu Asn Glu Ile Ser Asn Ile Phe Arg 225 230 235 240 Asn Gly Ile Gly Lys Leu Glu Phe Tyr Asn Leu Leu Lys Leu Arg Trp 245 250 255 Ile Gly Leu Ile Phe Asp Ser Tyr Lys Ile Pro Asp Ser Val Pro Gly 260 265 270 Leu Phe Ser Val Asn Ala Asn Lys Asp Phe Ile Tyr Ile Asp Glu Gln 275 280 285 Lys Thr Val Tnr Glu Tyr Arg Arg Pro Val Pro Gly Arg Asp Val Ile 290 295 300 Thr Lys Ile Thr Asp Thr Val Glu Thr Ala Val Leu Lys Val Asn Asp 310 315 320 305 Leu Gly Arg Ser Ser Ala Ser Ile Asp Val Asp Ile His Ser Lys Lys 325 330 335 Asn Glu Gly Ser Ser Asp Asp Phe Glu Lys Lys Ala Glu Ser Asp Asn 340 345 350 Glu Ile Asp Asn Asp Thr Gln Ile Val Lys Ser Glu Gly Glu Glu Ala 355 360 365 Ala Asp Pro Val Ile Pro Asp Ile Glu Glu Ser Glu Asp Glu Ser Ala 370 375 380 Lys Asp Thr Glu Ser His Val Leu Val Asn Gln Leu His Glu Leu Leu 390 395 400 385 Leu Ser Ala Pro Leu Ser Asn Asp Tyr Ile Val Cys Val Asp Ala Val 405 410 415 Pro Tyr Leu Asn Ile Asp Thr Thr Met Ala Leu Leu Pro Gly Leu Asp 420 425 430 Glu Lys Ala Phe Ser Glu Glu Pro Tyr Phe Gln Leu Thr Phe Arg Glu 435 440 445 Gly Ser Leu Asp Gly Met Trp Ile Val Arg Asp Ile Asp Asp Leu Arg 455 460 Leu Val Gln Leu Gly Asp Asn Cys Ala Gly Phe Gln Leu Thr Tyr His 470 475 Glu Pro Arg Arg Pro Thr Thr Leu Lys Ser Leu Phe Asn Thr Ser Met 485 490 495 Tyr Gin Ala Leu Val Ile Asn Asp Glu Ser Ser Val Glu Asn Ser Ala 500 505 510 Pro Arg Pro Lys Gln Thr Leu Glu Leu Pro Pro Pro Arg Val Asn Ala 515 520 525 Val Glu Glu His Ser Gly Asp Val Glu Tyr His Gly Thr Asp Ser Ala 535 540 530 Ser Ala Thr Gly Pro Leu Lys Thr Glu Ala Val Glu Tyr Glu His Tyr 550 555 Gln His Leu Phe Glu Lys Glu Asp Glu Glu His Glu Ile Ile Asp Tyr 565 570 575 Thr Asp Phe Ser Gln Leu Ser Val Ser Arg Pro Glu Val Gly Ser Cys 585 590 580 Ala Thr Ser Ser Ser Val His Asn Glu Lys Leu Leu Ser Glu Pro Ser 600 605 595 Glu Leu Pro Glu Leu Asn Arg Glu Gln Asn Ala Asp Pro Gln Gly Thr 620 615 Asn Glu Arg Ser Met Asp Val Ser Val Gly Gln Glu Asn Ser Glu Pro 625 630 Asp Thr Glu Gly Asn Cys Pro Pro Pro Ala Glu Val Val Tyr Ser Gln 645 650 Thr Glu Ala Ala Ala Thr Ser Val Met Ala Ser Glu Glu Pro Ala Leu 660 665 Pro Pro Val Leu Glu Glu Ser Asn Gly Glu His Ala Pro Thr Asp Ala 675 680 685 Lys Gly His His Leu Ser Pro Ala Leu Ala Arg Leu Phe Ala Pro Thr 690 695 700 Ala Pro Val Glu Lys Gln Asn Pro Lys Arg Asn Arg Asn Lys Ser Ser 710 715 Asp Lys Ala Glu Val Gln Lys Pro Ala Ser Pro Val Ser Gly His Asn 725 730 735 Leu Asn Ser Lys Val Phe Ala Ser Thr Glu Ser Asp Gln Asn Gly Glu 745 750 740 Phe Ser Leu Ile Ser Glu Gly Asp Val Thr Glu Leu Glu Phe Val Glu 755 760 765 Ile Ala Leu Val Leu His Gln Ile Leu Ser Lys Met Glu Val Ala Phe 775 770 Lys Arg Lys Arg Lys Asn Arg Phe Met Val Ser Thr Pro Asn Thr Leu 795 790 Tyr Leu Thr Gln Ser Cys Val Glu Lys Phe Gly Ser Gln Leu Glu Ala 810 815 805 Gln Asp Leu Phe Asn Lys Leu Pro Gln Tyr Leu Val Asn Ser Gly Ala 825 820 Val Ile Asn Thr Lys Cys His Ala Phe Asn Met Pro Thr Leu Leu Ala 835 840 845 Ala Ser Asp Arg Ala Lys Val Asp Ile Glu Arg Ile Ile Asn Asn Leu 850 855 Lys Glu Ala Gly Asn Leu

<210> 6148 <211> 256 <212> PRT <213> Enterobacter cloacae

<400> 6148 Ser Ser Ser Gln His Tyr Glu Ser Pne Ile Ser Thr Gly Ser Thr Met 1.0 Ile Glu Ile Glu Thr Arg Gln Leu Ser Glu His Glu Ile Ile His Ala 20 25 3.0 Phe Pro Ala Gly Lys Gly Glu Gln Pro Leu Pro Thr Val Val Phe Tyr 40 4.5 His Gly Phe Leu Ser Ser Lys Leu Val Tyr Ser Tyr Phe Ala Val Ala 5.5 60 50 Leu Ala Gln Ala Gly Phe Arg Val Val Met Pro Asp Ala Pro Asn His 70 75 Gly Ala Arg Phe Thr Gly Asp Glu Gln Ala Arg Leu Gly Leu Phe Trp 90 Gln Thr Leu His Gly Asn Leu Thr Glu Phe Ala Gly Leu Arg Asp Ala 110 100 105 Leu Leu Gln Ala Gly Leu Val Glu Gly Lys Arg Leu Ala Val Ala Gly 120 115 Ala Ser Met Gly Gly Met Thr Ala Leu Gly Ile Met Ala Arg His Pro 130 135 140 Glu Val Thr Ser Val Ala Cys Leu Met Gly Ser Gly Tyr Phe Thr Ser 150 155 Leu Ala Lys Thr Leu Phe Pro Pro Gln Ala Pro Gln Glu Ile Glu Thr 170 165 Leu Leu Ser Glu Trp Asp Val Ser His Ala Leu Ser Gln Leu Ala Asp

185 190 180 Arg Pro Leu Leu Trp His Gly Asp Ala Asp Asp Val Val Pro Thr 200 205 195 Gly Glu Thr Phe Arg Leu Gln Gln Ala Leu Gln Arg Glu Gly Leu Asp 220 210 215 Ser Asn Leu Thr Cys Leu Trp Gly Ala Gly Val Arg His Arg Ile Thr 225 230 235 Pro Glu Ala Leu Glu Ala Thr Val Ala Phe Phe Arg Gln His Leu 245 250 <210> 6149 <211> 253 <212> PRT <213> Enterobacter cloacae <400> 6149 Leu Met Thr Glu Ala Gln Arg His Gln Ile Leu Leu Glu Leu Leu Ala Gln Thr Glv Phe Ile Thr Val Glu Lys Val Ile Glu Arg Leu Gly Ile 3.0 25 Ser Pro Ala Thr Ala Arg Arg Asp Ile Asn Lys Leu Asp Glu Ser Gly 35 40 Lys Leu Lys Lys Val Arg Asn Gly Ala Glu Ala Ile Ser Gln Gln Arg 5.5 60 Pro Arg Trp Thr Pro Met Asn Ile His Gln Ala Gln Asn His Asp Glu 7.0 7.5 Lys Val Arg Ile Ala Arg Ala Ala Ser Gln Leu Val Asn Pro Gly Glu 90 8.5 Ser Val Val Ile Asn Cys Gly Ser Thr Ala Phe Leu Leu Gly Arg Glu 110 100 105 Met Cys Gly Lys Pro Val Gln Ile Ile Thr Asn Tyr Leu Pro Leu Ala 115 125 Asn Tyr Leu Ile Asp Gln Glu His Glu Ser Val Val Ile Met Gly Gly 130 135 140 Gln Tyr Asn Lys Ser Gln Ser Ile Thr Leu Ser Pro Gln Asp Ser Glu 150 155 Asn Ser Leu Tyr Ala Gly His Trp Met Phe Thr Ser Gly Lys Gly Leu 165 170 175 Thr Ala Asp Gly Leu Tyr Lys Thr Asp Met Leu Thr Ala Met Ala Glu 180 185 190 Gln Asn Met Leu Asn Val Val Gly Lys Leu Val Val Leu Val Asp Ser 195 200 Ser Lys Val Gly Glu Arg Ala Gly Met Leu Phe Ser Arg Ala Glu Gln 210 215 220 Ile Ser Met Val Ile Thr Gly Lys Asn Ala Asn Pro Glu Ile Leu Ser 225 230 235 Lys Leu Glu Asp Gln Gly Val Thr Val Leu Arg Val 245 <210> 6150 <211> 77 <212> PRT <213> Enterobacter cloacae <400> 6150 Pro Asp Pro Ile Arg Gln Ala Thr Asp Val Thr Ser Gly Cys Leu Ala 10 Met Ile Pro Ser Ala Val Ile Pro Pro Ile Asp Ala Pro Ala Thr Ala 25 Ser Arg Phe Pro Ser Thr Ser Pro Ala Cys Lys Ser Ala Ser Arg Ser

4.0

```
Pro Ala Asn Ser Val Arg Leu Pro Cys Ser Val Cys Gln Asn Ser Pro
Ser Arg Ala Cys Ser Ser Pro Val Lys Arg Ala Pro
                  70
<210> 6151
<211> 149
<212> PRT
<213> Enterobacter cloacae
<400> 6151
Met Ile His Asn Val Glu Ser Trp Ile Thr Val Ser Arg Tyr Phe His
                                  1.0
           5
Ser Lys Ser Thr Ser Gln Ile Thr Leu Arg Glu His Ser Pro Lys Thr
       20
                            2.5
                                                 30
Lys Phe Ala Asp Asn Tyr Thr Met Thr Ile Arg Lys Arg Asp Arg Phe
                                             45
 35
                         40
Met Arg Arg Leu Thr Ala Leu Leu Leu Val Ser Leu Leu Ser Gly Cys
                   55
                                      60
Ser Val Leu Gln Gly Thr Pro Glu Pro Ala Pro Pro Val Thr Asp His
                   70
                                   7.5
Pro Gln Glu Ile Arg Arg Asn Gln Thr Glu Gly Leu Gln Arg Leu Gly
              8.5
                        90
Thr Val Ser Ala Met Val Arg Gly Ser Pro Asp Asp Ala Glu Asp Ala
                             105 110
           100
Ile Glu Ala Gln Ala Val Ala Ala Lys Ala Asp Tyr Tyr Val Ile Thr
                                           125
Met Ile Asp Glu Thr Ile Ile Thr Gly Gln Trp Tyr Ala Gln Gly Ile
                                          140
Leu Tyr Arg Lys
145
<210> 6152
<211> 111
<212> PRT
<213> Enterobacter cloacae
<400> 6152
Val Tyr Ser Arg Arg Ile Ala Arg Arg Ile Pro Glu Thr Arg Glu Lys
                                  10
Glu Leu Thr Met Lys Arg Thr Leu Ala Leu Thr Thr Leu Leu Ser
                              25
                                                  3.0
Ala Gly Leu Leu Ser Thr Thr Ala Gln Ser Ala Glu Phe Ala Ser Ala
       35
                           4.0
                                              4.5
Asp Cys Val Thr Gly Leu Asn Glu Ile Gly Gln Ile Ser Val Asn Asn
    50
                       55
                                          60
Ile Thr Gly Ser Pro Gln Asp Val Glu Arg Val Val Ala Leu Lys Ala
                   7.0
                                      7.5
Asp Glu Gln Gly Ala Ser Trp Tyr Arg Ile Val Gln Met Gln Glu Asp
              8.5
                                  90
His His Val Asn His Trp Arg Val Gln Ala Ile Leu Tyr Ala
            100
<210> 6153
<211> 394
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(366)
```

<220> <221>UNSURE <222>(392) <400> 6153 Glu Gly Gly Ala Met Glu Gln Thr Trp Arg Trp Tyr Gly Pro Asn Asp 10 Pro Val Ser Leu Asp Asp Val Arg Gln Ala Gly Ala Thr Gly Val Val 20 2.5 Thr Ala Leu His His Ile Pro Asn Gly Gln Val Trp Pro Val Glu Glu 35 40 Ile Gln Lys Arg Gln Ala Gln Leu Ala Glu Lys Gly Leu Thr Trp Ser 60 50 55 Val Val Glu Ser Ile Pro Val His Glu Asp Ile Lys Thr His Ser Gly 70 75 Glu Cys Asp Thr Trp Ile Ala Asn Tyr Gln Gln Ser Ile Arg Asn Leu 90 95 8.5 Ala Ala Cys Gly Ile Asp Thr Val Cys Tyr Asn Phe Met Pro Ile Leu 100 105 110 Asp Trp Thr Arg Thr Asp Leu Glu Tyr Val Met Ala Asp Gly Ser Lys 115 120 125 Ala Leu Arg Phe Asp Gln Ile Ala Phe Ala Ala Phe Glu Leu His Ile 130 135 140 Leu Lys Arg Pro Gly Ala Glu Ala Asp Tyr Thr Ala Glu Glu Gln Gln 145 \$150\$Gln Ala Leu Ala Trp Phe Asn Ala Ala Ser Glu Ala Asp Ile Glu Lys 165 170 175 Leu Val Arg Asn Ile Ile Ala Gly Leu Pro Gly Ala Glu Glu Gly Tyr 180 185 190 Thr Leu Asp Gln Phe Arg Ala Arg Leu Ala Glu Tyr Gly Asp Ile Asp 195 200 205 Lys Asn Gln Leu Arg Glu Asn Met Ala His Phe Leu Arg Ala Ile Val 215 220 210 Pro Val Ala Glu Glu Val Gly Val Arg Leu Ala Val His Pro Asp Asp 230 235 Pro Pro Arg Pro Ile Leu Gly Leu Pro Arg Ile Val Ser Thr Ile Glu 245 250 255 Asp Met Gln Trp Leu Lys Glu Thr Val Asp Ser Ile Tyr Asn Gly Phe 260 265 270 Thr Met Cys Thr Gly Ser Tyr Gly Val Arg Ala Asp Asn Asp Leu Val 280 285 275 Arg Met Ile Glu Thr Phe Gly Asp Arg Ile His Phe Thr His Leu Arg 290 295 300 Ala Thr Cys Arg Glu Glu Asn Pro Lys Thr Phe His Glu Ala Ala His 310 315 Leu Gly Gly Asp Val Asn Met Val Ala Val Val Asp Ala Ile Leu Ser 325 330 Glu Lys Val Arg Arg Lys Gln Ala Gly Asp Val Arg Pro Ile Pro Phe 345 350 340 Arg Pro Asp His Gly His Gln Met Leu Asp Asp Leu Arg Xaa Lys Thr 360 365 355 Asn Pro Gly Tyr Ser Ala Ile Gly Arg Leu Lys Arg Met Ala Glu Leu 370 375 380 Pro Gly Ile Gln Leu Ala Leu Xaa Met Thr 390 385

<210> 6154 <211> 494 <212> PRT

<213> Enterobacter cloacae

<400> 6154 Ser Gly Val Tyr Tyr Met Lys Thr Ile Ala Ser Thr Ala Leu Pro Ala His Val Gln Gln Pro Arg Tyr Asp Arg Glu Gln Leu Arg Ser Arg Ile 25 20 Val His Phe Gly Phe Gly Ala Phe His Arg Ala His Gln Ala Leu Leu 40 Thr Asn Arg Val Leu Asn Ala Arg Gly Gly Asp Trp Gly Ile Cys Glu 55 60 Ile Ser Leu Phe Ser Gly Asp Val Leu Met Arg Gln Leu Arg Ala Gln 70 75 Asp His Leu Phe Thr Val Leu Glu Lys Gly Ala Glu Gly Asn Gln Pro 8.5 90 Ile Ile Ile Gly Ala Val Lys Glu Cys Leu Asn Ala Lys Leu Asp Ser 100 105 110 Leu Ala Ala Ile Ile Glu Lys Phe Cys Glu Pro Gln Val Ala Ile Val 115 120 125 Ser Leu Thr Ile Thr Glu Lys Gly Tyr Cys Ile Asp Pro Ala Thr Gly 130 140 Lys Leu Asp Met Gln Asn Ser Arg Ile Leu His Asp Leu Glu His Pro 145 150 155 Ser Glu Pro His Ser Ala Pro Gly Ile Leu Val Glu Ala Leu His Arg 165 170 175 Arg Arg Glu Arg Gly Leu Pro Ala Phe Thr Val Leu Ser Cys Asp Asn 180 185 Ile Pro Asp Asn Gly His Val Val Lys Asn Ala Val Leu Gly Met Ala 195 200 205 Gly Lys Arg Ser Ala Glu Leu Ala Ala Trp Ile Glu Ala His Val Ser 210 215 220 Phe Pro Gly Thr Met Val Asp Arg Ile Val Pro Ala Ala Thr Asp Ala 225 230 230 240 Ser Leu Ala Glu Ile Thr Gln Glu Leu Gly Val Glu Asp Pro Cys Ala 245 250 255 Ile Ser Cys Glu Pro Phe Ile Glr Trp Val Val Glu Asp Asn Phe Val  $260 \hspace{1cm} 265 \hspace{1cm} 270 \hspace{1cm}$ Ala Gly Arg Pro Glu Trp Glu Val Ala Gly Val Gln Met Val Glu Asp 275 280 285 Val Leu Pro Trp Glu Gln Met Lys Leu Arg Met Leu Asn Gly Ser His 290 295 300 Ser Phe Leu Ala Tyr Leu Gly Tyr Leu Ala Gly Tyr Ala His Ile Asn 310 315 320 Glu Cys Met Gln Asp Asp Ser Phe Arg Glu Ala Ala Arg Arg Leu Met 325 330 335 Leu Asn Glu Gln Ala Pro Thr Leu Arg Ile Thr Asn Val Asp Leu Thr 345 350 340 Ala Tyr Ala Asp Ser Leu Leu Asn Arg Phe Ala Asn Pro Ala Leu Gln 355 360 365 His Arg Thr Trp Gln Ile Ala Met Asp Gly Ser Gln Lys Leu Pro Gln 375 . Arg Met Leu Asp Gly Ile Arg Val His Leu Glu Leu Asn Thr Ala Trp 390 395 400 Pro Leu Leu Ala Leu Gly Val Ala Gly Trp Met Arg Tyr Val Ser Gly 410 415 405 Thr Asp Glu Gln Gly Asn Ala Ile Asp Val Arg Asp Pro Leu Ser Asp 425 Lys Phe Gln Ala Ile Val Ala Thr Ser Ser Asp Ala Glu Arg Val Ser 440 445 Ala Leu Leu Thr Leu Asn Glu Ile Phe Gly Asp Asp Leu Pro Gln Asn 460 455 Pro Val Phe Val Glu Ala Ile Thr Gly Ala Tyr Gln Arg Leu Val Arg

```
480
              470
Leu Gly Ala His Gln Ala Val Ile Glu Thr Leu Lys Ile
           485
<210> 6155
<211> 342
<212> PRT
<213> Enterobacter cloacae
<400> 6155
Val Val Val Thr Thr Ser Gln Leu Phe Ile Gly Ala His Val Thr Lys
                  10
Thr Asn Leu Ile Thr Gly Phe Leu Gly Ser Gly Lys Thr Thr Ser Ile
 20 25
                            30
Leu His Leu Leu Ala Asn Lys Asp Pro Ala Glu Lys Trp Ala Val Leu
                    40
                                   4.5
35
Val Asn Glu Phe Gly Glu Val Gly Ile Asp Gly Ala Leu Leu Ala Asp
                  55
 50
Ser Gly Ala Met Val Lys Glu Ile Pro Gly Gly Cys Met Cys Cys Val
               70
Asn Gly Leu Pro Met Gln Val Gly Leu Asn Thr Leu Leu Arg Gln Gly
                        90 95
       8.5
Lys Pro Asp Arg Leu Pro Ile Glu Pro Thr Gly Met Gly His Pro Lys
        100 105 110
Gln Ile Leu Asp Leu Leu Thr Ala Pro Val Tyr Glu Pro Trp Leu Glu
                     120 125
 115
Leu Arg Ala Thr Leu Cys Leu Leu Asp Pro Arg Gln Leu Leu Asp Glu
 130 135
                                 140
Lys Thr Ile Asn Asn Asp Asn Phe Arg Asp Gln Leu Ala Ser Ala Asp
       150 155
Ile Ile Val Ala Asn Lys Ser Asp Arg Ala Thr Ala Glu Ser Gln Ala
                 170 175
           165
Ala Phe Glu Ser Trp Trp Gln Gln Ala Gly Gly Gly Arg Gln Tyr Val
                        185 190
Gln Thr Thr Gln Gly Asn Ile Asp Gly Ala Leu Leu Asp Leu Pro Arg
                     200
Leu Asn Gln Thr Gln Leu Pro Ala Ser Ala Glu His Ser His Ser His
                  215
                                 220
Gly Thr Lys Gln Gly Leu Ala Ala Leu Ser Leu Pro Glu His Gln Arg
               230
225
                               235
Trp Arg Arg Asn Leu Asn Ser Gly Gln Gly His Gln Ala Cys Gly Trp
            245 250 255
Ile Phe Asp Ala Asp Thr Val Phe Asp Thr Ile Gly Ile Leu Glu Trp
         260 265
                                        270
Ala Arg Leu Ala Pro Val Glu Arg Val Lys Gly Ile Met Arg Thr Pro
 275
                     280
                                  285
Asp Gly Leu Val Arg Ile Asn Arg Gln Gly Glu Asp Phe Phe Ile Glu
                                  300
 290
                  295
Thr Gln Asn Val Ala Pro Pro Asp Ser Arg Ile Glu Leu Ile Ser Ala
                            315 320
305 310
Val Asn Thr Asp Trp Asn Ala Leu Gln Ser Ser Leu Leu Lys Leu Arg
    325
                       330
Leu Ser Leu Gly Gly
         340
<210> 6156
<211> 245
<212> PRT
```

<213> Enterobacter cloacae

<400> 6156

```
Phe His Thr Leu Leu Lys Thr Met Thr Thr Arg Leu Pro Ala Ile Leu
1 5
                         10
Leu Leu Asn Ala Ala Gly Leu Ala Leu Phe Phe Ser Trp Tyr Ile Pro
                 25
    20
Ala Asp His Gly Phe Trp Phe Pro Leu Asp Ser Gly Leu Phe His Phe
           4.0
Phe Asn Gln Ala Leu Ala Lys Ser Glu Ala Phe Leu Trp Leu Val Ala
                    60
     55
Ile Thr Asn Asn Arg Ala Phe Asp Gly Cys Ser Leu Leu Ala Met Gly
     70 75
Cys Leu Met Leu Ser Phe Trp Leu Lys Glu Asp Lys Thr Gly Arg Arg
               90 95
         8.5
Arg Ile Leu Ile Ile Gly Leu Val Met Leu Leu Thr Ala Val Ile Ile
       100 105 110
Asn Gln Leu Ala Gln His Leu Met Pro Val Lys Arg Ala Ser Pro Ser
 115 120 125
Leu Phe Phe Pro Asn Ile Asn Arg Val Ser Glu Leu Leu His Ile Pro
               135
 130
Thr Lys Asp Ala Ser Lys Asp Ser Phe Pro Gly Asp His Gly Met Met
              150 155
Leu Leu Ile Phe Ala Gly Phe Met Leu Arg Tyr Phe Gly Lys Lys Ala
     165 170 175
Phe Ala Ile Ala Leu Val Ile Val Val Val Phe Ala Phe Pro Arg Val
                          190
            185
        180
Met Ile Gly Ala His Trp Leu Tnr Asp Ile Ala Val Gly Ser Leu Thr
195 200 205
Ala Val Leu Ile Gly Leu Pro Trp Val Leu Met Thr Pro Leu Ser Asp
                    220
210
              215
Arg Val Ile Gly Ile Phe Asp Arg Tyr Leu Pro Gly Lys Phe Lys Gln
                            235
              230
Val Arg Asn Lys
```

<210> 6157 <211> 123 <212> PRT

<213> Enterobacter cloacae

245

<400> 6157 Glu Tyr Ala Arg Asp Gly Gln Ile Val Leu Asn Ile Ala Pro Arg Ala 1 Val Gly Asn Leu Glu Leu Ala Asn Asp Glu Val Arg Phe Asn Ala Arg 20 25 Phe Gly Gly Val Pro Arg Gln Val Ser Val Pro Leu Ala Ala Val Leu 4.5 35 40 Ala Ile Tyr Ala Arg Glu Asn Gly Ala Gly Thr Met Phe Glu Pro Glu 5.5 Ala Ala Tyr Asp Glu Glu Val Ala Ser Leu Asn Asp Glu Glu Gly Gly 7.0 75 Val Gly Thr Glu Ser Glu Thr Val Met Ser Val Ile Asp Gly Asp Lys 95 85 90 Pro Asp Arg Glu Asp Asp Asn Asp Pro Asp Asp Pro Pro Pro Arg 100 105 110 Gly Gly Arg Pro Ala Leu Arg Val Val Lys

<sup>&</sup>lt;210> 6158 <211> 812

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacas

<400> 6158 Ile Thr Leu Asn Arg Asp Met Thr Val Cys Lys Lys Ser Arg Leu Ala Leu Cys Val Arg Ala Ile Leu Cys Gly Thr Leu Pro Leu Val Val Leu 20 25 Ala Ser Pro Ser Leu Tyr Ala Arg Glu Val Thr Phe Asp Thr Gly Ile 35 40 Ile Gln Ser Arg Gly Leu Ser Pro Asp Leu Asn His Tyr Phe Ala Gln 5.5 Ala Pro Arg Phe Leu Pro Gly Thr His Ser Val Gln Val Lys Val Asn 65 70 75 Gly Lys Asp Arg Gly Thr Ala Ala Ala Arg Phe Asn Glu Asp Gly Glu 85 90 Leu Cys Ile Asp Lys Asp Phe Leu Asp Phe Ala Gly Ile Met Pro Val 105 100 Pro Leu Lys Ala Gly Glu Ala Cys His Asp Ile Arg Ser Asp Tyr Ala 115 120 125 Gln Ala Val Val Asn Ala Leu Pro Asn Gln Asp Ala Val Glu Leu Tyr 130 135 140 Leu Pro Gln Glu Ala Ile Asn Ser Leu Thr Ser Asn Ile Lys His Phe 145 150 155 160 Gln Gln Gly Gly Thr Ala Gly Leu Leu Asn Tyr Ser Leu Phe Ser Thr 165 170 175 Arg Asn Glu Tyr Gly Asp Ser Asp Asn Ser Arg Tyr Ser Gln Ala Ser 180 185 190 Leu Glu Ala Gly Phe Asn Thr Met Asp Trp Ser Val Arg Ser Arg Tyr 195 200 205 Ile Leu Thr Asp Asp Asp Gly Asp Lys Asn Ala Glu Ser Ile Tyr Thr 210 215 220 Tyr Ala Glu His Val Phe Val Pro Gln Arg Leu Thr Met Gln Val Gly 230 235 Glu Ile Asn Ala Met Ser Gly Val Leu Ser Gly Val Pro Ile Thr Gly 245 250 255 Val Gln Leu Met Pro Thr Asn Gly Leu Glu Arg Asp Gly Thr Gly Val 260 265 270 Ser Val Ser Gly Ile Ala Arg Ser Ser Gln Ala Arg Val Glu Val Arg 275 280 285 Gln Ser Gly Arg Leu Val Tyr Ser Thr Leu Val Pro Ala Gly Pro Phe 290 295 Thr Leu Asp Asp Val Pro Val Val Arg Asn Asn Val Asp Leu Asp Val 315 320 310 Thr Val Val Glu Ser Asp Gly Ser Ser Ser His Phe Ile Val Pro Ala 325 330 Ser Ala Val Arg Thr Arg Lys Leu Gly Arg Pro Gln Gly Leu Thr Met 345 350 340 Ser Val Gly Gln Val Arg Ser Ile Asp Ser Asp Tyr Ser Asp Pro Leu 355 360 Val Ala Asn Val Ser Asp Gly Trp Arg Ile Thr Pro Trp Met Asn Val 375 380 370 Leu Ala Ser Gly Ala Val Ala Glu Lys Tyr Gln Ala Ala Gly Gly Ser 395 390 385 Ala Glu Phe Met Leu Ser Asp Ile Trp Gly Ile Thr Thr Thr Ala Ala 410 405 Ala Ser Lys Glu Gln Phe Gly Asp Ser Asn Ser Gly Leu Lys Thr Glu 425 430 420 Leu Gln Ser Asp Leu Thr Leu Gly Glu His Val Ser Leu Ser Ala Ser 440 445 Ala Thr His Phe Ser Ser Gly Tyr Arg Glu Leu Ala Asp Ala Leu Asp 455 460 Asp Glu Phe Gln Pro Asn Asp Asn Thr Tyr Ser Gly Asn Val Ser Phe 470 475

```
Ala Thr Gly Ile Ala Gly Thr Phe Ser Ala Gly Phe Asn Tyr Asn Gln
                 490 495
           485
Ser Ala Asn Tyr Glu Asp Ser Arg Tyr Leu Leu Leu Ser Trp Gly Lys
                     505
        500
Thr Phe Lys Tyr Ala Ser Ile Thr Val Asn Trp Gln Ser Ala Val Gly
 515
                    520
Asn Thr Asp Asp Glu Gln Asp Asp Asp Met Leu Tyr Val Asn Leu Ser
           535
                                540
Ile Pro Leu Gly Gly Ser Gln Ser Leu Ser Ser Tyr Met Arg Lys Gln
545 550
                             555
Gly Asp Arg Thr Thr Tyr Gly Val Ala Asn Ser Gly Ala Ile Gly Asp
         565
                         570
Asn Thr Asn Tyr Tyr Ile Ser Ala Asp Arg Asp Asn Asp Asp Asn Glu
                      585 590
      580
Asn Ser Phe Asn Gly Asn Ile Asn Thr Asn Leu His Tyr Thr Gln Leu
 595 600
Ser Val Gly Gly Ser Ser Gly Ser Asn Gln Arg Asn Tyr Ser Ala
 610 615 620
Thr Leu Thr Gly Gly Ile Ala Met His Lys Asp Gly Val Thr Phe Ser
625 630 635 640
Pro Tyr Ala Ile Lys Asp Thr Phe Ala Ile Ala Lys Leu Asn Glu Pro
          645 650 655
Lys Ser Gly Val Glu Ile Ser Tar Pro Gla Gly Thr Ile Trp Thr Asp
        660 665
                                     670
His Trp Gly Gln Ala Val Val Pro Gly Leu Asn Glu Trp Arg Asn Ser
     675 680 685
Arg Ile Glu Ile Asp Ala Asn Lys Leu Pro Pro Ser Met Thr Leu Ala
 690 695 700
Asn Gly Ile Lys Tyr Val Ala Ala Gly His Ala Ser Val Ser Glu Val
705 710
                             715
Ser Phe Lys Ile Leu Asn Ser Arg Arg Val Met Leu Arg Val Lys Arg
           725 730
                                         735
Ala Asp Gly Thr Pro Leu Ala Lys Gly Leu Ser Ile Val Asp Glu Lys
       740 745 750
Gly Asn Tyr Ile Val Thr Ser Val Asp Asp Gly His Val Phe Ile Asn
   755 760 765
Asp Ala Asp Gln Leu Lys Gly Leu Tyr Ala Met Asp Asp Asn Asn Asn
               775 780
Arg Leu Cys Gln Ile His Tyr Thr Leu Ser Asp Lys Lys Asp Asp Glu
            790 795
Ala Phe Tyr Glu Glu Val Asn Gly Val Cys Gln
```

<210> 6159 <211> 272 <212> PRT

<213> Enterobacter cloacae

805

<400> 6159 Tyr Phe Lys Ile Gly Ile Leu Ile Lys Asn Gly Ile Asn Ile Ser Cys Leu Phe Leu Ser Asn Tyr Thr Trp Thr Trp Asn Val Val Leu Trp Ile 25 20 Lys Gly Val Ile Ile Met Ser Cys Leu Lys Lys Thr Leu Leu Lys Ser 35 40 Val Ile Ala Ala Ala Leu Phe Ser Ala Gln Phe Ser Thr Tyr Ala Ala 5.5 5.0 Gly Met Val Pro Glu Thr Ser Leu Leu Val lle Asp Glu Ala Thr His 70 7.5 Ser Gly Thr Ile Asn Val Lys Asn Thr Asp Ser Phe Pro Ala Leu Leu 90 85

```
Tyr Thr Asn Val Leu Asp Leu Pro Asp Asp Gln Gly Leu Lys Leu Ile
               105 110
   100
Ser Thr Gln Pro Val Val Arg Leu Glu Pro Gly Gln Thr Gln Gln Leu
  115
                   120
Arg Phe Ile Leu Gln Asn Lys Glu Pro Leu Glu Ala Glu His Tyr Lys
                135 140
Arg Val Thr Phe Glu Gly Ile Pro Pro Lys Ser Asp Asn Lys Asn Ile
145 150 155
Lys Ile Gly Phe Asn Leu Arg Gln Asp Leu Pro Val Leu Ile Arg Pro
       165 . 170 175
Ala Lys Leu Ala Val Val Thr Asp Ala Trp Lys Tyr Leu Glu Trp Asn
                          190
     180 185
Ala Thr Gly Thr Thr Leu Thr Val Lys Asn Pro Ser Lys Tyr Val Val
195 200
                                 205
Arg Leu Ala Gln Asn Val Met Thr Gln Pro Ser Gly Thr Ala Gly Thr
 210 215 220
Leu Pro Lys Thr Tyr Ile Leu Pro Gly Gln Ser Met Thr Ala Thr Leu
225 230 235
Lys Lys Thr Val Ser Gly Asp Asn Lys Val Lys Phe Phe Pro Ala Ser
245 250 255
Arg Tyr Gly Val Glu Val Pro Ser Phe Val Ser Glu Leu Asn Lys
             265 270
```

<210> 6160 <211> 227 <212> PRT

<213> Enterobacter cloacae

<400> 6160 Arg Met Lys Lys Val Leu Ile Ala Thr Ala Leu Ser Leu Cys Val Ala 10 Ser Ala Phe Ala Ala Asp Thr Ala Val Leu Gln Val Lys Gly Lys Leu 2.0 25 3.0 Thr Asn Ala Ala Cys Thr Pro Glu Leu Ser Lys Gly Gly Val Val Asp 35 40 45 Tyr Gly Thr Ile His Pro Gly Ser Leu Ser Ala Ser Ala Val Asn Gln 50 55 60 Leu Gly Gln Asn Asn Ile Asp Leu Thr Ile Thr Cys Ser Ala Ala Thr 70 75 80 Lys Val Ser Trp Thr Met Val Asp Asp Arg Ala Glu Thr Asn Ala Gly 90 95 85 Leu Thr Val Asn Asn Ala Met Phe Thr Gly Ala Ser Leu Ser Asn Ser 105 110 100 Ser Gln Thr Tyr Gly Val Gly Lys Thr Thr Gly Gly Val Asn Ile Gly 120 125 Ser Tyr Ala Met Phe Val Lys Val Asp Ser Val Thr Ala Asp Gly Ala 135 140 130 Thr Val Asp Pro Ile Tyr Thr Gln Asn Gly Asp Thr Ser Lys Trp Thr 145 150 155 160Thr Ser Thr Asn Gly Ser Ser Gln Ala Gln Asn Ile Arg Glu Phe Thr 165 170 175 Val Ala Lys Ser Gly Glu Lys Val Pro Leu Ala Phe Leu Ser Ala Thr 180 185 190 Phe Pro Leu Val Thr Ser Leu Ala Ile Gln Asp Thr Thr Thr Leu Ala 200 205 Ile Thr Asp Asp Thr Thr Leu Asp Gly Gln Leu Thr Ile Ser Leu Lys 215 Tyr Leu

```
<211> 94
<212> PRT
<213> Enterobacter cloacae
<400> 6161
Gln Met Lys Lys Val Leu Leu Ala Thr Ala Leu Ser Leu Cys Val Ala
Ser Ala Phe Ala Ala Asp Thr Ala Val Leu Gln Val Lys Gly Lys Leu
                               25
Thr Asn Ala Ala Cys Thr Pro Gln Leu Ser Asn Gly Gly Val Val Asp
                         40
Tyr Gly Thr Ile His Leu Gly Glu Leu Ser Ala Thr Ala Val Asn Gln
                       55
                                           60
Leu Gly Asp Lys Asp Ile Asn Leu Thr Ile Thr Cys Gly Ala Pro Thr
                                    75
                   70
Gln Val Gly Trp Val Val Asp Asp Asn Arg Glu Phe Lys
                85
<210> 6162
<211> 76
<212> PRT
<213> Enterobacter cloacae
<400> 6162
Phe Phe Leu Thr Gln Ile Asp Thr Val Leu Val Leu Phe Arg Leu Pro
                                    1.0
Ala Trp Trp Asn Asp Phe Ile Ala Gly Leu Val Leu Leu Gly Val Leu
                                25
                                                    3.0
            20
Val Leu Asp Gly Arg Leu Arg Gln Ala Leu Ala Arg His Gln Arg Ala
                            4.0
                                                45
        35
Leu Lys Tyr Ser Arg Phe Gln Pro Gly Asn Lys Gly Gly Lys His Val
                       5.5
Thr Pro Phe Pro Lys Arg Lys Lys Glu Val Ala
                    7.0
<210> 6163
<211> 326
<212> PRT
<213> Enterobacter cloacae
<400> 6163
Met Arg Leu Asn Trp Glu Ser Ala Leu Leu Ile Leu Leu Val Leu Glu
                                     10
 Ile Leu Leu Phe Gly Ala Ile Asn Pro Arg Met Leu Asp Ile Asn Met
 Leu Leu Phe Ser Thr Ser Asp Phe Ile Cys Ile Gly Ile Val Ala Leu
                            40
 Pro Leu Thr Leu Val Ile Ile Ser Gly Gly Ile Asp Ile Ser Leu Gly
  5.0
 Ser Thr Ile Gly Leu Cys Ala Ile Ala Leu Gly Val Met Met Gln Ala
                     70
 Gly Trp Pro Met Ala Val Ala Ile Pro Leu Thr Leu Leu Leu Gly Leu
                                    90
                85
 Leu Cys Gly Leu Val Asn Ala Ala Leu Ile His Tyr Thr Gly Ile Ser
            100
                                 105
 Pro Leu Val Ile Thr Leu Gly Thr Leu Tyr Leu Tyr Gly Gly Gly Ala
                             120
        115
 Leu Leu Leu Ser Gly Met Ala Gly Ala Thr Gly Tyr Glu Gly Ile Gly
                        135
                                             140
 Gly Phe Pro Asp Ser Phe Thr Ala Phe Ala Asn Leu Thr Val Leu Gly
                     150
                                        155
```

Leu Pro Ile Pro Leu Val Leu Phe Ala Val Ile Thr Ala Phe Phe Trp 170 175 165 Leu Ile Thr His Arg Gly Arg Phe Gly Arg His Leu Phe Leu Ile Gly 190 185 180 Gln Asn Pro Arg Ala Ala Arg Tyr Ala Ala Leu Pro Val Asn Gly Met 205 195 200 Pro Tyr Ala Leu Tyr Gly Leu Val Gly Val Ala Ser Ala Ile Ala Ala 215 220 210 Leu Val Met Val Ser Tyr Phe Gly Ser Ala Arg Ser Asp Leu Gly Arg 230 235 225 Asp Leu Leu Met Pro Ala Leu Thr Ala Ala Val Leu Gly Gly Ala Asn 245 250 255 Ile Tyr Gly Gly Ser Gly Ser Val Val Gly Thr Ala Leu Ala Ala Leu 265 260 Leu Val Gly Tyr Leu Gln Gln Gly Leu Gln Met Val Gly Ile Pro Asn 280 285 275 Gln Val Ser Ser Ala Leu Ser Gly Ala Leu Leu Val Val Val Met 300 295 290 Gly Arg Ser Leu Ser Leu His Arg Glu Trp Val Arg Ser Leu Phe Arg 315 305 310 Lys Leu Ser Gly Ala

<210> 6164 <211> 326

<212> PRT <213> Enterobacter cloacae

325

<400> 6164 Gly Glu Gly Gln Arg His Arg Ala Ala Ala Gly Ala Arg Gly Val His Gln Arg Glu His Gln Gln Ile Arg Phe Leu Thr Gly Glu Gln Met Ala 20 Asp Leu Asp Asp Ile Lys Asp Gly Lys Asp Phe Gly Ile Gly Thr Pro 4.0 35 Gln Gln Asn Val Pro Tyr Thr Leu Lys Gly Cys Gly Ser Leu Asp Trp 5.5 Gly Met Gln Ser Arg Leu Ser Arg Ile Phe Asn Pro Gln Ser Asn Arg 75 80 7.0 Thr Val Met Leu Ala Phe Asp His Gly Tyr Phe Gln Gly Pro Thr Thr 8.5 90 Gly Leu Glu Arg Ile Asp Leu Ser Ile Ala Pro Leu Phe Gly Glu Thr 105 110 100 Asp Val Leu Met Cys Thr Arg Gly Ile Leu Arg Ser Gln Val Pro Ala 115 120 Ala Thr Asn Lys Pro Val Val Leu Arg Ala Ser Gly Gly Asn Ser Ile 135 140 Leu Gly Glu Leu Ser Asn Glu Cys Val Ala Val Ala Met Glu Asp Ala 155 150 Leu Arg Leu Asn Val Cys Ala Val Ala Ala Gln Val Tyr Ile Gly Ser 170 165 Glu Phe Glu His Gln Ser Ile Asn Asn Val Ile Lys Leu Val Asp Ala 185 190 Gly Ala Arg Tyr Gly Met Pro Thr Leu Ala Val Thr Gly Val Gly Lys 205 200 Glu Met Ala Arg Asp Ala Arg Tyr Phe Ser Leu Ala Ser Arg Ile Ala 215 220 Ala Glu Met Gly Ala Gln Phe Val Lys Thr Tyr Tyr Val Asp Glu Gly 230 235 Phe Glu Lys Val Thr Ala Ser Cys Pro Val Pro Ile Val Ile Ala Gly 250

```
Gly Lys Lys Leu Pro Glu His Glu Ala Leu Glu Met Cys Trp Arg Ala
            265
    260
Ile Asp Gln Gly Ala Ser Gly Val Asp Met Gly Arg Asn Ile Phe Gln
   275
                    280
Ser Ser Ala Pro Leu Ala Met Leu Lys Ala Val Lys Lys Val Val His
                 295
                                300
Glu Asn Met Ser Ala Arg Glu Ala Phe Gln Phe Trp Gln Glu Glu Lys
305 310
                   315
Gln Gly Glu Ala Lys
<210> 6165
<211> 352
<212> PRT
<213> Enterobacter cloacae
<400> 6165
Val Cys Thr Ala Asn Gly Cys Asp Leu Ser Ser Glu Asn Tyr Pro Glu
                        10
Arg Lys Met Lys Thr Lys Leu Leu Val Leu Ala Met Ala Leu Ser Phe
                  25
 20
Ala Ser Ala Gln Ala Ala Asp Arg Ile Ala Phe Ile Pro Lys Leu Val
                        4.5
35 40
Gly Val Gly Phe Phe Thr Ser Gly Gly Asn Gly Ala Lys Glu Ala Gly
               55 60
5.0
Lys Val Leu Gly Val Asp Val Thr Tyr Asp Gly Pro Thr Glu Pro Ser
                             75
            7.0
Val Ser Gly Gln Val Gln Leu Ile Asn Asn Phe Val Asn Gln Gly Tyr
               90 95
Asn Ala Ile Ile Val Ser Ala Val Ser Pro Asp Gly Leu Cys Pro Ala
      100 105 110
Leu Lys Arg Ala Met Gln Arg Gly Val Lys Val Leu Thr Trp Asp Ser
 115 120 125
Asp Thr Lys Pro Glu Cys Arg Ser Ile Tyr Ile Asn Gln Gly Thr Pro
 130 135 140
Glu Gln Leu Gly Gly Leu Leu Val Glu Met Ala Gly Lys Gln Val Thr
             150 155 160
Lys Pro Asn Ala Lys Val Ala Phe Phe Tyr Ser Ser Pro Thr Val Thr
           165 170 175
Asp Gln Asn Gln Trp Val Lys Glu Ala Lys Ala Lys Ile Glu Lys Asp
    180 185 190
His Pro Gln Trp Gln Val Val Thr Thr Gln Phe Gly Tyr Asn Asp Ala
                    200 205
     195
Thr Lys Ser Leu Gln Thr Ala Glu Gly Ile Leu Lys Ala Tyr Ser Asp
                  215 220
   210
Leu Asp Ala Ile Ile Ala Pro Asp Ala Asn Ala Leu Pro Ala Ala Ala
              230 235 240
225
Gln Ala Ala Glu Asn Leu Lys Arg Glu Gly Val Ala Ile Val Gly Phe
           245 250 255
Ser Thr Pro Asn Val Met Arg Pro Tyr Val Glu Arg Gly Thr Val Lys
                     265 270
         260
Ala Phe Gly Leu Trp Asp Val Val Gln Gln Gly Lys Ile Ala Val Asn
                     280 285
      275
Val Ala Asp Arg Leu Leu Lys Lys Gly Asp Leu Asn Val Gly Asp Ser
         295 300
   290
Val Asp Val Lys Asn Ile Gly Thr Leu Lys Val Glu Pro Asn Ser Val
                  315
Gln Gly Tyr Gln Tyr Glu Ala Lys Gly Asn Gly Ile Val Leu Leu Pro
          325
                           330
Glu Arg Val Val Phe Thr Lys Glu Asn Ile Ser Lys Tyr Asp Phe
         340
                        345
```

```
<210> 6166
<211> 181
<212> PRT
<213> Enterobacter cloacae
<400> 6166
<400> Asp Asp Asg Clo Leu Pro
```

Lys Ser Asp Arg Gln Leu Pro Gly Ala Asp Arg Tyr Arg Gly Gln 1.0 Lys Ala Ala Gly Ala Arg Gly Ala Gly Asp Val Leu Ala Arg Asp Arg 20 25 Pro Gly Arg Val Arg Arg Gly His Gly Ala Gln His Leu Pro Val Gln 4.0 4.5 Arg Ala Ala Arg His Ala Glu Gly Gly Glu Glu Ser Gly Ser Arg Glu 5.5 60 His Glu Arg Pro Gly Gly Val Pro Val Leu Ala Gly Arg Glu Thr Gly 75 70 Arg Ser Lys Met Asn Val Thr Leu Val Glu Ile Asn Ile Lys Pro Glu 8.5 90 Arg Val Asp Glu Phe Leu Glu Val Phe Arg Ala Asn His Glu Gly Ala 105 110 100 Ile Lys Glu Pro Gly Asn Leu Arg Phe Asp Val Leu Gln Asp Pro Arg 115 120 125 Val Lys Thr Arg Phe Phe Ile Tyr Glu Ala Tyr Lys Asp Glu Lys Ala 130 135 Val Leu Ala His Lys Gln Thr Pro His Tyr Leu Ala Cys Val Asp Lys 145 150 155 Leu Glu Glu Leu Met Ser Glu Pro Arg Lys Lys Arg Ser Phe Val Gly 170 Leu Leu Pro Glu

180

<211> 446

<212> PRT <213> Enterobacter cloacae

<400> 6167 Ile Leu Pro Asn Glu Arg Asn Gly Leu Leu Tyr Thr Pro Gly Ser Ile 10 His Trp Arg His Asp Ile Met Ala Asn Thr Ile Thr Ala Asp Asp Ile 20 2.5 Arg Glu His Phe Ser Gln Ala Met Ser Ala Met Tyr Gln Gln Glu Val 35 40 Pro Gln Tyr Gly Thr Leu Leu Glu Leu Val Ala Asp Val Asn Leu Ala 5.5 60 Val Leu Glu Asn Asn Pro Leu Leu His Glu Gln Leu Ala Asn Ala Asp 70 75 Glu Leu Ala Arg Leu Asn Val Glu Arg His Gly Ala Ile Arg Val Gly 90 85 Thr Ala Gln Glu Leu Ser Thr Leu Arg Arg Ile Phe Ala Ile Met Gly 105 110 100 Met Tyr Pro Val Ser Tyr Tyr Asp Leu Ser Gln Ala Gly Val Pro Val 125 120 115 His Ser Thr Ala Phe Arg Pro Thr Asp Asp Ala Ala Leu Cys Arg Asn 140 135 130 Pro Phe Arg Ile Phe Thr Ser Leu Leu Arg Leu Glu Leu Ile Glu Asn 155 150 Val Ala Leu Arg Glu Arg Ala Ala Glu Ile Leu Ser Arg Arg Asn Ile 170 165 Phe Thr Pro Arg Cys Leu Glu Leu Ile Asp Leu His Asp Ala Gln Gly

```
180
                       185
His Phe Thr Glu Ala Gln Ala Arg Glu Phe Val Gln Glu Ala Leu Glu
                                  205
 195
            200
Thr Phe Arg Trp His Arg His Ala Thr Val Asp Gln Glu Thr Tyr Leu
                215
                               220
 210
Ala Leu Ser Asn Glu His Arg Leu Ile Ala Asp Val Val Cys Phe Pro
225 230 235
Gly Cys His Ile Asn His Leu Thr Pro Arg Thr Leu Asp Ile Asp Arg
        245 250
Val Gln Glu Leu Met Pro Lys Tyr Gly Ile Glu Pro Lys Ile Leu Ile
        260 265 270
Glu Gly Pro Pro Arg Arg Glu Val Pro Ile Leu Leu Arg Gln Thr Ser
     275 280 285
Phe Lys Ala Leu Glu Glu Pro Val Leu Phe Ala Gly Glu His Lys Gly
 290 295 300
Thr His Thr Ala Arg Phe Gly Glu Ile Glu Gln Arg Gly Val Ala Leu
305 310 315
                                           320
Thr Pro Lys Gly Arg Glu Leu Tyr Asp Ser Leu Leu Asn Gln Ala Gly
               330 335
         325
Thr Gly Lys Asp Asn Leu Thr His Gln Leu His Leu Arg Glu Ile Phe
            345 350
       340
Ser Ala Phe Pro Asp Ser Glu Met Phe Leu Arg Arg Gln Gly Leu Ala
                   360 365
     355
Tyr Phe Arg Tyr Arg Leu Thr Pro Thr Gly Glu Ala His Arg His Ala
         375 380
 370
Phe Arg Pro Gly Val Asp Pro Gln Pro Leu Ile Glu Arg Gly Trp Val
              390 395
Val Ala Gln Pro Ile Thr Tyr Glı Asp Phe Leu Pro Val Ser Ala Ala
           405 410 415
Gly Ile Phe Gln Ser Asn Leu Gly Tyr Glu Thr Gln Ala Arg Ile His
      420 425 430
Gly Asn Ala Ser Arg Asn Ala Phe Gln Ala Ala Pro Leu Pro
                    440
```

<210> 6168 <211> 320

<212> PRT <213> Enterobacter cloacae

<400> 6168 Leu Val Thr Arg Val Ala Leu Phe Leu Thr Ser Pro Met Glu Lys Asn 10 Gly Leu Phe Ser Gln Arg Ile Arg Leu Arg His Leu His Thr Phe Val 25 Ala Val Ala Gln Gln Gly Thr Leu Gly Arg Ala Ala Glu Thr Leu Asn 35 4.0 Leu Ser Gln Pro Ala Leu Ser Lys Thr Leu Asn Glu Leu Glu Gln Leu 5.5 Thr Gly Thr Arg Leu Phe Asp Arg Gly Arg Leu Gly Ala Gln Leu Thr 70 7.5 Leu Val Gly Glu Gln Phe Leu Thr His Ala Val Lys Val Leu Asp Ala 90 Leu Asn Thr Ala Gly Gln Ala Leu Asn Arg Lys Glu Glu Pro Ala Ser 105 110 100 Asp Ile Val Arg Val Gly Ala Leu Pro Thr Ala Ala Leu Gly Ile Leu 120 125 115 Pro Ala Ala Ile Gly Gln Phe His Arg Gln Gln Lys His Ala Thr Leu 135 140 130 Gln Val Ala Thr Met Asn Asn Thr Met Leu Leu Ala Gly Leu Lys Ser 155 150 Gly Glu Leu Asp Leu Gly Ile Gly Arg Met Ser Asp Pro Glu Leu Met

```
165
                             170
Ser Gly Leu Asn Tyr Glu Leu Leu Phe Leu Glu Ser Leu Lys Leu Val
              185
      180
Val Arg Pro Asn His Pro Leu Leu Gln Asp Thr Val Thr Leu Ser Arg
    195 200
                          205
Val Met Glu Trp Pro Val Val Val Ser Pro Lys Gly Thr Val Pro Arg
 210 215 220
Gln Asn Ala Glu Ala Leu Leu Gln Met Gln Gly Cys Thr Leu Pro Ser
        230 235
Gly Cys Ile Glu Thr Leu Ser Ala Ser Leu Ser Arg Gln Leu Thr Val
            245 250 255
Asp Tyr Asp Tyr Val Trp Phe Val Pro Ser Gly Ala Val Lys Asp Asp 260 265 270
Leu Arg Arg Gly Val Leu Thr Ala Leu Pro Val Thr Ser Pro Gly Ala
      275 280 285
Gly Glu Pro Ile Gly Ile Leu Thr Arg Val Asp Ala Pro Leu Ser Glu
                295 300
Gly Ala Gln Thr Leu Leu Ser Ala Ile Arg Lys Ser Met Pro Leu
                310
                                315
<210> 6169
<211> 346
<212> PRT
<213> Enterobacter cloacae
<400> 6169
Ala Asn Gln Val Val Met Lys Lys Met Leu Arg Phe Val Leu Leu
                             1.0
Ile Val Ala Leu Gly Ile Ala Gly Gly Ala Gly Val Trp Lys Vəl Arg
                                          3.0
 20
Gln Leu Ala Glu Ser Gln Ile Leu Ile Lys Asp Glu Thr Ile Phe Thr
                              45
Leu Lys Ala Gly Thr Gly Arg Gln Ala Leu Gly Gln Gln Leu Tyr Asp
                   55
                       60
Asp Lys Ile Ile Asn Arg Pro Arg Val Phe Gln Trp Leu Leu Arg Ile
                             75
         70
Glu Pro Asp Leu Ser His Phe Lys Ala Gly Thr Tyr Arg Phe Thr Pro
                90"
            85
Gly Met Thr Val Arg Glu Met Leu Gln Leu Leu Glu Ser Gly Lys Glu
                                          110
         100
              105
Ala Gln Phe Pro Leu Arg Phe Val Glu Gly Met Arg Leu Ser Asp Tyr
                      120
                           125
Leu Arg Gln Leu Arg Asp Ala Pro Tyr Ile Lys His Thr Leu Lys Asp
                   135
                                   140
 130
Asp Arg Tyr Gln Thr Val Ala Asp Ala Leu Lys Phe Glu His Pro Glu
                                155
         150
Trp Val Glu Gly Trp Phe Trp Pro Asp Thr Trp Met Tyr Thr Ala Gly
                            170
             165
Thr Thr Asp Val Ala Ile Leu Lys Arg Ala His Asn Lys Met Val Ala
                                          190
         180
                          185
Ala Val Asp Ala Ala Trp Lys Gly Arg Ala Glu Gly Leu Pro Tyr Lys
                                       205
                      200
    195
Asp Gln Asn Gln Phe Met Thr Met Ala Ser Ile Ile Glu Lys Glu Thr
 210 215
                                    220
Ala Val Ala Ala Glu Arg Asp Gln Val Ala Ser Val Phe Ile Asn Arg
       230
                                235
Leu Arg Ile Gly Met Arg Leu Gln Thr Asp Pro Thr Val Ile Tyr Gly
            245
                             250
                                             255
Met Gly Glu Asn Tyr Asn Gly Arg Ile Ser Arg Lys Asp Leu Glu Thr
       260
                          265
Pro Thr Ala Tyr Asn Thr Tyr Val Ile Ser Gly Leu Pro Pro Gly Pro
```

```
280
Ile Ala Thr Pro Ser Glu Ala Ser Leu Lys Ala Ala Ala His Pro Ala
  290 295
                           300
Lys Thr Pro Tyr Leu Tyr Phe Val Ala Asp Gly Lys Gly Gly His Thr
305 310 315
Phe Asn Thr Asn Leu Ala Ser His Asn Arg Ser Val Gln Asp Tyr Leu
       325 330
Lys Ala Leu Lys Glu Lys Asn Ala Gln
         340
<210> 6170
<211> 253
<212> PRT
<213> Enterobacter cloacae
<400> 6170
Tyr Ser Ala Asp Cys Tyr Ala Vai Ala Thr Gly Ala Ala Gly Met Lys
Trp Tyr Pro Trp Leu Arg Pro His Phe Glu Gln Leu Ile Gly Ser Tyr
                           25
                                            3.0
      20
Gln Val Gly Arg Gly His His Ala Leu Leu Ile Gln Ala Leu Pro Gly
                                        45
                        40
Met Gly Asp Asp Ala Leu Ile Tyr Ala Ile Thr Arg Phe Leu Met Cys
                  55
Gln Gln Pro Glu Gly His Lys Ser Cys Gly Lys Cys Arg Gly Cys Gln
                                  75
                 70
Leu Met Gln Ala Gly Thr His Pro Asp Tyr Tyr Thr Leu Glu Pro Glu
             85
Lys Gly Lys Asn Thr Leu Gly Ile Asp Ala Val Arg Glu Val Ser Glu
                          105
       1.00
Lys Leu Tyr Glu Tyr Ala Arg Leu Gly Gly Ala Lys Val Val Trp Leu
                                         125
 115
                        120
Lys Asp Ala Ala Leu Leu Thr Glu Ala Ala Ala Asn Ala Leu Leu Lys
 130 135
                                      140
Thr Leu Glu Glu Pro Pro Glu Asn Thr Trp Phe Phe Leu Ser Cys Arg
                150
                                  155
Glu Pro Glu Arg Leu Leu Ala Thr Leu Arg Ser Arg Cys Arg Leu His
              165
                              170
His Leu Ala Val Pro Gln Glu Ser Trp Ser Leu Ala Trp Leu Glu Arg
   180
                           185
                                             190
Glu Val Thr Val Ser Gln Asp Ala Ala Arg Ser Ala Leu Arg Leu Cys
 195
                       200
Ser Gly Ala Pro Ala Ala Ala Leu Ala Leu Leu Gln Pro Glu Val Trp
 210
                    215
                                   220
Ser Gln Arg Glu Thr Leu Cys Arg Ala Val Glu Ser Ala Leu Glu Ser
              230
                               235
Ser Pro Arg Glu Leu Asp Arg Ile Pro Ala Tyr Ala His
             245
<210> 6171
<211> 433
<212> PRT
<213> Enterobacter cloacae
<400> 6171
Val Leu Ser Phe Val Val Pro Arg Ile Ser Phe Phe Ile Pro Pro Trp
                            10
Arg Thr Ser Val Ser Lys Arg Arg Val Val Val Thr Gly Leu Gly Met
                                             30
                           25
Leu Ser Pro Val Gly Asn Thr Val Glu Ser Thr Trp Lys Ala Leu Leu
                  40
```

Ala Gly Gln Ser Gly Ile Ser Leu Ile Asp His Phe Asp Thr Ser Ala 5.5 Tyr Ala Thr Lys Phe Ala Gly Leu Val Lys Asp Phe Asn Cys Glu Glu 70 75 Ile Ile Ser Arg Lys Glu Gln Arg Lys Met Asp Ala Phe Ile Gln Tyr 85 90 Gly Ile Val Ala Gly Val Gln Ala Met Gln Asp Ser Gly Leu Glu Ile 105 110 100 Thr Glu Glu Asn Ala Thr Arg Ile Gly Ala Ala Ile Gly Ser Gly Ile 115 120 125 Gly Gly Leu Gly Leu Ile Glu Glu Asn His Thr Ser Leu Met Asn Gly 130 135 140 Gly Pro Arg Lys Ile Ser Pro Phe Phe Val Pro Ser Thr Ile Val Asn 145 150 155 160 Met Val Ala Gly His Leu Thr Ile Met Phe Gly Leu Arg Gly Pro Ser 165 170 175 Ile Ser Ile Ala Thr Ala Cys Thr Ser Gly Val His Asn Ile Gly Gln 185 190 180 Ala Ala Arg Ile Ile Ala Tyr Gly Asp Ala Asp Ala Met Val Ala Gly 200 205 195 Gly Ala Glu Lys Ala Ser Thr Pro Leu Gly Val Gly Gly Phe Gly Ala 210 215 220 Ala Arg Ala Leu Ser Thr Arg Asn Asp Asn Pro Gln Ala Ala Ser Arg 230 235 Pro Trp Asp Lys Asp Arg Asp Gly Phe Val Leu Gly Asp Gly Ala Gly 250 255 245 Met Ile Val Leu Glu Glu Tyr Glu His Ala Lys Lys Arg Gly Ala Lys 265 270 Ile Tyr Ala Glu Val Val Gly Phe Gly Met Ser Ser Asp Ala Tyr His 275 285 280 Met Thr Ser Pro Pro Glu Asn Gly Ala Gly Ala Ala Leu Ala Met Glu 300 295 Asn Ala Ile Arg Asp Ala Gly Ile Thr Pro Ala Gln Ile Gly Tyr Val 315 310 Asn Ala His Gly Thr Ser Thr Pro Ala Gly Asp Lys Ala Glu Ala Gln 325 330 335 Ala Val Lys Ser Ile Phe Gly Glu Ser Ala Ser Arg Val Leu Val Ser 345 350 340 Ser Thr Lys Ser Met Thr Gly His Leu Leu Gly Ala Ala Gly Ala Val 365 355 360 Lys Ser Ile Tyr Ser Ile Leu Ala Leu Arg Asp Gln Ala Val Pro Pro 380 Thr Ile Asn Leu Asp Asn Pro Asp Glu Gly Cys Asp Leu Asp Phe Val 390 395 400 Pro His Glu Ala Arg Gln Val Ser Gly Met Glu Tyr Thr Leu Cys Asn 405 410 415 Ser Phe Gly Phe Gly Gly Thr Asn Gly Ser Leu Ile Phe Lys Lys Val

```
<210> 6172
<211> 273
<212> PRT
```

425

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;400> 6172

Gly Ala Thr Met Phe Leu Ile Asn Gly Leu Glu Gln Asp Thr Leu Pro 1 5 10 15 Ala Ser Asp Arg Ala Thr Gln Phe Gly Asp Gly Cys Phe Thr Thr Ala 20 25 30

Arg Ile Leu Asp Gly Asp Val Cys Leu Leu Gly Ala His Ile Leu Arg 4.0 Leu Gln Lys Ala Cys Glu Thr Leu Leu Ile Pro Phe Ser Gln Trp Asp 60 5.5 Ile Leu Glu Ser Glu Met Arg Arg Leu Ala Ser Glu Lys Ala Ser Gly 70 Val Leu Lys Val Ile Ile Ser Arg Gly Ser Gly Gly Arg Gly Tyr Ser 90 85 Gly Ser Ala Cys Leu His Pro Thr Arg Ile Leu Ser Val Ser Asp Tyr 100 105 110 Pro Ser His Tyr Ala His Trp Arg Glu Glu Gly Val Ala Leu Ala Leu 115 120 Ser Pro Val Arg Leu Gly Arg Asn Pro Met Leu Ala Gly Ile Lys His 130 135 140 Leu Asn Arg Leu Glu Gln Val Leu Ile Arg Thr His Leu Glu Gln Thr 145 150 155 Glu Ala Gly Glu Ala Leu Val Leu Asp Ser Glu Gly Tyr Ile Thr Glu 165 170 175 Cys Cys Ala Ala Asn Leu Leu Trp Arg Lys Gly Ser Glu Val Phe Thr 185 190 180 Pro Ser Leu Glu Gln Ala Gly Val Asn Gly Ile Met Arg Gln Phe Cys 195 200 205 Met His Leu Leu Ala Arg Ala Gly Phe Arg Val Val Glu Val Asn Ala 220 210 215 Lys Glu Glu Ala Leu Leu Ala Ala Asp Glu Val Val Ile Cys Asn Ala 225 230 235 240 Leu Met Pro Val Val Pro Val Arg Ala Tyr Gly Arg Lys Cys Trp Ser 245 250 255 Ser Arg Glu Leu Phe Gln Phe Leu Ala Pro Leu Cys Glu Gln Thr Arg 265 260

<210> 6173 <211> 220 <212> PRT <213> Enterobacter cloacae

<400> 6173 Arg His Leu Arg Lys Lys Met Arg Ser Lys Tyr Ile Val Ile Glu Gly Leu Glu Gly Ala Gly Lys Thr Thr Ala Arg Asn Val Val Val Asp Thr 30 25 20 Leu Thr Ser Leu Gly Val Ala Asp Met Val Phe Thr Arg Glu Pro Gly 35 40 Gly Thr Gln Leu Ala Glu Lys Leu Arg Ser Leu Val Leu Asp Ile Lys 55 Ser Val Gly Asp Glu Val Ile Thr Asp Lys Ala Glu Val Leu Met Phe 7.5 7.0 Tyr Ala Ala Arg Val Gln Leu Val Glu Thr Val Ile Lys Pro Ala Leu 90 8.5 Ala Glu Gly Lys Trp Val Ile Gly Asp Arg His Asp Leu Ser Thr Gln 105 110 100 Ala Tyr Gln Gly Gly Gly Arg Gly Ile Asp Gln Thr Met Leu Ala Thr 125 Leu Arg Asn Ala Val Leu Gly Asp Phe Arg Pro Asp Leu Thr Leu Tyr 140 130 135 Leu Asp Val Thr Pro Glu Val Gly Leu Lys Arg Ala Arg Ala Arg Gly 155 145 150 Glu Leu Asp Arg Ile Glu Gln Glu Ser Phe Asp Phe Phe Asn Arg Thr 165 170

```
Arg Ala Arg Tyr Leu Glu Leu Ala Gly Gln Asp Lys Thr Ile Arg Thr
                                    190
              185
      180
Ile Asp Ala Thr Gln Ser Leu Glu Asp Val Thr Arg Asp Ile Gln Gln
   195 200
Thr Val Thr Gln Trp Leu Gln Glu Gln Gln Ala
   210 215
<210> 6174
<211> 336
<212> PRT
<213> Enterobacter cloacae
<400> 6174
Leu Val Glu Tyr Met Thr Ile Lys Val Gly Ile Asn Gly Phe Gly Arg
            5
Ile Gly Arg Ile Val Phe Arg Ala Ala Gln Lys Arg Ser Asp Ile Glu
                2.5
                                   3.0
         2.0
Ile Val Gly Ile Asn Asp Leu Leu Asp Ala Glu Tyr Met Ala Tyr Met
                           45
            40
Leu Lys Tyr Asp Ser Thr His Gly Arg Phe Asp Gly Thr Val Glu Val
 50
                55 60
Lys Asp Gly His Leu Val Val Asn Gly Lys Thr Ile Arg Val Thr Ala
                70
                             7.5
Glu Lys Asp Pro Ala Asn Leu Lys Trp Asn Glu Ile Gly Val Asp Val
                           90
                                            95
            8.5
Val Ala Glu Ala Thr Gly Ile Phe Leu Thr Asp Glu Thr Ala Arg Lys
        100 105 110
His Ile Thr Ala Gly Ala Lys Lys Val Val Leu Thr Gly Pro Ser Lys
                                    125
                      120
Asp Asn Thr Pro Met Phe Val Arg Gly Ala Asn Phe Glu Thr Tyr Ala
                 135 140
 130
Gly Gln Asp Ile Val Ser Asn Ala Ser Cys Thr Thr Asn Cys Leu Ala
         150 155 160
Pro Leu Ala Lys Val Ile Asn Asp Asn Phe Gly Ile Ile Glu Gly Leu
             165 170 175
Met Thr Thr Val His Ala Thr Thr Ala Thr Gln Lys Thr Val Asp Gly
                       185 190
         180
Pro Ser His Lys Asp Trp Arg Gly Gly Arg Gly Ala Ala His Asn Ile
                      200 205
      195
Ile Pro Ser Ser Thr Gly Ala Ala Lys Ala Val Gly Lys Val Leu Pro
                                   220
Glu Leu Asn Gly Lys Leu Thr Gly Met Ala Phe Arg Val Pro Thr Pro
                230 235
225
Asn Val Ser Val Val Asp Leu Thr Val Arg Leu Glu Lys Ala Ala Ser
                            250 255
             245
Tyr Glu Glu Ile Lys Lys Ala Ile Lys Ala Ala Ser Glu Gly Pro Met
                          265 270
          260
Lys Gly Val Leu Gly Tyr Thr Glu His Asp Val Val Ser Thr Asp Phe
                       280 285
       275
Asn Gly Glu Val Cys Thr Ser Val Phe Asp Ala Lys Ala Gly Ile Ala
                             300
                   295
   290
Leu Asn Asp Asn Phe Val Lys Leu Val Ser Trp Tyr Asp Asn Glu Thr
                                315
305
Gly Tyr Ser Asn Lys Val Leu Asp Leu Ile Ala His Ile Ser Lys
                             330
             325
```

<sup>&</sup>lt;210> 6175

<sup>&</sup>lt;211> 300 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 6175
Thr Glu Asp Cys Leu Met Ile Asn Lys Ile Phe Ala Leu Pro Val Val
                                10
Glu Gln Leu Thr Pro Val Leu Ser Arg Arg Gln Ile Asp Gly Ala Asp
         20
                             25
Ile Ile Val Val Asp His Pro Arg Val Lys Ala Ser Val Ala Leu Asn
                      4.0
Gly Ala His Leu Leu Ser Trp Lys Pro Glu Gly Glu Glu Glu Gly Leu
           55
                                       60
Trp Leu Ser Glu Ala Thr Ser Phe Lys Arg Gly Ala Ala Ile Arg Gly
                      75
                 70
Gly Val Pro Ile Cys Trp Pro Trp Phe Gly Pro Ser Ala Gln Gln Gly
                   90
              85
Leu Pro Ser His Gly Phe Ala Arg Asn Gln Gln Trp Thr Leu Lys Ala
          100 105
                                    110
His Asn Glu Asp Glu Asn Gly Ala Val Leu Thr Phe Glu Leu Gln Ala
                        120 125
       115
Asn Asp Glu Thr Arg Ala Leu Trp Pro His Glu Phe Thr Leu Tyr Ala
   130
Arg Phe Lys Leu Gly Lys Thr Cys Glu Ile Glu Leu Glu Ala His Gly
                                    155
145
                  150
Glu Phe Glu Thr Thr Ser Ala Leu His Thr Tyr Phe Asn Val Gly Asp
              165
                                170
Ile Gln Ala Val Lys Val Ser Gly Leu Gly Asp Thr Phe Ile Asp Lys
                             185
           180
Val Asp Asn Ala Lys Glu Gly Lys Leu Asp Asp Gly Val Gln Thr Phe
                          200
                                            205
       195
Pro Asp Arg Thr Asp Arg Val Tyr Leu His Pro Glu Ala Cys Ser Val
                      215
   210
Ile His Asp Ser Ala Leu Asn Arg Gly Ile Asp Val Val His His His
                                    235
                  230
His Ser Asn Val Val Gly Trp Asn Pro Gly Pro Ala Leu Ser Val Ser
                                250
Met Ala Asp Ile Pro Asp Asp Gly Tyr Lys Thr Phe Val Cys Val Glu
                                               270
                             265
           260
Thr Ala Cys Val Thr Ala Pro Gin Lys Thr Ser Glu Glu Lys Pro Ser
                         280
       275
Arg Leu Gly Gln Thr Ile Lys Ile Val Lys Arg
    290
                      295
<210> 6176
```

```
<210> 6176
<211> 525
<212> PRT
<213> Enterobacter cloacae
```

<220> <221>UNSURE <222>(525)

<400> 6176 Lys Thr Lys Gly Arg His Ala Met Asn Ile Phe Asp His Tyr Arg Gln 10 Arg Tyr Glu Ala Ala Lys Asp Glu Glu Phe Thr Leu Gln Glu Phe Leu 20 25 3.0 Thr Ile Cys Arg Gln Asp Arg Ser Ala Tyr Ala Asn Ala Ala Glu Arg 40 35 Leu Leu Met Ala Ile Gly Glu Pro Asn Met Val Asp Thr Ala Leu Glu 55 60 Pro Arg Leu Ser Arg Leu Phe Ser Asn Arg Val Val Ala Arg Tyr Pro 75 7.0 Ala Phe Glu Glu Phe Tyr Gly Met Glu Asp Ala Ile Glu Gln Ile Val Ser Tyr Leu Lys His Ala Ala Gln Gly Leu Glu Glu Lys Lys Gln Ile 105 110 100 Leu Tyr Leu Leu Gly Pro Val Gly Gly Gly Lys Ser Ser Leu Ala Glu 115 120 125 Arg Leu Lys Ala Leu Met Gln Arg Val Pro Ile Tyr Val Leu Ser Ala 130 135 140 Asn Gly Glu Arg Ser Pro Val Asn Asp His Pro Leu Cys Leu Phe Asn 145 150 155 160 Pro Gln Glu Asp Ala Gln Ile Leu Glu Lys Glu Phe Gly Ile Pro His 165 170 175 Arg Tyr Leu Gly Thr Ile Met Ser Pro Trp Ala Ala Lys Arg Leu His 180 185 190 Glu Phe Gly Gly Asp Ile Thr Lys Phe Arg Val Val Lys Val Trp Pro 195 200 205 Ser Ile Leu Glu Gln Ile Ala Ile Ala Lys Thr Glu Pro Gly Asp Glu 210 215 220 Asn Asn Gln Asp Ile Ser Ala Leu Val Gly Lys Val Asp Ile Arg Lys 225 230 235 240 Leu Glu His His Ala Gln Asn Asp Pro Asp Ala Tyr Gly Tyr Ser Gly 245 250 255 Ala Leu Cys Arg Ala Asn Gln Gly Ile Met Glu Phe Val Glu Met Phe 260 265 270 Lys Ala Pro Ile Lys Val Leu His Pro Leu Leu Thr Ala Thr Gln Glu 275 280 285 Gly Asn Tyr Asn Gly Thr Glu Gly Ile Ser Ala Leu Pro Phe Asn Gly 295 300 Ile Ile Leu Ala His Ser Asn Glu Ser Glu Trp Val Thr Phe Arg Asn 315 320 305 310 Asn Lys Asn Asn Glu Ala Phe Leu Asp Arg Val Tyr Ile Val Lys Val 325 330 Pro Tyr Cys Leu Arg Ile Ser Glu Glu Ile Lys Ile Tyr Glu Lys Leu 345 350 340 Leu Asn His Ser Glu Leu Val His Ala Pro Cys Ala Pro Gly Thr Leu 360 365 355 Glu Thr Leu Ser Arg Phe Ser Ile Leu Ser Arg Leu Lys Glu Pro Glu 380 375 Asn Ser Ser Ile Tyr Ser Lys Met Arg Val Tyr Asp Gly Glu Ser Leu 385 390 395 Lys Asp Thr Asp Pro Lys Ala Lys Ser Tyr Gln Glu Tyr Arg Asp Tyr 405 410 415 Ala Gly Val Asp Glu Gly Met Asn Gly Leu Ser Thr Arg Phe Ala Phe 420 425 430 Lys Ile Leu Ser Arg Val Phe Asn Phe Asp His Ala Glu Val Ala Ala 435 440 445 Asn Pro Val His Leu Phe Tyr Val Leu Glu Gln Gln Ile Glu Arg Glu 450 455 460 Gln Phe Pro Gln Glu Gln Ala Glu Arg Tyr Leu Glu Phe Leu Lys Gly 475 480 465 470 Tyr Leu Ile Pro Lys Tyr Ala Glu Phe Ile Gly Lys Glu Ile Gln Thr 485 490 495 Ala Tyr Leu Glu Ser Tyr Ser Glu Tyr Gly Gln Asn Ile Phe Glu Ser 500 505 510 Ser Pro Arg Gly Ser Lys Asp His Glu Arg Ser Arg Xaa 520

<sup>&</sup>lt;210> 6177 <211> 258

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 6177
Leu Phe Asp Tyr Arg Lys Glu Trp Ile Val Thr Lys Leu Lys Leu Leu
1
Ala Leu Gly Ile Leu Ala Ala Thr Ala Ala Ser Thr Val Gln Ala Glu
                            25
Ser Gln Trp Thr Val Gly Ala Gly Ala Gly Val Ile Asn Ser Pro Tyr
                         40
Lys Gln Tyr Asp Arg Asp Val Tyr Pro Val Pro Val Val Thr Tyr Glu
                                       60
                   55
Gly Asp Asn Phe Trp Phe Arg Gly Leu Gly Gly Gly Tyr Tyr Leu Trp
                                    75
                7.0
65
Asn Asp Thr Ala Asp Lys Leu Ser Ile Met Ala Tyr Tyr Asp Pro Thr
                                                   95
                                 90
              8.5
His Phe Lys Pro Gly Asp Ser Asp Ser Asn Ala Leu Arg Gln Leu Asp
                                    110
                             105
          100
Lys Arg Arg Ser Ser Leu Met Ala Gly Leu Ser Tyr Val His Asn Thr
                                 125
                         120
       115
Glu Tyr Gly Phe Leu Arg Thr Ala Leu Ala Gly Asp Thr Leu Asp Asn
                   135
                                       140
   130
Ser Asn Gly Phe Ile Trp Asp Leu Ala Trp Leu Tyr Arg Tyr Thr Asn
                  150
                                     155
Gly Ala Val Thr Leu Thr Pro Gly Ile Gly Val Gln Tyr Ser Ser Glu
                                                   175
               165
                                 170
Asn Tyr Asn Asp Tyr Tyr Tyr Gly Val Ser Lys Ala Glu Ser Arg Arg
                                               190
                              185
           180
Ser Gly Leu Asn Ser Tyr Ser Ala Asp Asp Gly Trp Asp Pro Tyr Leu
                          200
       195
Glu Leu Thr Ala Ser Tyr Asn Phe Leu Gly Asp Trp Asn Val Tyr Gly
                     215
Thr Gly Arg Tyr Ile Arg Leu Ser Asp Glu Val Lys Asp Ser Pro Met
                   230
                                     235
Val Asp Lys Ser Trp Ser Gly Ile Phe Ser Val Gly Val Thr Tyr Lys
                                 250
               245
Phe
```

```
<210> 6178
<211> 61
<212> PRT
<213> Enterobacter cloacae
```

<400> 6178 Asn Val Asp Phe Leu Gln Gly Asp Phe Arg Asp Glu Leu Val Leu Lys 1.0 Ala Leu Leu Asp Arg Val Gly Asp Ser Lys Val Gln Val Val Met Ser 3.0 2.0 25

Asp Met Ala Pro Asn Met Cys Gly Asn Thr Gly Gly Gly Tyr Pro Pro 35 4.0

Arg His Val Ser Gly Gly Thr Ser Val Arg Asn Val Ser 55 5.0

```
<210> 6179
<211> 311
<212> PRT
<213> Enterobacter cloacae
```

<400> 6179 Ser Val Cys Leu Tyr Leu Lys Pro Trp Ser Leu Leu Arg Gly Phe Ser 10 Tyr Leu Phe Asn His Ile Asn Pro Arg Asp Phe Thr Met Lys Leu Phe 30

```
Ala Gln Asp Ser His Leu Asp Leu Thr His Pro His Val Met Gly Ile
 35
                     40
Leu Asn Val Thr Pro Asp Ser Phe Ser Asp Gly Gly Thr His Asn Ser
                 5.5
Leu Ile Asp Ala Val Lys His Ala Asn Leu Met Ile Asn Ala Gly Ala
               70
                               7.5
Thr Ile Ile Asp Val Gly Gly Glu Ser Thr Arg Pro Gly Ala Ala Glu
                         90
          85
Val Ser Val Glu Glu Glu Leu Ala Arg Val Val Pro Val Val Glu Ala
        100 105
Ile Ala Arg Arg Phe Glu Val Trp Ile Ser Val Asp Thr Ser Lys Pro
   115 120 125
Glu Val Ile Arg Glu Val Ala Arg Val Gly Ala His Ile Ile Asn Asp
       135 140
Ile Arg Ser Leu Thr Glu Pro Gly Ala Ile Glu Ala Ala Ala Glu Thr
              150 155
Gly Leu Pro Val Cys Leu Met His Met Gln Gly Gln Pro Lys Thr Met
      165 170 175
Gln Glu Ala Pro Lys Tyr Glu Asp Val Phe Ala Asp Val Thr Arg Phe
                185 190
        180
Phe Ile Glu His Ile Glu Arg Cys Glu Arg Ala Gly Ile Ala Lys Glu
195 200 205
Lys Leu Leu Leu Asp Pro Gly Phe Gly Phe Gly Lys Asn Leu Ser His
 210 215 220
Asn Tyr Ala Leu Leu Ala Arg Leu Ser Glu Phe His Gln Phe Gly Leu
             230 235
Pro Leu Leu Val Gly Met Ser Arg Lys Ser Met Ile Gly Gln Leu Leu
                         250 255
     245
Asn Val Gly Pro Ser Glu Arg Leu Ser Gly Ser Leu Ala Cys Ala Val
         260 265 270
Ile Ala Ala Met Gln Gly Ala His Ile Ile Arg Val His Asp Val Lys
275
                     280
                             285
Glu Thr Val Glu Ala Met Arg Val Val Glu Ala Thr Leu Ala Ala Lys
                  295
                                  300
 290
Glu Asn Lys Arg Tyr Glu
<210> 6180
<211> 96
<212> PRT
<213> Enterobacter cloacae
<400> 6180
Val Thr Val Arg Ser Arg Leu Ser Cys Arg Ile Trp Arg Gln Ile Cys
                            10
Val Glu Thr Pro Ala Val Asp Ile Pro Arg Ala Met Tyr Leu Val Glu
                         25
Leu Ala Leu Glu Met Cys Arg Asp Val Leu Ala Pro Gly Gly Ser Phe
                      4 0
Val Val Lys Val Phe Gln Gly Glu Gly Phe Glu Glu Tyr Leu Lys Glu
                 55
```

Ile Arg Ser Leu Phe Ala Lys Val Lys Val Arg Lys Pro Asp Ser Ser

Arg Ala Arg Ser Arg Glu Val Tyr Ile Val Ala Thr Gly Arg Lys

7.5

90

<sup>&</sup>lt;210> 6181

<sup>&</sup>lt;211> 653 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 6181
Tyr Glu Val Asn Pro Leu Ser Asp Met Ala Lys Asn Leu Ile Leu Trp
                       10
1
Leu Val Ile Ala Val Val Leu Met Ser Val Phe Gln Ser Phe Gly Pro
                25 30
Ser Glu Ser Asn Gly Arg Lys Val Asp Tyr Ser Thr Phe Leu Gln Glu
                 4.0
Val Asn Gln Asp Gln Val Arg Glu Ala Arg Ile Asn Gly Arg Glu Ile
 5.0
              5.5
Asn Val Thr Lys Lys Asp Ser Asn Arg Tyr Thr Thr Tyr Ile Pro Val
                         75
Asn Asp Pro Lys Leu Leu Asp Asn Leu Leu Thr Lys Asn Val Lys Val
               90
         8.5
Val Gly Glu Pro Pro Glu Glu Pro Ser Leu Leu Ala Ser Ile Phe Ile
      100 105
                         110
Ser Trp Phe Pro Met Leu Leu Leu Ile Gly Val Trp Ile Phe Phe Met
    115 120 125
Arg Gln Met Gln Gly Gly Gly Lys Gly Ala Met Ser Phe Gly Lys
  130 135
                              140
Ser Lys Ala Arg Met Leu Thr Glu Asp Gln Ile Lys Thr Thr Phe Ala
   150 155
Asp Val Ala Gly Cys Asp Glu Ala Lys Glu Glu Val Gly Glu Leu Val
      165 170
Glu Tyr Leu Arg Glu Pro Ser Arg Phe Gln Lys Leu Gly Gly Lys Ile
   180 185 190
Pro Lys Gly Val Leu Met Val Gly Pro Pro Gly Thr Gly Lys Thr Leu
195 200 205
Leu Ala Lys Ala Ile Ala Gly Glu Ala Lys Val Pro Phe Pne Thr Ile
210 215 220
Ser Gly Ser Asp Phe Val Glu Met Phe Val Gly Val Gly Ala Ser Arg
   230 235
Val Arg Asp Met Phe Glu Gln Ala Lys Lys Ala Ala Pro Cys Ile Ile
          245 250 255
Phe Ile Asp Glu Ile Asp Ala Val Gly Arg Gln Arg Gly Ala Gly Leu
       260 265 270
Gly Gly Gly His Asp Glu Arg Glu Gln Thr Leu Asn Gln Met Leu Val
   275 280 285
Glu Met Asp Gly Phe Glu Gly Asn Glu Gly Ile Ile Val Ile Ala Ala
 290 295 300
Thr Asn Arg Pro Asp Val Leu Asp Pro Ala Leu Leu Arg Pro Gly Arg
305 310 315 320
Phe Asp Arg Gln Val Val Val Gly Leu Pro Asp Val Arg Gly Arg Glu
       325 330 335
Gln Ile Leu Lys Val His Met Arg Arg Val Pro Leu Ala Pro Asp Ile
      340 345 350
Asp Ala Ala Ile Ile Ala Arg Gly Thr Pro Gly Phe Ser Gly Ala Asp
   355 360 365
Leu Ala Asn Leu Val Asn Glu Ala Ala Leu Phe Ala Ala Arg Gly Asn
 370 375 380
Lys Arq Val Val Ser Met Val Glu Phe Glu Lys Ala Lys Asp Lys Ile
      390 395 400
Met Met Gly Ala Glu Arg Arg Ser Met Val Met Thr Glu Ala Gln Lys
        405 410 415
Glu Ser Thr Ala Tyr His Glu Ala Gly His Ala Ile Ile Gly Arg Leu
       420
           425 430
Val Pro Glu His Asp Pro Val His Lys Val Thr Ile Ile Pro Arg Gly
 435 440 445
Arg Ala Leu Gly Val Thr Phe Phe Leu Pro Glu Gly Asp Ala Ile Ser
450 455 460
Ala Ser Arg Gln Lys Leu Glu Ser Gln Ile Ser Thr Leu Tyr Gly Gly
465 470 475
```

```
Arg Leu Ala Glu Glu Ile Ile Tyr Gly Ala Glu His Val Ser Thr Gly
            485
                             490
                                             495
Ala Ser Asn Asp Ile Lys Val Ala Thr Asn Leu Ala Arg Asn Met Val
         500
                         505
                                          510
Thr Gln Trp Gly Phe Ser Asp Lys Leu Gly Pro Leu Leu Tyr Ala Glu
                     520 525
Glu Glu Gly Glu Val Phe Leu Gly Arg Ser Val Ala Lys Ala Lys His
         535
 530
                                   540
Met Ser Asp Glu Thr Ala Arg Ile Ile Asp Gln Glu Val Lys Ala Leu
545
                                555
Ile Glu Arg Asn Tvr Ala Arg Ala Arg Gln Ile Leu Asn Asp Asn Met
            565
                             570
Asp Ile Leu His Ser Met Lys Asp Ala Leu Met Lys Tyr Glu Thr Ile
                         585
         580
                                          590
Asp Ala Pro Gln Ile Asp Asp Leu Met Ala Arg Arg Glu Val Arg Pro
      595
                     600
                                      605
Pro Ala Gly Trp Glu Asp Pro Gly Ala Ser Asn Asn Ser Asp Asn Asn
                   615
                         620
 610
Gly Thr Pro Arg Ala Pro Arg Pro Val Asp Glu Pro Arg Thr Pro Asn
                      635
625 630
Pro Gly Asn Thr Met Ser Glu Gln Leu Gly Asp Lys
            645
                    650
<210> 6182
<211> 375
<212> PRT
<213> Enterobacter cloacae
<400> 6182
Lys Pro Cys Val Trp Trp Lys Pro His Trp Gln Arg Arg Lys Thr Asn
                            10
Ala Met Ser Asn Arg Lys Tyr Phe Gly Thr Asp Gly Ile Arg Gly Arg
      20
                         2.5
Val Gly Asp Ala Pro Ile Thr Pro Asp Phe Val Leu Lys Leu Gly Trp
35
                     40
Ala Ala Gly Lys Val Leu Ala Arg His Gly Ser Arg Lys Ile Ile Ile
                   55
50
Gly Lys Asp Thr Arg Ile Ser Gly Tyr Met Leu Glu Ser Ala Leu Glu
              70
                                75
Ala Gly Leu Ala Ala Ala Gly Leu Ser Ala Ser Phe Thr Gly Pro Met
            8.5
                            90 95
Pro Thr Pro Ala Val Ala Tyr Leu Thr Arg Thr Phe Arg Ala Glu Ala
       100
                         105
Gly Ile Val Ile Ser Ala Ser His Asn Pro Phe Tyr Asp Asn Gly Ile
                      120
      115
                                      125
Lys Phe Phe Ser Ile Asp Gly Thr Lys Leu Pro Asp Asp Val Glu Glu
                  135
                                   140
Ala Ile Glu Ala Glu Met Giu Lys Glu Ile Thr Cys Val Asp Ser Ala
     150 155 160
Glu Leu Gly Lys Ala Asn Arg Ile Val Asp Ala Ala Gly Arg Tyr Ile
            165 170 175
Glu Phe Cys Lys Gly Thr Phe Pro Asn Glu Leu Ser Leu Ala His Leu
         180 185 190
Lys Ile Val Val Asp Cys Ala Asn Gly Ala Thr Tyr His Ile Ala Pro
      195 200
                                       205
Asn Val Phe Arg Glu Leu Gly Ala Lys Val Ile Thr Ile Gly Cys Glu
                  215
                                 220
Pro Asp Gly Leu Asn Ile Asn Glu Glu Val Gly Ala Thr Asp Val Arg
225 230 235
Ala Leu Gln Ala Arg Val Leu Ala Glu Lys Ala Asp Leu Gly Ile Ala
```

245

```
Leu Asp Gly Asp Gly Asp Arg Val Ile Met Val Asp His Glu Gly Asn
           260
                            265
 Lys Val Asp Gly Asp Gln Ile Leu Tyr Ile Ile Ala Arg Glu Gly Leu
        275
                         280
 Arg Gln Gly Gln Leu Arg Gly Gly Ala Val Gly Thr Leu Met Ser Asn
    290
               295
                                       300
 Met Gly Leu Glu Leu Ala Leu Lys Gln Leu Gly Ile Pro Phe Val Arg
 305
         310
                                    315
 Ala Lys Val Gly Asp Arg Tyr Val Leu Glu Lys Leu Gln Glu Lys Gly
              325
                                330
                                                  335
 Trp Arg Ile Gly Ala Glu Asn Ser Gly His Val Ile Leu Leu Asp Lys
          340 345
 Thr Thr Thr Gly Asp Gly Ile Val Ala Ala Leu His Phe Ser Leu Gly
    355 360
                                           365
 Val Ala Glu Pro Arg Ile Glu
   370
<210> 6183
<211> 726
 <212> PRT
<213> Enterobacter cloacae
<2200
<221>UNSURE
<222>(65)
<400> 6183
His Ala Ser Thr Gly Val Glu Asn Ser Pro Thr Pro Val Pro Ile Thr
                                10
Tyr Pro Ala Ser Gly Arg Leu Phe Phe Val Phe His Phe Phe Glu Leu
          20
                             25
Ser Val Asp Asn Ile Ile Val Phe Arg Val Val Arg Arg Ser Ile Ser
                         40
                                           4.5
Ala Arg Leu Leu Cys Val Leu Leu Ser Asp Phe His Gln Leu
                     55
                                       60
Xaa Arg Asn Leu Cys Gln Leu Leu His Leu Arg Phe Asp Val Arg Phe
                  70
                                    75
Val Phe Ala Phe Gln Arg Arg Phe Gln Arg Ala Gln Cys Ser Phe Asp
              85
                                90
Cys Ser Phe Val Phe Arg Trp Gln Phe Ile Ala Arg Phe Phe Asn Leu
          100
Leu Thr Gly Ala Val Gln Gln Met Val Thr Leu Val Thr Gly Leu Asn
       115
                         120
                                125
Gln Leu Phe Lys Leu Thr Val Gly Phe Arg Val Ser Phe Gly Ile Thr
        135
                                       140
Asn His Phe Phe Asp Phe Arg Phe Val Gln Ala Arg Arg Cys Leu Asp
145 150
                                 155
Gly Asn Leu Leu Phe Thr Ala Val Phe Val Phe Arg Arg His Val
                                170
              165
Gln Asp Thr Val Ser Ile Asp Val Glu Gly Asp Phe Asp Leu Trp His
          180
                            185
Ala Ala Trp Cys Arg Val Asn Thr Val Gln Val Glu Leu Thr Gln Arg
       195
                        200
                                       205
Phe Val Ile Arg Arg Ala Leu Thr Leu Thr Leu Asn His Met Asp Gly
   210
                     215
                                      220
Tyr Arg Arg Leu Val Val Phe Ser Gly Arg Glu His Leu Ala Val Phe
                 230
                                   235
Arg Arg Asp Ser Gly Val Phe Val Asp Glu Arg Ser His His Thr Ala
              245
                               250
His Gly Phe Asp Thr Gln Arg Gln Arg Gly Asn Val Gln Gln Gln Tyr
          260
                           265
```

```
Val Phe His Phe Thr Gly Gln Tyr Thr Thr Leu Asn Arg Ser Thr Asp
 275 280
Ser Asn Arg Phe Val Arg Val His Val Phe Thr Trp Leu Phe Thr Lys
         295 300
Glu Phe Ser His Phe Leu Leu Asn His Arg His Thr Ser Leu Thr Thr
   310 315 320
Tyr Gln Asp Asn Val Leu Asr Val Arg His Gly Gln Ala Ser Val Leu 325 330 335
Gln Cys Asn Phe Gln Trp Leu Asp Arg Thr Val His Gln Val Phe Tyr
        340 345 350
Gln Ala Phe Gln Phe Arg Thr Gly His Phe Asp Val His Val Phe Trp
     355 360 365
Thr Gly Arg Val Cys Ser Asp Val Arg Gln Val His Val Gly Leu Leu
370 375
                     380
Ser Gly Arg Gln Leu Asp Leu Arg Phe Leu Ser Gly Phe Phe Gln Ala
   390 395 400
Leu His Ser Gln Arg Val Val Thr Gln Val Asn Ala Leu Ile Phe Leu
      405 410 415
Glu Leu Val Asn Glu Val Val Asp Gln Tor Gly Ile Glu Val Phe Thr
      420
                       425 430
Thr Gln Val Gly Ile Thr Val Gly Cys Gln Asn Phe Glu Gly Phe Phe
435 44C 445
Ala Val Asn Ile Val Asp Phe Asp Asn Arg Asn Ile Glu Gly Thr Thr
      455 460
450
Thr Gln Val Val Asn Arg Asp Ser Thr Val Ala Asn Phe Phe Ile Gln
            470 475 480
Thr Val Ser Gln Cys Cys Cys Gly Trp Phe Val Asp Asp Thr Phe Tyr
          485
                          490 495
Phe Gln Ala Cys Asp Thr Ala Ser Ile Phe Gly Cys Leu Thr Leu Ser
       500 505 510
Ile Val Glu Val Ser Arg Tyr Gly Asp Asn Ser Phe Ser Tyr Arg Phe
                  520 525
515
Thr Gln Val Ile Phe Arg Ser Phe Leu His Phe Leu Gln His Phe Ser
530 535 540
Arg Asp Leu Arg Arg Cys Ser Pne Gly Ala Phe His Ile Lys Pro Cys
     550 555
Ile Ala Val Ile Gly Cys Asp Asp Phe Val Arg His Asp Gly Asn Val
      565 570 575
Thr Leu Asn Phe Phe Val Leu Glu Ala Ala Ala Asn Gln Ala Phe Asp 580 \hspace{1.5cm} 585 \hspace{1.5cm} 590 \hspace{1.5cm}
Arg Lys Gln Gly Val Leu Arg Val Cys His Cys Leu Thr Phe Ser Arg
    595 600 605
Leu Thr Asn Gln Ser Phe Thr Ile Leu Gly Ile Ser Asn Asp Arg Arg
610 615 620
Arg Gly Ala Ile Ala Leu Gly Val Leu Gln His Thr Cys Ser Ser Ala 625 \hspace{1.5cm} 630 \hspace{1.5cm} 635 \hspace{1.5cm} 640
Ile His Asn Arg Tyr Thr Arg Val Gly Ser Thr Gln Val Asp Thr Asn 645 650 655
Asn Phe Thr His Leu Asn Val Ser Thr Lys Asn Ser Val Asn Met Trp
 660 665 670
Leu Cys Thr Cys Asn Lys Gly Arg Thr Cys Phe Phe Asn Cys Pro Asp
 675 680 685
Leu Ile Phe Phe Arg Ser Thr His Cys Gly Cys Leu Gln Asp Gly Val
690 695 700
Thr Thr Ala Ser Ile Lys Gly Gly Arg Ile Lys Asn Phe Leu Ile Ser
705 710
                     715
Pro Pro Met Arg Ser
```

<212> PRT <213> Enterobacter cloacae

<400> 6184 Ser Gly Arg Tyr Arg Asp Tyr Arg Ala Val Leu His Gln Arg Ser Val 10 Arg Ser Val Ala Glu Arg Gly Gly Arg Gly Tyr Cys Gly Ala Gly Val 25 Ala Glu Arg Leu Gln Arg Pro Thr His Gly Asp Leu Tyr Ser Gly Gly 4.0 4.5 Asp Gly Ala Val Asp Gly Gly Ala Glu Val Trp Arg Ala Cys His Ala 5.5 Gly Gly Arg His Arg Trp Leu Leu Tyr Ser Ala Glu Gly Thr Gly Arg 70 75 8.0 Gln Ile Ala Cys Gln Thr Ala Gly Ala Cys Ala Ser Ser Val Gly Gly 85 90 Phe Tyr Asp Pro Ala Ala Val Cys Val Cys Gln Arg Gly Cys Phe Pro 100 105 Trp Pro Gly Val Thr Leu Asp Gly Leu Thr Ser Val Leu Pro Leu Gly 115 120 125 Ile Ile Ala Gly Leu Phe Ile Gly Lys Pro Leu Gly Ile Ser Leu Phe 130 135 140 Cys Trp Leu Ala Leu Lys Leu Lys Leu Ala Ser Leu Pro Asn Gly Thr 145 150 155 Thr Phe Ser Gln Ile Met Ala Val Gly Val Leu Cys Gly Ile Gly Phe 165 170 175 Thr Met Ser Ile Phe Ile Ser Thr Leu Ala Phe Gly Ala Ser Ala Pro 180 185 190 Glu Leu Ile Val Trp Ala Lys Leu Sly Ile Leu Ile Gly Ser Phe Leu 195 \$200\$Ala Ala Val Met Gly Tyr Thr Leu Leu Lys Val Lys Leu Ser Gly Gln 210 215

Ala Val Gln Thr

<210> 6185 <211> 638

<400> 6185

<212> PRT <213> Enterobacter cloacae

Met Gly Lys Ile Ile Gly Ile Asp Leu Gly Thr Thr Asn Ser Cys Val Ala Ile Met Asp Gly Thr Thr Ala Arg Val Leu Glu Asn Ala Glu Gly 20 Asp Arg Thr Thr Pro Ser Ile Ile Ala Tyr Thr Gln Asp Gly Glu Thr 35 4.0 Leu Val Gly Gln Pro Ala Lys Arg Gln Ala Val Thr Asn Pro Gln Asn 5.5 Thr Leu Phe Ala Ile Lys Arg Leu Ile Gly Arg Arg Phe Gln Asp Glu 65 7.0 Glu Val Gln Arg Asp Val Ser Ile Met Pro Tyr Lys Ile Ile Ala Ala 90 Asp Asn Gly Asp Ala Trp Leu Asp Val Lys Gly Thr Lys Thr Ala Pro 105 110 Pro Gln Ile Ser Ala Glu Val Leu Lys Lys Met Lys Lys Thr Ala Glu 115 120 125 Asp Tyr Leu Gly Glu Pro Val Thr Glu Ala Val Ile Thr Val Pro Ala

```
Ala Gly Leu Glu Val Lys Arg Ile Ile Asn Glu Pro Thr Ala Ala Ala
            165
                            170
Leu Ala Tyr Gly Leu Asp Lys Glu Val Gly Asn Arg Thr Ile Ala Val
          180
                         185
 Tyr Asp Leu Gly Gly Gly Thr Phe Asp Ile Ser Ile Ile Glu Ile Asp
      195
                          205
                      200
Asp Val Asp Gly Glu Lys Thr Phe Glu Val Leu Ala Thr Asn Gly Asp
                       220
Thr His Leu Gly Gly Glu Asp Phe Asp Thr Arg Leu Ile Asn Tyr Leu
               230 235 240
Val Asp Glu Phe Lys Lys Asp Gln Gly Ile Asp Leu Arg Asn Asp Pro
            245
                250 255
Leu Ala Met Gln Arg Leu Lys Glu Ala Ala Glu Lys Ala Lys Ile Glu
         260
             265 270
Leu Ser Ser Ala Gin Gin Thr Asp Val Ash Leu Pro Tyr Ile Thr Ala
      275 280 285
Asp Ala Thr Gly Pro Lys His Met Asn Ile Lys Val Thr Arg Ala Lys
        295 300
Leu Glu Ser Leu Val Glu Asp Leu Val Asn Arg Ser Ile Glu Pro Leu
        310 315
Lys Val Ala Leu Gln Asp Ala Gly Leu Ser Val Ser Asp Ile Gln Asp
           325 330
Val Ile Leu Val Gly Gly Gln Thr Arg Met Pro Met Val Gln Lys Lys
       340 345
                                        350
Val Ala Glu Phe Phe Gly Lys Glu Pro Arg Lys Asp Val Asn Pro Asp
 355 360
                                     365
Glu Ala Val Ala Ile Gly Ala Ala Val Gln Gly Gly Val Leu Thr Gly
 370 375 380
Glu Val Lys Asp Val Leu Leu Leu Asp Val Thr Pro Leu Ser Leu Gly
               390 395
Ile Glu Thr Met Gly Gly Val Met Thr Ala Leu Ile Asn Lys Asn Thr
       405
                           410
Thr Ile Pro Tnr Lys His Ser Gln Val Phe Ser Thr Ala Glu Asp Asn
         420
                        425
                                        430
Gln Ser Ala Val Thr Ile His Val Ile Gln Gly Glu Arg Lys Arg Ala
   435 440 445
Ala Asp Asn Lys Ser Leu Gly Gln Phe Asn Leu Asp Gly Ile Asn Pro
  450 455
                               460
Ala Pro Arg Gly Met Pro Gln Ile Glu Val Thr Phe Asp Ile Asp Ala
     470
                              475
Asp Gly Ile Leu His Val Ser Ala Lys Asp Lys Asn Ser Gly Lys Glu
           485
                           490
Gln Lys Ile Thr Ile Lys Ala Ser Ser Gly Leu Asn Glu Ala Glu Ile
         500
                        505
                                       510
Glu Lys Met Val Arg Asp Ala Glu Aia Asn Ala Glu Ser Asp Arg Lys
                     520
                            525
Phe Glu Glu Leu Val Gln Thr Arg Asn Gln Gly Asp His Leu Leu His
                  535
                                 540
Ser Thr Arg Lys Gln Val Glu Glu Ala Gly Asp Lys Leu Pro Ala Glu
              550
                              555
Asp Lys Thr Ala Ile Glu Thr Ala Leu Ser Ala Leu Glu Thr Ser Leu
           565
                           570
                                          575
Lys Gly Glu Asp Lys Ala Asp Ile Glu Ala Lys Met Gln Glu Leu Ala
        580
                        585
                                       590
Gln Val Ser Gln Lys Leu Met Glu Ile Ala Gln Gln Gln His Ala Gln
                     600
                                    605
Gln Gln Ala Gly Ala Asp Ala Ser Ala Asn Asn Ala Lys Asp Asp Asp
  610 615
Val Val Asp Ala Glu Phe Glu Glu Val Lys Asp Lys Lys
               630
                              635
```

```
<210> 6186
<211> 337
<212> PRT
<213> Enterobacter cloacae
<400> 6186
Ser Val Phe Thr Asp Leu Phe Ala Leu Ile Leu Trp Phe Tyr Arg Gly
                       1.0
Ile Val Val Lys Glu Ser Leu Asn Val Lys Leu Leu His Arg Phe Phe
         20
                           25
                                               30
Ser Ser Glu Ala Ser Gly Gly Val Ile Leu Ile Ile Ala Ala Ala Ala
   35
                        40
                                           4.5
Ala Met Leu Leu Ala Asn Met Gly Met Thr Arg Asp Leu Tyr His Ala
 50 55
                                       60
Phe Leu Glu Thr Pro Val Glu Leu Lys Val Gly Ala Leu Glu Ile Asn
                 7.0
                                 75
Lys Asn Met Leu Leu Trp Ile Asn Asp Ala Leu Met Ala Val Phe Phe
             8.5
                               90
Leu Leu Val Gly Leu Glu Val Lys Arg Glu Leu Val Ser Gly Ser Leu
          100
                         105
Ala Ser Arg Gln Arg Ala Ala Phe Pro Val Ile Ala Ala Ile Gly Gly
 115
                         120
                                           125
Met Ile Val Pro Ala Leu Leu Phe Leu Ala Phe Ala Trp Gln Asp Pro
 130
                     135
                                       140
Val Ala Arg Asp Gly Trp Ala Ile Pro Ala Ala Thr Asp Ile Ala Phe
                 150
                                   155
Ala Leu Gly Val Leu Ser Leu Leu Gly Ser Arg Val Pro Val Ala Leu
             165
                                170
                                                 175
Lys Ile Phe Leu Met Ala Leu Ala Ile Ile Asp Asp Leu Gly Ala Ile
          180
                            185
                                              190
Val Ile Ile Ala Leu Phe Tyr Thr Ser Asp Leu Ser Val Leu Ser Leu
                        200
                                           205
Ser Val Ala Ala Val Ala Ile Ala Val Leu Ala Leu Leu Asn Val Phe
                     213
Asn Val Arg Arg Thr Gly Ile Tyr Ile Leu Val Gly Met Val Leu Trp
               230
                                    235
                                                    240
Thr Ala Val Leu Lys Ser Gly Val His Ala Thr Leu Ala Gly Val Ile
             245
                                250
Val Gly Phe Phe Ile Pro Leu Lys Glu Gln Asp Gly Lys Ser Pro Ala
          260
                            265
                                             270
Arg Gln Leu Glu His Val Leu His Pro Trp Val Gly Phe Met Ile Leu
       275
                        280
                                          285
Pro Leu Phe Ala Phe Ala Asn Ala Gly Val Ser Pro Gly Pro Gly Leu
                     295
                                      300
Pro Trp Thr Asp Ser Pro Leu Cys Cys Arg Trp Val Ser Ser Pro Val
305 310
                                315
Cys Leu Leu Val Ser Arg Trp Ala Ser Ala Cys Ser Ala Gly Trp Arg
              325
                                330
```

```
<210> 6187
<211> 329
<212> PRT
<213> Enterobacter cloacae
```

```
Leu Asn Tyr Asn His Leu Tyr Tyr Phe Trp His Val Tyr Lys Gln Gly
                                  45
Ser Val Val Gly Ala Ala Glu Ala Leu Tyr Leu Thr Pro Gln Thr Ile
                   55
                                  60
Thr Gly Gln Ile Lys Ala Leu Glu Glu Arg Leu Gln Gly Lys Leu Phe
               70
                   7.5
Lys Arg Lys Gly Arg Gly Ile Glu Pro Ser Glu Leu Gly Glu Leu Val
            8.5
                 90
Phe Arg Tyr Ala Asp Lys Met Phe Thr Leu Ser Gln Glu Met Leu Asp
         100 105 110
Ile Val Asn Tyr Arg Lys Glu Leu Asn Leu Leu Phe Asp Val Gly Val
    115 120 125
Ala Asp Ala Leu Ser Lys Arg Leu Val Ser Gly Val Leu Asp Ala Ala
 130 135 140
Val Val Glu Asp Glu Gln Ile His Leu Arg Cys Phe Glu Ser Thr His 145 150 155 160
Glu Met Leu Leu Glu Gln Leu Ser Gln His Lys Leu Asp Met Ile Ile
      165 170
Ser Asp Cys Pro Ile Asp Ser Thr Gln Gln Glu Gly Leu Phe Ser Val
       180
                         185
                                      190
Lys Ile Gly Glu Cys Gly Val Ser Phe Trp Cys Ile Asn Pro Pro Pro
 195 200
                                   205
Glu Lys Pro Phe Pro Ala Cys Leu Glu Glu Arg Arg Leu Leu Val Pro
 210
                  215
                                  220
Gly Arg Arg Ser Met Leu Gly Arg Lys Leu Leu Asn Trp Phe Asn Ser
225 230
                               235
Gln Gly Leu Asn Val Glu Ile Leu Gly Glu Phe Asp Asp Ala Ala Leu
      245
                            250 255
Met Lys Ala Phe Gly Glu Ala His Asn Ala Ile Phe Val Ala Pro Thr
        260
                         265
Leu Tyr Val His Asp Leu Tyr Ser Asp Asp Lys Ile Thr Glu Ile Gly
                     280
Arg Val Asp Asn Val Met Glu Glu Tyr His Ala Ile Phe Ala Glu Arg
290 295
                                  300
Met Ile Gln His Pro Ala Val Gln Arg Ile Cys Asn Arg Asp Tyr Ser
305 310
                               315
Ala Leu Phe Thr Pro Pro Ala Ile
```

<210> 6188 <211> 372 <212> PRT <213> Enterobacter cloacae

325

<400> 6188 Ala Phe Arg Lys Leu Arg Lys Ser Val Lys Ser Lys Lys Ala Tyr Lys 10 Arg Leu Ala Met Lys Phe His Pro Asp Arg Asn Gln Gly Asp Lys Glu 20 25 Ala Glu Ala Lys Phe Lys Glu Ile Lys Glu Ala Tyr Glu Val Leu Thr 3.5 Asp Ala Gln Lys Arg Ala Ala Tyr Asp Gln Tyr Gly His Ala Ala Phe Glu Gln Gly Gly Met Gly Gly Gly Gly Phe Gly Gly Gly Phe Gly 65 70 7.5 Gly Gly Ala Asp Phe Ser Asp Ile Phe Gly Asp Val Phe Gly Asp Ile 90 Phe Gly Gly Arg Gly Arg Gln Arg Ala Ala Arg Gly Ala Asp Leu 105 100 Arg Tyr Asn Met Asp Leu Thr Leu Glu Glu Ala Val Arg Gly Val Thr 115

```
Lys Glu Ile Arg Ile Pro Thr Leu Glu Glu Cys Asp Val Cys His Gly
                    135
 Ser Gly Ala Lys Ala Gly Thr Gln Pro Gln Thr Cys Pro Thr Cys His
                 150
                                   155
 Gly Ser Gly Gln Val Gln Met Arg Gln Gly Phe Phe Ala Val Gln Gln
              165
                             170
 Ala Cys Pro His Cys His Gly Arg Gly Thr Leu Ile Lys Asp Pro Cys
          180
                            185
                                  190
 Thr Lys Cys His Gly His Gly Arg Val Glu Lys Thr Lys Thr Leu Ser
       195
                         200
                                205
 Val Lys Ile Pro Ala Gly Val Asp Thr Gly Asp Arg Ile Arg Leu Ala
  210
                     215
                             220
 Gly Glu Gly Glu Ala Gly Glu His Gly Ala Pro Ala Gly Asp Leu Tyr
                 230
                                  235
 Val Gln Val Gln Val Lys Gln His Ala Ile Phe Glu Arg Glu Gly Asn
              245
                            250 255
 Asn Leu Tyr Cys Glu Val Pro Ile Asn Phe Ala Met Ala Ala Leu Gly
          260
                           265 270
 Gly Glu Ile Glu Val Pro Thr Leu Asp Gly Arg Val Asn Leu Lys Ile
       275
                        280 285
 Pro Gly Glu Thr Gln Thr Gly Lys Leu Phe Arg Met Arg Gly Lys Gly
 290
                     295
                          300
 Val Lys Ser Val Arg Gly Gly Ala Gln Gly Asp Leu Leu Cys Arg Val
 305
                 310 315
Val Val Glu Thr Pro Val Gly Leu Asn Asp Lys Gln Lys Gln Leu Leu
             325 330
Lys Glu Leu Gln Glu Ser Phe Gly Gly Pro Thr Gly Glu Lys Asn Ser
       340 345 350
Pro Arg Ser Lys Ser Phe Phe Asp Gly Val Lys Lys Phe Phe Asp Asp
    355
              360
Leu Thr Ara
  370
<210> 6189
<211> 106
<212> PRT
<213> Enterobacter cloacae
<400> 6189
Arg Gly Ala Ser Gly Gly Ser Trp Ala Lys Val Leu Thr Thr Asp Gln
                              10
                                             15
Lys Arg Glu Ala Val Met Leu Met Cys Asp Ala Thr Gly Leu Ser Gln
         20
                           25
                                            3.0
Arg Arg Ala Cys Arg Leu Thr Ser Leu Ser Leu Ser Thr Cys Arg Tyr
    3.5
                       4.0
Glu Ala His Arg Pro Ala Ala Asp Ala His Leu Ser Gly Arg Ile Thr
                   5.5
                                     60
Glu Leu Ala Leu Glu Arg Arg Phe Gly Tyr Arg Arg Asn Leu Ala
65 70
                                 75
Asn Cys Cys Pro Val Lys Gly Phe Met Leu Ile Ile Ser Ala Gly Thr
          8.5
                                               95
Gly Phe Ile Thr Ser Val Ala Trp Ala
          100
<210> 6190
<211> 98
<212> PRT
<213> Enterobacter cloacae
<400> 6190
```

Cys Leu His Lys Pro His Glu Asp Ile Pro Met Lys Lys Arg Phe Ser

```
And the state of t
```

```
Asp Glu Gln Ile Ile Ser Ile Leu Arg Glu Ala Glu Ala Gly Val Pro
           20
 Ala Arg Glu Leu Cys Arg Lys His Ala Ile Ser Asp Ala Thr Phe Tyr
                         40
 Ile Trp Arg Lys Lys Tyr Gly Gly Met Glu Val Pro Glu Val Lys Arg
                                      60
 Leu Lys Ser Leu Glu Glu Glu Asn Ala Arg Leu Lys Lys Leu Leu Ala
                70
                              7.5
Glu Ala Met Leu Asp Lys Glu Ala Leu Gln Val Ala Leu Gly Arg Lys
 Tyr
<210> 6191
<211> 187
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<400> 6191
Lys Gly Trp Gln Gln Asn Xaa Cys Arg Cys Ser Val Pro Ala Ala Pro
           5
Asn Leu Thr Trp Ser Met Asp Phe Val Met Asp Ala Leu Ser Thr Gly
          20
Arg Arg Ile Lys Cys Leu Thr Cys Val Asp Asp Phe Thr Lys Glu Cys
 35
                  4.0
                                        4.5
Leu Thr Val Thr Val Ala Phe Gly Ile Ser Gly Val Gln Val Thr Arg
 50
                  55
                                      60
Ile Leu Asp Ser Ile Ala Leu Phe Arg Gly Tyr Pro Ala Thr Ile Arg
                 70
                                                     80
Thr Asp Gln Gly Pro Glu Phe Thr Cys Arg Ala Leu Asp Gln Tro Ala
             85
Phe Glu His Gly Val Glu Leu Arg Leu Ile Gln Pro Gly Lys Pro Thr
  100
                            105
Gln Asn Gly Phe Ile Glu Ser Phe Asn Gly Arg Phe Arg Asp Glu Cys
 115
                        120
Leu Asn Glu His Trp Phe Ser Asp Ile Val His Ala Arg Lys Ile Ile
 130 135
                                      140
Asn Asp Trp Arg Gln Asp Tyr Asn Glu Cys Arg Pro His Ser Thr Leu
145 150
                                 155
Asn Tyr Gln Thr Pro Ser Glu Phe Ala Ala Gly Trp Arg Lys Gly His
     165 170
Ser Glu Asn Glu Asp Ser Asp Val Thr Asn
         180
<210> 6192
<211> 806
<212> PRT
<213> Enterobacter cloacae
<400> 6192
Gly Thr Gly Asn Trp Leu Gln Asn Cys Asn Val Glu Thr Ser Lys Lys
                             10
Thr Val Thr Thr His Tyr Pro Asp Tyr Lys Glu Phe Tyr Cys Asn Ser
Pro Lys Gln Asp Asn Phe Ser Ser Cys Thr Ile Thr Arg Asp Phe Ser
                        4.0
```

Val Pro Val Tyr Ile Ser Gly Gly Asn Gly Asp Met Ser Met Cys Gly Asp Asn Cys Val Arg Ile Trp Phe Gly Arg Arg Asp Asp Asn Tyr Trp 70 75 Ser Asp Gly Val Tyr Asp Asn Glu Leu Thr Leu Lys Phe His Pro Asp 85 90 Ala Lys Leu Ala Ser Ala Lys Ile Val Asn Ala Glu Trp Asp Asp His 100 105 110 Met Arg Val Thr Leu Asp Gly Thr Gln Ile Phe Ala His Ile Asp Gly 115 120 125 Ala Tyr Arg Glu Ser Asp Tyr Pro Ala Pro Lys Gly Ser Trp Glu Leu 135 140 Lys Lys Ser Trp Lys Leu Asp Lys Val Tyr Asp Val Thr Asp Lys Val 150 155 160 Arg Lys Ser Val Tyr Glu Glu Pro Asp Arg Glu Val Thr Met Ala Ser 165 170 175 Arg Val Trp Val Gly Gly Lys Gly Glu Gly Tyr Phe Glu Val Glu Leu 180 185 190 Thr Phe Glu Asn Met Lys Leu Glu Asp Lys His Val Gln Glu Pro Ala 195 200 205 Gly Cys Tyr Asp Ala Val Gln Ala Pro Asn Thr Phe Cys Arg Phe Asp 210 215 220 Arg Phe Lys Asp Met Asp Val Gly Thr Lys Arg Leu Pro Glu Ser Val 225 230 235 Leu Ser Leu Ala Lys Pro Leu Tyr Glu Gly Asp Lys Gly Phe Leu Thr 245 250 255 Trp Lys Thr Asn Leu Glu Gly Tyr Phe Cys Asp Pro Leu Ala Lys Asp 260 265 270 Lys Ile Cys Ser Tyr Asp Ala Ser Gly Lys Ile Met Lys Asp Ala Asn 275 280 285 Gly Lys Asp Leu Cys Tyr Asn Tyr Glu Glu Ile Lys Ser Met Pro Asp 290 295 300 Ala Cys Ser Ala Tyr Lys Asn Asp Ala Ala Cys Val Leu Asp Lys Gln 305 310 315 Thr Cys Ala Glu Gly Trp Phe Asp Glu Gly Thr Asn Ser Cys Tyr Met 325 330 335 Tyr Glu Gln Lys Tyr Thr Cys Asp Arg Gly Lys Asp Val Val Arg Glu 340 345 Val Glu Ser Ser Thr Asn Ala Cys Val Gly Met Ile Pro Cys Ser Gly 355 360 365 Gly Thr Cys Glu Thr Gly Pro Lys Glu Glu Asn Asn Asp Phe Gly Lys 370 375 380 Val Ala Ala Tyr Ser Asn Met Val Gln Tyr Met Gln Gly Glu Ala Lys 385 390 395 Cys Glu Asp Pro Asn Asp Ala Asn Ser Cys Ser Val Phe Glu Gly Lys 405 41C Pro Glu Trp Cys Gly Arg Ser Val Gly Phe Val Asn Gly Leu Ala Lys 420 425 Thr Asp Cys Cys Glu Ala Pro Gln Gly Thr Ala Gly Ala Leu Glu Gly 440 Ile Met Leu Ala Gly Ser Met Ile Arg Asn Thr Asn Trp Thr Arg Val 455 Asn Ala Gln Leu Ile Lys Trp Thr Gly Gly Asp Thr Gly Thr Trp Ala 470 475 Ser Met Ser Asn Ala Val Gly Glu Trp Thr Ala Ser Ala Gly Lys Thr 485 490 495 Val Gly Gln Met Trp Asn Asn Val Thr Ser Ser Leu Thr Ser Val Tyr 500 505 510 Glu Asn Val Ala Gly Asn Leu Ser Arg Ala Val Gly Ser Ser Ala Thr 515 520 Ser Gly Gly Ala Gly Gly Ala Gly Gln Leu Ala Gln Glu Thr Met Ser

```
540
Ser Phe Gly Ile Gly Gln Leu Lys Gln Met Ala Met Lys Lys Ala Tyr
              550
                     555 560
Glu Leu Leu Pro Asp Thr Val Arg Asp Phe Val Phe Lys Asn Val Ala
           565
                  570 575
Thr Thr Gly Gly Glu Val Val Phe Ser Ala Ala Val Gln Asn Phe Met
        580
               585 590
Leu Ala Leu Asn Val Ile Gly Trp Ile Tyr Thr Ala Tyr Gln Val Thr
   595
            600 605
Lys Met Leu Leu Glu Met Leu Val Ala Cys Asp Gln Lys Glu Met Glu
         615 620
Ala Ser Ile His Lys Asn Gln Lys Ser Cys Phe Thr Leu Asp Thr Glu
      630 635
Arg Cys Val Lys Tyr Leu Asn Val Gly Phe Thr Lys Lys Cys Val Lys
         645 650 655
Lys Ala Thr Asp Met Cys Cys Tyr Asn Ser Met Leu Ser Arg Val Ile
       660 665 670
Met Gln Gln Ala Tyr Pro Gln Leu Gly Ile Asp Pro Val Ala Ser Asn
    675 680 685
Cys Val Gly Leu Ser Ile Lys Gln Ile Gln Gln Leu Asp Phe Asp Lys
 690 695
                               700
Ile Asp Leu Thr Glu Trp Ile Asn Asp Ala Val Gln Val Gly Glu Val
705 710 715
Pro Asp Gln Tyr Ser Lys Phe Ser Glu Glu Ser Ile Val Glu Asn Leu
      725 730 735
Pro Phe Gln Asn Glu Asn Tyr Gln Leu Pro Ser Glu Arg Thr Lys Glu
      740 745 750
Ala Met Gly Gly Glu Glu Asn Met Ile Lys Ala Arg Gln Glu Asn Ala
 755 760 765
Gln Ala Ile Lys Glu Glu Asn Val Asp Cys Ser Tyr Leu Pro Arg Pro
770 775
                               780
Ala Ile Cys Glu Val Gly Ser Thr Thr Leu Asp Pro Val Thr Gly Lys
                            795
Gln Leu Pro Lys Tyr
```

<210> 6193 <211> 560 <212> PRT

<213> Enterobacter cloacae

<400> 6193 Leu Leu Lys Arg Ser Asn Glu Val Glu Met Gly Lys Pro Thr Glu Glu 10 Gln Arg Pro Val Ile Glu Asn Ala Ser Ala Asn Asn Met Val Ile Ala 25 Ala Pro Gly Ser Gly Lys Ser Phe Thr Met Ile Glu Ala Val Ile Ser 40 4.5 Ile Leu Lys Lys Tyr Pro Tyr Ala Arg Ile Gly Met Val Thr Phe Thr 55 Arg Ala Ala Thr Asn Ala Leu Ala Ala Lys Leu Gln Lys Arg Leu Ser 70 75 Lys Lys Asp Leu Asp Arg Val Leu Val Asp Thr Phe His Gly Leu Val 85 90 Lys Lys Gln Leu Asp Met Ile Arg Trp Pro Gly Lys Met Leu Ile Gly 100 Pro Ala Gln Arg Ser Val Ile His Arg Ala Leu Lys Glu Ser Gly Val 115 125 120 Thr Met Lys Phe Ala Glu Ala Glu Phe Val Ile Asp Ala Ile Gly Arg 135 140 Glu Met Asp Thr Asp Val Ile Ser Val Arg His Asn Arg Gln Gln Ile

```
150
His Leu Phe Asn Thr Tyr Gln Ala Leu Cys Gln Lys Asp His Val Ala
       165 170 175
Asp Leu Asn Ala Leu Ser Lys Phe Val Val Gly Gln Met His Ser Gly
    180 185 190
Lys Met Arg Thr Leu Asp Leu Thr His Leu Ile Val Asp Glu Val Gln
  195 200 205
Asp Thr Asp Ser Ile Gln Phe Ser Trp Ile Ala Leu His Thr Arg Ala
 210 215 220
Gly Val Tyr Thr Ser Ile Val Gly Asp Asp Asp Gln Ala Ile Tyr Ser
225 230 235
Phe Arg Ser Ser Gly Gly Val Lys Ile Phe Gln Gln Phe Glu Lys His
       245 250 255
Phe Arg Pro Asn Ile Phe Tyr Leu Asn Thr Cys Phe Arg Cys Glu Pro
       260 265
Glu Ile Leu Glu Val Ala Gly Ala Leu Ile Gly Lys Asn Val Tyr Arg
                     280
Tyr Ala Lys Glu Leu Arg Ser Ala Lys Lys Gly Gly Gly Lys Val Thr
 290 295
                                  300
Phe Arg Ser Tyr Val Asp Met Glu Glu Gln Ile Gln Gly Ile Leu Ser
305 310
                               315
Leu Ile Asn Gln Asp Pro His Gly Trp Ala Ile Leu Ser Arg Asn Asn
           325
                            330
Ala His Leu Asp Glu Leu Glu Ser Leu Ile Glu Gln Pro Val Ile Arg
      340 345
                                        350
Tyr Gly Gly Lys Ser Phe Trp Asp Glu Lys Glu Thr Ser Asp Val Leu
 355 360
                             365
Ser Leu Met Ala Phe Phe Arg Gln Ser Asn Asp Pro Arg Leu Met Lys
       375
 370
                                  380
Arg Val Leu Ala Leu Phe Gly Glu Gln Glu Ser Val Leu Asp Glu Val
385 390
                               395
Ala Leu Ser Met Arg Gly Arg Lys Val Thr Phe Gly Asp Leu Ala Ile
            405
                            410 415
Pro Glu Asp Ser Ser Leu Glu Thr Lys Thr Leu His Ser Asn Phe Val
         420
                         425
Arg Phe Thr Gln Glu Ser Ser Asp Lys Val Glu Ile Ala Lys Arg Phe
 435
                     440
Ala Asn Leu Thr Lys Trp Met Glu Ser Ser Ser Ile Lys Met Arg Ser
                  455
                                  460
Asn Lys Gly Thr Ala Thr Leu Thr Lys Ile Ala Leu Asp Thr Cys Lys
            470
                            475
Gln Trp Ala Glu Lys Thr Gly Trp Met Asn Met Ile Asn Arg Ala Ala
                490 495
           485
Ala Met Ser Leu Gly Pro Arg Lys Lys Asp Glu Glu Tyr Ser Pro Glu
         500
                       505 510
Lys Val Val Leu Ser Thr Leu His Gly Ser Lys Gly Leu Glu Trp Asn
      515
                     520
Lys Val Ile Ile Met Ser Cys Asn Ala Asp Gln Ile Pro Ser Lys Arg
                      540
                  535
Ser Val Gly Glu Glu Ala Ile Lys Lys Glu Arg Arg Leu Leu Tyr Val
<210> 6194
<211> 107
<212> PRT
<213> Enterobacter cloacae
<400> 6194
Leu Lys Val Tyr Leu Met Lys Lys Thr Thr Ser Arg Lys Ala Ala Arg
                        10
```

Arg Pro Ala Lys His Thr Asp Leu Tyr Arg Gln Ile Thr Asp Arg Ile

```
25
Val Val Ala Leu Glu Asn Gly Val Ala Pro Trp Arg Lys Pro Trp Arg
       35
                         40
Ala Ala Ala Gly Ser Gly Leu Ala Gly Leu Pro Leu Asn Ala Thr Thr
                     55
Gly Arg His Tyr Ser Gly Val Asn Val Leu Leu Leu Trp Met Ser Ala
               70
                       75
Glu Glu Gln Gly Phe Arg Asn Asn Arg Trp Leu Thr Tyr Arg Gln Ala
           85 90
Gln Pro Gly Arg Arg Pro Gly Ala Lys Gly
           100
<210> 6195
<211> 300
<212> PRT
<213> Enterobacter cloacae
<400> 6195
Met Ser Arg Phe Ser Lys Gln Leu Cys Lys Gln Leu Val Thr Leu Ala
                                 10
Arg Gln Gly Arg Gly Ser Tyr Lys Thr Val Ala Asp Arg Ser Arg Ile
  20
                          25
Ala Glu Arg Phe Ser Glu Arg Leu Ser Glu Leu Asn Ile Gln Ile Arg
 35
                        40
Asp Val Lys His Ile Lys Thr Ser His Ile Glu Lys Tyr Ile Glu Ser
                   5.5
Arg Lys Ala Asp Asn Leu Ser Leu Arg Thr Leu Gln Asn Glu Met Ser
65 70
                                    75
Ala Ile Arg Ser Val Leu Leu Ser Ala Gly Arg Asn Lys Leu Ala Asp
             8.5
                                90
Pro Ser His Ile Asn Leu Ser Asn Gln Ala Leu Gly Ile Ser Gly Ala
          100 105
                                               110
Asn Arg Asp Gly Thr Lys Leu Pro Ile Thr Asp Glu Lys Leu Asn Ala
                  120
115
                                        125
Val Val Ser Phe Ala Gln Arg Lys Asp Glu Gly Val Ala Leu Ala Val
                     135
                                        140
Gln Leu Ser Arg Tyr Leu Gly Leu Arg Thr Gln Lys Thr Val Gln Ser
                 150
                                    155
Ala Lys Ser Leu Lys Thr Trp Arg Gln Ala Leu Ile Asn Asn His Glu
              165
                                170
Arg Val Arg Val Val Phe Gly Thr Lys Gly Gly Arg Pro Arg Glu Thr
          180
                             185
                                           190
Thr Val Phe Asn Arg Glu Lys Val Leu Ser Ile Leu Asp Lys Ala Ile
       195
                         200
                                        205
His Tyr Val Ser Glu His Asn Gly Lys Leu Ile Asp Asn Pro Ser Leu
   210
                     215
                                       220
His Ser Ala Ile Asp Arg Tyr Arg Asn Ile Val Arg Glu Ala Gly Met
                  230
                                   235
Asn Gly Lys Asn Ala Pro His Ser Leu Arg Tyr Ala Tyr Ser Arg Asp
              245
                                250
Ala Val Asn His His Ile Lys Asn Gly Met Ser Arg Asp Glu Ala Glu
                                              270
                            265
Ala Leu Val Ser Met Asp Leu Gly His Gly Asp Gly Arg Gly Arg Tyr
   275
                      280
Ile Lys Gln Val Tyr Phe Arg Gly Glu Ala Glu
   290
                     295
<210> 6196
<211> 243
<212> PRT
```

<213> Enterobacter cloacae

```
<400> 6196
Leu Thr Gly Arg Arg Ser Gln Ala Gly Gly Gln Val Arg Lys Gly Glu
                               1.0
Lys Ala Tnr Leu Ala Val Val Tyr Lys Asp Trp Thr Lys Gln Ala Glu
        20
                           25
Asp Arg Glu Gly Asn Arg Leu Tyr Asp Ser Asp Gly Lys Pro Leu Thr
       35
                     4.0
Glu Thr Val Pro Met Leu Lys Pro Leu Gln Leu Phe Asn Ala Glu Gln
          55
Cys Glu Gly Leu Pro Ala Glu Val Ala Ala Ser Pro Glu Gln Pro Pro
              70 75
                                                   80
Ala Val Asp Glu Asp Gly Ile Leu Ser Pro Asp Val Met Asp Arg Val
          85
                              90
Leu Arg Met Val Asn Ala Thr Gly Val Lys His Arg Met Leu Pro Gln
       100
                          105
                                             110
Asn Arg Ala Tyr Tyr Arg Pro Leu Thr Asp Glu Ile Val Met Pro Val
      115
                        120
Ala Gly Gln Phe Phe Thr Glu Ala Asp Trp Trp Ser Thr Leu Leu His
                    135
                                      140
Glu Leu Val His Ser Thr Gly His Thr Lys Arg Leu Asn Arg Glu Gly
145 150
                                  155
Ile Thr Ser Ser Ser Arg Gln Phe Gly Asp Pro Val Tyr Ala Phe Glu
             165
                              170
                                             175
Glu Leu Ile Ala Glu Met Gly Ser Ala Phe Leu Cys Ala Gln Leu Gly
                           185
                                             190
Val Ser Gly Glu Val Gln His Asp Ser Tyr Val Asp His Trp Leu Lys
                       200
Val Leu Lys Ser Asp Lys Lys Ala Leu Phe Arg Ala Cys Arg His Ala
 210 215
                                     220
Arg Glu Ala Ser Glu Tyr Leu Leu Ala Leu Pro Gly Arg Gln Thr Val
                230
                                  235
Ala Ala
```

```
<210> 6197
<211> 64
<212> PRT
<213> Enterobacter cloacae
<400> 6197
Glu Tyr Phe Ala Asp Arg Gln Leu Arg Gly Glu Asp Ile Gln Glu Leu
1 5 10
```

20 25 30 30 Arg Lys Ser Asn Phe Val Val Thr Cys Ala Leu Ala Asn Lys Leu Ala 35 40 45 Arg Ile Ala Trp Ala Leu Thr Ala Arg Gln Gln Thr Tyr Val Ala 50 55 60

1 5 10 15 Glu His Gln Ser Gly Lys Leu Ala Asp Trp Val Arg Asp Leu Leu Cys

<211> 160 <212> PRT <213> Enterobacter cloacae

<210> 6198

<400> 6198 Arg Asn Asp Ile Asp Phe Gly Leu Glu Leu Ala Thr Thr Ser Ser Thr 1 5 10 15 Arg Ser Gly His Gly Leu Pro Leu Val Ala Leu Gly Ala Gly Lys Arg 20 25 30 Leu Thr Met Gln Asn Arg Gly Glu Leu Phe His Lys Val Val Val Val

```
Gln Phe Gln Phe Val His Ala Leu Val Gln Thr Val Val Arg His Tyr
                                      60
Arg Arg Asn Cys Gly Glu Gln Thr Asp Cys Gly Arg Asp Gln Cys Phe
                  7.0
                                 75
Cys Asp Thr Arg Cys Asn His Leu Gln Arg Cys Leu Leu His Arg Pro
                         90
Gln Gly Asp Lys Gly Val His Asp Pro Pro His Arg Thr Lys Gln Ala
          100
                   105 110
Asp Ile Arg Ala Asp Gly Ala Asn Gly Ser Glu Glu Arg Asn Met Arg
     115
              120
                                125
Phe Lys Ile Phe Gln Phe Ala Val His Gly Asp Ala His Arg Thr Arg
 130
          135 140
Arg Pro Phe Tyr His Gly Phe Arg Arg Met Ala Val Ser Ala Met
<210> 6199
<211> 150
<212> PRT
<213> Enterobacter cloacae
<400> 6199
Arg Ser Leu Lys Ala Pro Thr Phe Leu Val Leu Pro Gly Cys Lys Val
                               10
Asn Thr Thr Leu Phe Arg Trp Pro Val Arg Val Tyr Tyr Glu Asp Thr
 20
                        25
Asp Ala Gly Gly Val Val Tyr His Ala Ser Tyr Val Ala Phe Tyr Glu
35
Arg Ala Arg Thr Glu Met Leu Arg His His His Phe Ser Gln Gln Val
50 55
Leu Leu Ala Glu Arg Val Ala Phe Val Val Arg Lys Met Thr Leu Glu
                 7.0
Tyr Phe Ala Pro Ala Arg Leu Asp Asp Met Leu Glu Val Gln Thr Glu
        85
                               90
Ile Thr Ser Met Arg Gly Thr Ser Leu Val Phe Thr Gln Arg Ile Val
                           105
                                             110
Asn Ala Glu Asn Thr Val Leu Asn Ser Ala Glu Val Leu Ile Val Cys
 115 120 125
Val Asp Pro Thr Ile Met Lys Pro Arg Ala Leu Pro Lys Ser Ile Val
 130
                    135
Ala Glu Phe Lys Gln
<210> 6200
<211> 376
<212> PRT
<213> Enterobacter cloacae
<400> 6200
Leu Ser Leu Phe Asp His Leu Arg Ser Phe Trp Glu Pro Ile Val Ser
                               10
Lys Ala Thr Glu Gln Asn Asp Lys Leu Lys Arg Ala Ile Ile Val Ser
          20
Ala Val Leu His Val Phe Leu Phe Ala Ala Leu Ile Trp Ser Ser Phe
      35
                        40
Asp Glu His Leu Asp Ala Ser Gly Gly Asp Gly Gly Ser Ser Ile Asp
 50
                    55
Ala Val Met Val Asp Pro Gly Ala Val Val Gln Asn Tyr Asn Arg Gln
                7.0
Gln Gln Gln Ala Ser Ala Lys Arg Ala Glu Glu Gln Arg Glu Lys
```

90

8.5

```
Gln Ala Gln Gln Gln Ala Glu Glu Leu Arg Glu Lys Gln Ala Ala Glu
        100
                       105
                              110
Gln Glu Arg Leu Lys Gln Leu Glu Lys Glu Arg Leu Gln Ala Gln Glu
     115
               120
                          125
Ala Ala Lys Glu Gln Ala Glu Gln Gln Lys Gln Ala Glu Ala Ala Ala
      135 140
Lys Lys Ala Gln Glu Gln Gln Lys Gln Ala Glu Glu Ala Ala Lys
145
    150 155
Ala Ala Ala Asp Ala Lys Ala Gln Ala Asp Ala Gln Ala Lys Leu Ala
      165 170 175
Ala Glu Ala Ala Lys Lys Ala Ala Ala Asp Ala Gln Lys Lys Ala Glu
      180 185 190
Ala Glu Ala Ala Lys Lys Ala Ala Ala Asp Ala Lys Lys Ala Glu
 195 200 205
Ala Glu Ala Ala Lys Lys Ala Ala Ala Asp Ala Gln Lys Lys Ala Glu
 210
                215
                                 220
Ala Glu Ala Ala Lys Lys Ala Ala Gln Glu Ala Glu Lys Lys Ala Ala
225
              230
                              235
Ala Asp Ala Ala Lys Lys Ala Ala Ala Ala Glu Lys Ala Ala Ala Glu
           245
                           250
Lys Ala Ala Ala Glu Lys Aia Ala Ala Glu Lys Lys Ala Ala Ala
        260
                       265
                            270
Glu Lys Ala Ala Ala Asp Lys Lys Ala Ala Ala Glu Lys Ala Ala Ala
   275
                    280
                           285
Lys Lys Ala Ala Ala Ala Glu Lys Ala Ala Ala Ala Gly Val Asp Asp
 290 295
                                 300
Leu Leu Gly Asp Leu Ser Ser Gly Lys Asn Ala Pro Lys Thr Gly Gly
              310
                        315
Gly Ala Lys Gly Ser Asn Ala Ala Pro Ala Gly Ser Gly Asn Thr Lys
           325
                           330 335
Asn Asn Gly Ala Ser Gly Ala Glu Ile Asn Asp Tyr Lys Asn Gln Ile
        340
                       345
                                    350
Ala Ala Ile Ala Ser Arg Leu Asn Asp Lys Ser Val Leu His Arg
355 360
Arg Gly Trp Lys Glu Glu Pro Ser
```

370 <210> 6201 <211> 505 <212> PRT

130

<213> Enterobacter cloacae

<400> 6201 Arg Phe Leu Phe Val Pro Leu Thr Leu Gly Met Ala Phe Leu Leu Ala 5 10 Ile Met Glu Thr Val Tyr Val Leu Ser Gly Lys Gln Ile Tyr Lys Asp 25 Met Thr Lys Phe Trp Gly Lys Leu Phe Gly Ile Asn Phe Ala Leu Gly 35 40 Val Ala Thr Gly Leu Thr Met Glu Phe Glr Phe Gly Thr Asn Trp Ser 60 55 Tyr Tyr Ser His Tyr Val Gly Asp Ile Phe Gly Ala Pro Leu Ala Ile 65 7.0 75 Glu Gly Leu Met Ala Phe Phe Leu Glu Ser Thr Phe Val Gly Leu Phe 90 Phe Phe Gly Trp Asp Arg Leu Gly Lys Val Gln His Met Ala Val Thr 100 105 110 Trp Leu Val Ala Leu Gly Ser Asn Leu Ser Ala Leu Trp Ile Leu Val 115 120 Ala Asn Gly Trp Met Gln Asn Pro Ile Ala Ser Asp Phe Asn Phe Glu

375

```
Thr Met Arg Met Glu Met Val Ser Phe Ala Glu Leu Val Leu Asn Pro
 145
               150
                         155
Val Ala Gln Val Lys Phe Val His Thr Val Ala Ser Gly Tyr Val Cys
              165 170
                                                  175
Gly Ala Met Phe Val Leu Gly Ile Ser Ser Tyr Tyr Met Leu Arg Gly
        180 185
                                              190
Arg Asp Phe Ala Phe Ala Lys Arg Ser Phe Ala Ile Ala Ala Ser Phe
    195 200
                                           205
Gly Met Ala Ala Ile Leu Ser Val Ile Val Leu Gly Asp Glu Ser Gly
  210 215
                                       220
Tyr Glu Met Gly Asp Val Gln Lys Thr Lys Leu Ala Ala Ile Glu Ala
225
                 230
                                  235
Glu Trp Glu Thr Gin Pro Ala Pro Ala Ala Phe Thr Leu Phe Gly Val
              245
                               250
                                                  255
Pro Asp Gln Glu Ala Gln Glu Asn Arg Phe Ala Ile Gln Ile Pro Tyr
          260
                           265
                                              270
Ala Leu Gly Ile Ile Ala Thr Arg Ser Val Asp Lys Gln Val Thr Gly
                         280
Leu Lys Asp Leu Met Val Gln His Glu Glu Arg Ile Arg Asn Gly Met
                     295
                                       300
Lys Ala Tyr Ser Leu Leu Glu Gln Leu Arg Ala Gly Ser Thr Asp Gln
                 310
                                   315
Ala Val Arg Asp Gln Phe Asn Asp Val Lys Lys Asp Leu Gly Tyr Gly
              325
                               330
                                                 335
Leu Leu Leu Lys Arg Tyr Thr Pro Asn Val Ser Asp Ala Thr Glu Ala
          340
                            345
                                       350
Gln Ile Gln Met Ala Thr Lys Asp Ser Ile Pro Arg Val Ala Pro Leu
       355
                         360
                                          365
Tyr Phe Ala Phe Arg Ile Met Val Gly Cys Gly Ile Ile Met Leu Leu
 370
                                      380
Ile Ile Ala Ala Ser Phe Trp Ser Val Ile Arg Asn Arg Ile Gly Glu
                 390
                                   395
Lys Lys Trp Leu Leu Arg Thr Ala Leu Tyr Gly Ile Pro Leu Pro Trp
             405
                               410
Ile Ala Ile Glu Ser Gly Trp Phe Val Ala Glu Tyr Gly Arg Gln Pro
          420
                            425
                                             430
Trp Ala Ile Gly Glu Val Leu Pro Thr Ala Val Ala Asn Ser Ser Leu
       435
                        440
                                          445
Thr Ala Gly Asp Leu Ile Phe Ser Met Leu Leu Ile Cys Gly Leu Tyr
   450
                     455
                                      460
Thr Leu Phe Leu Val Ala Glu Leu Phe Leu Met Phe Lys Phe Ala Arg
                 470
                                  475
Leu Gly Pro Ser Ser Leu Lys Thr Gly Arg Tyr His Tyr Glu Gln Ser
             485
                               490
Val Ala Thr Thr Gln Pro Ala Arg
<210> 6202
<211> 385
<212> PRT
<213> Enterobacter cloacae
<400> 6202
Asp Arg Ser His Gln Met Ile Asp Tyr Glu Val Leu Arg Phe Ile Trp
                              10
```

<400> 6202
Asp Arg Ser His Gln Met Ile Asp Tyr Glu Val Leu Arg Phe Ile Trp 1
Trp Leu Leu Ile Gly Val Leu Leu Ile Gly Phe Ala Val Trr Asp Gly 20 25 30
Phe Asp Met Gly Val Gly Met Leu Thr Arg Phe Leu Gly Arg Asn Asp 45
Thr Glu Arg Arg Ile Met Ile Asn Ser Ile Ala Pro His Trp Asp Gly 50
50

```
Asn Gln Val Trp Leu Ile Thr Ala Gly Gly Ala Leu Phe Ala Ala Trp
Pro Met Val Tyr Ala Ala Ala Phe Ser Gly Phe Tyr Val Ala Met Ile
            85
                           90
Leu Val Leu Ala Ser Leu Phe Phe Arg Pro Val Gly Phe Asp Tyr Arg
         100
                  105
Ser Lys Ile Glu Asp Thr Arg Trp Arg Asn Met Trp Asp Trp Gly Ile
      115
                     120
                                    125
Phe Ile Gly Ser Phe Val Pro Pro Leu Val Ile Gly Val Ala Phe Gly
                 135 140
Asn Leu Leu Gln Gly Val Pro Phe His Val Asp Glu Tyr Met Arg Leu
      150 155
145
Phe Tyr Thr Gly Asn Phe Phe Gln Leu Leu Asn Pro Phe Gly Leu Leu
          165 170 175
Ala Gly Val Val Ser Val Ala Met Ile Ile Thr Gln Gly Ala Thr Tyr
       180 185 190
Leu Gln Met Arg Thr Val Gly Glu Leu His Leu Arg Ser Arg Ala Thr
 195 200 205
Ala Gln Val Ala Ala Leu Val Thr Leu Val Cys Phe Ala Leu Ala Gly
 210 215 220
Val Trp Val Val Tyr Gly Ile Asp Gly Tyr Val Val Thr Ser Ala Ile
225
   230 235
Asn His Thr Ala Pro Ser Asn Pro Leu Tar Lys Glu Val Ala Arg Gln
         245 250
Ala Gly Ala Trp Leu Val Asn Phe Asn Asn Thr Pro Ala Leu Trp Ala
        260 265
                                       270
Ile Pro Ala Leu Gly Val Leu Leu Pro Leu Leu Thr Val Leu Thr Ser
 275 280 285
Arg Leu Glu Lys Gly Ala Leu Ala Phe Val Phe Ser Ser Leu Thr Leu
290 295 300
Ala Cys Ile Ile Leu Thr Ala Gly Ile Ala Met Phe Pro Phe Val Met
305 310 315
Pro Ser Ser Thr Met Met Asn Ala Ser Leu Thr Met Trp Asp Ala Thr
     325
                          330
Ser Ser Gln Leu Thr Leu Asn Leu Met Thr Tyr Val Ala Cys Val Phe
                       345
Val Pro Ile Ile Leu Leu Tyr Thr Thr Trp Cys Tyr Trp Lys Met Phe
 355 360
                                    365
Gly Arg Ile Thr Lys Glu His Ile Glu Ser Asn Thr His Ser Met Tyr
                                 380
```

385

<210> 6203 <211> 101 <212> PRT

<213> Enterobacter cloacae

<400> 6203

Arg Lys Ala Leu Met Asn Ile Ile Ala Thr Leu Tyr Ala Val Met Asp 10 Lys Arg Pro Leu Arg Ala Leu Ser Leu Ile Met Ala Leu Leu Leu Ala 20 25 Gly Cys Ile Phe Trp Asp Pro Ser Arg Phe Ala Ala Lys Thr Ser Glu 35 4.0 Leu Glu Ile Trp His Gly Phe Leu Ile Met Trp Ala Val Cys Ala Gly 5.0 Val Ile His Gly Val Gly Phe Arg Pro Lys Ala Leu His Trp Gln Gly 70 75 Ile Phe Cys Pro Leu Ile Ala Asp Leu Val Leu Leu Ala Gly Leu Ile 85 9.0

Phe Phe Phe Phe <210> 6204 <211> 232 <212> PRT <213> Enterobacter cloacae <400> 6204 Ala Val Thr Asp Met Asn Ile Leu Asp Leu Phe Leu Lys Ala Ser Leu Leu Val Lys Leu Ile Met Leu Ile Leu Ile Gly Phe Ser Ile Ala Ser 25 Trp Ala Ile Ile Ile Gln Arg Thr Arg Ile Leu Asn Ala Ala Gly Arg 40 Glu Ala Glu Ala Phe Glu Asp Lys Phe Trp Ser Gly Ile Glu Leu Ser 5.5 Arg Leu Tyr Gln Glu Ser Gln Gly Arg Arg Asp Asn Leu Ser Gly Ser 75 7.0 Glu Gln Ile Phe Tyr Ser Gly Phe Lys Glu Phe Ala Arg Leu His Arg 90 8.5 Ala Asn Ser His Ala Pro Glu Ala Val Val Glu Gly Ala Ser Arg Ala 100 105 110 Met Arg Ile Ser Met Asn Arg Glu Leu Glu Asn Leu Glu Thr His Ile 115 120 125 Pro Phe Leu Gly Thr Val Gly Ser Ile Ser Pro Tyr Ile Gly Leu Phe 130 135 140 Gly Thr Val Trp Gly Ile Met His Ala Phe Ile Ala Leu Gly Ala Val 145 150 155 160 Lys Gln Ala Thr Leu Gln Met Val Ala Pro Gly Ile Ala Glu Ala Leu 165 170 175 Ile Ala Thr Ala Ile Gly Leu Phe Ala Ala Ile Pro Ala Val Met Ala 180 185 190 Tyr Asn Arg Leu Asn Gln Arg Val Asn Lys Leu Glu Leu Asn Tyr Asp 195 200 205 Asn Phe Met Glu Glu Phe Thr Ala Ile Leu His Arg Gln Ala Phe Thr 210 215 Ser Thr Glu Ser Asn Lys Gly <210> 6205 <211> 144 <212> PRT <213> Enterobacter cloacae <400> 6205 Thr Met Ala Arg Ser Arg Gly Arg Gly Arg Arg Glu Leu Lys Ser Glu Ile Asn Ile Val Pro Leu Leu Asp Val Leu Leu Val Leu Leu Ile 20 25 Phe Met Ala Thr Ala Pro Ile Ile Thr Gln Ser Val Glu Val Asp Leu 35 4.0 Pro Asp Ala Thr Glu Ser Gln Ala Val Ser Thr Asn Asp Asp Pro Pro 55 Val Ile Ile Glu Val Ser Gly Val Gly Gln Tyr Ser Val Val Glu 70 75 Lys Asp Arg Met Asp Gln Leu Pro Pro Glu Gln Val Ile Ala Glu Ala 85 90 Gln Arg Arg Leu Glu Ser Asn Pro Lys Thr Val Phe Leu Ile Gly Gly 105 Ala Lys Asp Val Pro Tyr Asp Glu Ile Ile Lys Ala Leu Asn Leu Leu

```
2454
      115
His Ser Ala Gly Val Lys Ser Val Gly Leu Met Thr Gln Pro Ile
   130
                   135
<210> 6206
<211> 301
<212> PRT
<213> Enterobacter cloacae
<400> 6206
Leu Thr Gln Tyr His Val Ile Arg Asp Pro Arg Glu His Ile Leu Asn
                             1.0
Arg Leu Pro Ser Ser Ala Ser Ala Leu Ala Cys Thr Ala His Ala Leu
20
                                          3.0
Asn Leu Ile Glu Lys Arg Thr Leu Asp His Glu Glu Met Lys Gln Leu
                      40
Asn Arg Glu Val Ile Asp Tyr Phe Lys Glu His Val Asn Pro Gly Phe
5.0
                   55
                                    60
Leu Glu Tyr Arg Lys Ser Val Thr Ala Gly Gly Asp Tyr Gly Ala Val
                7.0
                                 75
                                                8.0
Glu Trp Gln Ala Gly Ser Leu Asn Thr Leu Val Asp Thr Gln Gly Gln
                             90
            85
Glu Phe Ile Asp Cys Leu Gly Gly Phe Gly Ile Phe Asn Val Gly His
         100
                         105
                                110
Arg Asn Pro Val Val Val Ser Ala Val Gln Asn Gln Leu Ala Lys Gln
115
                      120
                             125
Pro Leu His Ser Gln Glu Leu Leu Asp Pro Leu Arg Ala Met Leu Ala
130
                   135
                                   140
Lys Thr Leu Ala Ala Leu Thr Pro Gly Lys Leu Lys Tyr Ser Phe Phe
145
               150
                                155
                                                 160
Ser Asn Ser Gly Thr Glu Ser Val Glu Ala Ala Ile Lys Leu Ala Lys
             165
                             170
                                            175
Ala Tyr Gln Ser Pro Arg Gly Lys Phe Thr Phe Ile Ala Thr Ser Gly
        180
                         185
                                          190
Ala Phe His Gly Lys Ser Leu Gly Ala Leu Ser Ala Thr Ala Lys Ser
      195 200
                                       205
Thr Phe Arg Lys Pro Phe Met Pro Leu Leu Pro Gly Phe Arg His Val
 210 215 220
Pro Phe Gly Asp Ile Asn Ala Met Arg Thr Met Leu Gly Glu Cys Arg
              230
                               235
Lys Thr Gly Asp Asp Val Ala Ala Val Ile Leu Glu Pro Ile Gln Gly
            245 250 255
Glu Gly Gly Val Ile Leu Pro Pro Gln Gly Tyr Leu Pro Ala Val Arg
         260 265 270
Gln Leu Cys Asp Glu Phe Gly Ala Leu Leu Ile Leu Asp Glu Val Gln
    275 280 285
Thr Arg Asp Gly Ala His Arg Gln Asp Val Arg Leu
  290
                   295
<210> 6207
<211> 192
<212> PRT
<213> Enterobacter cloacae
<400> 6207
Ser Ser Thr Lys Cys Lys Pro Gly Met Gly Arg Thr Gly Lys Met Phe
                             10
Ala Cys Glu His Glu Asn Val Gln Pro Asp Ile Leu Cys Leu Ala Lys
       20
                    25
                                    30
```

Ala Leu Gly Gly Gly Val Met Pro Ile Gly Ala Thr Val Ala Thr Glu

4.0

```
Glu Val Phe Ser Val Leu Phe Asp Asn Pro Phe Leu His Thr Thr Thr
                55
Phe Gly Gly Asn Pro Leu Ala Cys Ala Ala Ala Leu Ala Thr Ile Asn
            70
                      75
Val Leu Leu Glu Gln Asn Leu Pro Ala Gln Ala Glu Gln Lys Gly Asp
         85 90
Met Leu Leu Asp Gly Phe Arg Gln Leu Gly Arg Glu Tyr Pro Asp Leu
         100
                           105
                                             110
Val Gln Asp Ala Arg Gly Lys Gly Met Leu Met Ala Ile Glu Phe Val
     115 120 125
Asp Asn Glu Thr Gly Tyr Ser Phe Ala Ser Glu Met Phe Arg Gln Arg
                  135
                                      140
Val Leu Val Ala Gly Thr Leu Asn Asn Ser Lys Thr Ile Arg Ile Glu
145 150 155
Pro Pro Leu Thr Leu Thr Ile Glu Gln Cys Glu Gln Val Leu Lys Ala
        165
                  170 175
Ala Arg Lys Ala Leu Ala Ala Leu Arg Val Ser Val Glu Glu Ala
                           185
<210> 6208
<211> 202
<212> PRT
<213> Enterobacter cloacae
<400> 6208
Pro Met Thr Asp Lys Val Asn Ile Met Thr Asp Ala Gly Ala Asp Val
                               10
Ala Gln Val Ser Leu Ala Val Ala Asn Arg Ile Arg Ser Trp Arg Lys
         20
Glu Lys Lys Leu Ser Leu Asp Glu Leu Ser Arg Arg Ala Ser Val Ser
 3.5
                        4.0
Lys Gly Met Leu Val Glu Ile Glu Lys Gly Ala Ala Asn Pro Ser Ile
5.0
                    55
                                      60
Ala Ile Leu Cys Lys Leu Ala Ala Ala Leu Gly Val Ser Val Ala Asp
           70
                                   7.5
Ile Val Asn Val Ser Ser Glu Pro Gln Ile His Ile Ile Arg Glu Glu
             85
                               90
Ala Ile Pro Val Leu Trp Gln Gly Ala Gln Gly Gly Tyr Ala Arg Leu
          100
                           105
Leu Ala Gly Thr Ala Gly Pro Asp Met Ile Glu Leu Trp Gln Trp Glu
      115
                        120
                             125
Met His Pro Gly Glu Thr Phe Thr Ser Pro Gly His Pro Ala Gly Thr
                    135
                                     140
Phe Glu Leu Leu His Val Asn Glu Gly Met Leu Thr Leu Thr Val Asp
145
                 150
                                 155
Glu Thr Val Thr Gln Val Ala Ala Gly Ala Ser Ala Val Ala Lys Thr
             165
                               170
Glu Ala Ala His Gly Tyr Ala Asn Glu Ser Asp Thr Val Leu Arg Phe
          180
                           185
Thr Met Thr Val Ala Glu Phe His Arg
      195
<210> 6209
<211> 138
<212> PRT
<213> Enterobacter cloacae
```

<400> 6209

Ile Leu Asn Ser Ser Glu Gln Thr Val Asn Leu Gly Gln Tyr Arg Thr I 5 10 15 Ala Lys Phe Thr Lys Val Gly Asp Thr Thr Ser Asn Ile Pro Phe Thr

```
2.5
Ile Glu Leu Asn Asp Cys Asp Pro Ala Val Ala Lys Thr Ala Ala Val
    35
                   40
Ala Phe Thr Gly Gln Ile Asp Ala Thr Asp Lys Thr Leu Leu Ala Val
  50
                  55
Ser Ser Gly Asn Asn Asp Asn Ser Ala Lys Gly Val Gly Ile Glu Ile
         70
                                  75
Leu Asp Ser Lys Ser Ser Thr Leu Thr Pro Asp Gly Ala Thr Phe Ser
             85 90
Ala Ala Gln Asn Leu Ile Glu Gly Thr Asn Thr Leu Asn Phe Thr Ala
         100 105
Arg Tyr Lys Ala Thr Ala Ala Thr Thr Glu Pro Gly Gln Ala Asn Ala
       115 120
Asp Ala Thr Phe Val Met Lys Tyr Glu
<210> 6210
<211> 204
<212> PRT
<213> Enterobacter cloacae
<400> 6210
Cys Leu Ser Thr Gly Met Trp Leu Ala Ser Gly Lys Arg Ser Phe Asp
Arg Leu Tyr Arg Glu Arg Arg Met Thr Arg Thr Gly Ile Leu Leu Cys
          20
Ala Leu Ala Ile Ala Pro Ala Val Asn Ala His Thr Val Val Ile Asp
                      4.0
Gly Gly Lys Val His Leu Arg Gly Glu Leu Val Asn Gly Gly Cys Ala
 5.0
                    5.5
                                      60
Val Ala Pro Asp Ser Gln Asn Met Arg Val Asp Met Gly Gln Tyr Arg
             70
                                   75
Thr Asn Ala Phe Ser Gly Val Gly Ser Phe Ser Thr Val Asn Val Pro
            8.5
                               90
Phe Thr Val Arg Leu Leu Asp Cys Ser Val Asp Val Ser Arg Thr Val
          100
                            105
Gly Ile Gln Phe Gln Gly Val Thr Pro Ala Glu Asp Pro Gln Val Phe
Leu Ala Thr Ser Arg Pro Gly Glu Asn Ala Val Ser Ser Gly Val Gly
  130
                  135
                         140
Leu Ala Leu Phe Asp Glu Gln Gln Arg Gln Ile Ile Pro Asn Ala Thr
                150
                     155
Ala Val Ser Trp Leu Pro Ile Asn Thr Arg Glu Leu Val Phe His Phe
             165
                  170 175
Ser Ala Arg Tyr Arg Ala Ile Ser Glu His Leu Val Pro Glv Thr Ile
         180 185
Gln Ser Asn Val Trp Phe Thr Leu Ile Tyr Pro
      195
<210> 6211
<211> 862
<212> PRT
<213> Enterobacter cloacae
<400> 6211
Arg Gln Pro Val Ser Arg Asp Arg Ala Met Asn Thr Gln Trp Arg Tyr
                           10
Cys Pro Val Ala Leu Ala Leu Met Ala Thr Leu Trp Pro Leu Ala Gly
       20
                     25
```

Trp Gly Glu Ser Tyr Phe Asn Pro Ala Phe Leu Ser Asp Asp Thr Ala 40

Asn Val Ala Asp Leu Ser Arg Phe Glu Lys Gly His Gln Gln Ala Pro Gly Val Tyr Arg Val Asp Ile Trp Arg Asn Asp Glu Phe Ile Gly Thr 7.0 75 Gln Asp Val Arg Phe Glu Gln Ala Asp Asn Thr Pro Pro Val Ala Gly 8.5 90 95 Gly Leu Ser Pro Cys Ile Thr Arg Ala Met Leu Asp Arg Phe Gly Val 100 105 Asn Ile Ala Ala Phe Pro Glu Leu Ser Asn Val Gln Gly Asp Thr Cys 115 120 125 Val Pro Leu Thr Thr Ala Ile Pro Gly Ser Glu Ala Ala Phe Asn Phe 130 135 140 Ala Ser Leu Arg Leu Asn Val Ser Leu Pro Gln Val Ala Met Gln Asn 150 155 Ser Ala Arg Gly Tyr Ile Pro Pro Glu Gln Trp Asp Glu Gly Ile Pro 165 170 Ala Ala Leu Leu Asn Tyr Ser Phe Thr Gly Asn Arg Gly Ser Asp Asp 180 185 190 Asp Ser Tyr Tyr Leu Asn Leu Gln Ser Gly Leu Asn Tyr Gly Ala Trp 195 200 205 Arg Leu Arg Asn Asn Gly Ala Trp Arg Tyr Thr Glu Ser Asn Gly Gln 210 215 220 Arg His Ser Ser Trp Gln Asn Ile Gly Thr Trp Ala Gln Arg Thr Ile 225 230 235 Ile Pro Leu Lys Ser Glu Leu Val Leu Gly Asp Ser Asn Thr Gly Asn 245 250 Asp Val Phe Asp Ser Val Gly Phe Arg Gly Gly Arg Leu Tyr Ser Ser 260 265 270 Asp Ser Met Tyr Pro Asp Ser Leu Gln Gly Tyr Ala Pro Thr Val Arg 275 280 285 Gly Ile Ala Arg Thr Pro Ala Lys Val Val Ile Arg Gln Asn Gly Tyr 290 295 300 Val Ile Tyr Gln Ser Tyr Val Gln Pro Gly Ala Phe Ala Ile Thr Asp 305 310 315 Leu Asn Pro Thr Ser Ser Ser Gly Asp Leu Glu Val Thr Val Glu Glu 325 330 Lys Asp Gly Ser Gln Gln Arg Tyr Thr Val Pro Tyr Ser Thr Val Pro 340 345 Leu Leu Gln Arg Glu Gly Arg Trp Lys Tyr Asp Leu Val Ala Gly Asp 360 365 Tyr Arg Ser Gly Asn Ser Glu Gln Asp Thr Pro Phe Phe Thr Gln Gly 375 Thr Met Ile Ala Gly Leu Ala Asp Gly Tyr Thr Leu Tyr Gly Gly Thr 390 395 Gln Leu Ala Ser Arg Tyr Thr Ala Ile Ala Ile Gly Ala Gly Lys Asn 405 410 Leu Gly Asp Trp Gly Ala Val Ser Leu Asp Leu Thr His Ala Arg Ser 420 425 430 Gln Leu Ala Asp Asp Ser Arg His Glu Gly Gln Ser Leu Arg Phe Leu 440 445 Tyr Ala Lys Ser Leu Asn Gly Phe Gly Thr Asn Phe Gln Leu Leu Gly 455 460 Tyr Arg Tyr Ser Thr Lys Gly Phe Tyr Thr Leu Asp Asp Val Ala Trp 470 475 Arg Thr Met Glu Gly Tyr Gln Tyr Gly Asp Asp Gln Asp Asp Asp Gly 485 490 Val Pro Asp Val Gln Ser Tyr His Asn Leu Thr Leu Asn Lys Lys Gly 500 505 510 Arg Phe Gln Leu Asn Ile Ser Gln Ser Leu Gly Asp Tyr Gly Ser Val 515 520 Tyr Val Ser Gly Ser Gln Gln Asn Tyr Trp Gly Thr Ser Glu Ser Asn

```
535
Val Trp Tyr Gln Leu Gly Tyr Ala Gly Gly Val Lys Gly Val Ser Tyr
         550
                    555 560
Ala Leu Ser Trp Ser Trp Asn Lys Ala Val Gly Ile Asp Gly Thr Asp
           565 570 575
Arg Ile Ala Ser Phe Asn Val Ser Val Pro Phe Ser Leu Phe Thr Arg
       580 585 590
His Gly Tyr Arg Arg Asp Asn Ala Ile Asp Arg Ala Tyr Ala Thr Ala
     595
         600 605
Ser Ala Ser Arg Asn Ser Asp Gly Asp Thr Ser Trp Gln Thr Gly Ile
      615 620
Ser Gly Thr Leu Leu Lys Asp Arg Asn Leu Asn Tyr Ser Val Thr Gln
    630 635
Gly His Thr Ser Asn Asn Gly Ala Ser Gly Ser Ala Ser Ala Asn Trp
        645 650 655
Gln Ala Thr Tyr Gly Thr Leu Gly Val Gly Tyr Asn Tyr Thr Arg Asp
      660 665 670
Gln His Asp Leu Asn Trp Gln Leu Ser Gly Gly Val Val Gly His Ser
 675 680 685
Asp Gly Ile Thr Phe Ser Gln Pro Leu Gly Asp Thr Asn Val Leu Ile
690 700
Lys Ala Pro Gly Ala Ser Gly Val Ser Val Glu Asn Gln Thr Gly Val
705 710 715
Lys Thr Asp Trp Arg Gly Tyr Ala Val Met Pro Tyr Ala Thr Val Tyr
     725 730 735
Arg Tyr Asn Arg Val Ala Leu Asp Thr Asn Thr Met Ser Asn Asn Thr
   740 745 750
Asp Ile Glu Asn Asn Val Ser Ser Val Val Pro Thr Asn Gly Ala Leu
  755 760 765
Val Arg Ala Ser Phe Asp Thr Arg Ile Gly Val Arg Ala Leu Leu Thr
770 775
                            780
Val Lys Arg Asp Asn Gln Pro Val Pro Phe Gly Ala Val Val Arg Glu
785 790 795
Thr Gln Ser Gly Val Thr Ser Met Val Gly Asp Asp Gly Gln Ile Tyr
     805 810 815
Leu Ser Gly Leu Pro Leu Ser Gly Glu Leu Leu Ile Gln Trp Gly Asp
 820 825 830
Gly Lys Gln Ser Gln Cys Arg Ala Pro Tyr Ser Leu Pro Glu Gln Ser
 835 840 845
Leu Gln Gln Ala Ile Thr Leu Lys Gly Ile Arg Cys Glu
```

<210> 6212 <211> 246 <212> PRT

<213> Enterobacter cloacae

<400> 6212

```
100
                          105
Pro Ala Leu Pro Ala Asp Arg Glu Ser Leu Phe Tyr Met Asn Val Lys
      115
                  120
                              125
Ala Ile Pro Ser Val Ser Lys Lys His Gln Asp Gly Asn Asn Val Leu
                 135
                          140
Gln Leu Ala Ile Leu Ser Arg Ile Lys Leu Phe Val Arg Pro Ala Asn
             150 155
Leu Ala Met Pro Pro Glu Glu Ala Leu Ser Gln Leu Arg Phe Glu Arg
          165 170 175
Val Gly Asn His Leu Lys Val Ser Asn Ala Ser Pro Tyr Tyr Val Thr
      180 185 190
Leu Val Asn Leu Lys Leu Gly Gly Gln Thr Leu Asp Asn Leu Met Val
    195 200
Ala Pro Lys Ser Ser Ala Gln Gln Val Leu Pro Ala Ala Thr Ser Gly
 210 215 220
Thr Leu Ser Trp Gln Ser Val Asn Asp Tyr Gly Ala Ile Thr Pro Ala
225 230
                              235
Arg Ser Val Ser Leu
             245
<210> 6213
<211> 368
<212> PRT
<213> Enterobacter cloacae
<400> 6213
Phe Ser Gly Glu Thr Gly Ser Ser Pro Ser Val Val Arg Pro Thr Ala
                           10
Cys Gln Asn Arg Ala Cys Asn Arg Arg Ser His Leu Arg Gly Ser Ala
 20
                         25
                                          30
Val Asn Lys Ile His Tyr Leu Gly Leu Ser Leu Leu Ala Phe Leu Pro
35
                    40
                                      4.5
Leu Ser Gln Ala Phe Ala Thr Val Cys Val Asn Glu Asn Gly Val Pro
50 55
                          60
Thr Glu Val Tyr Tyr Asp Leu Thr Asp Lys Phe Asn Ser Ser Asn Asn
               70
                                75
Gln Val Gly Gln Ile Val Thr Leu Ser Glu Lys Ser Gln Trp Val Gly
            85
                             90
Val Asn Ala Val Cys Pro Lys Gly Thr Ser Gly Asn Thr Thr Lys Arg
         100
                         105 110
Ser Tyr Val Thr Asp Tyr Pro Val Thr Gly Thr Ser Asp Gly Tyr Gln
                      120
                                      125
Tyr Leu Lys Leu Asn Asp Tyr Leu Asp Gly Ala Met Lys Ile Thr Asp
  130 135
                                    140
Ser Tyr Ala Gly Thr Phe Tyr Pro Pro Arg Lys Tyr Ile Gln Met Gly
               150
                                155
Ser His Pro Asn Val Ser Lys Asn Lys Pro Phe Gly Val Gln Asp Ser
          165
                            170
                                      175
Ser Leu Val Phe Arg Leu Lys Val Thr Arg Arg Phe Ile Asn Met Val
         180
                          185
                                        190
Val Ile Pro Arg Ala Thr Met Phe Arg Val Tyr Val Thr Thr Ser
    195
                      200
                                       205
Ser Asp Pro Leu Thr Thr Pro Val Tyr Thr Ile Ser Tyr Ser Gly Thr
  210
                   215
                                    220
Ile Gln Val Pro Gln Ser Cys Glu Ile Asn Ala Gly Asn Val Val Glu
               230
                                235
                                                240
Phe Asp Phe Gly Asp Ile Gly Ala Ser Leu Phe Ser Lys Ala Gly Ile
            245
                            250
                                             255
Gly Asn Lys Pro Glu Gly Ile Ser Ala Gln Ser Lys Thr Ile Gly Ile
         260
                    265
Lys Cys Thr Asn Val Glu Ala Asn Ala Met Leu Thr Met Arg Val Glu
```

```
280
                                          285
 Ala Glu Lys Val Ser Gly Ser Thr Leu Val Ser Asp Asn Ala Asp Val
   290
              295
                           300
 Gly Phe Val Ile Ala Asn Ser Asn Gly Val Pro Leu Thr Pro Asn Asn
         310 315
 Leu Thr Ser Lys Ile Pro Phe Arg Leu Asp Asp Ser Ala Gln Ala Gln
           325 330 335
Val Gly Ile Arg Ala Trp Pro Val Ser Val Thr Gly Lys Lys Pro Ala
         340 345 350
 Glu Gly Arg Phe Thr Ser Arg Gly Tyr Leu Arg Val Asp Tyr Asp
                         360
<210> 6214
<211> 80
<212> PRT
<213> Enterobacter cloacae
<400> 6214
Thr Tyr Phe Leu Phe Pro Asn Met Arg Gly Lys Gly Tyr Leu His Phe
                                10
Lys Gly Ile Asp Met Lys Leu Ser Asn Ile Ala Ser Thr Val Ile Ala
                            25
Thr Leu Ala Leu Val Ala Gly Ala Ala His Ala Glu Asp Pro Val Ala
                        40
Pro Val Ser Val Asn Gly Gly Tor Val His Phe Lys Gly Glu Leu Val
50 55
                                       60
Asn Ala Ala Cys Ser Val Asn Thr Glu Leu Phe Arg Ala Asp Gly
                7.0
<210> 6215
<211> 166
<212> PRT
<213> Enterobacter cloacae
<400> 6215
Pro Ser Arg Cys Pne Ala Leu Cys Ser Pro Ala His Ala Glu Met Ala
           5
                             10
Leu Gly Glu Ile Asn Ile Gln Leu Tyr Gly Asn Ile Val Asp Phe Thr
         20
                            25
Cys Val Ala Glu Gly Asp Asp Ser Asn Lys Thr Val Thr Ile Gly Thr
 3.5
                        40
Trp Pro Thr Lys Gln Leu Arg Thr Thr Gly Ser Arg Thr Gln Pro Val
                   55
Leu Phe Thr Leu Lys Leu Thr Gly Cys Pro Pro Gly Ala Ala Ser Val
                 7.0
Thr Phe Thr Gly Lys Met Asp Gly His Asp Asn Ser Leu Leu Ala Leu
             85
                                90
Asn Asp Ala Ser Ala Ala Ser Asn Val Ser Val Glu Ile Leu Asp Arg
          100
                                           110
Asp Lys Thr Arg Leu Ala Leu Gin Gln Ala Ser Gln Thr Val Ala Val
       115
                        120
Asp Ala Gln Gly Asn Ala Glu Leu Ser Phe Tyr Ala Asn Tyr Ile Ala
  130
       135
                                      140
Thr Ala Asp Asn Pro Gln Pro Gly Arg Ala Asp Ala Asp Ala Thr Phe
145 150
Met Ile Asn Tyr Asn
              165
<210> 6216
```

<210> 621 <211> 167 <212> PRT

## <213> Enterobacter cloacae

<400> 6216 Arg Tyr Leu Arg Ile Phe Pro Arg Leu Ile Pro Leu Phe Ser Asp Leu 10 Asn Gln Leu Leu Ser Ser Arg Leu Val Val Asn Ile Glu Thr Arg Ala 20 25 Ser Pro Ile Ile Asp Leu Leu Asp Arg Leu Arg Arg His Ser Leu Leu 4.0 Ala Pro Tyr Leu Thr Pro Tyr Met Phe Phe Arg Ala Asp Asp Tyr Asp 55 Ala Arg Leu Phe Cys Lys Ala Ala Gly Pro Phe His Val Leu Ala Arg 7.0 7.5 Gln Leu Thr Ala Leu Asp Met Gln Gln Thr Leu Met Glu Ala Pro Ala 85 90 Pro Ala Gly Asn Arg Lys Glu Trp Phe Ser Arg Asp Glu Trp Pro Ile 100 105 Leu Gln Ala Leu Ser Gln Gly Ser Ser Leu Arg Gln Ile Ala Gln Leu 115 120 Gln Asn Arg Pro Tyr Ser Cys Ile Ile Tyr Ser Leu Ser Cys Ile Leu 135 140 Ala Lys Leu Gly Leu Asn Tyr Arg His Glu Leu Leu His Leu Leu Asn 145 150 Asn Leu Ser Asp Phe Thr Tyr 165 <210> 6217 <211> 92 <212> PRT <213> Enterobacter cloacae <400> 6217 Gln Arg Arg Ser Leu Leu Thr Lys Tyr Arg Gln Ser Pro Leu Ser Asn Val Thr Asp Gly Ile Phe Ser Leu Met Ala Ala Lys Ile Ile Asp Gly 20 25 Lys Thr Ile Ala Gln Gln Val Arg Ser Glu Val Ala Glu Lys Val Lys 35 40 Ala Arg Lys Ala Ala Gly Phe Arg Ala Pro Gly Leu Ala Val Val Leu 50 55 Val Gly Ser Asn Pro Ala Ser Gln Ile Tyr Val Gly Ser Lys Arg Lys 7.0 75 Ala Cys Glu Glu Val Gly Phe Val Ser Arg Ser 85 <210> 6218 <211> 212 <212> PRT <213> Enterobacter cloacae <400> 6218 Lys Met Lys Pro Ala Ser Val Ile Ile Met Asp Glu His Pro Ile Val 1 10 Arg Met Ser Ile Glu Val Leu Leu Gln Lys Asn Lys Asn Ile Gln Val

```
Val Leu Phe Leu Ser Ser Lys Ser Glu Ala Leu Tyr Ala Gly Arg Ala
          85
                 90
Ile Arg Ala Gly Asp Asn Gly Pne Val Ser Lys Arg Lys Asp Leu Gly
       100 105 110
Glu Ile Tyr Asn Ala Val Glu Met Ile Leu Thr Gly Tyr Ser Phe Phe
 115 120 125
Pro Ser Glu Thr Leu Ser Phe Ile Asn His Leu Gly Ser Arg Thr Gly
 130 135 140
Ala Ala Val Asp Met Pro Leu Ser Asn Arg Glu Val Thr Val Leu Arg
145 150 155
Tyr Leu Ala Asn Gly Leu Ser Asn Lys Glu Ile Ala Asp Gln Leu Leu
    165 170 175
Leu Ser Asn Lys Thr Ile Ser Ala His Lys Ser Asn Ile Phe Ser Lys
        180 185
                              190
Leu Gly Val Gln Ser Ile Val Glu Leu Ile Asp Tyr Ala Lys Ala His
               200
Glu Leu Leu
  210
<210> 6219
<211> 251
<212> PRT
<213> Enterobacter cloacae
<400> 6219
His Ser Met Asn Leu Gln Thr Tyr Glu Ser Thr Ser Ala Ile Thr Met
                         10
Ser Ala Ile Ser Asn Ala Ile Leu Asn Gly Leu Ser Pro Leu Arg Val
        20
                         25
Thr Ile Pro Met Thr Gly Val Glu Trp Ala Asp Lys Tyr Phe Tyr Leu
35
                     40
Pro Glu Gly Ser Ser His Ile Ala Gly Arg Trp Lys Thr Gln Pro Val
               55
Gln Leu Ala Met Leu Asn Met Met Thr Asn Asp Ala Ile Lys Ile Val
65 70
                            7.5
                                  80
Ser Ile Arg Lys Ser Ala Arg Leu Gly Tyr Thr Lys Val Met Val Val
          85
                            90
Ala Leu Leu Tyr Phe Ala Glu His Lys Lys Arg Ser Ser Val Ala Tyr
 100
Gln Pro Val Asp Asp Glu Ala Glu Gly Phe Val Ser Asp Glu Ile Asp
 115 120
                                    125
Pro Ala Ile Cys Glu Met Pro Val Ile Gln Lys Ile Phe Pro Asp Trp
                  135
                        140
Asp Ser Ser Asn Glu Arg Asn Asn Ile Lys Arg Lys Glu Met Ser Gly
145 150 155 160
Ala Ile Leu Asp Phe Arg Gly Ala Asn Ser Pro Gly Asn Phe Arg Arg
                 170 175
           165
Leu Thr Lys Gln Val Val Ala Gly Asp Glu Val Asp Gly Trp Pro Leu
                        185
        180
                                       190
Glu Val Ser Lys Lys Gly Lys Gly Glu Gly Ser Pro Ile Glu Leu Ala
      195
                     200 205
Leu Val Arg Ile Lys Gly Ala Ser Tyr Pro Lys Ala Ile Phe Gly Ser
                  215
                      220
Thr Pro Thr Val Thr Gly Lys Ser Gln Ile Glu Met Leu Glu Asp Gly
               230
                              235
Ala Asp Leu Val Phe Arg Phe Tyr Leu Pro
            245
<210> 6220
```

<210> 622 <211> 111 <212> PRT <213> Enterobacter cloacae

```
<400> 6220
Gly Ala Val Met Thr Thr Glu Ser Cys Gln Pro Asp Asp Phe Phe Val
Gly Pro Asp Val Thr Thr Thr Gly Ile Met Ala Ser Gly Val Asn
         2.0
                         25
                                             30
Ile Ala Lys Tyr Thr Pro Val Met Ile Asp Ala Thr Ala Gly Thr Phe
      35
                                        45
                      4.0
Lys Ser Trp Asp Gly Thr Pro Gly Lys Ala Val Gly Ile Thr Ala Met
 5.0
                  55
                                     60
Ala Val Asn Ala Ser Ala Gly Gln Val Glu Phe Ser Tyr Tyr Asn Gly
      70
                                  75
Gly Thr Phe Arg Ala Ser Tyr Leu Asn Trp Ser Ala Asp Ala Val Lys
            85
                      90 95
Arg Lys Ser Ala Phe Ala Gly Thr Pro Val Ser Ile Gln Glu
                           105
<210> 6221
<211> 180
<212> PRT
<213> Enterobacter cloacae
<400> 6221
Leu Asn Arg Ser Ser Pro Val Met Lys Ser Thr Ala Gly Arg Leu Lys
                               10
Ser Arg Arg Lys Ala Arg Ala Lys Gly Arg Arg Leu Asn Trp Leu Trp
                           25
                                             3.0
Tyr Val Leu Arg Ala Arg His Thr Arg Lys Pro Phe Ser Ala Leu Leu
                        4.0
                                          45
Arg Pro Leu Pro Ala Lys Ala Arg Leu Lys Cys Ser Arg Met Ala Pro
                    5.5
                                      60
Ile Trp Ser Ser Gly Phe Ile Cys Leu Ser Ala Gln Ala Ala Ser Asn
                 7.0
                                  75
Glu Leu Ala Arg Val Met Ser Ile Ile Gly Cys Glu Glu Ala Lys Gly
            85
                               90
                                                 95
Arg Glu Gln Gln Ala His Ala Leu Ala Ala Ile Pro Gly Met Thr Leu
         100
                           105
Asp Gln Ala Lys Ala Val Leu Ala Ala Ala Pro Gln Thr Ala Gln Ala
      115
                        120
                                          125
Arg Thr Glu Thr Ala Leu Asp Ala Leu Met Thr Lys Glu Ser Pro Glu
                  135
                                       140
Ala Val Ala Tyr Met Pro Ala Gin His Asn His Ser Ala Asp Gly Ser
              150 155
                                                     160
Ala Ala Lys Ile Ser Leu Leu Val Gln Ala Gly Lys Ser Leu Ile Glu
             165
                               170
Glu Gln Leu
```

<210> 6222 <211> 345 <212> PRT

<213> Enterobacter cloacae

<400> 6222

Met Ser Asp Ser Tyr Thr Thr Gln Glu Leu Ile Ala Ala Thr Gln Gln 1 10 Val Phe Lys Phe Gln Pro Leu Phe Leu Ser Leu Phe Phe Lys Glu Thr 20 25 30 Tyr Thr Phe Asp Thr Glu Asp Val Phe Leu Asp Lys Ile Pro Gly Glu 35 4.0

```
Val Ser Met Ala Val Tyr Cys Ser Pro Leu Ile Thr Gly Lys Val Asp
Arg Thr Arg Gly Phe Lys Thr Thr His Phe Lys Pro Gly Tyr Thr Lys
             7.0
                          7.5
Pro Lys His Thr Val Asn Pro His Thr Val Ile Lys Arg Ser Ala Gly
              90 95
         85
Glu His Ile Gly Gln Pro Lys Thr Pro Ala Glu Arg Arg Ala Glu Ile
        100 105 110
Ile Met Gln Asn Leu Lys Asp Glu Glu Leu Ser Ile Gln Gln Leu Glu
 115 120 125
Glu Tyr Gln Ala Val Gln Ala Val Leu Lys Gly Lys Tyr Thr Ile Ser
 130 135 140
Gly Pro Asn Ile Asp Thr Thr Glu Ile Asp Met Gln Arg Ser Val Ala
145 150 155 160
Asn Asn Ile Val Gln Ser Gly Ser Thr Ala Trp Ser Ala Gln Asn Lys
      165 170
Asp Thr Phe Asp Pro Ser Asn Asp Ile Glu Glu Tyr Ala Glu His Ala
   180 185
Ser Gly Thr Ile Asn Val Met Val Leu Asp Gly Lys Ala Trp Lys Thr
   195 200 205
Leu Lys Ser Phe Lys Leu Phe Arg Glu Ala Leu Asp Thr Arg Arg Gly
 210 215 220
Ser Asn Ser Lys Leu Glu Leu Ala Leu Lys Asn Leu Gly Asp Val Val
225 230 235
Ser Phe Lys Gly Tyr Tyr Gly Asp Thr Ala Val Ile Val Tyr Lys Gly
          245
                         250
Gln Tyr Ile Asp Pro Asp Tar Lys Ala Lys Thr Lys Tyr Met Pro Asp
        260
                      265 270
Asn Thr Ile Ala Leu Gly Asn Leu Gln Ser Lys Gly Tyr Arg Thr Tyr
275 280 285
Gly Ala Val Gln Asp Glu Asp Ala Leu Arg Glu Gly Ile Thr Glu Ala
              295
                               300
Thr Arg Tyr Pro Lys Ile Trp Thr Thr Thr Gly Asp Pro Ser Ile Thr
             310
                            315
Gln Thr Met Thr Gln Ser Ala Pro Ala Met Val Leu Ala Asp Ala Asp
           325
                         330
Ala Phe Val Ile Val Thr Leu Ala
        340
```

<210> 6223 <211> 148 <212> PRT

<213> Enterobacter cloacae

<400> 6223 Glu Pro Lys Gly Ser Phe Leu Tyr Pro Glu Thr Lys Met Ala Asn Lys 10 15 Thr Glu Leu Leu Ala Arg Ile Ser Asp Leu Ser Ala Gln Leu Gly Arg 20 25 Glu Leu Ser Thr Thr Gly Thr Asn Glu Ala Leu Gln Ala Val Ile Asp 40 Ser Ala Glu Ala Glu Leu Lys Leu Leu Asn Glu Asp Asp Gly Glu Thr 60 Leu Pro Leu Gln Pro Leu Pro Gly Gly Ser Asn Ser Gly Thr Leu Leu 70 75 Thr Ala Ser Ser Pro Asp Glu Asn Asp Glu Ala Asp Ala Asp Gly Ala 85 90 Ala Tyr Arg Leu Val Lys Leu Arg Ala Thr Leu His Val Val His Tyr 100 105 Val Asn Gln Lys Pro Val Arg Glu Ile Val Pro Ala Gly Gln Ser Ile

<221>UNSURE

```
Tyr Val Asp Pro Glu Glu Ala Ala Leu Leu Ile Ala Ala Asn His Val
 130 135
Tyr Ala Leu
145
<210> 6224
<211> 330
<212> PRT
<213> Enterobacter cloacae
<400> 6224
Phe Leu Ile Val Ala Phe Glu Ala Ser Arg Ile Ala Asn Glu Val Ser
                              10
Met Ile Lys Gln Lys Thr Ile Lys Asn Ile Val Glu Leu Ser Gly Ile
                           25
Gly Leu His Ser Gly Ser Ser Ile His Met Lys Ile Met Pro Ala Thr
    3.5
                       40
                           4.5
Ala Asn Ser Gly Ile Arg Phe Arg Arg Thr Asp Leu Asn Pro Ser Val
 50
                    55
                                    60
Asp Ile Gln Leu Arg Ala Glu Gln Val His Asp Thr Met Leu Ala Thr
    70
                                  75
Ser Leu Ile Asn Pro Gln Gly Ile Arg Val Ser Thr Ile Glu His Phe
                              90
            85
Leu Ser Ala Val Ser Ser Leu Gly Ile Asp Asn Leu Leu Val Glu Leu
         100
                           105
Asp Ala Pro Glu Leu Pro Ile Leu Asp Gly Ser Ala Arg Glu Phe Ile
 115
                        120
                                         125
Asp Ser Leu Ile Asn Ala Cly Ser Ile Glu Gln Cys Ala Leu Lys Lys
 130 135
                                    140
Tyr Leu Leu Ile Lys Lys Thr Val Ser Val Lys Asp Gly Asp Lys Trp
145
                 150
                                  155
                                                    160
Ala Leu Leu His Pro Asp Ser Lys Phe Ser Val Asp Phe Thr Ile Asp
             165
                              170
Phe Lys His Pro Leu Ile Ser Ala Asp Thr Asn Lys Leu Asn Ile Glu
                                - 190
          180
                           185
Met Ser Lys Glu Lys Tyr Ile Glu Glu Ile Ala Gly Ala Arg Thr Phe
       195
                        200
Gly Phe Val His Asp Val Glu Lys Leu Gln Lys Ile Gly Leu Val Leu
   210
                    215
Gly Ala Gly Leu Asn Asn Ala Ile Gly Leu Asp Glu Tyr Ser Val Leu
              230
                                235
                                                    240
Asn Pro Glu Gly Leu Arg Phe Asn Asn Glu Leu Val Arg His Lys Val
              245
                            250
                                                255
Leu Asp Ala Ile Gly Asp Leu Phe Val Ser Gly Tyr Asn Ile Ile Gly
                           265
Ala Tyr His Ala Tyr Lys Ser Gly His Ala Leu Asn Asn Lys Leu Met
          280 285
Leu Ala Leu Leu Asn Asp Thr Asp Ala Trp Glu Phe Val Asn Leu His
                    295 300
 290
Asp Tyr Ser Arg Gly Lys Leu Lys Val Asn Met Leu Pro Ala Ile Asn
305
                 310
                                  315
Lys Glu Cys Pro Val Ser Leu Thr Ile
              325
                               330
<210> 6225
<211> 151
<212> PRT
<213> Enterobacter cloacae
<220>
```

<222>(6)

```
<400> 6225
Tyr His Arg Ile Ala Xaa Gly Glu Arg Met Ser Thr Ile Gly Asp Ala
                             10
Ala Arg Leu Ser Gly Val Ser Ala Lys Met Ile Arg Tyr Tyr Glu Glu
                          25
Ala Gly Leu Ile Pro Ser Val Ser Arg Thr Ala Ala Gly Tyr Arg Ile
                      40
      35
Tyr Lys Asp Val Asp Val Tyr Lys Leu His Phe Ile Arg Arg Cys Arg
                    55
Glu Leu Gly Phe Ser Leu Ser Gln Thr Gly Asp Leu Leu Ser Leu Trp
             70
                                  75
Gly Asn His Ser Arg Gln Ser Ala Asp Val Lys Lys Leu Val Glu Ser
                              90
            8.5
His Ile Asn Asp Leu Thr Ser Lys Ile Glu Glu Leu Gln Arg Ile Ala
                         105 110
         100
Ser Thr Leu Thr Thr Leu Ser Asp Cys Cys Ala Gly Asp Asp Lys Pro
                 120
 115
Asp Cys Pro Ile Leu Arg Ala Leu Tyr Leu Ala Glu Thr Ser Arg Lys
130
                   135
                                     140
Asp Lys Glu Asn Ser Pro
<210> 6226
<211> 311
<212> PRT
<213> Enterobacter cloacae
<400> 6226
Leu Met Lys Phe Pro His Phe Phe Ile Gln Arg Pro Ile Phe Ala Ile
Val Leu Ser Leu Phe Met Leu Ile Ala Gly Ala Leu Ala Phe Phe Gln
 20
                           25
Leu Pro Leu Ser Glu Tyr Pro Ser Val Thr Pro Pro Thr Val Gln Val
 35
                       4.0
Thr Ala Ser Tyr Pro Gly Ala Asn Pro Asn Val lle Ala Asp Thr Val
                   55
Ala Ala Pro Leu Glu Gln Ala Ile Asn Gly Val Glu Gly Met Leu Tyr
65 70
                                 75
Met Ser Ser Gln Thr Ser Ser Asp Gly Arg Met Val Leu Thr Ile Ser
          8.5
                              90
Phe Arg Gin Gly Thr Asp Pro Asp Ile Ala Gin Ile Gin Val Gin Asn
         100 105
                                           110
Arq Val Ser Arg Ala Leu Pro Arg Leu Pro Ser Glu Val Gln Gln Ile
   115 120 125
Gly Val Val Thr Glu Lys Thr Ser Pro Asp Ile Leu Met Val Val His
                                     140
          135
Leu Phe Ser Pro Asp Asn Arg Tyr Asn Pro Leu Tyr Val Ser Asn Tyr
                150 155
                                                   1.60
Ala Met Leu Asn Val Arg Asp Glu Leu Ser Arg Leu Pro Gly Ile Ala
                           170
Ser Ile Ala Leu Trp Gly Glu Gly Glu Tyr Ala Met Arg Val Trp Leu
                          185
         180
Asp Pro Asn Lys Ile Ala Ser Arg Gly Leu Thr Ala Ser Asp Val Thr
                       200
                               205
Ser Ala Ile Lys Glu Gln Asn Val Gln Val Ala Ala Gly Ser Val Gly
  210 215
                                     220
Gln Gln Pro Asn Thr Ser Ser Ser Phe Gln Val Thr Val Asn Ala Leu
225 230 235 240
Gly Arg Leu Thr Thr Glu Glu Gln Phe Gly Asp Ile Ile Ile Lys Ser
```

```
250
Gly Thr Asp Gly Gln Val Thr Arg Leu Arg Asp Val Ala Arg Ile Glu
         260
                       265
                                    270
Leu Gly Ser Asp Asn Tyr Ser Leu Arg Ser Leu Leu Asp Asn Lys Asp
      275 280
                               285
Ala Val Gly Met Gln Ile Val Met Thr Pro Gly Ala Asn Ala Leu Asp
 290 295
Val Ser Ala Ser Val Arg Ser
                310
<210> 6227
<211> 1213
<212> PRT
<213> Enterobacter cloacae
<400> 6227
Gly His Cys Ile Trp Arg Arg Leu Arg Val Arg Thr Arg Lys Ile Val
Leu Asp Val Ile Ile Ala Thr Tyr Leu Glu Ser Leu Gln Pro Gly Phe
 20
                          25
Ile Val Arg Asn Leu Tyr Ala Val Asn Phe Asn Gly Asn His Cys Leu
                      4.0
His Lys Glu Gln Leu Gln Leu Ser Lys Asp His Phe Leu Leu Val Arg
          55
                                 60
Phe Thr Met Leu Asn Ile ile Pro Gly Tyr Cys Thr Leu Cys Arg Ser
                7.0
Arg Cys Gly Thr Leu Asn Glu Val Ile Glu Asp Leu Leu Phe Leu Val
           8.5
                              90
Arg Pro Asn Pro Val Leu Pro Phe Gly Lys Ala Met Cys Met Lys Gly
 100 105
Lys Ala Ala Pro Glu Leu Val Asp Ser Ala Asn Arg Ile Leu His Pro
     115
                      120
                                        125
Met Lys Arg Thr His Pro Lys Gly Ala Glu Asn Pro Gly Trp Gln Arg
                 135
                                    140
Ile Ser Trp Glu Glu Ala Met Ser Thr Ile Ala Gly Gln Leu Lys Lys
145 150
                                 155 160
Phe Lys Asn Glu Asn Gly Ala Glu Ser Val Ala Phe Gly Phe Thr Ser
       165
                              170 175
Pro Ser Gly Thr Pro Leu Ser Asp Ala Ile Glu Trp Leu Glu Arg Phe
          180
                         185
                                        190
Val Arg Ile Tyr Gly Ser Pro Asn Thr Ser Tyr Gly Thr Glu Ile Cys
      195
                       200
Asn Trp His Lys Asp Val Ala His Arg Trp Thr Phe Gly Cys Gly Ile
 210
                   215
                                     220
Pro Val Ala Asp Tyr Ser His Ala Glu Leu Ile Ile Leu Trp Gly His
                230
                                 235
Asn Pro Ala Asn Thr Trp Leu Ala Gln Ala Asn Ala Ile Gly Thr Gly
             245
                              250 255
Arg Asn Asn Gly Ala Lys Leu Ile Val Ile Asp Pro Arg Pro Thr Pro
        260
                                           270
                          265
Leu Ala Lys Glu Ala Asn Ala Trp Leu Asn Val Cys Pro Gly Thr Asp
      275
                       280
                                        285
Gly Ala Leu Ala Leu Gly Leu Ser His Leu Leu Val Glu Arg His Met
                    295
                                     300
Phe Asn Gln Glu Phe Val Arg Asp Trp Thr Asn Gly Pro Leu Leu Ile
305
                310
                                 315
                                               320
Arg Asn Asp Asn Gly Tyr Phe Leu Arg Glu Ile Asp Ile Asn Pro Phe
            325
                              330 335
Ala Thr Ser Asn Arg Tyr Val Val Trp Asp Glu His Ile Gln Gln Val
                          345
Ile Phe Ile Asp Ser Glu Thr Arg Thr Glu Glu Thr Leu Thr Pro Thr
```

360 355 Ala Ala Leu Glu Ser Asp Val Glu Val Thr Leu Ala Asp Gly Gly Lys 370 375 380 Ile Ser Cys His Thr Ala Phe Ser Ser Phe Lys Asn Ile Leu Ala Asn 385 390 395 Tyr Ser Pro Glu Asn Val Ser Arg Ile Thr Gly Ile Ser Val Ala Ser 405 410 415 Ile Glu Ala Ala Ala Ser Met Ile Gly Asn Ala Lys Lys Ile Ala Tyr 420 425 430 His Ser Trp Ser Gly Val Ala Gln His Thr Asn Ala Thr Gln Thr Glu 435 440 445 Arg Ala Ile Ala Thr Leu Tyr Ala Leu Thr Gly Cys Phe Asp Gla Glu 450 455 460 Gly Cys Asn Arg Ile Tyr Ala Ser His Pro Val Asn Val Val Asn Ser 465 470 475 480 Pro Thr Leu Met Pro Lys Thr Gln Trp Glu Lys Ala Leu Gly Leu Glu 485 490 495 Glu Arg Pro Ile Gly Pro Pro Ser Gln Gly Trp Val His Ser Gln Asp 500 505 510 Ile Trp His Ser Val Leu Glu Gly Thr Pro Tyr Lys Ile Arg Gly Leu 515 520 525 Ile Gly Phe Gly Ala Asn Ile Leu Leu Ser Gln Ser Asp Thr Ser Leu 530 535 540 Gly Gln Gln Ala Leu Glu Ala Leu Glu Phe Tyr Ala His Val Aso Leu 545 550 555 560 Phe Glu Thr Pro Thr Ser Lys Tyr Ala Asp Ile Leu Leu Pro Val Asn 565 570 575 Thr Ala Trp Glu Arg Glu Gly Leu Arg Ala Gly Phe Glu Ser Ser Ala 585 580 590 Ala Ala Gln Glu His Ile Gln Leu Arg Lys Gln Met Val Ser Pro Arg 595 600 605 Gly Glu Ser Arg Ser Asp Leu Glu Ile Val Phe Asp Leu Ala Cys Arg 610 615 620 Leu Gly Met Asn Glu Ala Phe Phe Asp Gly Asn Ile Glu Ser Ala Trp 625 630 635 640 Asn Tyr Gln Leu Lys Pro Leu Gly Leu Thr Val Glu Met Leu Arg Asn 645 650 655 Lys Pro Glu Gly Tyr Asp Ile Pro Leu Glu His Lys Val Arg Lys Tyr 660 665 670 Ala Leu Lys Asp Gln Lys Thr Gly Tyr Leu Thr Gly Phe Asn Thr Glu 675 680 Thr Lys Arg Ala Glu Phe Tyr Ser Glu Val Leu His Arg His Gly Tyr 690 695 700 Asn Pro Leu Pro Glu Tyr Val Gin Pro Gln Glu Tyr Gin Arg Asn Asp 705 710 715 Pro Asp Phe Pro Leu Met Leu Thr Ser Val Lys Ser Gly Phe Phe Cys 725 730 735 His Ser Gln His Arg Ser Leu Thr Ser Leu Arg Lys Lys Ala Ser Tyr 745 740 Pro Thr Val Glu Ile Ser Val Thr Leu Ala Asp Glu Glu Lys Ile Lys 760 765 Thr Gly Asp Trp Val Glu Ile Glu Thr Arg Val Gly Gln Ala Arg Phe 770 775 780 Arg Ala Lys Val Glu Glu Lys Leu Ser His Glu Thr Val Ile Ala Glu 790 795 Phe Gly Trp Trp Gln Gly Cys Pro Asp Phe Gly Lys Pro Ser Tyr Pro 805 810 815 Val Ile Gly Glu Phe Ser Ser Asn Phe Asn Ser Leu Ile Ser Gly Asp 820 825 830 Ser Tyr Asp Pro Val Ser Gly Ala Leu Pro Leu Arg Ser Phe Arg Cys 835 840 845

5.0

```
Arg Ile Arg Arg Leu Asn Glu Phe Glu Leu Val Arg Arg Pro Trp Asp
      855
                          8.60
Gly Arg Arg Thr Phe Gln Val Ile Ser Leu Lys Lys Glu Thr Asp Asn
          870
                          875
Val Thr Thr Val Thr Phe Gln Ser Lys Ala Glu Gly Phe Leu Pro Asp
                         890 895
          885
Tyr Glu Pro Gly Gln His Val Thr Ile Ser Cys Tyr Pro Leu Ile Asp
   900
                      905
                                     910
Ser Glu Asp Ile Val Thr Arg Ala Tyr Ser Leu Thr Gly Pro Ala Phe
                       925
 915 920
Val Asp Ala Arg Lys Thr Tyr Ser Ile Ser Val Arg His Gln Thr Ala
 930 935
                               940
Arg Asp Glu Asn Gly Glu Phe Val Glu Gly Ile Met Ser Ser Phe Ile
945 950 955 960
Asn Thr Arg Leu Gln Val Gly Ser Phe Val Glu Ile Thr Pro Pro Gly
     965 970 975
Gly Asn Phe Ile Val Pro Leu Asn Ala Met Gln Pro Val Val Ile Phe
       980 985 990
Ala Gly Gly Ile Gly Ile Thr Pro Phe Ile Cys Tyr Leu Glu Ser Ile
995 1000 1005
Asp Pro Asp Glu Thr Gly Pro Glu Ile Trp Leu Phe Tyr Ala Asn Gln
 1010 1015 1020
Asn Ser Lys Gln His Ala Phe Lys Lys Arg Ile Gln Glu Leu Ser Ser
1025 1030 1035 1040
Leu Ile Ser Arg Leu Lys Val Ile Asn Val Tyr Asn Gln Pro Leu Asp
  1045 1050 1055
Cys Asp Val Leu Gly Glu Asp Tyr Asp Arg Ala Gly Phe Ala Gly Ala
        1060 1065 1070
Gly Asp Val Asp Ala His Leu Ile Glu Asn Asn Ala Arg Tyr Tyr Met
 1075 1080 1085
Cys Gly Pro Met Pro Met Met Glu Ala Ile Ser Lys Gly Leu Gln Gln
 1090 1095 1100
Arg Gly Val Pro Ala Phe Ala Ile Phe Tyr Glu Ile Phe Arg Ser Pro
1105 1110 1115 1120
Ala Lys Ile Asn Asp Asp Pro Ser Leu Arg His Lys Val Thr Phe Ala
        1125 1130 1135
Lys Ser Gly Arg Glu Glu Ile Trp Thr Thr Asp Lys Gly Thr Leu Leu
        1140 1145 1150
Asn Phe Gly Glu Lys Leu Gly Ile Ser Met Pro Ser Gly Cys Arg Val
 1155 1160 1165
Gly Gln Cys Glu Ser Cys Ser Thr Lys Val Ile Thr Gly Ser Val Gln 1170~\rm{1175}~\rm{1180}
His Leu Asn Asn Val Glu Pro Ser Asp Glu Gly Ala Cys Leu Thr Cys
1185 1190 1195
Gln Cys Ile Pro Ala Gly Asp Ile Thr Ile Asp Ala
           1205
<210> 6228
<211> 433
<212> PRT
<213> Enterobacter cloacae
<400> 6228
Glu Ile Ala Thr Gly Ala Asn Phe Gly Leu Ser Glu Gly Phe Trp Gly
                          10
                               15
Thr Lys Arg Val Ile Met Met Lys Met Ser Ile Arg Thr Met Val Met
                                      3.0
        20
                    2.5
```

Ala Val Ala Val Ala Ile Thr Ala Ser Thr Ser Val Ala Val Ala Lys 35 40 45 Glu Asp Gly Ser Gly Lys Thr Ser Thr Ala Gln Ile Pro Ala Gly Pro

Gln Val Pro Val Ala Glu Val Ile Ser Arg Asn Ile Ile Pro Ser Ala 75 70 Glu Phe Thr Gly Ser Leu Ala Ala Ile Lys Thr Val Glu Leu Arg Pro 85 90 95 Arg Val Gly Gly Thr Ile Glu Ser Val Ser Val Pro Glu Gly Ser Leu 100 105 110 Val His Lys Gly Gln Leu Leu Phe Gln Ile Asp Pro Arg Pro Phe Gln 115 120 125 Val Ala Leu Asp Ser Ala Lys Ala Gln Leu Arg Gln Ala Glu Ala Gln 130 135 140 Ala Phe Gln Ala Asn Arg Asn Phe Glu Arg Val Ser Arg Leu Val Asn 145 150 155 160 Asn Gly Ala Val Ser Arg Lys Asp Tyr Asp Asp Ala Ala Ser Asp Lys 165 170 175 Asn Ala Arg Ile Ala Gln Val Asn Val Ala Gln Ala Ala Val Glu Ala 180 185 Ala Lys Leu Asp Leu Ser Tyr Thr Arg Val Thr Ala Pro Ile Asp Gly 195 200 205 Arg Val Asp Arg Ile Leu Ile Thr Glu Gly Asn Leu Ile Ser Asn Ser 215 220 210 Glu Gly Gly Ala Ala Thr Leu Leu Thr Thr Ile Val Ser Ser Asn Pro 230 235 240 Leu Tyr Ala Tyr Phe Asp Ile Asp Glu Ala Thr Phe Leu Asn Thr Val 245 250 255 Ser Lys Ala Arg Pro Asp Ala Met Glu Gly Ser Lys Glu Lys Leu Pro 265 270 260 Val His Val Gly Leu Ala Thr Glu Lys Gly Tyr Pro His Ser Gly Thr 275 280 Leu Asp Phe Val Gly Asn Gln Ile Asp Arg Asn Thr Gly Thr Val Arg 295 290 Val Arg Ala Ile Ile Pro Asn Thr Asp Gly Leu Leu Thr Pro Gly Ala 315 310 Phe Ala Arg Val Gln Leu Gly Thr Gly Lys Ala Gln Gln Val Ile Leu 330 335 Ile Asn Asp Gln Ala Val Gly Thr Asn Gln Gly Asn Lys Tyr Val Leu 340 345 350 Val Ile Gly Asp Asp Ser Lys Ala Gln Tyr Arg Pro Ile Glu Leu Gly 355 360 365 Pro Val Val Asp Gly Leu Arg Ile Val Ala Lys Gly Leu Gln Ala Gly 375 380 Glu Lys Ile Ile Lys Gly Leu Val Arg Pro Gly Met Ala Val Thr 390 395 Pro Ser Met Val Ser Met Gln Ser Leu Glu Ser Ser Leu Asp Ala Lys 405 410 415 Pro Ala Thr Gln Gly Lys Ala Ser Asp Ser Asn Asn Lys Gly Gly Asn

```
<210> 6229
<211> 182
<212> PRT
<213> Enterobacter cloacae
```

Cys Trp Pro Val Arg Leu Leu Cys Arg Val Leu Asp Val His Pro Ser 60 5.0 5.5 Gly Phe Tyr Phe Trp Leu Gln Gln Pro His Ser Gln Arg His Gln Thr 75 7.0 Asp Gln Met Leu Thr Gly Gln Ile Lys Gln Phe Trp Leu Glu Ser Gly 95 90 8.5 Cys Val Tyr Gly Tyr Arg Lys Ile Asn Leu Asp Leu Arg Asp Thr Gly 105 110 100 Gln Gln Cys Gly Val Asn Arg Val Trp Arg Leu Met Lys Arg Ala Gly 120 125 Ile Lys Ala Gln Val Gly Tyr Arg Thr Pro Arg Ala Arg Lys Gly Glu 130 135 Ser Ser Ile Val Thr Pro Asn Met Leu Gln Arg Gln Phe Asn Pro Asp 150 155 160 Ser Pro Asp Glu Arg Trp Val Thr Asp Ile Thr Tyr Ile Arg Thr His 165 170 Glu Cys Trp Leu Tyr Leu 180

<210> 6230 <211> 97

<212> PRT <213> Enterobacter cloacae

<400> 6230

Arg Glu Val Pro Met Ser Gly Lys Arg Tyr Pro Glu Glu Phe Lys Ile 10 Glu Ala Val Lys Gln Val Val Asp Arg Gly His Ser Val Ser Ser Val 20 25 30 Ala Thr Arg Leu Asp Ile Thr Thr His Ser Leu Tvr Ala Trp Ile Lys 40 Lys Tyr Gly Pro Asp Ser Ser Thr His Asn Glu Gln Ser Asp Ala Gln 50 5.5 Ala Glu Ile Arg Arg Leu Gln Lys Glu Leu Lys Arg Val Thr Asp Glu 75 70 8.0 Arg Asp Ile Leu Lys Lys Ala Ala Ala Tyr Phe Ala Lys Leu Ser Asp

90

<210> 6231 <211> 794 <212> PRT <213> Enterobacter cloacae

<400> 6231

Arg Gln Arg Leu Trp Glu Met Lys Lys Asn Ile Glu Asn Phe Glu Thr 10 Phe Ile Ile Glu Gln Lys Ala Trp Phe Glu Glu Asn Leu Ala Ala Asp 30 20 25 Phe Ala Glu Ser Trp Asp Ser Phe Val Trp Ile Cys Gly Ile Lys Gly 4.0 4.5 Ser Gly Trp Leu Arg Gly Asn Gly Ala Asn Leu Leu Arg Phe Asp Glu 60 Val Asn Arg Leu Lys Gly Ile Asp Asp Arg His Thr Val Ser Glu Pro 70 75 Tyr Gln Leu Phe Met Lys Ala Met Leu Val Leu Val Tyr Arg Gly Arg 8.5 90 9.5 Asn Arg Ser Ile Ser Ser Ala Val Ala Val Ala Thr Leu Ile Ile Leu 100 105 110

Lys Arg Trp Tyr Cys Ala Leu Ile Lys Leu Thr Gly Gln Thr His Pro

Ile Tyr Leu Thr Thr Asp Val Val Arg Ser Ala Met Asp Thr Leu Ser 135 140 Ala Ala Ser Arg Pro Gly Asp Thr Asn Leu Ala Asn Tyr Lys Gly Arg 150 155 Cys Val Lys Ile Gln Lys Leu Val Asn His His Ala Phe Thr Leu Val 170 165 Thr Leu Gln Tyr Val Ser Asp Asp Cys Tyr Thr Asn Gln Thr Asn Leu 180 185 190 Thr Arg Lys Ala Arg Glu Thr Ile Ser Leu Lys Glu Lys Asp Lys Leu 195 200 205 Asp Asp Thr Ser Thr Asp Gly Glu Asp Thr Leu Ile Thr Ile Lys Gly 210 215 220 Phe Leu Asn Ile Val Ser Leu Ile Gln Arg Val Glu Ser Gly Thr Glu 225 230 235 Lys Ile Ala Leu Asn Cys Leu Leu Leu Leu Ile Val Thr Gly Phe Arg 245 250 255 Ser Val Glu Ala Phe Asn Leu Arg Gln Asp Ala Leu Val Lys Arg His 260 265 270 Ile Asp Asn Ser Asp Leu Ser Lys Arg Leu Arg Asn Lys Gly Leu Pro 275 280 285 Asp Tyr Phe Leu Gly Ile Arg Tyr Val Gly Val Lys Gly Ala Gly Glu 290 295 300 Arg Thr His Trp Val Glu Pro Leu Ala Val Pro Leu Val Glu Asn Ile 305 310 315 320 Phe Lys Ser Val Lys Leu Leu Thr Ala Glu Phe Arg Lys His Ile Glu 325 330 335 Tyr Leu Arg Ser Lys Lys Phe Ser Asp Tyr Leu Pro Lys Pro Ile Ser 340 345 Asp Ile Thr Gly Glu Leu Val Glu Leu Asp Asp Ile Val Lys Tyr Met 355 360 365 Val Gln Ser Ser Ser Glu Leu Arg Gly Arg Ala Gly Leu Arg Asp Lys 370 375 380 Ala Ser Lys Ala Leu Glu Lys Arg Gly Phe Ile Pro Ala Lys Val Ile 385 390 395 Leu Lys Ser Gly Asn Glu Lys Glu Lys Tyr Phe Thr Lys Ser Asp Leu 405 410 415 Ser Asn Phe Leu Lys Ser Glu Phe Gly Asp Asn Ser Ala Asn Thr Pro 420 425 430 Cys Thr His Ala Trp Ala Glu Asn Gly Lys Arg Tyr Glu Ile Lys Tyr 435 440 Glu Glu Leu Leu Phe Leu Phe Pro Lys Gly Ser Leu Thr Leu Lys Arg 450 455 460 Val Leu Gln Leu Lys Ala Thr Pro Leu Pro Leu Asn Asn Gly Leu 465 470 475 480 Asn Lys Phe Leu Gly Asn Val Ala Gly Tyr Val Ser Val Phe Ser Lys 485 490 Tyr Ser Leu Leu Glu Asp Asp Gly Arg Pro Thr Gln Leu Arg Thr His 510 500 505 Ile Pro Arg His Asn Ile Asn Thr Phe Leu Ala Ile Ala Glu Ile Ser 515 520 Asp His Leu Gln Ala Met Leu Met Gly Arg Val Asp Ile Thr Gln Asn 530 535 540 Gln His Tyr Gln His Leu Ala Leu Lys Glu Arg Arg Lys Ala Ala Ser 545 550 555 Leu Thr Pro Leu Val Pro Thr Val Pro Glu Gln Ser Ala Phe Thr Ala 565 570 Val Asp Val Asp Ser Pro Leu Asp Met Val Lys Gln Ser Gly Leu Met 580 585 590 Thr Phe Asn Ser Ser Gln Ser Leu Glu Thr Asn Ile Lys Ala Asn Leu 600 605

```
His Thr Phe Asp Asp Arg Tyr Asp Val Ala Gly Phe Ile Glu Ala Ser
      615
Ser Gly Asp Gly Leu Phe Glu Asp Ile Ala Ala Ala Phe Glu Glu Ile
625
            630
                           635
Ser Lys Asn Glu Gly Pro Leu Gln Ala Ser Glu Met Val Gln Arg His
                650 655
           645
Ala Val Leu His Pro Leu Lys Leu Gly Ser Cys Met Arg Asp Val Asn
      660 665
                                       670
Leu Trp Gly Cys Pro Tyr Arg Met Lys Cys Gln Ala Leu Lys Pro Cys
                    680
Glu His Phe Thr Leu Thr Gly Arg Ile Asp Glu Tyr Ser Thr Ile Ala
 690 695
                       700
Val Lys Gly Arg Ala Leu Asn Glu Ala Ser Leu Ala Phe Glu Gln Tyr
705 710 715
Ile Ala Ala Leu Pro Asp Asn Gln Leu Ile Gln Gly Asn Ile Glu Glu
            725
                           730 735
Asn Leu Thr His Leu Asp Ala Leu Ser Asp Gln Leu Arg Arg Arg Ser
         740 745
                                        750
Asn Leu Leu Gln Val Leu Ser Ala Gln Glu Ile Leu Ser Gly Glu Ile
     755
                     760
Lys Val Glu Gly Glu Ile Arg Thr Leu Ala Gln Leu Phe Ala Leu Glu
770 775
His His Lys Asn Lys Glu Glu Glu Asn
              790
<210> 6232
<211> 93
<212> PRT
```

<400> 6232 Arg Phe Thr Val Gly Asn Asn Asp Val Leu Glu Val Gly Val Ala Glu 1.0 Gln Leu Glu Phe Phe Pro Val Gln Ser Pro Cys Arg Gly Ile Cys Gln 25 20 Val Asp Glu Arg Gly Tyr Cys Arg Gly Cys Met Arg Thr Arg Asp Glu 35 4.0 Arg Phe Asn Trp Gln Asn Phe Ser Asp Ala Gln Lys Gln Glu Val Leu 55 60 Arg Leu Cys Arg Gln Arg Leu Leu Arg Lys Ile Arg Ala Asn Lys Ala 70 Val Glu Pro Glu Glu Pro Gln Gln Pro Ser Leu Phe 85

<210> 6233 <211> 307 <212> PRT <213> Enterobacter cloacae

<213> Enterobacter cloacae

<400> 6233 His Tyr Phe Leu Glu Glu Asn Val Met Val Gln Arg Ile Thr Leu Ala 10 Pro Gln Gly Pro Glu Phe Ser Arg Phe Val Met Gly Tyr Trp Arg Leu 25 30 Met Asp Trp Asn Met Ser Pro Val Gln Leu Ala Asp Phe Ile Glu Glu 35 40 45 His Leu Asp Leu Gly Ile Thr Thr Val Asp His Ala Asp Ile Tyr Gly 55 Gly Tyr Gln Cys Glu Ala Ala Phe Gly Glu Ala Leu Lys Arg Ala Pro 75 7.0 Gly Leu Arq Glu Arq Met Glu Ile Val Thr Lys Cys Gly Ile Ala Thr Thr Ala Lys Pro Glu His Ala Leu Gly His Tyr Ile Thr Asp Ser Ala 105 100 110 His Ile Val Lys Ser Ala Glu Gln Ser Leu Val Asn Leu Ala Thr Asp 115 120 125 Arg Ile Asp Leu Leu Ile His Arg Pro Asp Pro Leu Met Asp Ala 130 135 140 Asp Glu Val Ala Glu Ala Phe Leu Thr Leu His Gln Ser Gly Lys Val 145 150 155 Arg His Phe Gly Val Ser Asn Phe Thr Pro Ala Gln Phe Ala Leu Leu 165 170 175 Gln Ser Arg Leu Pro Phe Thr Leu Ala Thr Asn Gln Val Glu Ile Ser 180 185 190 Pro Val His Gln Pro Leu Leu Leu Asp Gly Thr Leu Asp Gln Leu Gln 195 200 205 Gln Leu Arg Ile Arg Pro Met Ala Trp Ser Cys Leu Gly Gly Gly Arg 210 215 220 Leu Phe Asn Asp Glu Ala Phe Gln Pro Leu Arg Asn Glu Leu Glu Thr 225 230 235 Val Ala Arg Glu Leu Asn Ala Glu Ser Ile Glu Gin Val Val Tyr Ala 245 250 255 Trp Ile Leu Arg Leu Pro Ser Lys Pro Leu Pro Ile Ile Gly Ser Gly 260 265 270 Lys Ile Glu Arg Val Arg Ala Ala Leu Val Ala Glu Glu Leu Asp Met 275 280 285 Thr Arg Gln Gln Trp Phe Arg Ile Arg Lys Ala Ala Leu Gly Tyr Asp 295 Val Pro 305 <210> 6234 <211> 191 <212> PRT

<213> Enterobacter cloacae <400> 6234 Asn Leu Arg Leu Trp Tyr Arg L

180

Asn Leu Arg Leu Trp Tyr Arg Leu Lys Val Gln Lys Ile Thr Arg Gly 1.0 Gly His Met Lys Arg Phe Ala Leu Ala Met Val Thr Leu Val Val Cys 25 Ala Gly Ala Gln Ala Ala Ser Glu Asp Val Glu Met Asn Leu Val Thr 35 40 Ser Gln Gly Val Gly Gln Ser Ile Gly Thr Val Lys Ile Thr Glu Thr 55 60 Asp Lys Gly Leu Glu Phe Ala Pro Asp Leu Lys Ala Leu Pro Pro Gly 7.0 75 Glu His Gly Phe His Val His Ala Lys Gly Ser Cys Gln Pro Ala Met 85 90 Lys Glu Gly Lys Pro Thr Ala Ala Glu Ala Ala Gly Gly His Leu Asp 100 105 110 Pro Gln Asn Ser Gly Lys His Glu Gly Pro Glu Gly Met Gly His Leu 120 125 115 Gly Asp Leu Pro Val Leu Val Val Asn Asn Asp Gly Lys Ala Thr Asp 130 135 140 Pro Val Val Ala Pro Arg Leu Lys Lys Leu Asp Glu Val Lys Gly Lys 150 155 Ala Leu Met Ile His Val Gly Gly Asp Asn Met Ser Asp Gln Pro Lys 165 170 Pro Leu Gly Gly Gly Ala Arg Tyr Ala Cys Gly Val Ile

```
<210> 6235
<211> 94
<212> PRT
<213> Enterobacter cloacae
<400> 6235
Asn Leu Pro Leu Trp Pro Ser Phe His Arg Lys Gly Ser Leu Leu Val
Thr Leu Phe Ser Phe Ser Ala Gly Leu Pro Leu Gln Asp Leu Ile Val
                             2.5
                                                  3.0
Gly Ala Ser Val Tyr Phe Pro Pro Leu Phe Lys Ala Val Met Val Gly
       35
                         4.0
                                45
Phe Val Ile Trp Leu Ile Ala His Arg Leu Leu Arg Asp Trp Met Tyr
                      55
Ser Gly Glu Ile Trp His Pro Met Leu Met Asp Leu Ser Leu Phe Thr
                  7.0
                           7.5
Leu Ser Val Cys Leu Gly Leu Ala Val Leu Thr Val Trp
               85
<210> 6236
<211> 700
<212> PRT
<213> Enterobacter cloacae
<400> 6236
Ser Thr Ala Glu Arg His Tyr Pro Gly Leu Trp His Asn Leu His Cys
                                   10
Arg His Arg Ile Ala Met Met Asn Leu Gly Ala Leu Ser Trp Arg Asn
                               25
                                                  30
Thr Pro Trp Ile Lys Ala Thr Arg Pro Gln Trp Arg Tyr Ala Leu Arg
                           40
Asn Gly Ile Ala Met Cys Leu Ala Leu Thr Val Ala Tyr Tyr Leu Asn
                      5.5
Leu Asp Glu Pro Tyr Trp Ala Met Thr Ser Ala Ala Val Val Ser Phe
                                       75
Pro Thr Val Gly Gly Val Ile Ser Lys Ser Leu Gly Arg Val Ala Gly
                                  90
               85
Ser Leu Leu Gly Ala Thr Ala Ala Leu Leu Leu Ala Gly His Thr Leu
                               105
                                                  110
           100
Asn Asp Pro Trp Leu Phe Leu Leu Ser Met Ser Ala Trp Leu Gly Leu
       115
Cys Thr Trp Ala Cys Ala His Phe Thr Asn Asn Val Ala Tyr Ala Phe
    130
                       135
                            140
Gln Leu Ala Gly Tyr Thr Ala Ala Ile Ile Ala Phe Pro Val Val Asn
                                       155
Val Leu Asp Thr Thr Glu Leu Trp Asp Ile Ala Gln Ala Arg Val Cys
                                  170
               165
Glu Val Met Val Gly Ile Leu Cys Gly Gly Val Met Met Ile Leu
           180
                               185
                                                   190
Pro Ser Thr Ser Asp Gly Thr Thr Leu Ile Thr Ala Leu Lys Thr Met
                                               205
                            200
His Ala Arg Leu Leu Glu His Ala Ser Leu Leu Trp Gln Pro Asp Ser
                       215
Ser Asp Asp Ile Arg Leu Ala His Glu Lys Val Ile Gly Gln Ile Leu
                  230
                                       235
Thr Met Asn Leu Leu Arg Ile Gln Ala Phe Trp Ser His Tyr Arg Phe
                                  250
                                                       255
              245
Arg Arg Gln Asn Thr Leu Leu Asn Tyr Leu Leu His Gln Gln Leu Arg
                            265
                                                   270
Met Thr Ser Ala Ile Ser Ser Leu Arg Arg Met Leu Leu Asn Trp Pro
```

<400> 6237

```
Thr Pro Pro Ala His Thr Arg Glu Ile Ile Glu Ala Leu Leu Ala Thr
                 295
Leu Ala Arg Ser Asp Ala Asp Ile Tyr Thr Val Ala Arg Ile Ile Ala
           310
                             315
Pro Leu Ala Pro Ala Asp Glu Tyr Asp Tyr Arg His Arg Ala Phe Trp
         325
                         330
                                        335
Gln Arg Leu Asn Tyr Phe Cys Arg Leu Tyr Leu Arg Ser Ser Arg Trp
            345
                           350
      340
Leu Lys Ala Val Glu Asn Ala Thr Pro Val Thr Glu Phe Ser Val Pro
 355 360 365
Gly Ser Pro Ala Leu Ala Arg His Thr Asp Ala Met Glu Ala Leu Trp
 370 375 380
Ser Gly Phe Arg Thr Phe Cys Ala Leu Thr Ala Val Gly Ala Trp Ala
385 390 395 400
Ile Thr Thr Gln Trp Asp Ala Gly Ser Ala Ala Leu Thr Leu Ala Ala
      405 410 415
Ile Ser Cys Val Leu Tyr Ser Val Ala Ala Ser Pro Phe Asn Ser Leu
       420 425 430
Thr Leu Leu Leu Arg Thr Leu Val Leu Leu Ser Leu Phe Ser Phe Val
435 440 445
Val Lys Phe Gly Leu Met Val Gln Ile Thr Asp Leu Trp Gln Phe Leu
 450 455
                              460
Leu Phe Leu Phe Pro Leu Leu Thr Thr Met Gln Leu Leu Lys Leu Gln
465 470
                            475
Met Pro Lys Leu Ala Gly Leu Trp Gly Gln Leu Ile Val Phe Met Gly
         485 490 495
Ser Phe Ile Ser Val Thr Asn Pro Pro Val Tyr Asp Tyr Ala Asp Phe
            505
       500
                           510
Leu Asn Asp Asn Leu Ala Lys Ile Leu Gly Val Gly Leu Ala Trp Leu
515 520 525
Ala Phe Ala Val Leu Arg Pro Gly Ser Asp Ala Arg Lys Ser Arg Arg
530 535 540
His Ile Arg Glu Leu Arg Arg Gly Phe Val Asp Gln Leu Ser Arg Arg
              550 555
Pro His Leu Arg Glu Ser Glu Tyr Glu Ser Leu Val Tyr His His Val
          565
                         570
                                        575
Ser Gln Leu Asn Asn Ser Gln Asp Ser Leu Ser Arg Arg Trp Leu Leu
        580
                      585 590
Arg Trp Gly Val Val Leu Leu Asn Cys Ser His Val Val Trp Gln Leu
     595 600
                                  605
Arg Ala Trp Glu Thr Arg Ser Asp Pro Leu Ser Gln Val Arg Asp Asn
 610
                615
                                620
Cys Ile Ser Met Leu Arg Asp Val Met Ser Glu Arg Gly Val Gln Gln
625 630
                            635
Arg Pro Leu Ser Val Thr Leu Ala Glu Leu Gln Arg Ile Cys Asp Thr
           645
                          650
Leu Ala His His His Gln Pro Ala Ala Arg Asp Leu Ala Ser Ile Ile
        660
                       665
Trp Arg Leu His Cys Ser Leu Ser Gln Leu Glu Gln Ala Pro Pro Pro
  675
                 680
                                  685
Gly Thr Ile Gly Asp Gln Ile Thr Pro Gln Ala
  690
                 695
<210> 6237
<211> 315
<212> PRT
<213> Enterobacter cloacae
```

Asn Leu Ala Pro Asp Val Asn Gly Ser Leu Pro Val Tyr Pro Leu Arg

```
Leu Ser Trp Pro Cys Arg Val Asn Arg Val Val Arg Ile Ala Leu Lys
                      25
Thr Leu Lys Tyr Phe Ser Thr Leu Phe Val Leu Ala Leu Ala Leu Ile
Ala Gly Trp Trp Leu Trp Asn Tyr Tyr Met Gln Ser Pro Trp Thr Arg
Asp Gly Lys Ile Arg Ala Glu Gln Val Ser Ile Thr Pro Gln Val Ser
              70
Gly Ser Ile Ser Ala Leu Leu Val Lys Asp Asn Gln Ser Val His Ala
        85
Gly Asp Val Leu Phe Arg Ile Asp Glu Thr Pro Phe His Ile Ala Val
    100 105
Leu Asn Ala Gln Ala Gln Leu Ala Lys Ala Gln Ser Asp Leu Ala Lys
 115 120
                                   125
Ala Asn Asn Glu Ala Glu Arg Arg Arg His Leu Ser Arg Asn Tyr Ile
 130 135 140
Ser Ala Glu Asp Leu Asp Thr Ala Asn Ile Asn Val Lys Ala Met Gln
145 150 155
                                  160
Ala Ser Leu Lys Val Ala Glu Ala Thr Leu Lys Gln Ala Glu Trp Gln
      165 170 175
Leu Thr Gln Thr Val Val Lys Ala Pro Val Asp Gly Trp Ile Thr Ser
             185 190
        180
Leu Ser Thr Arg Val Gly Asp Tyr Ala Thr Thr Gly Gln Pro Val Phe
 195 200 205
Ala Leu Val Asp Ser Arg Ser Phe Tyr Val Val Gly Tyr Phe Glu Glu
                 215 220
Thr Lys Leu Arg His Ile Arg Glu Gly Ala Pro Ala Arg Ile Thr Leu
              230 235
Tyr Ser Gly Ala Glu Thr Lea Gln Gly His Val Ser Ser Ile Gly Arg
         245 250 255
Ala Ile Tyr Asp Gln Ser Val Glu Thr Asp Ser Gly Leu Val Pro Asp
        260 265 270
Ile Lys Pro Asn Val Pro Trp Val Arg Leu Ala Gln Arg Val Pro Val
 275 280 285
Arg Val Glu Phe Asp Gln Leu Pro Lys Asp Ile Thr Leu Val Ser Gly
290 295
Thr Thr Cys Thr Val Ala Ile Gly Ser Arg
               310
```

<210> 6238 <211> 400 <212> PRT

<213> Enterobacter cloacae

115

<400> 6238 Asn Gln Cys Ile Pro Val Ser Arg Met Lys Asn Gln Ser Val Ile Arg 1 Gln Phe Ser Glu Ser Glu Leu His Gln Gln Leu Glu Thr Phe Gly Asn 25 20 His Asp Lys Gln Leu Ser Arg Leu Ile Arg Tyr Phe Ser His Leu Arg 40 Tyr Asn Thr Ala Lys Thr Tyr Leu His Trp Leu Arg Val Trp Asn Glu 55 Trp Tyr Leu Ala Asn Ala Arg Leu His Thr Asp Trp Pro Val Ser Ser 75 70 Leu Pro Val Ser Glu Asp Ala Leu Leu Ala Phe Met Gly His Leu Glu 90 85 Gly Lys Leu Ser Arg Ser Ser Ile Asn Ser Cys Leu Gln Ala Leu Asn 100 105 110 Ser Ile His Lys Lys Gly Leu Asn Leu Pro Gly Ile Ile Thr Ser Glu

```
Ala Trp Tyr Met Leu Glu Ala Leu Lys Gln Ser Glu Ala Arg Lys Arg
 130
       135
Lys Thr Thr Lys Gln Ala Thr Pro Phe Leu Ile Gly Asp Leu Lys Ala
145 150 155
Leu Ile Lys Leu Arg Ser Thr Thr Asn Ser Val Arg Lys Leu Arg Asp
    165 170
                                           175
Leu Cys Leu Ile Trp Thr Gly Phe Glu Thr Leu Leu Arg Ser Ser Glu
 180 185 190
Ile Arg Arg Ile Arg Leu Lys Asp Leu Ser Leu Asp Ser Met Thr Gly
  195 200 205
Glu Phe Asn Leu Thr Val Tyr Arg Thr Lys Thr Asn Ile Ser Thr Leu
 210 215 220
Leu Thr Tyr Arg Leu Thr Arg Gln Leu Thr Asn Cys Leu Leu Arg Leu
225 230 235 240
Met Asn Leu Val Lys Met Asp Gln His Ser His Pro Asp Glu Tyr Leu
           245 250 255
Phe Gln Ala Val Asn Phe His Asp Thr Gly Tyr Met Pro Pro Gly Trp
         260 265 270
Lys Leu Arg Ser Lys Gly Asn Glu Leu Ser Glu Leu Leu Lys Arg His
275 280 285
Asn Leu Pro Tyr Arg Ala Lys Gln Ser Leu Leu Asn Asp Glu Asp Glu
 290 295 300
Glu Asp Thr Val Asp Asp Ala Gly Met Leu Ser Lys Asn Ser Leu Leu
      310
                              315 320
Arg Ala Phe Lys Glu Met Trp Asn Glu Leu Tyr Pro Asn Glu Thr Lys
           325 330 335
Thr Arg Tyr Trp Thr Gly His Ser Val Arg Val Gly Gly Ala Ile Gln
        340 345 350
Leu Asp Ile Glu Gly Tyr Ser Leu Pro Gln Ile Met Glu Met Gly Asn
355 360 365
Trp Ser Asn Glu Glu Met Val Met Arg Tyr Ile Arg Asn Ile Glu Ala
370 375 380
Gly Lys Lys Ala Met Ile Lys Leu Met Arg Asn Ala Phe Asp Glu
               390
<210> 6239
<211> 344
<212> PRT
<213> Enterobacter cloacae
<400> 6239
His Leu Cys Ser Ala Arg Ser Ala Trp Ala Ala Lys Leu Ile Gly Asn
                           10
Asn Met Ser Leu Glu Lys Arg Met Ser Tyr Asp Asp Leu Pro Tyr Phe
Arg Asp Gln Ile Leu Glu Arg Ile Asp Ser Leu Lys Cys Phe Phe Ser
      35
                    40
                                    4.5
Asn Thr Pro Pro Met Met Ala Asn Leu Met Thr Val Ser Thr Val Ser
                 55
Arg Thr Glu Glu Arg Leu Lys Gln Val Lys Pro Ile Arg Val Ser Ile
               7.0
                              7.5
Lys Asp Asp Ala Ser Val Glu Glu Ile Ile Gln Ala Leu Thr Asp Ile
                           90
           85
Cys Val Asp Asp Ile Glu Ser Leu Ser His Asp Ser Thr Lys Val Thr
                        105
                              110
        100
Thr Lys Tyr Pro Gly Leu Ile Ile Val Pro Glu Arg Ala Asp Leu Leu
     115
                     120
                                    125
Glu Ser Leu Ile Thr Ser Ile Asn Glu Ala Lys Asn Asp Phe Ala Ala
               135
                                  140
Ala Met Arg Arg Ile Asp Asn Lys Lys Asn Val Arg Phe Asp Lys Val
               150
                     155
```

```
His Lys Lys Leu Pro Gly Leu Val Ala Met His Ser Thr Arg Asn Ile
         165
                            170
Leu Phe Ile Lys Ser Gln Leu Lys Lys Val Thr Phe Ser Trp Arg Leu
      180
                        185
                                        190
Asn Arg Asn Gln Glu Val Lys Thr Ala Glu Gln Leu Val Ser Leu Leu
 195 200 205
Glu Arg Arg Arg Ala Ser Glu Val Lys Asn Val Ala Thr Thr Asn Leu
 210 215
                                  220
Asn Val Val Ser Asn Ile Asp Lys Ala Leu His Arg Leu Glu Phe His
225 230 235 240
Pro Leu Lys Gln Gly Glu Ser Tyr Arg Leu Cys Arg Thr Asn Ser Phe
       245 250 255
Pro Val Pro Ile Ala His Ile Phe Ala Phe Arg Pro Glu Gly Gln Glu
       260 265 270
Arg Asn Gly Asn Lys Tyr Ala Glu Thr Asp Tyr Ser Val Val Lys Ala
      275 280 285
Ser Leu Pro Ile Phe Ala Ala Gly Asn Ile Pro Gln Leu Lys Thr Leu
 290 295 300
Ser Asp Trp Ala Pro Glu Asn Ser Gln Gly Pro Ser Asn Gln Arg Lys
305 310 315 320
Leu Ser Leu Lys Tyr Thr Glu Leu Val Pro Gly Ala Glu Leu Gly Ile
 325 330
Phe Ile Val Ser Pro Glu Asn
         340
<210> 6240
<211> 202
<212> PRT
<213> Enterobacter cloacae
<400> 6240
Phe Ser Gln Ile Glu Lys Met Gly Arg Arg Phe Asn Phe Asn Ser Ser
Ala Ser Arg Tyr Ser Leu Asn Pro Leu Gly Tyr Ala Gly Ile Gly Ala
         20
                        25
Asp Gly Ala Phe Asn Thr Ala Ile Ser Phe Thr Thr Asn Thr Asn Trp
     35
                    40
Gln Trp Tyr Ser Gly Glu Ala Ala Met Ser Asn Leu Ser Gln Met Leu
 50
                  5.5
Ala Leu Thr Ile His Asn Phe Leu Ser Ala Ala Thr Gly Ile Ala Leu
                   75
            7.0
65
Ala Phe Ala Leu Phe Arg Gly Phe Ala Arg Arg Glu Ala Thr Gly Ile
                           90
           8.5
Gly Asn Phe Trp Ala Asp Val Thr Arg Val Thr Leu Tyr Val Leu Leu
       100
                         105
Pro Ile Ser Val Val Tyr Gly Val Phe Leu Ile Ala Ser Gly Val Pro
      115
                     120
                                    125
Gln Thr Leu Ala Ala Ser Val Asp Val Ser Thr Leu Glu Gly Val Arg
                135
                                  140
Gin Thr Leu Gly Leu Gly Pro Val Ala Ser Gln Glu Ala Ile Lys Met
                               155
145 150
Leu Gly Thr Asn Gly Gly Gly Pne Phe Asn Ala Asn Ser Ala His Pro
                            170
          165
Phe Glu Asn Pro Asp Ala Leu Thr Asn Phe Ile Glu Leu Leu Val Phe
         180
                        185
Thr Thr Asp Ser Arg Ile Arg Thr Ser Gly
      195
<210> 6241
```

<210> 624 <211> 101 <212> PRT <213> Enterobacter cloacae

```
<400> 6241
Ile Leu Ile Cys Ala Leu Ile Val Ser Val Leu Leu Leu Ile Pro Leu
                                    10
Ala Met Val Leu Ser Pro Trp Leu Leu Gly Val Leu Arg Phe Leu Leu
                               25
                                                    30
Gly Ala Ala Asp Gly Ala Leu Leu Pro Ala Val Leu Thr Leu Leu Val
                        40
                                            4.5
Phe Phe Ser Ser Phe Leu Ile Ala Gly Arg Phe Phe Cys Phe Phe Gln
                                           60
                       55
Ser Phe Arg Asp Leu Gly Ile Val Ser Gly Pro Leu Val Gly Ala Gly
                   70
                                       75
Ile Ser Ala Cys Phe Gly Phe Arg Ala Val Phe Ile Val Thr Ala Gly
                                    90
               85
Val Val Leu Phe Asn
            100
<210> 6242
<211> 146
<212> PRT
<213> Enterobacter cloacae
<400> 6242
Trp Pro Ser Met Pro Asp Ser Ser Gly Cys Gly Met Pro Tyr Trp Lys
Arg Gly Leu Thr Met Ile Val Lys Phe His Pro Arg Gly Arg Gly Gly
                                25
                                                    30
Gly Ala Gly Pro Val Asp Tyr Leu Leu Gly Lys Asp Arg Gln Arg Asp
                                                45
        35
                            40
Gly Ala Ser Val Leu Gln Gly Lys Pro Glu Glu Val Arg Glu Leu Ile
                        55
Asp Ala Ser Pro Tyr Ala Lys Lys Tyr Thr Ser Gly Val Leu Ser Phe
                                        75
                    70
Ala Glu Gln Asp Leu Pro Pro Gly Gln Arg Leu Lys Arg Leu Met Ala
                85
                                    90
Ser Phe Gln Arg Val Leu Met Pro Gly Leu Asp Lys Asp His Tyr Thr
                                105
                                                    110
Val Leu Trp Val Glu His Arg Asp Lys Gly Pro Ala Gly Ala Glu Leu
                            120
Pro Asp Pro Lvs Pro Arg Asn Cys Leu Thr Ala Asn Gly Pro Thr Ile
                                            140
Leu
145
<210> 6243
<211> 144
<212> PRT
<213> Enterobacter cloacae
<400> 6243
Met Pro Leu Thr Arg Leu Arg Leu Ala Gln His Arg Ala Asp Arg Glu
Lys Ile Ser Arg Pro Ser Arg Arg Tyr Gln Glu Ala Gly Leu Ala Asp
            20
Lys Arg Ser Lys Met Leu Thr Met Trp Val Thr Glu Asp Glu His Arg
        35
                            4.0
Arq Leu Leu Glu Arq Cys Asp Gly Lys Gln Leu Ala Ala Trp Met Arg
```

55

Gln Thr Cys Leu Asp Glu Lys Pro Ala Arg Ala Gly Lys Leu Pro Ser

Ile Ser Pro Ala Leu Leu Arg Gln Leu Ala Gly Met Gly Asn Asn Leu 85 Asn Gln Ile Ala Arg Gln Val Asn Ala Gly Gly Ser Ser Gly Leu Asp 100 105 Arg Val Gln Val Val Ala Ala Leu Met Ala Ile Asp Ala Gly Leu Glu 115 120 125 Arg Leu Arg His Ala Val Leu Glu Lys Gly Ala Asp Asp Asp Arg 135 140 <210> 6244 <211> 331 <212> PRT <213> Enterobacter cloacae <400> 6244 Ala Arg Thr Arg Arg Phe Val Met Val His Arg Ser Met Leu Met Ser 1.0 Lys Lys Glu Gln Thr Leu Met Thr Pro Tyr Leu Gln Phe Asn Arg Ser 25 20 Gln Trp Ala Ala Leu Arg Asp Ser Val Pro Met Thr Leu Thr Glu Gly 35 4.0 Glu Ile Ala Arg Leu Lys Gly Ile Asn Glu Asp Leu Ser Leu Glu Glu 55 60 Val Ala Glu Ile Tyr Leu Pro Leu Ser Arg Leu Leu Asn Phe Tyr Ile 75 70 Ser Ser Asn Leu Arg Arg Gln Ala Val Leu Glu Gln Phe Leu Gly Thr 90 95 85 Asn Gly Gln Arg Ile Pro Tyr Ile Ile Ser Ile Ala Gly Ser Val Ala 100 Val Gly Lys Ser Thr Thr Ala Arg Val Leu Gln Ala Leu Leu Ser Arg 125 115 120 Trp Pro Glu His Arg Ser Val Glu Leu Ile Thr Thr Asp Gly Phe Leu 135 140 His Pro Asn Glu Val Leu Lys Glu Arg Gly Leu Met Lys Lys Gly 150 160 155 Phe Pro Leu Ser Tyr Asp Met His Arg Leu Val Lys Phe Val Ser Asp 165 170 175 Leu Lys Ser Gly Val Pro His Val Thr Ala Pro Val Tyr Ser His Leu 185 190 180 Ile Tyr Asp Arg Ile Pro Asp Gly Asp Lys Thr Val Val Gln Pro Asp 200 205 195 Ile Leu Ile Leu Glu Gly Leu Asn Val Leu Gln Ser Gly Met Asp Tyr 215 220 Pro His Asp Pro His His Val Phe Val Ser Asp Phe Val Asp Phe Ser 235 Ile Tyr Val Asp Ala Pro Glu Asp Leu Leu Gln Arg Trp Tyr Ile Asn 255 245 250 Arg Phe Leu Lys Phe Arg Glu Gly Ala Phe Thr Asp Pro Asp Ser Tyr 265 260 270 Phe His Asn Tyr Ala Gln Leu Ser Glu Glu Glu Ala Ile Ser Val Ala 280 285 Thr Gly Leu Trp Asn Glu Ile Asn Tyr Val Asn Leu Lys Glu Asn Ile 295 300 Leu Pro Thr Arg Glu Arg Ala Ser Leu Ile Leu Thr Lys Ser Glu Lys 305 310 315 His Ala Val Asp Gln Ile Arg Leu Arg Lys 325

<sup>&</sup>lt;210> 6245 <211> 395 <212> PRT

## <213> Enterobacter cloacae

```
<400> 6245
Ile Ile Ser Arg Val Phe Ser Leu Ser Leu Trp Glu Arg Ala Gly Val
Trp Gly Val His Ala Pro Pro His Pro Asn Pro Leu Pro Gln Gly Glu
                       25
Gly Ile Tyr Ile Cys Glu Gln Tyr Arg Arg His Ala Thr Glu Cys Ala
                    4.0
                                    45
     35
Ser Ser Glu Arg Ile Arg Val Met Leu Gln Phe Ile Leu Arg Arg Leu
                 55
Gly Leu Val Ile Pro Thr Pne Ile Gly Ile Thr Leu Leu Thr Phe Ala
      7.0
                              7.5
Phe Val His Met Ile Pro Gly Asp Pro Val Met Ile Met Ala Gly Glu
                      90
           8.5
Arg Gly Ile Ser Pro Glu Arg His Ala Gln Leu Leu Ala Glu Leu Gly
        100 105 110
Leu Asp Lys Pro Met Trp Gln Gln Tyr Leu His Tyr Ile Trp Gly Val
     115 120 125
Leu His Gly Asp Leu Gly Ile Ser Leu Lys Ser Arg Leu Pro Val Trp
 130 135 140
Asp Glu Phe Val Pro Arg Phe Lys Ala Thr Leu Glu Leu Gly Ile Cys
145 150 155
Ala Met Ile Phe Ala Thr Ala Val Gly Ile Pro Val Gly Val Leu Ala
           165 170 175
Ala Val Lys Arg Gly Ser Ile Phe Asp His Thr Ala Val Gly Leu Ala
        180 185 190
Leu Thr Gly Tyr Ser Met Pro Ile Phe Trp Trp Gly Met Met Leu Ile
         200 205
Met Leu Val Ser Val Gln Tro Asn Leu Thr Pro Val Ser Gly Arg Val
210 215 220
Ser Asp Met Val Phe Leu Asp Asp Thr Asn Pro Leu Thr Gly Phe Met
225 230 235 240
Leu Ile Asp Thr Ala Ile Trp Gly Glu Glu Gly Asn Phe Ile Asp Ala
           245 250 255
Val Ala His Met Ile Leu Pro Ala Met Val Leu Gly Thr Ile Pro Leu
         260 265 270
Ala Val Ile Val Arg Met Thr Arg Ser Ser Met Leu Glu Val Leu Gly
     275 280 285
Glu Asp Tyr Ile Arg Thr Ala Arg Ala Lys Gly Leu Thr Arg Met Arg
                 295 300
Val Ile Ile Ile His Ala Leu Arg Asn Ala Met Leu Pro Val Val Thr
               310 315
Val Ile Gly Leu Gln Val Gly Thr Leu Leu Ala Gly Ala Ile Leu Thr
           325
                           330
Glu Thr Ile Phe Ser Trp Pro Gly Leu Gly Arg Trp Leu Ile Asp Ala
                        345 350
         340
Leu Gln Arg Arg Asp Tyr Pro Val Val Gln Gly Gly Val Leu Leu Val
                     360
     355
Ala Thr Met Ile Ile Leu Val Asn Leu Leu Val Asp Leu Leu Tyr Gly
                  375
Val Val Asn Pro Arg Ile Arg His Lys Lys
               390
```

<210> 6246 <211> 304 <212> PRT

<213> Enterobacter cloacae

<400> 6246

Gly Ala Ile Met Ser Gln Val Thr Gln Asn Lys Val Val Thr Ala Pro

```
10
Val Pro Met Thr Pro Met Gln Glu Phe Trp His Tyr Phe Lys Arg Asn
                                       30
                        25
        20
Lys Gly Ala Val Val Gly Leu Val Tyr Val Ser Ile Met Ile Leu Ile
     35
                     40
Ala Val Phe Ala Asn Val Leu Ala Pro Tyr Asn Pro Ala Asp Gln Phe
                  55
Arg Asp Ala Leu Leu Ala Pro Pro Ala Trp Gln Asp Gly Gly Ser Leu
            7.0
                              75
Ala His Leu Leu Gly Thr Asp Asp Val Gly Arg Asp Val Leu Ser Arg
         85
                           90
Leu Met Tyr Gly Ala Arg Leu Ser Leu Leu Val Gly Cys Leu Val Val
        100 105
                                      110
Val Leu Ser Leu Ile Met Gly Ile Val Leu Gly Leu Val Ala Gly Tyr
     115 120 125
Phe Gly Gly 1le Val Asp Asn Ile Ile Met Arg Val Val Asp Ile Met
                      140
         135
Leu Ala Leu Pro Ser Leu Leu Leu Ala Leu Val Leu Val Ala Ile Phe
        150 155
                                            160
Gly Pro Ser Ile Gly Asn Ala Ala Leu Ala Leu Thr Phe Val Ala Leu
          165 170 175
Pro His Tyr Val Arg Leu Thr Arg Ala Ala Val Leu Val Glu Val Asn
      180 185 190
Arg Asp Tyr Val Thr Ala Ser Arg Val Ala Gly Ala Gly Ala Met Arg
         200 205
195
Gln Met Phe Ile Ser Ile Phe Pro Asn Cys Leu Ala Pro Leu Ile Val
      215 220
 210
Gln Ala Ser Leu Gly Phe Ser Asn Ala Ile Leu Asp Met Ala Ala Leu
225 230 235
Gly Phe Leu Gly Met Gly Ala Gln Pro Pro Thr Pro Glu Trp Gly Thr
          245 250 255
Met Leu Ser Asp Val Leu Gln Phe Ala Gln Ser Ala Trp Trp Val Val
        260 265 270
Thr Phe Pro Gly Leu Ala Ile Leu Leu Thr Val Leu Ala Phe Asn Leu
   275 280 285
Met Gly Asp Gly Leu Arg Asp Ala Leu Asp Pro Lys Leu Lys Gln
                  295
```

<210> 6247 <211> 344 <212> PRT

<213> Enterobacter cloacae

<400> 6247

Cys Arg Glu Ala Asn Thr Met Ser Thr His Gln Ala Thr Thr Gln Gln 1.0 Pro Leu Leu Gln Ala Ile Asp Leu Lys Lys His Tyr Pro Val Lys Lys 20 25 Gly Ile Phe Ala Pro Glu Arg Leu Val Lys Ala Leu Asp Gly Val Ser 4.0 35 Phe Ser Leu Glu Arg Gly Lys Thr Leu Ala Val Val Gly Glu Ser Gly 60 Cys Gly Lys Ser Thr Leu Gly Arg Leu Leu Thr Met Ile Glu Thr Pro 70 75 Thr Gly Gly Glu Leu Tyr Tyr Gln Gly Gln Asp Leu Leu Lys His Asp 90 Pro Gln Ala Gln Lys Leu Arg Arg Gln Lys Ile Gln Ile Val Phe Gln 105 110 Asn Pro Tyr Gly Ser Leu Asn Pro Arg Lys Lys Val Gly Gln Ile Leu 125 120 Glu Glu Pro Leu Leu Ile Asn Ser Asn Leu Ser Lys Glu Gln Arg Arg

```
130
Glu Lys Ala Leu Ala Met Met Ala Lys Val Gly Leu Lys Thr Glu His
                           155
      150
Tyr Asp Arg Tyr Pro His Met Phe Ser Gly Gly Gln Arg Gln Arg Ile
          165 170
Ala Ile Ala Arg Gly Leu Met Leu Asp Pro Asp Val Val Ile Ala Asp
       180 185
                              190
Glu Pro Val Ser Ala Leu Asp Val Ser Val Arg Ala Gln Val Leu Asn
   195 200 205
Leu Met Met Asp Leu Gln Gln Asp Leu Gly Leu Ser Tyr Val Phe Ile
                         220
  210 215
Ser His Asp Leu Ser Val Val Glu His Ile Ala Asp Glu Val Met Val
225 230 235
                                                 240
Met Tyr Leu Gly Arg Cys Val Glu Lys Gly Thr Lys Asp Gln Ile Phe
                 250 255
            245
Thr Asn Pro Arg His Pro Tyr Thr Gln Ala Leu Leu Ser Ala Thr Pro
         260 265 270
Arg Leu Asn Pro Asp Asp Arg Arg Glu Arg Ile Lys Leu Thr Gly Glu
      275 280 285
Leu Pro Ser Pro Leu Asn Pro Pro Pro Gly Cys Ala Phe Asn Ala Arg
                 295 300
 290
Cys Arg Arg Arg Phe Gly Pro Cys Thr Gln Leu Gln Pro Gln Leu Lys
305 310 315 320
Asp Tyr Gly Gly Gln Leu Val Ala Cys Phe Ala Val Asp Gln Asp Glu
             325
                             330
Asn Gly Glu Lys Pro His Ala
          340
<210> 6248
<211> 76
<212> PRT
<213> Enterobacter cloacae
<400> 6248
Gly Trp Cys Tyr Lys Pro Phe Glu Asp Leu Ile Gln Pro Ala Arg Ala
Thr Asp Asp His Asn Lys Arg Ile Glu Leu Tyr Lys Gln Ala Gln Val
         20
                          2.5
                                          3.0
Val Met His Asp Gln Ala Pro Ala Leu Ile Val Ala His Ser Thr Val
                       4.0
 35
Tyr Glu Pro Val Arg Lys Glu Val Lys Gly Tyr Val Val Asp Pro Leu
 50
                   5.5
Gly Lys His His Phe Glu Asn Val Ser Val Glu
                7.0
<210> 6249
<211> 334
<212> PRT
<213> Enterobacter cloacae
<400> 6249
Ser Ser Lys Arg His Glu Met Ala Leu Leu Asn Val Asn Lys Leu Ser
                              1.0
Val His Phe Gly Asp Glu Gly Thr Pro Phe Arg Ala Val Asp Arg Ile
                          25
Ser Tyr Ser Val Asn Gln Gly Glu Val Val Gly Ile Val Gly Glu Ser
                                       4.5
       35
                       40
Gly Ser Gly Lys Ser Val Ser Ser Leu Ala Ile Met Gly Leu Ile Asp
                   55
                                    60
Tyr Pro Gly Arg Val Met Ala Glu Asn Leu Glu Phe Asn Gly Gln Asp
                 70
```

Leu Lys Arg Ile Ser Glu Lys Gln Arg Arg Gln Leu Val Gly Ala Glu 8.5 90 Val Ala Met Ile Phe Gln Asp Pro Met Thr Ser Leu Asn Pro Cys Tyr 105 100 Thr Val Gly Phe Gln Ile Met Glu Ala Ile Lys Val His Gln Gly Gly 115 120 125 Asn Lys Lys Thr Arg Arg Gln Arg Ala Ile Asp Leu Leu Asn Gln Val 130 135 140 Gly Ile Pro Asp Pro Ala Ser Arg Leu Asp Val Tyr Pro His Gln Leu 145 150 155 160 Ser Gly Gly Met Ser Gln Arg Val Met Ile Ala Met Ala Ile Ala Cys 165 170 175 Arg Pro Lys Leu Leu Ile Ala Asp Glu Pro Thr Thr Ala Leu Asp Val 180 185 190 Thr Ile Gln Ala Gln Ile Ile Glu Leu Leu Glu Leu Gln Gln Lys 195 200 205 Glu Asn Met Ala Leu Val Leu Ile Thr His Asp Leu Ala Leu Val Ala 210 215 220 Glu Ala Ala His Lys Ile Ile Val Met Tyr Ala Gly Gln Val Val Glu 230 235 Thr Gly Ser Ser His Asp Ile Pae Arg Ala Pro Arg His Pro Tyr Thr 245 250 255 Gln Ala Leu Leu Arg Ala Leu Pro Glu Phe Ala Gln Asp Lys Ala Arg 265 270 260 Leu Ala Ser Leu Pro Gly Val Val Pro Gly Lys Tyr Asp Arg Pro Gln 275 280 Gly Cys Leu Leu Asn Pro Arg Cys Pro Tyr Ala Thr Asp Lys Cys Arg 290 295 300 Ala Glu Glu Pro Glu Leu Asn Leu Leu Ala Asp Gly Arg Gln Ser Lys 310 315 Cys His Tyr Pro Leu Asp Asp Ala Gly Arg Pro Thr Leu 330 325

<210> 6250 <211> 407 <212> PRT

<213> Enterobacter cloacae

<400> 6250 Gln Ser Ser Thr Ile Val Met Ser Phe Cys Thr Glu Val Val Met Lys 10 Asp Val Val Ile Val Gly Ala Leu Arg Thr Ala Ile Gly Cys Phe Gln 30 20 Gly Ala Leu Ala Arg His Ser Ala Val Asp Leu Gly Ser Val Val Val 40 Arg Ala Leu Val Glu Arg Ser Gly Ile Ala Ala His Glu Ile Asp Glu Val Ile Leu Gly Gln Val Leu Thr Ala Gly Ala Gly Gln Asn Pro Ala 75 Arg Gln Ala Ala Leu Lys Gly Gly Leu Pro Asn Thr Val Ser Ala Ile 8.5 90 Thr Ile Asn Asp Val Cys Gly Ser Gly Leu Lys Ala Leu His Leu Ala 100 105 Thr Gln Ala Ile Gln Cys Gly Glu Ala Asp Val Val Ile Ala Gly Gly 115 120 Gln Glu Asn Met Ser Arg Ala Pro His Val Leu Thr Asp Ser Arg Thr 130 140 135 Gly Ala Gln Leu Gly Asn Ser Gln Leu Leu Asp Ser Leu Val His Asp 150 155 Gly Leu Trp Asp Ala Phe Asn Asp Tyr His Met Gly Val Thr Ala Glu

Asn Leu Ala Arg Glu Tyr Gly Ile Ser Arg Glu Leu Gln Asp Ala Tyr 180 185 190 Ala Leu Ser Ser Gln Gln Lys Ala Arg Ala Ala Ile Asp Ser Gly Arg 195 200 205 Phe Arg Asp Glu Ile Val Pro Val Ser Thr Gln Arg Gln Asn Gly Glu 210 Ala Leu Ile Val Asp Thr Asp Glu Gln Pro Arg Thr Asp Ala Ser Ala 230 235 240 Glu Gly Leu Ala Lys Leu Asp Pro Ala Phe Glu Thr Leu Gly Ser Val 245 250 255 Thr Ala Gly Asn Ala Ser Ser Ile Asn Asp Gly Ala Ala Ala Val Met 265 Met Met Ser Glu Ser Lys Ala Glu Glu Leu Ala Leu Pro Val Leu Ala 275 285 Arg Ile Lys Ala Phe Ala Ser Val Gly Val Asp Pro Ala Leu Met Gly 295 290 300 Ile Ala Pro Val Tyr Ala Thr Arg Arg Cys Leu Glu Arg Ala Gly Trp 305 310 315 Glu Leu Ser Asp Val Asp Leu Ile Glu Val Asp Glu Ala Phe Ala Ala 325 330 335 Gin Ala Ile Ser Val Gly Lys Met Leu Glu Trp Asp Pro Leu Arg Val 350 340 345 Asn Val Asn Gly Gly Ala Ile Ala Leu Gly His Pro Ile Gly Ala Ser 365 355 360 Gly Cys Arg Ile Leu Val Ser Leu Val His Glu Met Lys Lys Arg Asn 375 370 380 Ala Arg Lys Gly Ile Ala Thr Leu Cys Ile Gly Gly Gly Gln Gly Val 385 390 395 Ala Leu Ala Ile Glu Arg 405

<210> 6251 <211> 239 <212> PRT <213> Enterobacter cloacae

<400> 6251 Lys Arg Asn Val Ile Leu Ile Giu Gly Phe Phe Met Phe Lys Lys Ser 10 Leu Leu Ala Ser Leu Ile Ser Ala Ser Phe Ala Ala Ser Ala Val 20 3.0 Thr Val Asp Leu Arg His Glu Tyr Ile Asp Ser Gly Ser Asn Ala Asp 40 4.5 Arg Val Ala Val Ser His Arg Phe Asp Asn Gly Phe Gly Phe Ser Val 55 Glu Ala Lys Trp Lys Ser Gly Gly Asp Lys Ala Asp Gln Pro Phe Ala 7.0 75 Asp Val Val Gly Asn Gly His Glu Asp Gln Ile Ser Trp Arg Trp Lys 90 Ala Thr Asp Asn Ile Ala Leu Thr Pro Ala Phe Thr Ile Glu Ser Thr 105 110 Asp Ser Arg Thr Ile Tyr Lys Pro Asn Leu His Val Gln Tyr Ser Phe 115 120 125 Asp Asn Gly Phe Tyr Val Ala Ala Arg Tyr Arg Tyr Glu Tyr Thr Arg 130 135 140 Tyr Pro Ser Ser Ser Asn Lys Asp Asp Lys Val Asn Arg Gly Asp 145 150 155 160 Ala Trp Val Gly Trp Val Leu Gly Asp Trp Arg Thr Glu Leu Asn Tyr 165 170 175 Val Tyr Ala Lys Ser Ser Glu Gly Val Ala Arg Asn Asn Asn Lys Asp 180 185

<211> 92

```
Tyr Ser Asn Glu Tyr Asn Ala Lys Leu Ala Tyr Lys Trp Asp Lys Asn
                       200
   195
Trp Ala Pro Tyr Val Glu Val Gly Asn Val Gly Val Lys Asp Thr Asp
                   215
   210
                                     220
Glu Arg Gln Thr Arg Phe Arg Leu Gly Val Ala Tyr Ser Phe
                230
<210> 6252
<211> 109
<212> PRT
<213> Enterobacter cloacae
<400> 6252
Ser Arg Tyr Ile Met Arg Tyr Ser Pro Glu Ala Leu Thr Ala Phe Val
Glu Thr Val Ala Ala Gly Ser Phe Ser Ala Ala Ala Arg Arg Leu Arg
                         25
       20
                                            3.0
Lys Ser Gln Ser Thr Ile Ser Thr Ser Ile Ala Asn Leu Glu Ala Asp
 35
                    40
                                      4.5
Leu Gly Phe Glu Leu Phe Asp Arg Ser Ala Arg His Pro Val Leu Thr
                 5.5
                                     60
Ala Gln Gly Glu Gln Val Leu Gly Tyr Val Gln Ser Ile Leu Ala Ala
65 70
                               7.5
Ser Ala Arg Leu Asp Glu Leu Ala Val Ser Leu Thr Ala Gln Lys Glu
                         90
          85
Gly Pro Val Leu Thr Phe Val Leu Ser Asp Thr Leu
         100
<210> 6253
<211> 185
<212> PRT
<213> Enterobacter cloacae
<400> 6253
Pro Ala Val Leu Glu Gln Met Met Ser Lys Phe Asp Gln Arg Phe Pro
                          10
His Thr Glu Phe Glu Cys Leu Ile Gly Glu Glu Glu Asp Val Ile Asp
                           25
       20
Leu Leu Gln Lys Glu Arg Ala Gln Ile Gly Leu Thr Glu Ala Arg Asp
    3.5
                        40
                                         45
Ser Tyr Pro Thr Asp Ile Gly Ala Thr Arg Leu Pro Met Gln Thr Arg
 50 55
                                     60
Met Ala Ile Tyr Val Ser Ala Gly His Pro Leu Ala Gly Gln His Glu
       70 75
Thr Gln Ala Asp Glu Leu His Gly Trp Arg Glu Leu Arg Leu Ser Thr
            85
                               90
Tyr Leu Glu Arg Glu Ala Pro Leu Ala Arg Gly Pro Val Trp Ser Ala
         100 105
                                            110
Pro Asn Tyr Leu Leu Leu Ser Met Ala Val Gln Gly Phe Gly Trp
      115 120 125
Cys Ala Leu Pro Cys Ala Leu Val Asp Glu Phe Ala Ala Ser Lys Ser
   130 135
                                     140
Leu Val Gln Leu Asn Val Pro Gly Trp Pro Arg Ser Ile Ala Ile Asp
145 150
                                 155
                                                   160
Leu Val Trp Asn Lys Arg Thr Pro Pro Gly Val Ala Gly Ser Trp Leu
          165
                               170
Arg Gln Tyr Leu Gln Asp Ala Arg
          180
<210> 6254
```

<212> PRT <213> Enterobacter cloacae

<210> 6255 <211> 476 <212> PRT <213> Enterobacter cloacae <220> <221>UNSURE

<400> 6255 Pro Val Thr Leu Thr Thr Leu Asn Thr Leu Ser Gly Lys Thr Arg Arg 1.0 Phe Asp Met Ala Tyr Gln Thr Val Asn Pro Ala Thr Asn Gln Leu Ile 25 30 20 Lys Glu Tyr Pro Ser His Thr Asp Ala Asp Val Glu Ala Ala Leu Lys 40 4.5 Ala Ala Asp Ala Leu Tyr His Ser Glu Trp Ala Lys Gly Asp Ile Ser 55 60 Gln Arg Leu Pro Val Leu His Lys Leu Ala Asp Leu Ile Asp Glu Arg 7.0 75 Val Glu Asp Leu Ala Lys Ile Ala Ser Gln Glu Met Gly Lys Leu Ile 85 90 Glu Gln Ser Arg Gly Glu Val Lys Leu Cys Ala Gln Ile Ala Arg Tyr 100 105 110 Tyr Ala Asp Asn Ala Lys Gln Phe Leu Ala Pro Val Lys Tyr Asp Ser 125 115 120 Glu Leu Gly Glu Ala Trp Val Glu His His Pro Ile Gly Val Leu Met 135 140 Ala Val Glu Pro Trp Asn Phe Pro Tyr Tyr Gln Leu Met Arg Val Leu 150 155 160 Ala Pro Asn Leu Ala Ala Gly Asn Pro Val Ile Ala Lys His Ala Ser 165 170 175 Ile Val Pro His Cys Ala Glu Thr Phe Ala Gln Leu Val Arg Glu Ser 185 190 180 Gly Arg Pro Arg Lys Gly Ala Trp Thr Asn Leu Phe Ile Ser Ser Glu 195 200 205 Gln Val Ala Asn Ile Ile Ala Asp Asp Arg Val Gln Gly Ala Ala Leu 220 215 Thr Gly Ser Glu Lys Pro Gly Ser Val Val Ala Ala Gln Xaa Ala Lys 230 235 240 225 His Ile Lys Lys Ser Thr Leu Glu Leu Gly Gly Asn Asp Val Phe Val 245 250 255 Val Leu Asp Asp Ala Glu Leu Glu Lys Ala Val Lys Ile Gly Val Asn 260

210

215

```
Ala Arq Leu Asn Asn Ala Gly Gln Val Cys Thr Ala Ala Lys Arg Phe
                     280
Ile Leu His Glu Lys Ile Ala Asp Ala Phe Leu Ser Lys Phe Thr Glu
                                  300
                  295
Ala Phe Lys Gln Val Lys Ile Gly Asp Pro Leu Asp Glu Ser Thr Thr
                    315
               310
Leu Gly Pro Leu Ser Ser Lys Asp Ala Leu Glu Thr Leu Thr Lys Gln
            325
                            330
                                            335
Val Asn Glu Ala Val Lys Asn Gly Ala Lys Leu His His Gly Gly Lys
        340 345
Pro Val Gln Arg Asp Gly Ser Phe Phe Glu Pro Thr Ile Leu Thr Asn
 355 360
                                      365
Ile Ser Arg Asp Asn Pro Ala Tyr Phe Glu Glu Phe Phe Gly Pro Val
 370 375 380
Ala Gln Ile Tyr Vai Val Lys Asn Asp Asp Glu Ala Val Ala Leu Ala
385 390 395
Asn Asp Ser His Tyr Gly Leu Gly Gly Ala Val Phe Ser Gln Asn Ile
       405 410 415
Glu Arg Ala Lys Lys Met Ala Ser Arg Ile Glu Thr Gly Met Val Tyr
 420 425 430
Ile Asn Trp Leu Thr Asp Thr Ala Ala Glu Leu Pro Phe Gly Gly Val
435 440 445
Lys Arg Ser Gly Tyr Gly Arg Glu Leu Ser Asp Leu Gly Ile Lys Glu
450 455 460
Phe Val Asn Gln Lys Leu Val Val Val Arq Lys
              470
<210> 6256
<211> 621
<212> PRT
<213> Enterobacter cloacae
<400> 6256
Ile Gly Arg Arg Asn Met Ala Ile Ile Ile Pro Thr Val Ser Ser Cys
                          10
Ser Glu Lys Ile Thr Ala Gly Glu Lys Arg Leu Ala Arg Leu Leu Glu
                      2.5
Gly Gly Leu Ser Glu Gln Cys Thr Cys Trp Tyr Asp Thr Arg Met Gly
                    4.0
Asp Lys Asp Asp His Pro Asp Phe Val Ile Leu Ala Pro Asp Lys Gly
 5.0
                55 60
Leu Leu Phe Ile Glu Val Lys Asp Trp Tyr Ile Thr Lys Ile Lys Ser
              7.0
                               7.5
65
Ala Asn Lys Thr His Ile Asn Tyr Glu Thr Lys Asn Gly Ile Glu Pro
                            90
            8.5
Leu Lys Asn Pro Leu Glu Gln Val Arg Gln Tyr Thr Phe His Ile Ile
                         105
        100
Asn Ser Leu Lys Lys Asp Pro Leu Leu Arg Gln Lys Gln Gly Asp His
          120 125
      115
Glu Gly Gly Phe Ile Met Pro Tyr Gly Tyr Gly Val Tyr Leu Ser Asn
                   135
                                  140
Ile Thr Arg Ala Gln Leu Glu Lys Ser Phe Thr Pro Glu Glu Leu Asn
                150
                               155
145
Glu Ile Leu Pro Ala Ser Gln Val Ile Cys Lys Asp Glu Leu Asn Glu
                170 175
            165
Phe Met Thr Arg Glu Gln Ile Ser Gly Arg Leu Glu Ser Leu Leu Lys
                             190
         180 185
His His Phe Val His Asn Thr Thr Pro Gln Gln Leu Asp Arg Ile Arg
      195
          200
                                     205
Trp His Leu Tyr Pro Asp Val Arg Ile Asn Pro Ser Val Thr Arg Val
```

```
Gly Leu Asp Asn Phe Thr Phe His Thr Pro Asp Val Val Cys Met Met
                           235
    230
225
Asp Arg Asn Gln Glu Gln Leu Ala Arg Ser Met Gly Ala Gly His Arg
          245
                           250
Val Ile His Gly Val Ala Gly Ser Gly Lys Thr Leu Ile Leu His His
   260 265
Arg Cys Ile Glu Leu Ala Asn Asn Ile Glu Asn Thr Lys Pro Ile Leu
   275 280
                                     285
Val Ile Cys Tyr Asn Ile Thr Leu Ala Lys Lys Leu Lys Ala Gln Leu
  290 295 300
Glu Gln His Ser Leu Arg Leu Pro Val Glu Val Ile His Phe His Ala
305 310 315
Trp Cys Tyr Gln Gln Leu Asn Ala His Arg Arg Leu Pro Pro Arg Ser
       325 330
                                           335
Lys Asn Phe Ile Glu Leu Met Glu Asn Ala Leu Thr Val Ala Phe Glu
         340 345 350
Glu Gly Ala Ile Thr Pro Glu Gln Tyr Ser Ala Val Leu Ile Asp Glu
  355 360
                                    365
Gly His Asp Phe Lys Pro Glu Trp Leu Arg Ile Leu Ala Lys Met Pro
 370 375 380
Asp Asn Lys Asp Ser Ser Leu Leu Phe Leu Tyr Asp Asp Ala Gln Ser
385 390 395 400
Ile Tyr Gln Lys Lys Lys Ala Leu Asp Phe Thr Leu Ser Ser Val Asp 405 410 415
Ile Lys Ala Gln Gly Arg Thr Thr Ile Leu Asp Thr Asn Tyr Arg Asn
                        425 430
         420
Thr Arg Gln Ile Leu His Phe Ala Ser Ser Val Pro Phe Asn Tyr Leu
                     440 445
 435
Asn Asn His Ile Glu Ala Ser Leu Lys Tyr Gln Gln Pro Ala Ala Gly
                  455
                                  460
 450
Gly Leu Ser Gly Lys Tyr Pro Ala Leu Ala Ser Phe Asp Asn Gln Asp
               470
                              475
465
Glu Glu Ile Thr Arg Val Leu Asp Trp Val Thr Glu Gln Arg Gln Glu
            485
                          490
Gly Val Ala Trp Ser Glu Ile Ala Ile Leu Cys Pro Ser Thr Tyr Ser
             505 510
         500
Ile Ser Gly Met Leu Ala Pro Arg Leu Glu Ala Arg Lys Ile Pro Tyr
                     520 525
 515
Gln Met Ile Val Ser Ser Asp Asp Lys Lys His Trp Ser Pro Gln Asn
                                 540
                   535
Asp Tyr Leu Cys Val Met Pro Leu Pro Ser Ser Lys Gly Leu Glu Phe
                               555
545
               550
Asn Ser Val Ala Ile Met Asp Ala Ala Lys Glu Arg Asp Ser Glu Asp
            565
                            570
Leu Ser Asp Asp Ile Lys Arg Leu Tyr Val Gly Ile Thr Arg Ala Arg
             585
                                        590
         580
Gln Asn Leu Leu Val Thr Met His Gly Thr Gly Ser Leu Arg Asp His
  595 600
Leu Val Glu Thr Trp Glu Lys Ser Val Lys Ser Ile
                  615
<210> 6257
<211> 189
<212> PRT
<213> Enterobacter cloacae
<400> 6257
Phe Asp Asp Glu Glu Thr Arg Met Lys Lys Leu Asn Val Leu Ile Leu
                           10
Ser Ala Leu Thr Ala Val Ser Gly Ser Ala Leu Ala Met Gly Gly Ser
```

```
Ile Glu Gln Gly Lys Asn Phe Thr Asn Leu Asn Val Glu Met Gly Lys
                           40
Ser Thr Ser Gly Leu Tyr Thr Glu Gly Asn Trp Leu Lys Asn Thr Asp
Asp Gly Thr Thr Thr Gly Gly Val Gly Ala Gly Tyr Asn Phe Glu Val
                   70
Gly Pro Val Met Leu Asn Ala Gly Ala Lys Ala Leu Tyr Val Gly Pro
              8.5
                                   90
Lys Lys Gly Asp Asn Gly Val Ala Phe Pro Val Gly Gly Gly Val Asn
                              105
           100
Val Ala Leu Thr Asp Ser Ile Arg Val Phe Gly Glu Gly Tyr Val Ala
Pro Asp Gly Leu Asn Asn Ser Val Lys Asn Tyr Val Glu Ala Asn Gly
                                          140
   130
           135
Gly Val Ser Trp Thr Pro Val Lys Pro Val Thr Leu Lys Val Gly Tyr
145
                   150
                                      155
Arg His Val Ser Val Asp Gly Lys Asp Gly Arg Pro Asn His Thr Leu
            165
                     170
Val Asp Gly Ala Tyr Phe Gly Gly Gly Val Ser Phe
                              185
           180
<210> 6258
<211> 74
<212> PRT
<213> Enterobacter cloacae
<400> 6258
Gly Ile Leu Gln Met Ala Lys Ile Lys Gly Gln Val Lys Trp Phe Asn
Glu Ser Lys Gly Phe Gly Phe Ile Thr Pro Ala Asp Gly Ser Lys Asp
            20
                               25
Val Phe Val His Phe Ser Ala Ile Gln Gly Asn Gly Phe Lys Thr Leu
                           4.0
                                              45
Ala Glu Gly Gln Asn Val Glu Phe Glu Ile Gln Asp Gly Gln Lys Gly
                       55
  50
 Pro Ala Ala Val Asn Val Thr Ala Ile
<210> 6259
<211> 593
 <212> PRT
 <213> Enterobacter cloacae
 <400> 6259
 Ile Arg Ala Leu Ile Asn Ser Pro Gly Val Lys Val Lys Lys Lys Thr
                                   1.0
 Ile Thr Thr Thr Gly Asn Phe Thr Pro Ala Arg Phe Ala Leu Leu Cys
                                25
 Leu Ala Ile Phe Cys Ser Leu Ala Phe Leu Leu Gly Arg Val Ala Trp
                                               4.5
                            40
 Leu Gln Ile Ile Lys Pro Asp Asn Leu Val Lys Gln Glu Asp Met Arg
                                           60
 Ser Leu Arg Glu Val Ala Ile Asp Ala Pro Arg Gly Met Ile Val Asp
                                        75
                    70
 Arg Glu Gly Arg Pro Leu Ala Val Ser Val Pro Val Gln Ala Val Trp
                                    90
                8.5
 Ala Asp Pro Lys Thr Val Leu Glu Lys Gly Gly Ile Gly Tyr Asp Ser
                                                   110
                                105
            100
 Arg Trp Gln Ala Leu Ala Asn Ala Leu His Leu Ser Leu Ser Thr Leu
                                               125
                            120
 Ala Ser Arg Ile Asn Ser Asn Pro His Gly Arg Phe Ile Tyr Leu Ala
```

130 135 Arg Gln Val Asp Pro Ser Gln Ala Lys Trp Ile Asp Lys Leu Arg Leu 150 155 160 Pro Gly Ile Asn Leu Arg Asp Glu Ser Arg Arg Phe Tyr Pro Ala Gly 165 170 175 His Val Ala Ala Asn Leu Ile Gly Phe Thr Asn Ile Asp Gly Gln Gly 180 185 Ile Glu Gly Val Glu Lys Ser Phe Asn Thr Gln Leu Thr Gly Lys Ala 195 200 205 Gly Val Arg Leu Val Arg Lys Asp Arg Tyr Gly His Val Val Glu Asn 210 215 220 Leu Thr Glu Val Ala Pro Val Pro Ala His Asn Ile Gln Leu Ser Ile 230 235 Asp Glu Arg Leu Gln Thr Ile Thr Glu Asp Ala Leu Asp Asn Ala Val 245 250 255 Ala Trp Asn Lys Ala Glu Ser Gly Ala Ser Val Leu Ile Asn Ile Gln 260 265 270 Thr Gly Glu Ile Leu Ala Met Ala Ser Phe Pro Asp Phe Asn Pro Asn 275 280 285 Asn Arg Glu Gly Ala Thr Leu Asp Asp Phe Arg Asn Arg Ala Ile Ser 290 295 300 Asp Thr Phe Glu Pro Gly Ser Thr Val Lys Pro Leu Val Leu Met Thr 305 310 315 320 Ala Leu Gln Gln Gly Leu Val Gln Pro Asp Ser Val Ile Asp Thr His 325 330 335 Glu Leu Thr Met Thr Gly Ile Leu Gln Lys Ser Ser Asp Thr Gly Val 355 360 365 Ser Arg Leu Ser Leu Ala Met Pro Val Gln Arg Leu Leu Asp Thr Tyr 370 375 380 Lys His Phe Gly Phe Gly Glu Ser Thr Gly Leu Gly Leu Thr Gly Glu 385 390 395 400 Ser Ala Gly Leu Leu Pro Gln Arg Lys Phe Trp Ser Gln Leu Asp Arg  $405 \hspace{1.5cm} 410 \hspace{1.5cm} 415$ Ala Thr Phe Ala Phe Gly Tyr Gly Leu Met Val Thr Pro Leu Gln Leu 420 425 430 Ala His Val Tyr Ala Thr Ile Gly Ser Tyr Gly Ile Glu Arg Pro Leu 435 440 445 Ser Ile Thr Arg Ile Asp Pro Pro Val Ile Gly Lys Arg Val Met Pro 450 455 460 Glu Glu Ile Val His Glu Val Glu His Met Met Glu Ser Val Ala Leu 470 475 480 Pro Gly Gly Gly Ile Lys Ala Ala Val Arg Asn Tyr Arg Val Ala 485 490 495 Ile Lys Thr Gly Thr Ala Lys Lys Ile Asp Glu His Gly Lys Tyr Vai 500 505 510 Asp Lys Tyr Val Ala Tyr Thr Ala Gly Val Ala Pro Ala Ser Asp Pro 515 520 525 Arg Phe Ala Leu Val Val Val Ile Asn Asp Pro Gln Asn Gly Ala Tyr 530 535 540 Tyr Gly Gly Ala Val Ser Ala Pro Val Phe Ser Glu Ile Met Gly Asn 545 550 555 Val Leu Arg Leu Glu Asn Val Lys Pro Asp Gly Leu Pro Ala Asp Ser 565 570 Asp His Leu Ile Val Met His His Pro Ala Val Tyr Asn Pro Gly Glu 580 585 590

```
<211> 285
```

<212> PRT

<213> Enterobacter cloacae

<400> 6260

Arg Tyr Thr Ser Pro Phe Gly Leu Arg Pro Gly Ala Val Met Ser Phe Ser Cys Pro Leu Cys His Ala Pro Leu Thr Arg Ala Glu Lys Thr Phe

20 25 3.0

Ile Cys Pro Gln Gly His Gln Phe Asp Arg Ala Lys Glu Gly Tyr Val 40 4.5

Asn Leu Leu Pro Val Gln His Lys Arg Ser Arg Asp Pro Gly Asp Ser 55 60

Ala Glu Met Met Gln Ala Arg Arg Ala Phe Leu Asp Ala Gly His Tyr 7.0 75

Gln Pro Leu Arg Asp Ala Val Val Ala Leu Leu Arg Glu Tyr Leu Thr 8.5

90 Glu Gly Ala Ser Ala Met Leu Asp Ile Gly Cys Gly Glu Gly Tyr Tyr 100 105

Thr Ala Thr Phe Ala Asp Val Ala Ala Glu Lys Gly Ala Glu Thr Tyr

115 120 125 Gly Leu Asp Val Ser Lys Val Ala Ile Arg Ala Ala Ala Lys Arg Tyr 130 135

Ser Ala Val Thr Phe Cys Val Ala Ser Ser His Arg Leu Pro Phe Glu 145 150 155 Glu Ala Ser Met Asp Ala Val Val Arg Ile Tyr Ala Pro Cys Lys Ala

165 170 175 Glu Glu Leu Ala Arg Val Val Lys Pro Gly Gly Trp Val Ile Thr Val

180 185 Thr Pro Gly Pro Arg His Leu Leu Glu Leu Lys Gly Leu Ile Tyr Asp

195 200 205 Glu Val His Leu His Ala Pro His Ser Glu Gln Leu Ala Gly Phe Ala 210 215 220

Leu Lys Gln Ala Gln Ser Val Ala Tyr Glu Met Thr Leu Gln Gly Ser 225 230 235 240 Glu Ala Val Ala Leu Leu Gln Met Tar Pro Phe Ala Trp Arg Ala Lys

245 250 Pro Glu Val Trp Glu Thr Leu Ala Ala Gln Thr Glu Phe Arg Cys Gln

260 265 Thr Asp Phe Ser Ile His Cys Trp Gln Arg Glu Gly

280

<210> 6261

<211> 141

<212> PRT

<213> Enterobacter cloacae

<400> 6261

Asn Ser Ile Pro Arg Pro Arg Leu Arg Leu Leu Phe Asn Ala Val Arg 1.0 Leu Leu Thr Arg Tyr Tyr Gly Val Ala Tyr Gly Tyr Arg Lys Gly Val 25 30

Asp Ile Val Lys Asp Met Gly Gly Gly Phe Leu Gln Lys Leu Thr Glu 4.0

Gly Ala Ser Ile Leu Gly Leu Phe Val Met Gly Ala Leu Val Asn Lys 55 60 Trp Thr His Val Asn Ile Pro Leu Val Val Ser Thr Ile Thr Gly Gln

70 75 Asp Gly Gln Thr Arg Val Thr Thr Val Gln Thr Ile Leu Asp Gln Leu 9.0

Met Pro Gly Leu Val Pro Leu Leu Thr Phe Ala Cys Met Trp Leu

```
2494
           100
Leu Arg Lys Lys Val Asn Pro Leu Trp Ile Ile Val Gly Phe Phe Val
                   120
Ile Gly Ile Ala Gly Tyr Ala Val Gly Leu Leu Gly Leu
                       135
<210> 6262
<211> 153
<212> PRT
<213> Enterobacter cloacae
<400> 6262
Met Thr Val Thr Asp Thr Val Leu Val Leu Phe Ile Val Ala Leu Leu
                                 1.0
Ala Tyr Ala Ile Tyr Asp Glu Phe Ile Met Pro Arg Arg His Gly Glu
          2.0
Thr Leu Leu Thr Leu Pro Leu Leu Arg Arg Gly Arg Ile Asp Ala Phe
     35
                          40
```

85 90 95 Bis Gly Phe Phe Ala Asn Val Trp Ile Glu Tyr Asn Arg Ile Lys 100 105 110

Glu Met Asn Leu Ser Glu Asp Gly Val Leu Val Met Gln Leu Glu Gln
115 120 125

Arg Arg Leu Leu Ile Arg Val Arg Asn Ile Asp Asp Leu Glu Lys Ile 130 140 Tyr Lys Leu Leu Val Lys Thr Gln

<210> 6263

<211> 258 <212> PRT

<213> Enterobacter cloacae

<400> 6263

Gly Cys Ala Arg Arg Trp Gly Val Ala Asp Phe Leu Pro Ala Gly Asn 1.0 Val Arg Val Asn Ile Leu Val Glu Lys Arg Gly Ala Tyr Gly Ser Phe Leu Ser Thr Ile Thr Val Pro Glu Ala Ile Arg Arg Asp His Arg Tyr 3.5 4.0 Ile Asn Cys Cys Leu Leu Gly Ala Val Met Cys His Met Asp Ile Pro 55 Gly Leu Asp Ala Leu Met Asn Ile Ser Ala Thr Ile Leu Leu Ala Phe 70 75 65 Gly Met Ser Met Asp Ala Phe Ala Ala Ser Ile Gly Lys Gly Ala Thr 90 Leu His Lys Pro Lys Phe Ser Glu Ala Leu Arg Thr Gly Leu Ile Phe 100 105 110 Gly Ala Ile Glu Thr Leu Thr Pro Leu Ile Gly Trp Gly Leu Gly Met 115 120 Leu Ala Ser Gln Phe Val Leu Glu Trp Asn His Trp Ile Ala Phe Val 135 140

Leu Leu Val Phe Leu Gly Gly Arg Met Val Ile Glu Gly Phe Arg Gly 145 \$150\$ 150 155 160 Asn Gly Asp Glu Asp Asp Ala Pro Leu Gln Arg His Gly Phe Trp Leu

165 170 Led Gift Arg his Gift Fire Irp te

```
Thr Leu Glu Thr Gln Asp Pro Ala Gly Asn Arg Val Ala Gly Asp Ala
         695 700
Pro Ser Tyr Asp Ile Asn Leu Met Ile Pro Ile Ser Thr Gln Pro Ser
               710
                              715
Ile Asn Ser Val Val Asp Asn Ser Glu Pro His Val Gly Pro Leu Gln
            725 730
Lys Gly Asp Ala Thr Asn Asp Thr Thr Pro Thr Leu Ser Gly Ser Ala
                         745
         740
Ala Pro Gly Asp Ile Val Ser Ile Leu Asp Asn Gly Lys Val Ile Gly
                      760
Ser Val Thr Ala Asp Ser Asn Gly Lys Trp Thr Phe Thr Pro Asp Ala
                  775
                                  780
Ala Leu Ala Asp Gly Lys His Tnr Phe Thr Val Thr Ala Thr Asp Ala
               790 795
Ala Gly Asn Ser Arg Thr Ser Gly Ser Phe Pro Ile Val Ile Asp Thr
                            810
           805
Ala Ala Pro Ser Pro Ala Glu Asn Ile Val Ile Asn Asp Asn Val Gly
        820 825
Asp Lys Gln Gly Pro Val Gly Ser Gly Asp Thr Thr Asp Asp Gln Ser
 835
                  840
Pro Thr Leu Ser Gly Glu Ala Glu Pro Gly Ser Val Val Asp Ile Tyr
 850
                  855
                                  860
Asp Asn Asp Glu Lys Ile Gly Ser Val Ile Val Asp Asp Glu Gly Lys
865 870
                              875
Trp Ser Tyr Thr Pro Asp Lys Pro Leu Asp Lys Gly Asp His Glu Ile
       885 890
                                           895
Thr Thr Thr Val Thr Asp Pro Ser Gly Asn Thr Ser Glu Pro Ser Pro
   900 905 910
Gly Ile Ser Phe Thr Val Asp Pro Asp Pro Asn Gln Val Thr Val Gly
 915 920 925
Glu Val Val Asp Asp Gln Gly Pro Ile Val Gly Asn Leu Lys Pro Gly
930 935 940
Thr Val Thr Asp Asp Val Arg Pro Glu Leu Ser Gly Lys Gly Lys Pro
945 950 955 960
Gly Ser Thr Val Thr Ile Lys Asp Gly Asp Asp Val Leu Gly Ser Thr
           965 970
Val Val Asp Pro Asp Gly Asn Trp Thr Phe Thr Pro Glu Gln Asp Leu
        980 985 990
Ala Asp Gly Asn His Ser Leu Thr Val Val Ser Lys Asp Pro Ala Gly
 995 1000
Asn Glu Val Thr Ser Pro Ser Phe Asp Ile Thr Val Asp Ala Thr Ala
  1010 1015 1020
Pro Glu Lys Pro Val Leu Gly Ser Ala Thr Asp Asp Val Gly Thr Ile
1025 1030 1035 1040
Arg Gly Asp Leu Ser Asn Gly Ser Thr Thr Asp Asp Ala Asn Pro Thr 1045 1050 1055
Phe Asn Gly Ser Ala Glu Pro Gly Ile His Gln Leu Val Lys Arg Phe 1060 1065 1070
Gln Gly Arg Phe Gly Met Leu Ile Thr Gln Arg Gln Pro Asp Asn Gly
     1075 1080 1085
Cys Gln Arg Gly Glu Arg Thr Ala Gly Lys Asp His Tyr Ala Asn His 1090 \hspace{1.5cm} 1095 \hspace{1.5cm} 1100
Gly Ala His Arg Glu Leu Ala Arg Val Asp Gln Ile His Thr Gln His
1105 1110 1115 1120
Asn Asn Thr Asp Arg Gly Asn Leu Leu Asn Glu Gly Asp Lys Ile Gly
1125 1130 1135
Ser Gln His Gly Lys Val Ala Gly Phe His Gly Gly Ser Gly Ser Gln
        1140 1145 1150
Arg Ala Glu Ile Ile Pro Ala Leu Leu His Asn Ala Phe Thr Leu Arg
     1155 1160 1165
Ser Phe Gln Gly Phe Lys Ser Leu Asn Ala Phe Asn Gln Gln Ala Leu
```

1170 1175 1180

Glu Arg Asn Leu Ala Asn Val Phe Phe His Ile Ala Thr Gln Arg
1185 1190 1195 1200

Pro Leu Asn Asn Asp Ala Gly Asn
1205

<210> 6266 <211> 190 <212> PRT <213> Enterobacter cloacae

<400> 6266 Asn Lys Cys Val Cys Pro Ser Phe Arg Thr Glu Gln Gln Gly Glu Cys 10 Asn Gly Ser Glu Phe Tyr Ile Trp Pro Glu Asn Asn Ser Phe Leu Ile Glu Gly Ile Leu Gln Tyr Phe Asn Asn Ile Thr Val Lys Ile Ile Ser Gln Pro Ile Val Val Ile Asp Phe Asn Tyr Lys Asn Ile Asn Phe Phe 5.5 Leu Thr Asn Ser Trp Leu Asp Arg Phe Lys Asn Ala Arg Leu Ile Leu 70 Ile Thr Asp Lys Lys Met Ala Ala Ile Ala His Tyr Trp Phe Tyr Asn 85 90 Asp Thr Ser Glu Thr Ile Ile Ser Thr Val Ile Phe His Asp Asp Ile 100 105 Ile Asp Asp Ile Lys Phe Lys Ile Arg Gln Ser Phe Leu Gly Lys Ile 115 120 Thr Arg Pro Ser Glu Lys Lys Ala Lys Leu Ser Ala Asn Glu Tyr Ala 130 135 140 Leu Phe Ser Glu Leu Tyr Lys Gly Gln Leu Pro Lys Lys Ile Ala Met 150 155 145 Lys Asn Ala Thr Asn Val Lys Asn Ile Tyr Ala Met Lys Ile Arg Ile 170 165 Glu Asn Lys Leu Gly Val Pro Ile Ser Arg Leu Ala Ser

185

<210> 6267 <211> 602 <212> PRT <213> Enterobacter cloacae

130

180

<400> 6267 Lys Asn Ile Asn Leu Asp Gln Ser Thr Tyr Asn Ile Leu Asn His Ala Val Val Tyr Leu Tyr Cys Val His Ile Arg Leu Thr Leu His Tyr Asp 25 Ile Ala Ser Ala Cys Asn Phe Thr Ile Thr Ile Ser His Lys Leu Arg 40 Thr Tyr Gly Cys Ser Trp Ser Ile Leu Ile Ala Cys Leu His Phe Ile Phe Lys Val Arg Asn Val Thr Thr Gly Leu Asp Ser Ile Met Asn Thr 70 7.5 His Leu Ser Thr Val Lys Phe Asn Ser Glu His Asp Phe Asn Asn Ile 85 90 Glu Glu Pro Arg Lys Asp Ser Leu Leu Trp Gly Val Glu Trp Leu Cys 105 110 100 Ala His His Ala Lys Tyr Ala Ser Lys Glu Val Leu Tyr Ala Gly Leu 120 125 115 Pro Lys Ser Asp Lys Leu Glu Pro Glu Met Ala Leu Arg Met Leu Asp <212> PRT <213> Enterobacter cloacae

<400> 6268 Lys Thr Ala Ala Leu Pro Gly Ala Gln Gly Gly Arg Met Ser Ala Phe 1.0 Ala Arq Arq Leu Glu Thr Leu His Ala Thr Arg Pro Val Thr Val Leu 25 Gly Ala Ala Val Ile Asp Val Ile Ala Asp Ala Tyr Ala Leu Pro Trp 40 Arg Gly Cys Asp Ile Glu Leu Lys Gln Gln Gly Val Asn Ile Gly Gly 5.0 5.5 Cys Ala Leu Asn Ile Ala Ile Ala Leu Lys Arg Leu Gly Ile Ala Ala 65 7.0 75 Gln Asn Ala Leu Pro Val Gly His Gly Val Trp Ala Asp Ile Ile Arg 85 90 Asn Ala Met Ala Lys Gln Asp Leu His Ser Ala Val Glu Ala Glu Thr 100 105 110 Gly Asp Asn Gly Trp Cys Leu Ala Leu Val Glu Pro Asp Gly Glu Arg 115 120 125 Thr Phe Met Ser Phe Ser Gly Val Glu Asn Gln Trp Gln Gln Arg Trp 135 140 Leu Asp Gly Leu Ser Val Pro Ala Gly Ser Leu Ile Ser Leu Ser Gly 150 155 160 Tyr Gln Leu Ala Ser Prc Ser Gly Glu Leu Leu Thr Ala Trp Leu Glu 170 175 165 Ser Leu Gln Asp Ala Thr Leu Phe Ile Asp Phe Gly Pro Arg Ile Ala 180 185 190 Asp Ile Pro Asp Pro Leu Met Ala Arg Ile Met Ala Cys Lys Pro Ile 200 205 Val Ser Leu Asn Arg Gln Glu Ala Glu Leu Ala Ala Glu Trp Leu Gly 215 220 Val Ser Val Glu Glu Leu Gly Thr Arg Trp Gln Gln Arg Phe Gly Ala 225 230 235 Ala Leu Ile Ile Arg His Asp Lys Asp Gly Ala Val Trp Tyr Asp Gly 245 250 255 Asp Ala Ser Gly His Val Pro Ala Phe Pro Ala Thr Val Val Asp Thr 260 265 270 Ile Gly Ala Gly Asp Ser His Ala Gly Gly Thr Leu Ala Gly Leu Ala 275 280 285 Ala Gly Trp Ser Leu Pro Glu Aia Val Gln Leu Gly Asn Ala Val Ala 290 295 300 Ala Trp Val Val Ser His Arg Gly Gly Asp Cys Ala Pro Thr Arg Glu 305 310 315 Ala Leu Leu Leu Ala His Lys Asp Val

<210> 6269 <211> 335 <212> PRT <213> Enterobacter cloacae

325



Met Ala Leu Cys Leu Ala Asp Ala Ile Ile Glu Cys Glu Gly Glu Ile 7.0 75 Asn Pro Asp Val Ile Gly Lys His Ile Leu Asp Trp Ala Leu Asp Phe 8.5 Asp Ala Phe Asn Lys Asn Val Leu Gly Pro Thr Ser Lys Ile Ala Leu 100 105 Asn Ala Ile Arg Asp Gly Lys Pro Val Ser Gln Leu Glu Asn Asn Gly 115 120 Val Thr Asn Gly Ala Ala Met Arg Ala Ser Pro Leu Gly Cys Leu Leu 130 140 Pro Ala Thr Arg Leu Ala His Phe Val Glu Gln Val Ala Leu Ala Ser 150 155 160 Ser Pro Thr His Lys Ser Asp Leu Ala Ile Ala Gly Ala Val Val Ile 165 170 175 Ala Trp Ala Val Ser Arg Ala Ile Asp Gly Glu Arg Trp Gln Asn Ile 180 185 Ala Asp Ala Leu Pro Gly Ile Ala Arg Ala Ala Gln Glu Ala Asn Thr 195 200 205 Thr Thr Phe Ser Ala Ser Leu Ser Ala Arg Ile Glu Leu Ala Leu Lys 210 215 220 Thr Val Arg Glu Ala Asn Gly Thr Glu Ser Ala Ser Glu Gln Ile Tyr 225 230 235 Gln Leu Ile Gly Ala Gly Thr Ser Thr Leu Glu Ser Val Pro Ala Ala 245 250 255 Ile Ala Met Val Glu Leu Ala Gly Thr Asp Pro Asn Arg Cys Ala Val 260 265 270 Leu Cys Ala Asn Leu Gly Gly Asp Thr Asp Thr Ile Gly Ala Met Ala 275 280 Thr Ala Ile Cys Gly Ala Leu His Gly Val Gln Ala Ile Asp Pro Ala 290 295 300 Leu Lys Asn Glu Leu Asp Ala Val Asn Arg Leu Asp Phe Gly His Tyr 305 310 315 Cys Glu Lys Leu His Phe Arg Glu His Arg Glu Gly Val 325

<210> 6270 <211> 412 <212> PRT <213> Enterobacter cloacae

<400> 6270 Trp Phe Ile Trp Gly Ala Trp Phe Val Pro Leu Trp Leu Trp Met Ser 10 Lys Ser Gly Phe Thr Ala Gly Glu Ile Gly Trp Ser Tyr Ala Cys Thr 20 25 Ala Ile Ala Ala Ile Leu Ser Pro Ile Met Val Gly Ser Leu Thr Asp 35 40 4.5 Arg Phe Phe Ala Ala Gln Lys Val Leu Ala Val Leu Met Phe Ala Gly 50 55 60 Ala Ile Leu Met Tyr Phe Ala Ala Gln Gln Ile Gln Phe Ser Thr Phe 70 7.5 Phe Pro Leu Leu Ala Tyr Ser Leu Thr Tyr Met Pro Thr Ile Ala 90 Leu Thr Asn Ser Ile Ala Phe Ala Asn Val Asp Asp Val Glu Ala Asp Phe Pro Arg Ile Arg Val Met Gly Thr Ile Gly Trp Ile Ala Ser Gly 115 120 Leu Ala Cys Gly Phe Leu Pro Gln Met Met Gly Tyr Ser Asp Ile Ser 130 135 140 Asp Thr Asn Ile Pro Leu Leu Met Thr Ala Ala Ser Ser Leu Leu Leu 155

```
Gly Val Phe Ala Leu Phe Leu Pro Asn Thr Pro Pro Lys Ser Thr Gly
            165
                            170
Lys Leu Asp Phe Lys Val Met Leu Gly Leu Asp Ala Leu Ile Leu Leu
        180
               185 190
Arg Asp Lys Asn Phe Leu Val Phe Phe Phe Cys Ser Phe Leu Phe Ala
     195 200 205
Met Pro Leu Ala Phe Tyr Tyr Ile Phe Ala Asn Gly Tyr Leu Thr Glu
  210 215 220
Val Gly Met Lys Asn Ala Thr Gly Trp Met Thr Leu Gly Gln Phe Ser
      230 235
Glu Ile Phe Phe Met Leu Ala Leu Pro Phe Phe Thr Lys Arg Phe Gly
      245 250
Ile Lys Lys Val Leu Leu Cly Leu Ile Thr Ala Ala Ile Arg Tyr
        260
                       265
Gly Phe Phe Val Tyr Gly Gly Ala Glu Gln Tyr Phe Thr Tyr Ala Leu
                    280
                         285
Leu Phe Leu Gly Ile Leu Leu His Gly Val Ser Tyr Asp Phe Tyr Tyr
290
                  295
                                  300
Val Thr Ala Tyr 11e Tyr Val Asp Lys Lys Ala Pro Val His Met Arg 305 \phantom{\bigg|} 310 \phantom{\bigg|} 310 \phantom{\bigg|} 320
Asn Ala Ala Gln Gly Leu Ile Thr Leu Cys Cys Gln Gly Phe Gly Ser
     325 330 335
Leu Leu Gly Tyr Arg Leu Gly Gly Val Met Met Glu Lys Met Phe Ala
        340
                        345 350
Tyr Lys Glu Pro Val Asn Gly Leu Thr Phe Asn Trp Ala Gly Met Trp
   355
                    360
                         365
Thr Phe Gly Ala Ile Met Ile Val Val Ile Ala Val Leu Phe Met Leu
370 375 380
Phe Phe Arg Glu Ser Asp Lys Glu Ile Thr Ala Ile Glu Val Val Asp
385 390 395
Gly Asp Thr Ala Leu Thr Arg Gly Glu Vai Lys
           405
```

<210> 6271 <211> 298 <212> PRT

<213> Enterobacter cloacae

<400> 6271

Thr Thr Tyr Pro Phe Gly Ser Trp Pro Ala Ser Arg Cys Val Lys Thr 10 Leu Cys Leu Arg Val Ser Gly Arg Ala Leu Arg Ala Gly Gly Thr Gly 20 25 30 Met Thr Arg Ile Asn Ala Leu Thr Ile Ala Gly Thr Asp Pro Ser Gly 35 40 45 Gly Ala Gly Ile Gln Ala Asp Leu Lys Thr Phe Ser Ala Leu Gly Ala 50 55 60 Tyr Gly Cys Ser Val Ile Thr Ala Leu Val Ala Gln Asn Thr Arg Gly 7.0 75 65 Val Gln Ser Val Tyr Arg Ile Glu Pro Asp Phe Val Ala Ala Gln Leu 85 90 95 Asp Ser Val Phe Ser Asp Val Arg Ile Asp Thr Thr Lys Ile Gly Met 100 105 Leu Ala Glu Ala Asp Ile Val Glu Ala Val Ala Glu Arg Leu Lys Arg 115 120 125 Tyr Gln Ile Lys Asn Val Val Leu Asp Thr Val Met Leu Ala Lys Ser 130 135 140 Gly Asp Pro Leu Leu Ser Ala Ser Ala Val Asp Thr Leu Arg Lys Lys 145 150 155 160 Leu Leu Pro Gln Val Ala Leu Ile Thr Pro Asn Leu Pro Glu Ala Ala 165 1.70

Ala Leu Leu Asp Ala Pro His Ala Gln Asn Glu Arg Glu Met Lys Glu 185 190 Gln Gly Asn Ala Leu Leu Ala Met Gly Cys Arg Ala Val Leu Met Lys 200 195 Gly Gly His Leu Asp Asp Ala Glu Ser Pro Asp Trp Leu Phe Thr His 210 215 220 Asp Gly Ala Gln Arg Phe Thr Ala Pro Arg Val Gln Thr Lys Asn Thr 230 235 His Gly Thr Gly Cys Thr Leu Ser Ala Ala Leu Ala Ala Leu Arg Pro 250 255 245 Arg Asn Ala Asn Trp Ala Asp Thr Val Gln Glu Ala Lys Ile Trp Leu 265 260 270 Ser Asp Ala Leu Ala Lys Ala Asp Ser Leu Glu Val Gly His Gly Ile 275 280 285 Gly Pro Val His His Phe His Ala Trp Trp 290 2.95 <210> 6272 <211> 263 <212> PRT <213> Enterobacter cloacae <400> 6272 Ala Val Tyr Trp His Lys Thr Leu Cys Gln Arg Lys Thr Glu Met Glu 10 Gln Ala His Thr Arg Leu Ile Ala Gln Leu Lys Glu Arg Ile Ala Ala 20 25 Pro Asp Asn Thr Pro Leu Tyr Leu Lys Phe Ala Glu Thr Val Lys Asn 35 40 4.5 Ala Val Arg Ser Gly Val Leu Ala His Gly Asn Ile Leu Pro Gly Glu 50 55 60 Arg Asp Leu Ser Gln Leu Ala Gly Val Ser Arg Ile Thr Val Arg Lys 65 70 75 Ala Met Gln Ala Leu Glu Glu Ala Gly Val Val Thr Arg Ala Arg Gly 85 90 Tyr Gly Thr Gln Ile Asn Asn Ile Phe Glu Tyr Ser Leu Lys Glu Ala 100 105 110 Arq Gly Phe Ser Gln Gln Val Val Leu Arg Gly Lys Thr Pro Asn Thr 115 120 125 Leu Trp Val Asn Lys Arg Val Val Lys Cys Pro Glu Glu Ile Ala Arg 130 135 140 His Leu Ser Leu Ala Pro Asp Ser Asp Val Phe Leu Leu Lys Arg Ile 145 150 155 160 Arg Tyr Val Asp Asp Asp Ala Val Ser Ile Glu Glu Ser Trp Val Pro 165 170 175 Val Gly Leu Ile Pro Asn Pro Asp Asp Ile Gly Val Ser Leu Tyr Asp 180 185 190 Tyr Phe Arg Ser Gln Asn Ile Phe Pro Gln Arg Thr Arg Ser Arg Val 195 200 205 Ser Ala Arg Met Pro Asp Ser Glu Phe Gln Ala His Ile Lys Met Asp 210 215 220 Asp Lys Ile Pro Val Leu Val Ile Lys Gln Val Ala Leu Asp Gln Gln 225 230 235 His Arg Pro Ile Glu Tyr Ser Ile Ser Tyr Cys Arg Ser Asp Leu Tyr 245 250 Val Phe Val Cys Glu Glu 260

<210> 6273 <211> 543 <212> PRT

## <213> Enterobacter cloacae

<400> 6273 Thr Asn Ile Met Asn Thr Thr Pro Glu Leu His Cys Asp Val Leu Ile Ile Gly Ser Gly Ala Ala Gly Leu Ser Leu Ala Leu Arg Leu Ala Glu 20 25 His Gln Asn Val Ile Val Leu Ser Lys Gly Pro Met Ser Glu Gly Ser 35 40 Thr Phe Tyr Ala Gln Gly Gly Ile Ala Ala Val Phe Asp Glu Thr Asp 60 Ser Ile Ala Ser His Val Glu Asp Thr Leu Ile Ala Gly Ala Gly Ile 7.0 75 Val Asp Glu His Ala Ala Glu Phe Val Ala Ser Asn Ala Arg His Cys 90 Val Gln Trp Leu Ile Asp Gln Gly Val Leu Phe Asp Thr Gln Val Gln 105 110 Pro Asn Gly Glu Glu Ser Tyr His Leu Thr Arg Glu Gly Gly His Ser 115 120 125 His Arg Arg Ile Leu His Ala Ala Asp Ala Thr Gly Lys Ala Val Glu 130 135 140 Thr Thr Leu Val Ser Lys Ala Leu Ser His Pro Asn Ile Arg Val Leu 150 155 Glu Arg Ser Asn Ala Val Asp Leu Ile Ile Ser Asp Lys Ile Gly Leu 165 170 175 Pro Gly Thr Arg Arg Val Val Gly Ala Trp Val Trp Asn Arg Asn Lys 180 185 190 Glu Lys Val Glu Thr Cys Gln Ala Lys Ala Val Val Leu Ala Thr Gly 195 200 Gly Ala Ser Lys Val Tyr His Tyr Thr Thr Asn Pro Asp Ile Ala Ser 210 215 220 Gly Asp Gly Ile Ala Met Ala Trp Arg Ala Gly Cys Arg Val Ala Asn 230 235 Leu Glu Phe Asn Gln Phe His Pro Thr Ala Leu Phe His Pro Gln Ala 245 250 Arg Asn Phe Leu Leu Thr Glu Ala Leu Arg Gly Glu Gly Ala Tyr Leu 265 270 260 Lys Arg Pro Asp Gly Ser Arg Phe Met Pro Asp Phe Asp Pro Arg Gly 275 280 Glu Leu Ala Pro Arg Asp Ile Val Ala Arg Ala Ile Asp His Glu Met 290 295 300 Lys Arg Leu Gly Val Asp Cys Met Tyr Leu Asp Ile Ser His Lys Pro 305 310 315 Ala Asp Phe Ile Arg Gln His Phe Pro Met Ile Tyr Glu Lys Leu Leu 325 330 Ser Leu Gly Ile Asp Leu Thr Arg Asp Pro Val Pro Ile Val Pro Ala 340 345 350 Ala His Tyr Thr Cys Gly Gly Val Met Val Asp Asp His Gly Arg Thr 355 360 365 Asp Val Asp Gly Leu Tyr Ala Ile Gly Glu Val Ser Tyr Thr Gly Leu 370 375 380 His Gly Ala Asn Arg Met Ala Ser Asn Ser Leu Leu Glu Cys Leu Val 390 395 Tyr Gly Trp Ser Ala Ala Glu Asp Ile Thr Lys Arg Met Pro Tyr Ala 405 410 Arg Pro Thr Thr His Leu Pro Ala Trp Asp Glu Ser Arg Val Glu Asn 420 425 Pro Asp Glu Leu Val Val Ile Gln His Asn Trp His Glu Leu Arg Leu 435 440 445 Phe Met Trp Asp Tyr Val Gly Ile Val Arg Thr Thr Lys Arg Leu Glu 455

```
Arg Ala Leu Arg Arg Ile Met Met Leu Gln Gln Glu Ile Asp Glu Tyr
            470
                      475
Tyr Ala Asn Phe Arg Val Ser Asn Asn Leu Leu Glu Leu Arg Asn Leu
            485
                          490
Val Gln Val Ala Glu Leu Ile Val Arg Cys Ala Met Met Arg Lys Glu
         500
              505 510
Ser Arg Gly Leu His Tyr Thr Leu Asp Tyr Pro Glu Pro Leu Glu Thr
      515
                    520 525
Ser Gly Pro Ser Val Leu Thr Pro Gln Val His Ile Lys Arg
  530 535
<210> 6274
<211> 444
<212> PRT
<213> Enterobacter cloacae
<400> 6274
Asn Met Thr Val Thr Thr Phe Ser Glu Leu Glu Leu Asp Glu Ser Leu
                      10
Leu Asn Ala Leu Glu Ser Lys Gly Phe Thr Arg Pro Thr Ala Ile Gln
 20 25
Ala Ala Ala Ile Pro Pro Ala Leu Glu Gly Arg Asp Val Leu Gly Ser
 35 40
Ala Pro Thr Gly Thr Gly Lys Thr Ala Ala Tyr Leu Leu Pro Val Leu
 50 55
Gln His Leu Leu Asp Phe Pro Arg Lys Lys Ser Gly Pro Pro Arg Ile
65 70
                              75
Leu Ile Leu Thr Pro Thr Arg Glu Leu Ala Met Gln Val Ala Glu His
          85
                           90
Ala Arg Glu Leu Ala Ala Asn Thr His Leu Asp Ile Ala Thr Ile Thr
       100 105
Gly Gly Val Ala Tyr Met Asn His Ala Glu Val Phe Ser Glu Asn Gln
 115 120
Asp Ile Val Val Ala Thr Thr Gly Arg Leu Leu Gln Tyr Ile Lys Glu
 130 135
                                  140
Glu Asn Phe Asp Cys Arg Ala Val Glu Thr Leu Ile Leu Asp Glu Ala
145 150 155
                                              160
Asp Arg Met Leu Asp Met Gly Phe Ala Gln Asp Ile Glu His Ile Ala
          165
                           170
                                           175
Gly Glu Thr Arg Trp Arg Asn Gln Thr Met Leu Phe Ser Ala Thr Leu
      180 185
                                        190
Glu Gly Asp Ala Ile Lys Asp Phe Ala Glu Arg Leu Leu Glu Asp Pro
     195 200
Val Glu Val Ser Ala Thr Pro Ser Thr Arg Glu Arg Lys Lys Ile His
  210 215
Gln Trp Tyr Tyr Arg Ala Asp Asn Leu Glu His Lys Val Glu Leu Leu
      230 235
Lys His Leu Leu Lys Gln Glu Glu Ala Thr Arg Thr Ile Val Phe Val
           245
                           250
Arg Lys Arg Glu Arg Val His Glu Leu Ala Glu Met Leu Arg Asn Ala
        260
                         265
Gly Ile Asn Asn Cys Tyr Leu Glu Gly Glu Met Ala Gln Val Lys Arg
                     280
Thr Glu Gly Ile Lys Arg Leu Thr Asp Gly Arg Val Asn Val Leu Val
                  295
                                  300
Ala Thr Asp Val Ala Ala Arg Gly Ile Asp Ile Pro Asp Val Ser His
               310
                               315
Val Ile Asn Phe Asp Met Pro Arg Ser Gly Asp Thr Tyr Leu His Arg
           325
               330
Ile Gly Arg Thr Gly Arg Ala Gly Arg Lys Gly Ile Ala Ile Ser Leu
                         345
```

```
Val Glu Ala His Asp His Leu Leu Gln Lys Ile Gly Arg Tyr Val
        355
                           360
 Glu Glu Pro Leu Lys Ala Arg Val Ile Asp Gly Leu Arg Pro Thr Thr
                                         380
 Arg Ala Pro Ser Glu Lys Met Thr Gly Lys Pro Ser Lys Lys Ala Leu
                   390
                        395
 Ala Lys Arg Ala Glu Arg Lys Glu Lys Glu Lys Glu Lys Pro Arg Val
               405 410 415
 Lys Gln Arg His Arg Asp Thr Lys Asn Ile Gly Lys Arg Arg Lys Pro
           420
                425
 Ser Ser Ala Ala Ser Glu Thr Lys Thr Glu Glu
              440
 <210> 6275
 <211> 132
 <212> PRT
 <213> Enterobacter cloacae
 <400> 6275
Gly Arg Gln His Met Ile Thr Gly Ile Gln Ile Thr Lys Ala Ala Asn
              5
 Asp Asp Leu Leu Asn Ser Phe Trp Leu Leu Asp Ser Glu Lys Asn Glu
        20
 Ala Arg Cys Val Val Ala Lys Ala Gly Phe Ala Glu Asp Glu Ile Val
      35
Pro Val Ser Lys Leu Gly Glu Ile Glu Tyr Arg Glu Ile Pro Met Gln
                    55
Val Gln Pro Glu Val Arg Val Glu Gly Gln His Leu Asn Val Asn
                  70
                                     75
Val Leu Arg Arg Glu Thr Leu Met Asp Ala Val Glu His Pro Glu Lys
               85
                                 90
Tyr Pro Gln Leu Thr Ile Arg Val Ser Gly Tyr Ala Val Arg Phe Asn
                           105
Ser Leu Thr Pro Glu Gln Gln Arg Asp Val Ile Ala Arg Thr Phe Thr
  115
                          120
Glu Ser Leu
  130
<210> 6276
<211> 363
<212> PRT
<213> Enterobacter cloacae
<400> 6276
Phe Phe Thr Arg Lys Val Glu Gln Met Leu Gln His Arg Gln Gln Val
                                  10
Gly Cys Cys Leu Pro Arg Ala Gly Trp Arg Arg Thr Glu His Ile Ala
                             25
Ala Leu Lys Arg Arg Arg Asn Gly Arg Gly Leu Asn Gly Gly Arg Ala
                         4.0
                                     45
Cys Lys Ala Phe Ala Leu Lys Gly Ile Glu Gln Ala Phe Ile Glu Phe
                      55
                                        60
Lys Phe Gly Lys Ser Arg Tyr Ser His Val Leu Pro Leu Cys Gly Ala
                  70
                                     7.5
Leu Ile Ile Asp Val Thr Ala Val Ile Phe Ile Cys Leu Tyr Gly Tyr
              85
                                 90
Arg Phe Ser Thr Thr Ser Leu Ser Pro Met Leu Leu Gln Phe His Ser
           100
                             105
                                               110
Glu Gly Cys Pro Asp Met Ser Gln Leu Lys Ala Gln Leu Arg Arg Asp
       115
                          120
                                        125
Gly Phe Thr Phe Lys Gln Phe Phe Val Ala His Asp Arg Cys Ala Met
```

<400> 6278

```
135
Lys Val Gly Thr Asp Gly Ile Leu Leu Gly Ala Trp Ala Pro Val Ala
                       155
               150
Gly Val Lys Arg Ile Leu Asp Ile Gly Thr Gly Ser Gly Leu Gln Ala
            165
                      170
Leu Met Leu Ala Gln Arg Thr Glu Glu His Val Thr Ile Asp Ala Val
             185 190
        180
Glu Leu Asp Pro Gln Ala Ala Arg Gln Ala Ser Glu Asn Ala Ala Asp
 195 200
                          205
Ser Pro Trp Ala Glu Arg Ile Arg Val Glu Cys Ala Asp Val Leu Thr
 210
         215 220
Trp Ala Pro Glu Gln Thr Ala Arg Tyr Asp Leu Ile Val Ser Asn Pro
       230 235 240
Pro Tyr Phe Thr Pro Gly Val Glu Cys Gly Thr Pro Glu Arg Glu Gln
            245 250 255
Ala Arg Tyr Thr Gly Ser Leu Asp His Lys Ala Leu Leu Thr Ser Ala
       260 265 270
Ala Glu Leu Ile Ser Glu Glu Gly Phe Phe Cys Val Val Leu Pro Glu
     275 280 285
Ser Thr Gly Asn Thr Phe Ile Glu Ile Ala His Glu Ile Gly Trp Asn
 290 295 300
Leu Arg Leu Arg Thr Asp Ile Ser Asp Thr Glu Gly Arg Leu Pro His
305 310 315
Arg Val Leu Leu Ala Leu Ser Pro Lys Glu Gly Glu Cys Phe Ile Asp
       325 330 335
Arg Met Val Ile Arg Gly Pro Asp Gln Arg Tyr Ser Glu Asp Tyr Thr
    340 345
Ala Leu Thr Gln Ala Phe Tyr Leu Phe Met
<210> 6277
<211> 138
<212> PRT
<213> Enterobacter cloacae
<400> 6277
Ser Gly Val Ser Ile Thr Arg Gly Ile Trp Phe Gly Glu Thr Leu Pro
                          10
                                          1.5
Arg Met Ser Glu Gln Leu Thr Asp Gln Val Leu Val Glu Arg Val Gln
 20 25
                                       30
Lys Gly Asp Gln Lys Ala Phe Asn Leu Leu Val Val Arg Tyr Gln His
 35 40
Lys Val Ala Ser Leu Val Ser Arg Tyr Val Pro Ser Gly Asp Val Pro
 50 55 6n
Asp Val Val Gln Glu Ser Phe Ile Lys Ala Tyr Arg Ala Leu Asp Ser
65 70 75
Phe Arg Gly Asp Ser Ala Phe Tyr Thr Trp Leu Tyr Arg Ile Ala Val 85 90 95
Asn Thr Ala Lys Asn Tyr Leu Val Ala Gln Gly Arg Arg Pro Pro Ser
                                       110
Ser Asp Val Asp Ala Ile Asp Ala Glu Asn Phe Glu Ser Gly Gly Ala
 115 120
Leu Lys Glu Ile Ser Asn Pro Asp Asn Leu
 130
               135
<210> 6278
<211> 305
<212> PRT
<213> Enterobacter cloacae
```

```
Tyr Val Phe Ile Thr Lys Thr Glu Arg Cys Phe Val Ile Tyr Leu Cys
Leu Arg Ala Arg Ser Ile Leu Glu Val Tyr Val Asp Val Arg Gln Ser
                         25
                                         3.0
Ile His Ser Ala His Ala Lys Met Leu Asp Thr Gln Gly Leu Arg Ser
Glu Phe Leu Val Glu Gln Val Phe Glu Ala Asp Lys Tyr Thr Met Val
                   55
                                  60
Tyr Ser His Ile Asp Arg Ile Ile Val Gly Gly Ile Met Pro Val Ala
               70
                               75
Lys Thr Val Ser Val Gly Gly Glu Val Gly Lys Gln Leu Gly Val Ser
                            90
            85
Tyr Phe Leu Glu Arg Arg Glu Leu Gly Val Ile Asn Ile Gly Gly Pro
        100
              105 110
Gly Thr Ile Thr Val Asp Gly Gln Cys Tyr Glu Ile Gly His Arg Asp
      115
                     120
                                     125
Ala Leu Tyr Val Gly Lys Gly Ala Lys Glu Val Val Phe Ala Ser Ser
 130
       135
                      140
Asp Ala Ser Lys Pro Ala Lys Phe Tyr Tyr Asn Cys Ala Pro Ala His
     150
145
                              155
Thr Thr Tyr Pro Thr Lys Lys Val Thr Pro Ala Asp Val Ala Pro Val
         165 170 175
Thr Leu Gly Asp Asn Leu Thr Ser Asn Arg Arg Thr Ile Asn Lys Tyr
    180 185
                                        190
Phe Val Pro Asp Val Leu Glu Thr Cys Gln Leu Ser Met Gly Leu Thr
 195 200
Glu Leu Ala Pro Gly Asn Leu Trp Asn Thr Met Pro Cys His Thr His
 210 215 220
Glu Arg Arg Met Glu Val Tyr Phe Tyr Phe Asn Met Asp Glu Asp Ala
225 230
                              235
Cys Val Phe His Met Met Gly Gln Pro Gln Glu Thr Arg His Ile Val
      245
                           250
Met His Asn Glu Gln Ala Val Ile Ser Pro Ser Trp Ser Ile His Ser
      260
                        265
                                        270
Gly Val Gly Thr Lys Ala Tyr Thr Phe Ile Trp Gly Met Val Gly Glu
  275 280
Asn Gln Val Phe Asp Asp Met Asp His Val Ala Val Lys Asp Leu Arg
                 295
                                  300
```

305

<210> 6279 <211> 257 <212> PRT

<213> Enterobacter cloacae

<400> 6279

Gly Thr Asn Met Ile Leu Asp Ala Phe Ser Leu Gln Gly Lys Val Ala Val Val Ser Gly Cys Asp Tor Gly Leu Gly Gln Gly Met Ala Leu Gly 25 30 Leu Ala Glu Ala Gly Cys Asp Ile Val Gly Ile Asn Ile Val Glu Pro 4.0 Thr Glu Thr Ile Glu Arg Val Tor Ala Leu Gly Arg Arg Phe Leu Ser 55 Leu Thr Ala Asp Leu Arg Lys Ile Asp Ala Ile Pro Glu Leu Leu Asp 7.0 Arg Ala Val Ala Glu Phe Gly Hıs Ile Asp Ile Leu Val Asn Asn Ala 85 90 Gly Leu Ile Arg Arg Glu Asp Ala Ile Asn Phe Ser Glu Thr Asp Trp 105

Asp Asp Val Met Asn Leu Asn Ile Lys Ser Val Phe Phe Met Ser Gln 115 120 Ala Ala Ala Lys His Phe Ile Ala Gln Gly Lys Gly Lys Ile Ile 135 140 Asn Ile Ala Ser Met Leu Ser Phe Gln Gly Gly Ile Arg Val Pro Ser 150 155 Tyr Thr Ala Ser Lys Ser Ala Val Met Gly Val Thr Arg Leu Leu Ala 165 170 175 Asn Glu Trp Ala Gln His Asn Ile Asn Val Asn Ala Ile Ala Pro Gly 180 185 190 Tyr Met Ala Thr Asn Asn Thr Gln Gln Leu Arg Ala Asp Glu Glu Arg 195 200 205 Ser Ala Ala Ile Leu Glu Arg Ile Pro Ala Gly Arg Trp Gly Leu Pro 210 215 220 Ser Asp Leu Met Gly Pro Val Val Pne Leu Ala Ser Pro Ala Ser Asp 225 230 235 Tyr Ile Asn Gly Tyr Thr Val Ala Val Asp Gly Gly Trp Leu Ala Arg 250 245

<210> 6280 <211> 519 <212> PRT

<213> Enterobacter cloacae <400> 6280 Arg Ile Ser Leu Leu Arg Gln Glu Thr Met Thr Ser Val Asn Asp Ser 1 5 10 Thr Leu Met Pro Ala Ala Leu Arg Asp Thr Arg Arg Met Asn Gln Phe 20 25 Val Ser Val Ala Ala Ala Val Ala GIy Leu Leu Phe Gly Leu Asp Ile 35 40 45 Gly Val Ile Ala Gly Ala Leu Pro Phe Ile Thr Asp His Phe Thr Leu 50 55 60 Ser Asn Arg Leu Gln Glu Trp Val Val Ser Ser Met Met Leu Gly Ala 65 70 75 Ala Ile Gly Ala Leu Phe Asn Gly Trp Leu Ser Phe Arg Leu Gly Arg 85 90 Lys Tyr Ser Leu Met Val Gly Ala Ile Leu Phe Val Ala Gly Ser Leu 100 105 110 Gly Ser Ala Phe Ala Thr Asn Val Glu Val Leu Leu Ser Arg Val 115 120 125 Leu Leu Gly Val Ala Val Gly Ile Ala Ser Tyr Thr Ala Pro Leu Tyr 130 135 140 Leu Ser Glu Met Ala Ser Glu Asn Val Arg Gly Lys Met Ile Ser Met 145 150 155 160 Tyr Gln Leu Met Val Thr Leu Gly Ile Val Leu Ala Phe Leu Ser Asp 165 170 Thr Tyr Phe Ser Tyr Ser Gly Asn Trp Arg Ala Met Leu Gly Val Leu 180 185 190 Ala Leu Pro Ala Val Leu Leu Ile Val Leu Val Ile Phe Leu Pro Asn 195 200 205 Ser Pro Arg Trp Leu Ala Gln Lys Gly Arg His Val Glu Ala Glu Glu 215 220 Val Leu Arg Met Leu Arg Asp Thr Ser Glu Lys Ala Arg Glu Glu Leu 225 230 235 Asn Glu Ile Arg Glu Ser Leu Lys Leu Lys Gln Gly Gly Trp Ser Leu 245 250 Phe Lys Ala Asn Arg Asn Val Arg Arg Ala Val Phe Leu Gly Met Leu 265 270

Leu Gln Ala Met Gln Gln Phe Thr Gly Met Asn Ile Ile Met Tyr Tyr 280 Ala Pro Arg Ile Phe Lys Met Ala Gly Phe Thr Thr Thr Glu Gln Gln 290 295 300 Met Ile Ala Thr Leu Val Val Gly Leu Thr Phe Met Phe Ala Thr Phe 310 315 320 Ile Ala Val Phe Thr Val Asp Lys Ala Gly Arg Lys Pro Ala Leu Lys 330 335 325 Ile Gly Phe Ser Val Met Ala Leu Gly Thr Leu Ile Leu Gly Tyr Cys 340 345 350 Leu Met Gln Phe Asp Asn Gly Thr Ala Ser Ser Gly Leu Ser Trp Leu 355 360 365 Ser Val Gly Met Thr Met Met Cys Ile Ala Gly Tyr Ala Met Ser Ala 370 375 380 Ala Pro Val Val Trp Ile Leu Cys Ser Glu Ile Gln Pro Leu Lys Cys 385 390 395 400 Arg Asp Phe Gly Ile Thr Cys Ser Thr Thr Thr Asn Trp Val Ser Asn 405 410 415 Met Ile Ile Gly Ala Thr Phe Leu Thr Leu Leu Asp Ala Ile Gly Ala 420 425 430 Ala Gly Thr Phe Trp Leu Tyr Thr Val Leu Asn Val Ala Phe Ile Gly 435 440 445 Val Thr Phe Lys Leu Ile Pro Glu Thr Lys Gly Val Asn Pro Gly Thr 450 455 460 Tyr Leu Asn Ala Thr Leu Lys Lys Met Gly Lys Thr Pro Val Ile Ser 465 470 475 Gly Phe Tyr Val Ile Ala Arg Gly Val Pro Pro Thr Phe Arg Gly Ala  $485 \ \ \, 490 \ \ \, 495$ Leu Leu Pro Phe Ala Pro Ser Val Thr Thr Leu Val Ser Ala Cys Ser 500 505 510 Pro Gln His Phe Ser Ser 515

<210> 6281

<211> 247

<212> PRT

<213> Enterobacter cloacae

<400> 6281

Phe Ser Thr Tyr Ile Thr Arg Ser Lys Glu Cys Ile Met Ala Lys Gly 10 Met Arg Val Lys Leu Asn Tyr Glu Val Ser Arg Asp Pro Asp Thr Gly 25 20 30 Val Glu Val Thr Arg Leu Thr Pro Pro Glu Val Thr Cys His Arg Asn 40 4.5 Tyr Phe Tyr Gln Lys Cys Phe Phe Asn Asp Gly Ser His Leu Leu Phe 55 Ala Gly Glu Phe Asp Gly His Trp Asn Tyr Tyr Leu Leu Asp Leu Lys 65 70 75 Asn Ala Glu Ala Val Gln Leu Thr Glu Gly Ala Gly Asp Asn Thr Phe 90 85 Gly Gly Phe Leu Ser Pro Asp Asp Lys Ser Leu Tyr Tyr Val Lys Asn 100 105 Asp Arg Thr Leu Leu Glu Val Asp Leu Gln Thr Leu Ala Glu Arg Glu 115 120 125 Val Tyr Arg Val Pro Glu Glu Trp Val Gly Tyr Gly Thr Trp Val Ala 130 140 Asn Ser Asp Cys Thr Lys Leu Val Gly Ile Glu Ile Ala Arg Cys Asp 145 150 155 Trp Thr Pro Leu Asn Asp Trp Lys Ile Phe His Asp Phe Phe His Lys 165 170

```
Gly Pro His Cys Arg Leu Leu Arg Val Asp Leu Lys Thr Gly Glu Ser
          180
                           185
 Thr Thr Ile His Asp Glu Lys Ile Trp Leu Gly His Pro Ile Tyr Arg
                         200
 Pro Phe Asp Asp Asn Thr Val Ala Phe Cys His Glu Gly Pro His Asp
                     215
                                      220
 Leu Val Asp Ala Arg Met Trp Leu Val Asn Glu Asp Gly Ser Asn Val
                 230
                         235
 Arg Lys Val Lys Thr His Ala
              245
<210> 6282
<211> 287
 <212> PRT
<213> Enterobacter cloacae
<400> 6282
Tyr Gly Leu Asp Pro Ala Thr Gly Pro Ile Gly Arg Pro Ala Met Val
                              1.0
Ser Lys Lys Lys Thr Arg Val Val Asp Asp Val Val Lys Asn Ala Pro
           20
                          25
Leu Lys Thr Lys Thr Tyr Glu Gln Glu Leu Arg Arg Leu His Val Glu
       35
                      40
Leu Val Lys Leu Gln Gln Trp Val Val Ala Lys Gly Leu Lys Val Cys
                 5.5
Ile Val Phe Glu Gly Arg Asp Gly Ala Gly Lys Gly Gly Val Ile Lys
            70
                                  75
                                                     80
Ala Ile Thr Glu Arg Val Ser Pro Arg Val Phe Arg Val Val Ala Leu
           85
                               90
Pro Ala Pro Thr Asp Lys Glu Lys Ser Gln Leu Tyr Phe Gln Arg Tyr
        100
                           105
Val Pro His Leu Pro Ser Ala Gly Glu Ile Val Ile Phe Asp Arg Ser
 115 120
Trp Tyr Asn Arg Ala Gly Val Glu Lys Val Met Gly Phe Cys Thr Glu
  130 135
                                     140
Glu Gln Ala Glu Lys Phe Leu Asp Gly Thr Pro Val Met Glu Lys Ala
     150
                                  155
                                                    160
Met Val Asp Ala Gly Ile Ile Leu Leu Lys Tyr Trp Leu Glu Val Thr
             165 170 175
Pro Lys Glu Gln Glu Arg Arg Leu Arg Asp Arg Ile Asn Asp Gly Arg
       180 185
                                          190
Lys Ile Trp Lys Leu Ser Pro Met Asp Ile Lys Ser Phe Asn Leu Trp
      195
                        200
                                          205
Asp Glu Tyr Thr Leu Ala Arg Asp Ala Met Phe Lys Ala Thr Asp Thr
        215
                                      220
Ala Trp Ala Pro Trp Phe Val Ala Arg Ser Glu Asp Lys Lys Arg Val
                 230
                                  235
Arg Leu Asn Ile Ile Ser His Leu Leu Ser Gln Ile Pro Tyr Lys Glu
             245
                  250
Ile His Val Asp Lys Val Asp Leu Pro Lys Arg Lys Ile Gly Lys Val
                         265
Lys Pro Thr Lys Tyr Pro Pne Arg Tyr Ile Ala Glu Arg Phe
                        280
<210> 6283
<211> 310
<212> PRT
<213> Enterobacter cloacae
<400> 6283
Arg Ile Asp Ala Ile Ser Phe Pro Phe Asp Phe Leu Lys Thr Gly Arg
```

```
1.0
Val Met Asp Arg Lys Arg Ala Thr Leu Thr Gly Leu Ala Ala Ile Leu
Leu Trp Ser Thr Met Val Gly Leu Ile Arg Ser Val Ser Glu Gly Leu
                     4.0
Gly Pro Val Gly Gly Ala Ala Met Ile Tyr Thr Val Ser Gly Leu Leu
                  55
Cys Leu Val Thr Val Gly Phe Pro Asp Leu Arg Arg Phe Ser Arg Arg
             70
                            75
Tyr Leu Phe Ala Gly Ser Ile Leu Phe Val Ser Tyr Glu Met Cys Leu
           85
                          90
Ala Leu Ser Leu Gly Tyr Ala Ala Thr Arg Ser Gln Ala Ile Glu Val
         1.00
                   105
Gly Met Val Asn Tyr Leu Trp Pro Ser Leu Thr Ile Ala Phe Ala Ile
                          125
Leu Phe Asn Gly Gln Lys Ser Thr Leu Trp Val Ile Pro Gly Leu Leu
                 135
                         140
Ile Ser Leu Leu Gly Val Cys Trp Val Leu Gly Gly Glu Asn Gly Leu
              150
                    155
Gln Leu Asn Asp Ile Met Gln Asn Val Val Ser Ser Pro Leu Ser Tyr
         165
                170 175
Gly Leu Ala Phe Ala Gly Ala Phe Ile Trp Ala Ala Tyr Cys Thr Val
            185
      180
Thr Ser Lys Tyr Ala Lys Gly Gln Asn Gly Ile Thr Leu Phe Val Leu
   195 200 205
Leu Thr Ala Leu Ser Leu Trp Val Lys Tyr Ala Val Ser Asp Gln Pro
 210
      215 220
Glu Met Val Phe Ser Val Pro Val Val Val Lys Leu Leu Met Cys Gly
225 230 235
Val Ala Leu Gly Phe Gly Tyr Ala Ala Trp Asn Ile Gly Ile Leu His
         245 250
Gly Asn Val Thr Val Leu Ala Ala Val Ser Tyr Phe Thr Pro Val Leu
      260 265 270
Ser Ala Ala Leu Ala Ala Ile Val Leu Ser Ser Pro Leu Ser Phe Ser
 275 280 285
Phe Trp Gln Gly Ala Leu Met Val Cys Ala Gly Ser Leu Leu Cys Trp
 290
               295
Tyr Ala Thr Arg Lys
               310
```

<210> 6284 <211> 177 <212> PRT <213> Enterobacter cloacae

<400> 6284 Gly Leu Phe Lys Met Lys Leu Lys Leu Val Ala Val Ala Val Thr Ser 10 Met Leu Ala Ala Gly Val Val Asn Ala Ala Glu Val Phe Asn Lys Asp 25 Gly Asn Lys Leu Asp Leu Tyr Gly Lys Val Thr Gly Leu His Tyr Phe 35 40 Ser Asp Asp Ala Gly Ser Asp Gly Asp Lys Thr Tyr Val Arg Leu Gly 5.5 60 Phe Lys Gly Glu Thr Gln Ile Asn Asp Gln Leu Thr Gly Tyr Gly Gln 7.0 Trp Glu Tyr Glu Phe Lys Gly Asn Arg Ser Glu Ala Gln Gly Ser Asp 85 90 Gly Asn Lys Thr Arg Leu Ala Tyr Ala Gly Leu Lys Phe Asp Glu Phe 105 110 Gly Ser Phe Asp Tyr Gly Arg Asn Tyr Gly Val Ala Tyr Asp Ile Gly

```
120
Ala Trp Thr Asp Val Leu Pro Glu Phe Gly Gly Asp Thr Trp Thr Gln
                     135
Thr Asp Gly Phe Met Thr Gly Arg Thr Thr Gly Val Ala Thr Tyr Arg
    150
                                  155
Asn Thr Asp Phe Phe Gly Leu Val Asp Gly Leu Asn Val Ala Ala Gln
Tyr
<210> 6285
<211> 94
<212> PRT
<213> Enterobacter cloacae
<400> 6285
Phe Asp Ala Ile Lys Lys Gly Ala Leu Leu Leu Val Cys Arg Ala Lys
                             10
Ser Tyr Gln Ile Thr Arg Thr Thr Met Asp Val Ser Arg Arg Gln Phe
  20
                           25
Phe Lys Ile Cys Ala Gly Gly Met Ala Gly Thr Thr Ala Ala Met Leu
 3.5
              40
Gly Phe Ala Pro Lys Met Ala Leu Ala Gln Ala Arg Asn Tyr Lys Leu
 50 55
Leu Arg Ala Lys Glu Ile Arg Asn Thr Cys Thr Tyr Cys Ser Val Gly
65 70
Cys Gly Leu Leu Met Tyr Ser Leu Gly Asp Gly Ala Lys
             8.5
<210> 6286
<211> 111
<212> PRT
<213> Enterobacter cloacae
<400> 6286
Ser Arg Gly Ala Leu Cys Pro Glu Arg Gly Gly Ala Val Gly Leu Arg
                            10
Ser Thr Val Lys Thr Val Leu Arg Tyr Pro Glu Tyr Arg Ala Pro Gly
          20
                             25
Ser Asp Lys Trp Gln Arg Ile Ser Trp Asp Asp Ala Phe Ser Arg Ile
      35
                     40
                                  4.5
Ala Lys Leu Met Lys Ala Asp Arg Asp Ala Asn Phe Ile Glu Lys Asn
Glu Gln Gly Ile Thr Val Asn Arg Trp Thr Ser Thr Gly Met Leu Cys
               7.0
                                    75
                                                      80
Ala Ser Ala Ala Ser Asn Glu Thr Gly Met Leu Thr Gln Lys Phe Val
             85
                                90
Arg Ser Leu Gly Met Leu Ala Val Asp Asn Gln Ala Arg Val
                             105
<210> 6287
<211> 820
<212> PRT
<213> Enterobacter cloacae
<400> 6287
His Gly Pro Thr Val Ala Ser Leu Ala Pro Thr Phe Gly Arg Gly Ala
                                10
Met Thr Asn His Trp Val Asp Ile Lys Asn Ala Asn Val Val Val Val
Met Gly Gly Asn Ala Ala Glu Ala His Pro Val Gly Phe Arg Trp Ala
```

4.0 Met Glu Ala Lys Asn Asn Asn Asp Ala Thr Leu Ile Val Val Asp Pro 55 Arg Phe Thr Arg Thr Ala Ser Val Ala Asp Ile Tyr Ala Pro Ile Arg 70 Ser Gly Thr Asp Ile Thr Phe Leu Ser Gly Val Leu Leu Tyr Leu Ile 8.5 Glu Asn Asn Lys Ile Asn Ala Glu Tyr Val Lys His Tyr Thr Asn Ala 105 100 Ser Leu Leu Val Arg Glu Asp Phe Ala Phe Glu Asp Gly Leu Phe Ser 115 120 125 Gly Tyr Asp Ala Glu Lys Arg Gln Tyr Asp Lys Ser Ser Trp Asn Tyr 130 135 140 Gln Phe Asp Glu Asn Gly Tyr Ala Lys Arg Asp Glu Thr Leu Ser Asp 150 155 160 Pro His Cys Val Trp Asn Leu Leu Lys Gln His Val Ser Arg Tyr Thr 165 170 175 Pro Asp Val Val Glu Asn Ile Cys Gly Thr Pro Lys Ala Asp Phe Leu 185 190 180 Lys Val Cys Glu Val Leu Ala Ser Thr Ser Ala Ala Asp Arg Thr Thr 195 200 205 Thr Phe Leu Tyr Ala Leu Gly Trp Thr Gln His Thr Val Gly Ala Gln 210 215 220 Asn Ile Arg Thr Met Ala Met Ile Gln Leu Leu Leu Gly Asn Met Gly 225 230 235 Met Ala Gly Gly Gly Val Asn Ala Leu Arg Gly His Ser Asn Ile Gln 245 250 255 Gly Leu Thr Asp Leu Ser Leu Leu Ser Thr Ser Leu Pro Gly Tyr Leu 260 265 270 Thr Leu Pro Ser Glu Lys Gln Thr Asp Trp Gln Ser Trp Leu Asp Ala 275 280 285 Asn Thr Pro Lys Ala Thr Arg Pro Asp Gln Val Asn Tyr Trp Ser Asn 290 295 300 Tyr Pro Lys Phe Ala Val Ser Leu Met Lys Ser Phe Tyr Gly Asp Ala 305 310 315 Ala Gln Lys Glu Asn Asp Trp Gly Pne Glu Trp Leu Pro Lys Trp Asp 325 330 335 Gln Ala Tyr Asp Val Ile Lys Tyr Phe Asn Met Met Asp Lys Gly Asp 340 345 350 Val Thr Gly Tyr Ile Cys Gln Gly Phe Asn Pro Val Ala Ser Phe Pro 355 360 365 Asp Lys Asn Lys Val Val Arg Ser Leu Ser Lys Leu Lys Tyr Met Val 370 375 380 Val Ile Asp Pro Leu Val Thr Glu Thr Ser Thr Phe Trp Gln Asn His 385 390 395 Gly Glu Ser Asn Asp Val Asp Pro Ala Ser Ile Gln Thr Glu Val Phe 405 410 Arg Leu Pro Ser Thr Cys Phe Ala Glu Glu Asp Gly Ser Ile Ala Asn 425 430 Ser Gly Arg Trp Leu Gln Trp His Trp Lys Gly Gln Asp Ala Pro Gly 440 Glu Ala Arg Asn Asp Gly Glu Ile Leu Ala Gly Ile Tyr His Arg Leu 450 455 460 Arg Glu Met Tyr Arg Thr Glu Gly Gly Lys Gly Ala Glu Pro Leu Leu 465 470 475 Lys Met Ser Trp Asn Tyr Lys Gln Pro Asp His Pro Glu Ser Glu Glu 490 495 Val Ala Lys Glu Asn Asn Gly Val Ala Leu Ala Asp Leu Tyr Asp Ala 510 500 505 Asn Gly Asn Leu Val Ala Lys Lys Gly Gln Leu Leu Asn Ser Phe Ala

```
Leu Leu Arg Asp Asp Gly Tor Thr Ala Ser Ser Cys Trp Ile Tyr Thr
                    540
 530
Gly Ser Trp Thr Glu Gln Gly Asn Gln Met Ala Asn Arg Asp Asn Ala
           550
Asp Pro Ser Gly Leu Gly Asn Thr Leu Gly Trp Ala Trp Ala Trp Pro
           565 570
Leu Asn Arg Arg Val Leu Tyr Asn Arg Ala Ser Ala Asp Val Asn Gly
            585
                                    590
        580
Lys Pro Trp Asp Pro Lys Arg Met Leu Ile Glu Trp Asn Gly Thr Lys
        600
   595
Trp Thr Gly Asn Asp Ile Pro Asp Phe Asn Thr Ala Ala Pro Gly Ser
 610 615
                              620
Asn Thr Gly Pro Phe Ile Met Gln Pro Glu Gly Leu Gly Arg Leu Phe
625 630 635
Ala Ile Asp Lys Leu Ala Glu Gly Pro Phe Pro Glu His Tyr Glu Pro
     645 650
Met Glu Thr Pro Leu Gly Thr Asn Pro Leu His Pro Asn Val Val Ser
 660 665 670
Ser Pro Val Val Arg Ile Tyr Glu Asp Asp Val Leu Arg Leu Gly Lys
675 680 685
Lys Asp Lys Phe Pro Tyr Val Gly Thr Thr Tyr Arg Leu Thr Glu His
690 695 700
Phe His Thr Trp Thr Lys His Ala Arg Leu Asn Ala Ile Ala Gln Pro
705 710 715 720
Glu Gln Phe Val Glu Ile Ser Glu Thr Leu Ala Lys Ala Lys Gly Ile
          725 730
Ala Asn Gly Asp Arg Val Lys Val Ser Ser Lys Arg Gly Phe Ile Arg
740 745 750
Ala Val Ala Val Val Thr Arg Arg Leu Gln Thr Leu Asn Val His Gly
755 760 765
Gln Gln Val Glu Thr Val Gly Ile Pro Leu His Trp Gly Phe Glu Gly
                775
                              780
Val Ala Gln Lys Gly Tyr Ile Ala Asn Thr Leu Thr Pro Asn Val Gly
785 790 795 800
Asp Ser Asn Ser Gln Thr Pro Glu Tyr Lys Ala Phe Leu Val Asn Ile
          805
                 810
Glu Lys Ala
```

.. 270 1114

<210> 6288 <211> 239

<212> PRT <213> Enterobacter cloacae

115

<400> 6288 Phe Ile Thr Thr Ser Val Ser Gly Arg Ile Lys Arg Trp Met Thr Thr 1.0 Arg Arg Ser Ile Met Ser Lys Ser Lys Met Ile Val Arg Thr Lys Phe 25 20 3.0 Val Asp Arg Ala Cys His Trp Thr Val Val Ile Cys Phe Phe Leu Val 35 40 45 Ala Val Ser Gly Ile Ser Phe Phe Phe Pro Thr Leu Gln Trp Leu Thr 50 5.5 Glu Thr Phe Gly Thr Pro Gln Met Gly Arg Ile Leu His Pro Phe Phe 75 70 80 Gly Val Leu Ile Phe Val Val Leu Met Phe Met Phe Val Arg Phe Val 85 His His Asn Ile Pro Asp Lys Gln Asp Ile Pro Trp Leu Lys Gly Ile 100 105 Val Glu Val Leu Lys Gly Asn Glu His Lys Val Ala Lys Val Gly Lys

120

125

```
Tyr Asn Ala Gly Gln Lys Met Met Phe Trp Thr Ile Met Ser Met Ile
 130
                                    140
Phe Val Leu Leu Val Thr Gly Val Ile Ile Trp Arg Pro Tyr Phe Ala
                  150
                                    155
His Tyr Phe Pro Ile Gln Val Val Arg Tyr Ala Leu Leu Ile His Ala
              165
                                 170
Thr Ser Ala Ile Ile Leu Ile His Ala Ile Leu Ile His Met Tyr Met
           180
                             185
Ala Phe Trp Val Lys Gly Ser Ile Lys Gly Met Ile Glu Gly Lys Val
       195
                         200
                                            205
Ser Arg Arg Trp Ala Gln Lys His His Pro Arg Trp Tyr Arg Asp Val
              215
                             220
 210
Glu Arg Leu Glu Ala Gln Lys Glu Ser Ser Glu Gly Leu Lys
225 230
<210> 6289
<211> 90
<212> PRT
<213> Enterobacter cloacae
<400> 6289
Phe Glu Leu Val His His Thr Ser Leu Ile Asn Asn Ala Arg Cys Val
1 5
Phe Phe Asn Ser Gly Arg Gly Met Lys Lys Thr Ile Phe Ser Leu Ala
 20
                          25
Leu Ala Thr Phe Gly Leu Gly Met Ala Glu Phe Gly Ile Met Gly Val
35
                        40
Leu Thr Glu Leu Ala His Asp Thr Gly Ile Ser Ile Pro Ser Ala Gly
              5.5
Asn Met Ile Ser Phe Tyr Pro Phe Gly Val Val Ile Ser Ala Pro Ile
              70
Val Ala Leu Phe Ser Thr Asn Phe Arg
<210> 6290
<211> 295
<212> PRT
<213> Enterobacter cloacae
<400> 6290
Met Ala Met Glu Thr Gln Asp Ile Ile Lys Arg Ser Ala Thr Asn Pro
Ile Thr Pro Ala Pro Arg Ala Arg Asp Tyr Lys Ala Glu Val Ala Lys
Leu Ile Asp Val Ser Ser Cys Val Gly Cys Lys Ala Cys Gln Val Ala
                         4.0
Cys Ser Glu Trp Asn Asp Ile Arg Asp Glu Val Gly His Cys Val Gly
                     5.5
```

Val Tyr Asp Asn Pro Ala Asp Leu Ser Ala Lys Ser Trp Thr Val Met 7.0 75 Arg Phe Ser Glu Thr Asp Gln Asn Gly Lys Leu Glu Trp Leu Ile Arg 85 90 Lys Asp Gly Cys Met His Cys Glu Asp Pro Gly Cys Leu Lys Ala Cys 100 105 Pro Ser Ala Gly Ala Ile Ile Gln Tyr Ala Asn Gly Ile Val Asp Phe 115 120 Gln Gln Asp Asn Cys Ile Gly Cys Gly Tyr Cys Ile Ala Gly Cys Pro 135 140 Phe Asn Ile Pro Arg Leu Asn Lys Glu Asp Asn Arg Val Tyr Lys Cys 150 155 Thr Leu Cys Val Asp Arg Val Ser Val Gly Gln Glu Pro Ala Cys Val

```
170
              165
Lys Thr Cys Pro Thr Gly Ala Ile His Phe Gly Thr Lys Lys Glu Met
         180
                           185
                                            190
Leu Glu Val Ala Gln Gln Arg Val Asp Lys Leu Lys Ala Arg Gly Tyr
                       200
      195
Asp Lys Ala Gly Ile Tyr Asn Pro Gln Gly Val Gly Gly Thr His Val
   210
                    215
Met Tyr Val Leu His His Asn Asp Gln Pro Glu Leu Tyr His Asn Leu
       230
                        235
Pro Lys Asp Pro Ala Ile Asp Thr Ser Ile Asn Leu Trp Lys Gly Ala
           245
                         250
Leu Lys Pro Leu Ser Ala Ala Gly Phe Ile Ala Thr Phe Ala Gly Leu
         260 265 270
Ile Tyr His Tyr Ile Gly Ile Gly Pro Asn Lys Glu Val Asp Asp Asp
      275
                     280 285
Glu Glu His His Glu
   290
<210> 6291
<211> 99
<212> PRT
<213> Enterobacter cloacae
<400> 6291
Trp Arg Asn Cys Val Arg Ile Glu Thr Ser Leu Phe Thr Thr Pro Glu
                              10
Cys Met Lys Ala Ile Thr Leu Tyr Asp Val Ala Arg Val Ala Gly Val
                          25
35
                      40
Lys Lys Lys Lys Lys Val Arg Gln Ala Met Ala Ala Leu His Tyr
 50 55
Val Pro Asn Arg Gly Ala Gln Gln Leu Ala Gly Lys Arg Thr Arg Thr
65 70
                       7.5
Leu Gly Pro Ile Thr Ser Ile Tyr Leu Ala Ala Gly Thr Ile Gln Arg
            8.5
Leu Gln Leu
<210> 6292
<211> 151
<212> PRT
<213> Enterobacter cloacae
<400> 6292
Pro Gly Gln Arg Cys Cys Cys Cys Gly Ser Arg Cys Val Ser Cys Arg
                              10
                                               15
Gly Leu Gly Thr Ile Ser Asn Val Ile Cys Ile Val Gln Ala Ala Asp
                           25
Ala Ser Met Ala Leu Ile Pro Glu Leu Thr Ser Leu Pro Val Arg Ile
                       40
Thr Leu Leu Val Ser Gly Ile Val Val Asn Ala Leu Ala Thr Gly Met
Tyr Ile Gly Ala Gly Phe Gly Ala Gly Pro Arg Asp Gly Leu Met Thr
              7.0
Gly Ile His Ala Arg Leu Gly Trp Ser Ile Arg Ser Val Arg Thr Ala
            85
                              90
Ile Glu Val Thr Val Leu Ile Val Gly Tyr Leu Leu Gly Gly Ala Phe
                           105
         100
                                            110
```

Gly Val Gly Thr Val Leu Tyr Ala Leu Thr Ile Gly Pro Leu Ile Gln 120

```
Leu Cys Leu Pro Trp Phe Arg Gin Arg Pro Arg Ile Gin Lys Ala Ala
 130
         135
Gln Pro Glu Arg Ile Val
145 150
<210> 6293
<211> 161
<212> PRT
<213> Enterobacter cloacae
<400> 6293
Leu Gln Gly Gln Ala His Glu Gly Gly Phe Met Lys Ile Gly Glu Leu
                             1.0
Ala Arg Lys Ala Gly Cys Pro Val Glu Thr Ile Arg Tyr Tyr Glu Lys
        20
                        25
Glu Gly Leu Leu Gln Ala Pro Leu Arg Asp Ile Glu Asn Asn Tyr Arg
      3.5
                   4.0
His Tyr Asp Asn Asn His Leu Glu Lys Leu Leu Phe Ile Arg Arg Cys
      5.5
                             60
Arg Ser Leu Asp Met Thr His Glu Glu Ile Arg Ala Leu Leu Ala
65 70 75
Ile Asn Asn Asn Gly Lys Glı Cys Gly Pro Ile Asp Ala Ile Ile Ser
          85
                        90 95
Ala His Leu Ala His Val Gln His Arg Ile Asn Glu Leu Ile Ala Leu
 100 105 110
Glu Lys Gln Leu Gln Glu Leu Asn Asp Val Cys Asn Ala Asp Arg Ser
115 120 125
Val Asp Glu Cys Gly Ile Val Gln Lys Leu Thr Ala Glu Asp Glu Asp
 130 135 140
Arg Asp Leu Pro Leu Thr Val Pro Thr Asp His Leu Gly Gly Val His
<210> 6294
<211> 156
<212> PRT
<213> Enterobacter cloacae
<400> 6294
Val Met Asn Ile Gly Lys Ala Ser Ser Glu Ser Gly Ile Ser Ala Lys
                            10
Met Ile Arg Tyr Tyr Glu Gln Ile Gly Leu Ile Pro Ala Thr Gly Arg
                         25
Thr Glu Ala Gly Tyr Arg Asp Tyr Ala Pro Asn Asp Ile His Arg Leu
                    4.0
Ile Phe Ile Arg Ser Ala Arg Asp Leu Gly Phe Ser Leu Glu Glu Ile
                                   60
Glu Gly Leu Leu Lys Leu Trp Asn Asp Lys Ser Arg Gln Ser Ser Asp
               70
                                7.5
Val Lys Arg Leu Ala Gln Glu His Ile Asn Asp Leu Asp Arg Arg Ile
          85
                             90
```

Glu Ser Met Arg Gln Met Ala Asp Thr Leu Arg Val Leu Ile Gln Ser 100 105 Cys Ala Gly Asp Glu Arg Ala Glu Cys Pro Ile Leu His Arg Leu Thr 115 120 Ile Ala Asp Asp Ile Ser His Ser Gly Lys Arg Glu Gly Ala Val Gln 135 Arg Arg Ser Arg Gly Asn Arg Val Ser Lys Asp 150

```
<210> 6295
<211> 81
<212> PRT
```

<213> Enterobacter cloacae

<210> 6296 <211> 547 <212> PRT <213> Enterobacter cloacae

<400> 6296 Gly Cys Ser Ile Ser Glu Pro Asn Asp Glu Lys Tyr Ile Met Ser Ile Gln Lys Lys Gln His Ser Asn Asp Ala Glu Thr Gln Val Ser Leu Pro Ile Glu Gly Met Thr Cys Ala Ser Cys Val Gly Arg Val Glu Ala Ala 40 Leu Thr Lys Val Glu Gly Val Glu Ser Val Ser Val Asn Leu Ala Thr 55 60 Glu Arg Ala Asp Ile Leu Leu Asn Thr Pro Val Glu Arg Met Ala Leu 7.0 7.5 Ile Lys Ala Ile Glu Asn Val Gly Tyr Glu Val Pro Leu Thr Ser Val 90 Glu Leu Ser Val Gln Gly Met Thr Cys Ala Ser Cys Val Gly Arg Val 105 Glu Lys Ala Leu Arg Ala Val Glu Gly Val Lys Asp Ala Thr Val Asn 115 120 Leu Ala Thr Glu Arg Ala Tnr Ile Arg Gly Val Ala Gly Thr Asp Asp 135 140 Leu Ile Ala Ala Ile Glu Lys Val Gly Tyr Glu Ala Ser Leu Val Asp 150 155 Thr Arg Gly Gln Asn Asn Val Glu Ala Ala Glu Lys Lys Asp Ala Glu 170 165 Lys Ala Ala Leu Lys Lys Asp Leu Val Leu Ala Thr Ile Leu Ala Leu 185 190 180 Pro Val Phe Ile Met Glu Met Gly Ser His Leu Ile Pro Gly Met His 200 205 195 Gln Trp Ile Met Asp Thr Ile Gly Leu Gln Glu Ser Trp Tyr Leu Gln 215 210 Phe Val Leu Thr Leu Leu Val Leu Val Ile Pro Gly Arg Arg Phe Tyr 225 230 235 Leu Lys Gly Ile Pro Ala Leu Ile Arg Leu Gly Pro Asp Met Asn Ser 250 245 Leu Val Ser Val Gly Thr Leu Ala Ala Phe Gly Tyr Ser Met Val Ala 260 265 Thr Phe Ala Pro Gly Leu Leu Pro Gln Gly Thr Val Asn Val Tyr Tyr

280

```
Glu Ala Ala Ala Val Ile Val Ala Leu 11e Leu Leu Gly Arg Phe Met
                 295
Glu Ala Arg Ala Lys Gly Arg Thr Ser Glu Ala Ile Lys Arg Leu Val
              310
Gly Leu Gln Ala Lys Glu Ala His Val Leu Arg Asn Gly Val Val Val
                           330
           325
Asp Ile Pro Ile Asn Asp Val Val Leu Asp Asp Ile Ile Glu Val Arg
         340
                       345
Pro Gly Glu Arg Val Pro Val Asp Gly Glu Val Ser Glu Gly Thr Ser
                    360
                                    365
Phe Val Asp Glu Ser Met Ile Thr Gly Glu Pro Ile Pro Val Glu Lys
                                 380
                  375
Val Pro Gly Ser Leu Met Val Gly Gly Thr Val Asn Gln Lys Gly Ala
   390
                             395
Leu Arg Leu Arg Ala Thr Ala Val Gly Gly Gln Thr Met Leu Ser Gln
      405 410 415
Ile Ile Arg Met Val Glu Gln Ala Gln Gly Ser Lys Leu Pro Ile Gln
       420 425 430
Ala Val Val Asp Lys Val Thr Leu Trp Phe Val Pro Val Val Met Leu
 435 440 445
Ala Ala Leu Leu Thr Phe Leu Ala Trp Leu Thr Phe Gly Pro Ser Pro
450 455 460
Ala Leu Ser Phe Ala Leu Val Asn Ala Val Ala Val Leu Ile Ile Ala
465 470 475
Cys Pro Cys Ala Met Gly Leu Ala Thr Pro Thr Ser Ile Met Val Gly
      485 490 495
Thr Gly Arg Gly Ala Glu Met Gly Ile Leu Phe Arg Lys Gly Glu Ala
 500 505 510
Leu Gln Leu Leu Lys Asp Ala Lys Val Val Ala Val Asp Lys Thr Gly
515 520 525
Thr Leu Thr Glu Gly Ala Pro Arg Asn Asp Arg Pro Gly Val Ser Arg
530 535
```

<210> 6297 <211> 852 <212> PRT <213> Enterphysical globases

Arg Val

<213> Enterobacter cloacae

<400> 6297 Leu Thr Gly Glu Ala Ile Lys Met Ser Gly Ser Val Lys Asn Ser Lys 10 Thr Gln Val Arg Glu Glu Ser Ala Gly Cys Cys Glu Lys Ile Asn Leu 25 Ile Val Gly Ser Lys Met Gln Arg Ser Glu Glu Pro Ala Lys Ala His 40 Gly His Ala His Asp His Lys Asp Cys Ser Ala Glu Leu Ser His Lys 5.5 60 Glu His Gly His Gly Ser Asp Lys His Leu His Arg Glu Gln Gly His 70 Val Lys Gly Gly His Ala His Glu Gly Cys Ser His Glu His Ser His 85 90 Thr Asp Glu Glu His Asp His Gly Glu Glu Glu His Ser His Gly Asp 100 105 110 His Gln His Lys Gly Cys Asn His Asp His Ala Gln Asp Asp Gln Ala 120 115 Asp Glu His His Gly His Ser Gly Asp Cys Cys Ser Gly Ala Pro Thr 135 140 Asn Leu Ser Asn Leu Gly Gly Ser Lys Val Val Ala Gly Gly Leu Arg 150 155

Thr Glu Ile Arg Ile Met Gln Met Asp Cys Pro Val Glu Glu Asn Leu 165 170 Ile Lys Lys Lys Leu Gly Ala Met Thr Ser Val Lys Glu Leu Asp Phe 185 190 180 Asn Leu Met Gln Arg Val Leu Thr Val Thr His Thr Pro Asp Ser Leu 195 200 205 Glu Pro Ile Leu Val Ala Ile Arg Ser Leu Gly Phe Val Pro Glu Val 210 215 220 Ser Asp Asn Asn Gly Glu Lys Lys Asn Ile Gln Glu Lys Lys Pro 230 235 Trp Trp Pro Leu Ala Leu Ala Gly Val Ala Ala Leu Ala Ala Glu Val 245 250 255 Met His Trp Ala Asp Met Pro Asp Trp Leu Glu Ala Gly Leu Ala Leu 260 265 270 Ile Ala Val Leu Leu Ser Gly Leu Thr Thr Tyr Lys Lys Gly Trp Ile 275 280 285 Ser Ile Arg Asn Gly Asn Leu Asn Ile Asn Ala Leu Met Ser Ile Ala 290 295 300 Val Thr Gly Ala Leu Val Leu Gly Gln Trp Pro Glu Ala Ala Met Val 305 310 315 320 Met Val Leu Phe Thr Ile Ala Glu Leu Ile Glu Ala Lys Ser Leu Asp 325 330 335 Arg Ala Arg Asn Ala Ile Gly Ser Leu Met Ser Leu Thr Pro Glu Thr 340 345 350 Ala Met Val Gln Gln Thr Asp Gly Ser Trp Gln Glu Val Asp Ala Ser 355 360 365 Ser Val Gln Pro Gly Ser Ile Val Arg Val Lys Pro Gly Glu Arg Ile 370 375 380 Gly Leu Asp Gly Glu Ile Val Lys Gly Gln Thr Thr Ile Asn Gln Ala 385 390 395 400 Pro Ile Thr Gly Glu Ser Leu Pro Val Asp Lys Met Ala Gly Asp Ser 405 410 415 Val Phe Ala Gly Thr Ile Asn Gln Ser Gly Ser Phe Glu Tyr Lys Val 420 425 430 Thr Ala Ala Ala Asn Asn Thr Thr Leu Ala Arg Ile Ile His Ala Val 435 440 445 Glu Gln Ala Gln Gly Ala Lys Ala Ala Thr Gln Arg Phe Val Asp Arg 450 455 460 Phe Ser Gln Ile Tyr Thr Pro Val Val Met Gly Ile Ser Val Ala Val 465  $\phantom{\bigg|}470\phantom{\bigg|}470\phantom{\bigg|}475\phantom{\bigg|}$ Ala Val Leu Pro Pro Leu Phe Gly Ala Gly Thr Trp Gln Glu Trp Ile 485 490 495 Tyr Lys Ala Leu Val Met Leu Val Ile Ala Cys Pro Cys Ala Leu Val 500 505 510 Ile Ser Thr Pro Val Thr Ile Val Ser Gly Leu Thr Ala Ala Ala Arg 520 525 Lys Gly Ile Leu Ile Lys Gly Gly Val Tyr Leu Glu Gln Gly Arg Lys 535 540 Leu Lys Ala Leu Ala Leu Asp Lys Thr Gly Thr Ile Thr His Gly Lys 550 555 Pro Val Gln Thr Asp Val Met Val Phe Asn Gly Glu Ser Glu Leu Glu 565 570 575 Val Arg Thr Val Ala Ala Ser Leu Ala Ser Tyr Ser Asp His Pro Val 580 585 590 Ser Gln Ala Val Val Asn Ala Ser Val Asp Leu Lys Lys Gln Ser Val 595 600 605 Glu Asn Phe Glu Ala Ile Val Gly Arg Gly Val His Gly Val Ile Ala 615 620 Gly Lys Asp Phe Tyr Leu Gly Asn Leu Arg Leu Ala Glu Asp Leu Leu 635 625 630 Ser Cys Pro Leu Glu Val Lys Ala Thr Val Gln Ser Leu Glu Ser Leu

```
645
                              650
Gly Lys Thr Val Ile Leu Phe Asn Asp Gly Lys Gln Val Leu Gly Leu
                     665
         660
Phe Ala Val Ala Asp Thr Val Lys Asn Thr Ser Arg Glu Ala Ile Gln
      675
                       680
Gln Leu His His Leu Gly Val Lys Thr Val Met Leu Thr Gly Asp Asn
                   695
Pro His Thr Ala Lys Ala Ile Ala Ser Gln Val Gly Ile Asp Glu Ala
               710
                                 715
Arg Gly Ser Gln Leu Pro Glu Asp Lys His Gln Val Val Gln Glu Tyr
             725
                             730
Ser Arg Ile Gly Val Thr Gly Met Val Gly Asp Gly Ile Asn Asp Ala
                          745
          740
Pro Ala Leu Ala Ala Ala Asp Ile Gly Phe Ala Met Gly Ala Met Gly
    755 760
                            765
Thr Asp Thr Ala Ile Glu Thr Ala Asp Val Ala Leu Met Asp Asp Asp
       775 780
Leu Arg Lys Ile Pro Ala Phe Val Lys Leu Ser Arg Gln Thr Tyr Ser
785 790 795
Leu Leu Val Gln Asn Ile Ser Leu Ala Leu Gly Ile Lys Ala Ile Phe
       805 810 815
Leu Val Leu Thr Leu Met Gly Met Gly Thr Met Trp Met Ala Val Phe
    820 825
Ala Asp Val Gly Ala Ser Leu Leu Val Val Ala Asn Gly Leu Arg Leu
835 840
Leu Arg Lys
850
<210> 6298
<211> 316
<212> PRT
<213> Enterobacter cloacae
<400> 6298
Leu Arg Gly Arg Pro Val Met Thr Asp Leu Glu Leu Ala Glu Gly Phe
                             10
Glu Leu Asn Glu Val Leu Ala Lys Val Ala Ala Val Glu Ser Arg Ser
                          25
Glu His Pro Ile Ala Arg Ala Ile Val Glu Ser Ala Leu Glu Lys Gly
                      40
Ile Ser Leu Pro Ile Leu Thr Glu Phe Asp Ser Ile Thr Gly Met Gly
                 5.5
Val Arg Ala Ile Val Asp Gly Glu Cys Ile Glu Val Gly Ala Asp Arg
                7.0
                                 7.5
Phe Met Arg Glu Leu Gly Leu Asp Val Glu His Phe Ser Gln Thr Ser
             8.5
                             90
Val Arg Leu Gly Asn Glu Gly Lys Ser Pro Leu Tyr Val Ala Ile Gly
         100
                          105
                                           110
Gly Arg Leu Ala Ala Ile Ile Ala Val Ala Asp Pro Ile Lys Ser Ser
                      120
                                        125
Thr Pro Ile Ala Ile Asn Ala Leu His Gln Leu Gly Leu Lys Val Ala
 130 135
                                    140
Met Ile Thr Gly Asp Asn Ala Asn Thr Ala His Ala Ile Ala Arg Gln
               150
                                155
                                                  160
Leu Gly Phe Asp Glu Val Val Ala Glu Val Leu Pro Glu Gly Lys Val
             165
                             170
Glu Ala Val Arg Arg Leu Lys Glu Ser Tyr Gly Lys Val Ala Tyr Val
         180 185
                                           190
Gly Asp Gly Ile Asn Asp Ala Pro Ala Leu Ala Val Ala Asp Ile Gly
                200
                                       205
Leu Ala Ile Gly Thr Gly Thr Asp Ile Ala Val Glu Ser Ala Asp Val
```

```
Val Leu Met Ser Gly Asn Leu Gln Gly Val Pro Asn Ala Ile Gly Leu
                230
                                235
Ser Lys Ala Thr Ile Gly Asn Ile Arg Gln Asn Leu Phe Trp Ala Phe
           245
                             250
Gly Tyr Asn Ala Ala Leu Ile Pro Val Ala Ala Gly Leu Leu Tyr Pro
       260
              265
Ala Tyr Gly Leu Leu Ser Pro Ile Phe Ala Ala Gly Ala Met Ala
    275 280 285
Leu Ser Ser Val Phe Val Leu Gly Asn Ala Leu Arg Leu Arg Phe
 290 295 300
Gln Pro Pro Leu Met Glu Asp Ala Gly Asn His
               310
<210> 6299
<211> 288
<212> PRT
<213> Enterobacter cloacae
<400> 6299
Thr Cys Gln Arg Phe Ala Ala Ile Phe Arg Ala Pro Val Val Arg Ala
                      10
Leu Met Ala Arg Leu Tyr Pro Asn Gly Pro Ala Asp Ile Asn His Phe
                    25
Gln Ala Ala Gly Gly Val Pro Val Leu Met Arg Glu Leu Leu Lys Gly
           40
Gly Leu Leu His Glu Asp Val Asn Thr Val Ala Gly Phe Gly Leu His
                   55
                                    60
Arg Tyr Thr Leu Glu Pro Trp Leu Asn Asn Gly Glu Leu Asp Trp Arg
          70
                                7.5
Glu Gly Ala Ser Asp Ser Leu Asp Pro Gln Val Ile Ala Thr Phe Glu
           85 90
Gln Pro Phe Ser Pro His Gly Gly Thr Lys Val Leu Ser Gly Asn Leu
 100 105 110
Gly Arg Ala Val Met Lys Thr Ser Ala Val Pro Glu Glu Asn Gln Val
     115 120
Ile Glu Ala Pro Ala Val Val Phe Glu Ser Gln His Asp Val Leu Pro
 130 135
                                    140
Ala Phe Asp Ala Gly Leu Leu Asp Lys Asp Cys Val Val Val Arg
               150 155
His Gln Gly Pro Lys Ala Asn Gly Met Pro Glu Leu His Lys Leu Met
165 170 175
Pro Pro Leu Gly Val Leu Leu Asp Arg Arg Phe Lys Ile Ala Leu Val
        180 185
                                          190
Thr Asp Gly Arg Leu Ser Gly Ala Ser Gly Lys Val Pro Ser Ala Ile
 195
                      200
His Val Thr Pro Glu Ala Tyr Asp Gly Gly Leu Leu Ala Lys Val Arg
                   215
                                    220
Asp Gly Asp Met Ile Arg Val Asn Gly Gln Thr Gly Glu Leu Thr Leu
               230
                                235
Leu Val Asp Glu Ala Glu Leu Ala Ala Arg Gln Pro His Ile Pro Asp
            245
                             250
Leu Ser Ala Ser Arg Val Gly Thr Gly Arg Glu Met Phe Gly Ala Leu
         260 265
Arg Glu Lys Leu Ser Gly Ala Glu Gln Gly Ala Thr Cys Ile Thr Phe
                      280
                                       285
<210> 6300
<211> 227
<212> PRT
```

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6300 Asp Asp Leu Ile Leu Thr Ile Trp Arg Glu Lys Thr Leu Met Lys Asn Trp Lys Thr Ser Ala Glu Ala Ile Leu Thr Thr Gly Pro Val Val Pro 20 25 30 Val Ile Val Val Asn Lys Leu Glu His Ala Val Pro Met Ala Lys Ala 35 40 Leu Val Ala Gly Gly Val Arg Val Leu Glu Val Thr Leu Arg Thr Ala 5.5 60 Cys Ala Met Asp Ala Ile Arg Ala Ile Ala Lys Glu Val Pro Glu Ala 7.0 7.5 Ile Ile Gly Ala Gly Thr Val Leu Asn Ala Gln Gln Leu Ala Glu Val 85 90 95 Thr Glu Ala Gly Ala Gln Phe Ala Ile Ser Pro Gly Leu Thr Glu Pro 100 105 110 Leu Leu Lys Ala Ala Thr Glu Gly Ser Ile Pro Leu Ile Pro Gly Ile 115 120 125 Ser Thr Val Ser Glu Leu Met Leu Gly Met Asp Tyr Gly Leu Lys Glu 130 135 140 Phe Lys Phe Phe Pro Ala Glu Ala Asn Gly Gly Thr Lys Ala Leu Gln 145 150 155 160 Ala Ile Ala Gly Pro Phe Ser Gln Val Arg Phe Cys Pro Thr Gly Gly 165 170 175 Ile Ser Pro Val Asn Tyr Arg Asp Tyr Leu Ala Leu Lys Ser Val Leu 180 185 190 Cys Ile Gly Gly Ser Trp Leu Val Pro Ala Asp Ala Leu Glu Ala Gly 195 200 205 Asp Trp Asp Arg Ile Thr Lys Leu Ala Arg Glu Ala Val Glu Gly Ala 215 Lys Gln 225

<211> 840 <212> PRT <213> Enterobacter cloacae

<210> 6301

<400> 6301 Leu Ile Met Ser Gly Glu Ser Glu Val Ala Gln Arg Gln Asp Thr Leu 1.0 Asn Arg Tyr Leu Leu Tyr Phe Pro Arg Ser Lys Asn Val Ile Ser Asp 25 Val His Ser Phe Thr Gly Lys Glu Ile Leu Ser Glu Pro Tyr Arg Tyr 40 Thr Ile Arg Phe Thr Ser Pro Asp Leu Asn Ile Ala Ile Asn Ala Val 55 Leu Asn Gln Arg Ala Glu Phe Ile Leu Arg Ala Pro Asn Leu Glu Ala 70 75 8.0 Ser Trp His Gly Gln Thr Ser Trp Leu Pro Val Arg Gln Ile Asn Gly 85 90 Thr Ile Thr Gln Phe Ser Arg Leu Met Ser Ser Gly Asp Glu Ala Leu 105 110 Tyr Glu Cys Val Leu Glu His Glu Leu Ala Leu Leu Asp Gln Asn Tyr 115 120 125 Arg Ser Ala Val Tyr Met Asn Met Thr Val Pro Glu Leu Val Thr Lys 135 140 130 Leu Met Lys Asp Ser Gly His Phe Asp Gly Tyr Asn Ile Asp Phe Asp 145 150 155 160 Gln Leu Ser His Ser Tyr Pro Arg Arg Glu Met Ile Val Gln Trp Lys 1.65 170

Glu Thr Asp Leu Arg Phe Ile Arg Arg Leu Leu Ala Glu Ile Gly Ile 185 Trp Phe Arg Phe Glu Asn His Asn Lys Val Lys Thr Glu Thr Val Val 200 205 Ile Phe Gly Asp Ser Ala Arg Arg Tyr Asn Phe Ser Asp Lys Gln Met 210 215 220 Pro Tyr Val Arg His Ser Gly Met Thr Ser Tyr Ser Glu Tyr Ile Thr 225  $\phantom{\bigg|}230\phantom{\bigg|}230\phantom{\bigg|}235\phantom{\bigg|}$ Asp Leu Glu Asp Gln His Gly Leu Ile Pro Lys Asn Val Leu Val Arg 245 250 255 Thr Tyr Phe Tyr Arg Asp Pro Gln Ser Pro Gln Thr Asp Lys Thr Val 260 265 270 Lys Thr Ser Asp Ile Pro Glu Gly Val Thr Thr Gly Gln His Tyr His 280 285 Tyr Ala Asp His Tyr Leu Thr Ala Gly Asp Phe His Gly Glu Glu Ala 295 300 Glu Thr Ala Ala Phe Tyr Ala Arg Leu Arg Tyr Glu Arg Leu Leu Asn 310 315 Gly Gln Ser Leu Leu Gly Ala Thr Thr Ser Asp Pro Glu Leu Gln Pro 325 330 Gly Ile Met Phe Tyr Pro Ser Gly Pro Val Pro Asp Gly Phe Lys Ser 340 345 350 Gly Phe Val Ile Thr Ala Met Thr Ile Arg Gly Ser Arg Ala Glu His 360 365 Tyr Arg Ala Val Leu Ser Gly Ile Pro Tyr Ile Gln Gly Tyr Thr Phe 370 375 380 Arg Pro Glu Tyr Leu Ser Arg Pro Val Ile Ala Gly Thr Val Pro Ala 390 395 Arg Val Lys Ala Ile Gly Gly Asp Lys Thr Tyr Ala Gly Leu Asp Ala 405 410 415 Val Gly Arg Tyr Arg Val Lys Phe Asp Phe Asp Leu Asp Glu Lys Arg 420 425 430 Val Gly Phe Glu Ser Ala Leu Val Arg Leu Gly Arg Pro Tyr Ala Gly 435 440 Asp Thr Phe Gly Ile His Phe Pro Leu Leu Glu Gly Thr Glu Val Ala 450 455 460 Val Gly Phe Glu Gly Gly Asp Pro Asp Arg Pro Phe Ile Ala His Val 465 470 475 480 Met His Asp Gly Ser His Pro Asp Leu Val Thr Asn Arg Asn Asp Thr 485 490 495 Arg Asn Val Ile Arg Thr Ala Ala Leu Asn Lys Ile Arg Leu Glu Asp 500 505 510 Arg Arg Gly Gln Glu His Ile Lys Ile Ala Thr Glu Tyr Gly Lys Gly 515 520 525 Gln Val Ser Val Gly His Leu Val Asp Ala Glu Gly Lys Lys Arg Gly 530 535 540 Glu Gly Val Glu Ala Arg Thr Asp Asp Trp Met Ala Leu Arg Ala Ala 550 555 Lys Gly Val Met Ile Thr Thr Glu Ala Gin Pro Arg Ala Gly Gly Lys 565 570 575 Gln Leu Asp Met Thr Ala Ala Ile Ala Gln Leu Glu Lys Ala Leu Ser 580 585 590 Leu Ala Met Thr Leu Gln Gln Ser Ala Leu Thr Ala Gly Ala Ser Asn 595 600 605 Val Glu Thr Asp Arg Gln Asn Ala Leu Ser Gln Thr Leu Ser His Leu 610 615 620 Ala Glu Pro Gly Ile Leu Ala Tyr Gly Lys Ser Gly Ile Ala Leu Val 630 635 640 Thr Pro Asp Ser Leu Gln Leu Ser Ala Gly Lys Asp Leu Ile Ala Thr 645 650 Ala Gly Gly Asn Ala Ser Val Asn Val Lys Lys Phe Ser Leu Ala

```
660
                            665
 Val Gly Glu Lys Leu Ser Leu Phe Ala Arg Lys Leu Gly Ile Gln Met
       675
             680 685
 Ile Ala Gly Ala Gly Asp Ile Thr Thr Gln Ala Gln Arg Gly Glu Met
            695
                             700
 His Met Leu Ser Gln Gln Asp Phe Thr Leu Thr Ser Thr Ala Gly Lys
    710
                                   715
 Met Asn Gly Ser Ala Arg Lys Gly Met Gln Phe Val Cys Gly Gly Gly
        725 730
                                                 735
 Gly Ile Arg Ile Ser Pro Thr Gly Leu Val Thr Ile Phe Ser Pro Thr
          740
                            745
 Gly Ile Glu Leu Lys Ala Pro Ser Leu Lys Tyr Asp Gly Pro Glu Ser
       755
                        760
                             765
 Val Ser Val Pro Thr Pro Ser Phe Glu Lys Gly Ala Phe Lys Leu Arg
                     775
Tyr Lys Leu His Ala Gly Asp Asp Pro Glu Gln Ile Leu Ala Asn Lys
     790
                      795 800
 Lys Phe Arg Leu Thr Ser Ala Ser Gly Gln Val Val Glu Gly Val Thr
          805
                              810
Asp Ser Cys Gly Arg Ser Pro Leu Leu Asp Ala Asp Asp Leu Asp Ser
    820
                            825
 Tyr Lys Met Glu Ile Met Glu
      835
<210> 6302
<211> 437
<212> PRT
<213> Enterobacter cloacae
<400> 6302
Lys Asn Ala Leu Leu Leu Arg Arg Ser Ala His Ala Gly Thr Gly Ala
1
Leu Phe Pro Leu Val Arg Arg Gln Pro Ala Ser Lys Asn Val Ser Gln
 20
                           25
Arg Arg Ala Ala Arg Lys Arg Ala Gly Ala Arg Glu Lys Leu Tyr Asn
                        40
                                         4.5
Arg Ala Arg Arg Val Ala Gly Val Phe Ile Tyr Pro Phe Thr Ser Arg
                    5.5
                                     60
Leu Val Tyr Ser Gly Ala Ile Met Ser Ala Glu Lys Leu Phe Thr Pro
65
                 70
                               75
Leu Lys Val Gly Ala Val Thr Ala Pro Asn Arg Val Phe Met Ala Pro
             8.5
                              90
Leu Thr Arg Leu Arg Ser Ile Glu Pro Gly Asp Ile Pro Thr Pro Leu
          100
                  105
Met Gly Glu Tyr Tyr Arg Gln Arg Ala Ser Ala Gly Leu Ile Ile Ser
       115
Glu Ala Thr Gln Ile Ser Ala Gln Ala Lys Gly Tyr Ala Gly Ala Pro
   130
                    135
                                     140
Gly Leu His Ser Pro Glu Gln Ile Ala Ala Trp Lys Lys Ile Thr Ala
                150
                                  155
Gly Val His Ala Glu Asp Gly Arg Ile Ala Val Gln Leu Trp His Thr
            165
                              170
Gly Arg Ile Ser His Ser Ser Ile Gln Pro Gly Gly Gln Ala Pro Val
         180
                          185
                                            190
Ser Ala Ser Ala Leu Asn Ala Asn Thr Arg Thr Ser Leu Arg Asp Glu
      195
                       200
                                         205
Asn Gly Asn Ala Ile Arg Val Asp Thr Thr Thr Pro Arg Ala Leu Glu
                   215
                                     220
Leu Asp Glu Ile Pro Gly Ile Val Asn Asp Phe Arg Gln Ala Val Ala
225 230 235 240
Asn Ala Arg Glu Ala Gly Phe Asp Leu Val Glu Leu His Ser Ala His
```

```
245
                              250
Gly Tyr Leu Leu His Gln Phe Leu Ser Pro Ser Ser Asn Gln Arg Thr
       260 265 270
Asp Gln Tyr Gly Gly Ser Val Glu Asn Arg Ala Arg Leu Val Leu Glu
            280 285
      275
Val Val Asp Ala Val Cys Asn Glu Trp Ser Ala Asp Arg Ile Gly Ile
 290 295 300
Arg Val Ser Pro Ile Gly Thr Phe Gln Asn Val Asp Asn Gly Pro Asn
305 310 315
Glu Glu Ala Asp Ala Leu Tyr Leu Ile Glu Glu Leu Ala Lys Arg Gly
           325
                              330
                                            335
Ile Ala Tyr Leu His Met Ser Glu Pro Asp Trp Ala Gly Gly Lys Pro
                        345
Tyr Ser Glu Ala Phe Arg Gln Lys Val Arg Glu Arg Phe His Gly Val
                       360
                                         365
Ile Ile Gly Ala Gly Ala Tyr Tor Ala Glu Lys Ala Glu Asp Leu Ile
 370
                 375
                                      380
Gly Lys Gly Leu Ile Asp Ala Val Ala Phe Gly Arg Asp Tyr Ile Ala
                 390
                                  395
Asn Pro Asp Leu Val Ala Arg Leu Gln Lys Lys Ala Glu Leu Asn Pro
       405
                            410
Gln Arg Pro Glu Ser Phe Tyr Gly Gly Gly Ala Glu Gly Tyr Thr Asp
    420
                           425
Tyr Pro Ser Leu
     435
<210> 6303
<211> 145
<212> PRT
<213> Enterobacter cloacae
<400> 6303
Ser Ile Pro Leu Val Asn Glu Glu Ile Met Arg Leu Leu His Thr Met
                              10
Leu Arg Val Gly Asp Leu Gln Arg Ser Ile Asp Phe Tyr Thr Asn Val
         20
                           25
Leu Gly Met Lys Leu Leu Arg Thr Ser Glu Asn Pro Glu Tyr Lys Tyr
       35
                       40
Ser Leu Ala Phe Val Gly Tyr Gly Pro Glu Ser Asp Glu Ala Val Ile
                   55
Glu Leu Thr Tyr Asn Trp Gly Val Asp Ser Tyr Glu Leu Gly Thr Ala
                                  75
Tyr Gly His Ile Ala Leu Glu Val Gly Asn Ala Ala Glu Ala Cys Glu
            8.5
                               90
                                             9.5
Arg Ile Arg Ser Asn Gly Gly Asn Val Thr Arg Glu Ala Gly Pro Val
         100
                        105
                                           110
Lys Gly Gly Thr Thr Val Ile Ala Phe Val Glu Asp Pro Asp Gly Tyr
     115
                     120
                                        125
Lys Ile Glu Leu Ile Glu Ala Lys Asp Ala Gly Arg Gly Leu Gly Asn
                   135
145
<210> 6304
<211> 223
<212> PRT
<213> Enterobacter cloacae
<400> 6304
Glu Thr Leu Met Ser Asp Asn Ala Gln Phe Thr Gly Leu Cys Asp Arg
```

```
Phe Arg Gly Phe Tyr Pro Val Val Ile Asp Val Glu Thr Ala Gly Phe
         2.0
                            25
Asn Ala Lys Thr Asp Ala Leu Leu Glu Ile Ala Ala Ile Thr Leu Lys
  35
                       4.0
Met Asp Glu Gln Gly Trp Leu Val Pro Asp Thr Thr Leu His Phe His
                  55
                                      60
Val Glu Pro Phe Glu Gly Ala Asn Leu Gln Pro Glu Ala Leu Ala Phe
       70
                      75
Asn Gly Ile Asp Pro Thr Asn Pro Leu Arg Gly Ala Val Ser Glu Tyr
                               90
Glu Ala Leu His Ala Ile Phe Lys Met Val Arg Lys Gly Met Lys Glu
          100 105
                                             110
Asn Asp Cys Ser Arg Ala Ile Met Val Ala His Asn Ala Thr Phe Asp
       115
                        120
His Ser Phe Thr Met Ala Ala Ala Glu Arg Ala Ser Leu Lys Arg Asn
  130
        135
                                      140
Pro Phe His Pro Phe Val Thr Phe Asp Thr Ala Ala Leu Ser Gly Leu
                 150
                                   155
Ala Leu Gly Gln Thr Val Leu Ser Lys Ala Cys Ile Thr Ala Gly Ile
             165
                               170
Ala Phe Asp Gly Thr Gln Ala His Ser Ala Leu Tyr Asp Thr Glu Arg
         180
                            185
Thr Ala Glu Leu Phe Cys Glu Ile Val Asn Arg Trp Lys Arg Leu Gly
 195 200
                               205
Gly Trp Pro Leu Pro Met Gly Asp Glu Ala Asp Leu Gln Ser
   210
                     215
<210> 6305
<211> 283
<212> PRT
<213> Enterobacter cloacae
<400> 6305
Leu Leu Leu Ile Leu Trp Ile Arg Ile Asp Arg Phe Cys Lys Ser His
                               10
Ala Gly Met His Cys Gly Leu His Leu Ser Gly Asp Cys Pro Val Ala
          20
Arg Ile Thr Lys Ile Ser Met Thr Leu Cys Ala Leu Leu Phe Thr Thr
Leu Ser Phe Thr Pro Ala Ala Asn Ala Ser Glu Gln Ala Arg His Ser
                    55
Ala Val Gln Lys Thr His Leu Ala Lys Ser Thr Glu Arg Lys Lys
                 70
                                   75
                                                    80
Thr Thr Ser Lys Thr Val Lys Lys Ile Thr Ala Gin Thr Lys Lys
                               90
Thr Ala Ser Ser Lys Thr Lys Thr Leu Arg Ser Gly Thr His Lys Thr
          100
                           105
Thr Arg Thr Thr Ala Ser Leu Val Asn Glu Lys Cys Thr Val Arg Lys
       115
                        120 125
Gly His Lys Thr Lys Cys Ala Lys Val Thr Lys Leu Ala Asp Val His
                    135
                         140
Lys Ala Arg Met Gln Lys Ala Gln Lys Thr Ala Met Asn Lys Leu Met
                 150
                                  155 160
Gly Gln Ile Gly Lys Pro Tyr Arg Trp Gly Gly Thr Ser Pro Arg Thr
             165
                            170 175
Gly Phe Asp Cys Ser Gly Leu Val Tyr Tyr Ala Tyr Lys Asp Leu Val
       180
                           185
Lys Phe Arg Ile Pro Arg Thr Ala Asn Glu Met Tyr His Leu Arg Asp
    195 200
Ala Ala Pro Val Asn Arg Gly Glu Leu Gln Asn Gly Asp Leu Val Phe
                    215
```

```
Phe Arg Thr Gln Gly Arg Gly Thr Ala Asp His Val Gly Val Tyr Val
                                     235
                  230
Gly Asn Gly Lys Phe Ile Gln Ser Pro Arg Ser Gly Gln Asp Ile Gln
              245
                    250
Ile Thr Ser Leu Ser Glu Asp Tyr Trp Val Arg His Tyr Val Gly Ala
       260 265
Arg Arg Val Met Thr Pro Lys Thr Ile Arg
<210> 6306
<211> 203
<212> PRT
<213> Enterobacter cloacae
<400> 6306
Ser Lys Gly Met Ser Arg His Thr Glu His Asp Thr Arg Glu His Leu
                                  1.0
                                                      1.5
Leu Ala Thr Gly Glu Arg Leu Cys Met His Arg Gly Phe Thr Gly Met
                               25
                                                  3.0
Gly Leu Ser Glu Leu Leu Lys Thr Ala Glu Val Pro Lys Gly Ser Phe
       35
                          4 0
Tyr His Tyr Phe Arg Ser Lys Glu Ala Phe Gly Val Ala Met Leu Glu
 50
                       55
                                          60
Arg His Tyr Ala Ser Tyr His Gln Arg Leu Ala Ala His Phe Ala Ser
                                      75
Gly Glu Gly Asp Tyr Arg Asp Arg Val Leu Asn Tyr Tyr Gln Glu Thr
                                  90
               8.5
Leu Thr Gin Phe Cys Gin Gir Gly Ile Ile Ser Gly Cys Leu Thr Val
           100
                               105
Lys Leu Ser Ala Glu Val Cys Asp Leu Ser Glu Asp Met Arg Thr Ala
      115
                           120
                                              125
Met Asp Lys Gly Ala Ser Gly Val Ile Ala Leu Leu Ala Gln Ala Leu
  130
                      135
                                          140
Glu Ser Gly Arg Asn Glu Lys Thr Leu Ser Phe Ser Gly Asp Pro Leu
               150
                                      155
                                                         160
Thr Gln Ala Gln Val Leu Tyr Ser Leu Trp Leu Gly Ala Asn Leu Gln
                                  170
               165
Ala Lys Met Ser Arg Ser Ala Val Pro Leu Glu Ser Ala Leu Ala His
           180
                               185
Val Lys Asn Cys Ile Thr Ala Pro Gly Val
       195
<210> 6307
<211> 589
<212> PRT
<213> Enterobacter cloacae
<400> 6307
Gly Arg Asn Thr Cys Leu Trp Ser Arg His Asn Lys Met Ala Cys Ser
Ala Thr Asp Val Cys His Lys Gln Asp Ile Lys Val Ser Leu Ile Phe
His Ser Tyr Thr Arg Arg Ile Asp Ile Thr Asn Gly Leu Leu Ile Met
       35
                          4.0
                                              4.5
Trp Phe Ala Lys Lys Leu His Cys Asn Asp Ile Lys Phe Thr Leu Gly
                      55
                                          60
Cys Ala Phe Phe Phe Thr Val Leu Asn Ala Leu Phe Ile Gln Arg Ser
                   7.0
                                      75
Trp Ser Ile Ile Ala Pro Ala His Leu His Asp Val Leu Phe Ala Ala
               85
                                  90
```

Ser Val Pro Leu Val Leu Phe Cys Gly Trp Val Ile Val Phe Ser Leu

```
100
                    105
Leu Asn Ile Pro Tyr Ile Arg Lys Pro Leu Leu Ile Val Leu Thr Leu
 115
         120 125
Gly Cys Ala Ala Ala Thr Trp Phe Met Tyr Thr Tyr Gly Ala Val Ile
 130 135 140
Asp Gln Asn Met Ile Val Asn Val Phe Glu Thr Asn Ser Gln Glu Ala
145 150 155 160
Thr Ala Leu Val Thr Pro Gln Met Ile Leu Trp Leu Val Val Ala Gly
     165 170 175
Leu Val Pro Ser Val Val Leu Ala Leu Thr Arg Ile Arg Thr Gly Lys
 180 185 190
Trp Trp Tyr Ala Leu Leu Thr Arg Phe Ala Ala Met Leu Gly Ala Leu
 195 200 205
Leu Val Ile Ile Leu Val Ala Ser Val Phe Tyr Lys Asp Tyr Ala Ser
210 215 220
Leu Phe Arg Asn Asn Lys Ser Ile Val Lys Met Val Thr Pro Ala Asn
225 230 235
Tyr Val Ser Ala Val Val Lys Tyr Ser Lys Met Arg Trp Phe Ala Gly
        245 250 255
Asp Gln Thr Leu Val Arg Ile Gly Glu Asp Ala His Lys Gly Ala Leu
     260 265 270
Ile Ala Ser Gln Arg Lys Lys Thr Val Leu Val Val Val Val Gly Glu
275 280
                                 285
Ala Ser Arg Ala Ala Asn Tyr Ser Leu Asn Gly Tyr Pro Arg Glu Thr
290 295
                             300
Asn Pro Glu Leu Lys Lys Gln Asp Val Ile Asn Phe Pro Arg Ala Ser
305 310 315
Ser Cys Gly Thr Glu Thr Ala Val Ser Val Pro Cys Met Phe Ser Gly
          325 330 335
Met Thr Arg Lys Lys Tyr Asp Ala Asp Leu Ala His His Gln Glu Gly
340
                     345
                                   350
Leu Leu Asp Val Leu Asn His Ala Gly Phe Asn Leu Leu Trp Arg Asp
        360
355
Asn Asp Gly Gly Cys Lys Gly Ala Cys Asp Arg Val Pro His Thr Asp
370 375 380
Met Thr Gln Trp Lys Leu Asp Gln Phe Cys Lys Asp Lys Ser Cys Ile
385 390 395
Asp Asp Val Asn Leu Tyr Arg Leu Asp Asn Val Leu Asp Gly Ile Lys
                        410
          405
Gln Asp Thr Val Leu Val Ile His Leu Met Gly Ser His Gly Pro Ala
   420 425 430
Tyr Tyr Lys Arg Tyr Pro Asp Ser Phe Arg Lys Phe Thr Pro Thr Cys
 435 440 445
Asp Thr Asn Glu Ile Gln Asp Cys Asp His Gln Ser Leu Ile Asn Thr
                455
Tyr Asp Asn Thr Ile Leu Tyr Thr Asp Ser Val Val Ser Arg Thr Ile
     470 475
Asp Ala Leu Lys Ala Arg Gln Ala Asn Met Asn Thr Ala Leu Ile Tyr
          485
                       490 495
Leu Ser Asp His Gly Glu Ser Leu Gly Glu Ser Gly Ile Tyr Leu His
                   505 510
     500
Gly Thr Pro Tyr Met Leu Ala Pro Glu Gln Gln Thr His Ile Pro Phe
     515 520 525
Met Phe Trp Leu Ser Pro Asp Tyr Ala Lys Asn Phe Gly Val Asn Thr
     535 540
Asp Cys Leu Arg Asp His Ala Ala Lys Glu Ala Val Ser Gln Asp Asn
545 550 555
Leu Phe Ala Thr Val Leu Gly Met Met Asp Val Lys Ser Ala Val Tyr
        565 570
Gln Pro Gln Leu Asp Ile Leu Ser Gln Cys Arg Arg
```

```
<210> 6308
 <211> 274
 <212> PRT
 <213> Enterobacter cloacae
 <400> 6308
 Ile Tyr Pro Val Thr Ala Gln Arg Ser Gly His Ser Asp His Leu Ser
                                     10
 Gln Arg Arg Leu Leu Gly Ala Pro Leu Cys Gly Cys Ala Pro Arg Asp
            20
 Asp Ala Lys Asn His Pro Leu Ala Pro Ala Leu Pro Pro Leu Trp Gln
                            40
                                                45
 Gly Lys Phe Leu Phe Cys Ile Pro Phe Gln Phe Ala Ile Leu Ser Leu
                        55
 Leu Ser Val Arg Leu Leu Ala Thr Tyr Lys Thr Ile Arg Arg Glu Ala
                    70
Met Ser Phe Glu Leu Pro Ala Leu Pro Tyr Ala Lys Asp Ala Leu Ala
                85
                                    90
Pro His Ile Ser Ala Glu Thr Leu Glu Tyr His Tyr Gly Lys His His
            100
                                                    110
Gln Thr Tyr Val Thr Asn Leu Asn Asn Leu Ile Lys Gly Thr Asp Phe
        115
                            120
                                                125
Glu Gly Lys Thr Leu Glu Glu Ile Val Arg Ser Ser Asp Gly Gly Val
 130
                                            140
Phe Asn Asn Ala Ala Gln Val Trp Asn His Thr Phe Tyr Trp His Cys
                    150
                                       1.5.5
Leu Ala Pro Asn Ala Gly Gly Glu Pro Asp Gly Glu Leu Ala Ala Ala
                165
                                    170
Ile Asn Ala Ala Phe Gly Ser Phe Ala Asp Phe Lys Ala Lys Phe Thr
            180
                                185
                                                   190
Asp Ala Ala Val Lys Asn Phe Gly Ser Gly Trp Thr Trp Leu Val Lys
        195
                            200
                                                205
Glu Ala Asp Gly Lys Leu Ala Ile Val Ser Thr Ser Asn Ala Gly Thr
    210
                        215
                                           220
Pro Leu Thr Thr Ser Ala Thr Pro Leu Met Thr Val Asp Val Trp Glu
225
                    230
                                       235
                                                            240
His Ala Tyr Tyr Ile Asp Tyr Arg Asn Ala Arg Pro Asn Tyr Leu Glu
                245
                                    250
His Phe Trp Ala Leu Val Asn Trp Glu Phe Val Ala Lys Asn Phe Ala
            260
                                265
Ala
<210> 6309
<211> 138
<212> PRT
<213> Enterobacter cloacae
<400> 6309
Arg Arg Asn Tyr Leu Gly Gly Lys Phe Ala Asp Arg Ser Val Ser Gly
                                   10
Thr Leu Lys Gly Phe Leu Thr Leu Leu Ile Val Ile Met Val Ala Ile
                               25
Pro Trp Leu Ala Arg Asn Glu Val Gly Ala Ala Ile Ala Met Val Val
                           40
Trp Gly Ala Ala Thr Phe Ala Val Val Pro Pro Leu Gln Met Arg Val
                       55
Met Arg Val Ala His Glu Ala Pro Gly Leu Ser Ser Val Asn Ile
                   7.0
                                       75
```

Gly Ala Phe Asn Leu Gly Asn Ala Leu Gly Ala Ala Ala Gly Gly Ala

85 90 Val Ile Ser Gly Gly Leu Gly Tyr Ser Phe Val Pro Val Met Gly Ala 100 105 110 Ile Ile Ala Ala Leu Gly Leu Leu Leu Val Ile Met Ser Gly Arg Lys 115 120 Gln Pro Gln Ala Val Cys Thr Ala Glu 130 <210> 6310 <211> 120 <212> PRT <213> Enterobacter cloacae <400> 6310 Arg Lys Gln Asp Met Ser Thr Thr Ile Glu Lys Ile Gln Arg Gln Ile 1.0 Ala Glu Asn Pro Ile Leu Leu Tyr Met Lys Gly Ser Pro Lys Leu Pro 20 25 Ser Cys Gly Phe Ser Ala Gln Ala Val Gln Ala Leu Ser Ala Cys Gly 35 40 Glu Arg Phe Ala Tyr Val Asp Ile Leu Gln Asn Pro Asp Ile Arg Ala 50 55 Glu Leu Pro Lys Tyr Ala Asn Trp Pro Thr Phe Pro Gln Leu Trp Val 70 Asp Gly Glu Leu Val Gly Gly Cys Asp Ile Leu Ile Glu Met Tyr Gln 8.5 90 Arg Gly Glu Leu Gln Gln Leu Ile Lys Glu Thr Ala Ala Lys Tyr Lys 100 105 Thr Glu Glu Pro Asp Ala Glu 115 <210> 6311 <211> 211 <212> PRT <213> Enterobacter cloacae <400> 6311 Ser Arg Arg Gly Ser Ala Arg Ala Leu Ser Gly Gly Arg Leu His Tyr 1.0 Lys Ala Cys Arg Leu Pro Ser Pro Ala Arg Thr Cys Ala Asp Arg Arg 20 25 Tyr His Val Ser Pro Ala Leu Gln Ser Asp Thr Ala Arg Leu Leu Leu 3.5 40 Arg Ser Asp Arg Cys Arg Arg Ser Gly Lys Tyr Arg Ser Gly Arg His 55 Glu Tyr Gln Cys Gly Leu Arg Ser Thr His Tyr Arg Gln His Pro Pro 65 70 Leu Gln Ala Pro Asp Ala Arg Gly Phe Gln Arg Cys Arg Arg Thr Gly 90 Arg Tyr Ala Gly Trp Lys Lys Gly Thr Gly Thr Asp Ala Ala Gly Asn 100 105 Arg Ala Gln Ser Ala Ala Gln Pro Gly Arg Ser Pro Leu His Glu Arg 115 120 Trp Arg Arg Pro Asp Gly Asn His Ser Gln Tyr Pro Gly Ser Arg Pro 135 140 Ala Pro Ala Arg Val Ala Trp Trp Cys Gln Arg Gly Ser His Tyr Arg 145 150 155 Phe His Arg Ala Gly Lys Cys Gly Tyr Trp Arg Ser Gly Gln Lys Gln

165

Lys Pro Ala Pro Asp Arg Gln Ala Gly Cys Cys Cys Val Arg Tyr Asp 185

170 175

```
Arg Cys Ala Thr Ala Glu Pro Gln Tyr Gly His Leu Gln His Glu His
              200
Leu Arg
  210
<210> 6312
<211> 77
<212> PRT
<213> Enterobacter cloacae
<400> 6312
Gly Asn Ile Met Lys Arg Phe Leu Ser Val Ala Leu Leu Ala Ala Leu
                                10
Leu Ala Gly Cys Ala His Asp Ser Pro Cys Val Pro Val Tyr Asp Asp
                                               30
Gln Gly Arg Leu Val His Thr Asn Thr Cys Met Lys Gly Thr Thr Gln
                       4.0
Asp Asn Trp Glu Thr Ala Gly Ala Ile Ala Gly Gly Ala Ala Ala Ile
                   55
Ala Gly Leu Thr Leu Gly Ile Val Ala Leu Thr Lys
                  7.0
<210> 6313
<211> 991
<212> PRT
<213> Enterobacter cloacae
<400> 6313
Arg Pro Tyr Pro Leu Ser Ile Cys Ala Pro Ala Val Lys Ile Thr Gln
                                10
Val Ile Glu Gln Asn Met Asn Gly Ile Asp Asn Leu Met Tyr Met Ser
 20
                             25
Ser Thr Ser Asp Ser Ala Gly Asn Val Thr Ile Thr Leu Thr Phe Glu
                        40
Ser Gly Thr Asp Pro Asp Ile Ala Gln Val Gln Val Gln Asn Lys Leu
                     55
Gln Leu Ala Met Pro Leu Leu Pro Gln Glu Val Gln Gln Gln Gly Ile
                                 75
                 70
Gly Val Glu Lys Ser Ser Ser Phe Leu Leu Val Ala Gly Phe Val
             85
                                90
Ser Asp Asn Lys Asn Leu Thr Gln Asp Asp Ile Ser Asp Tyr Val Ala
         100
                            105
Ser Asn Val Lys Asp Ala Ile Ser Arg Thr Ser Gly Val Gly Asp Val
      115
                         120
Gln Leu Phe Gly Ala Gln Tyr Ala Met Arg Ile Trp Leu Asp Ser Asn
  130 135
                                      140
Ala Met Asn Lys Tyr Gln Leu Thr Pro Leu Asp Ile Ile Asn Gln Leu
                150
                                 155
Lys Thr Gln Asn Asp Gln Ile Ala Ala Gly Gln Leu Gly Gly Thr Pro
              165
                               170
Ser Val Pro Gly Gln Gln Leu Asn Ala Ser Ile Ile Ala Gln Thr Arg
          180 185
                                      190
Leu Lys Ser Pro Glu Glu Phe Gly Arg Val Thr Leu Lys Val Asn Gln
    195
                        200
                                       205
Asp Gly Ser Met Val His Leu Lys Asp Val Ala Arg Ile Glu Leu Gly
   210
                    215
                                      220
Gly Glu Asn Tyr Asn Met Val Thr Lys Ile Asn Gly Gln Ala Ala Thr
225
                230
                                  235
Gly Leu Gly Ile Lys Leu Ala Thr Gly Ala Asn Ala Leu Asp Thr Ala
             245
                               250 255
Ala Ala Ile Lys Ser Lys Leu Ala Gln Leu Gln Pro Phe Phe Pro Gln
```

265 260 Gly Leu Lys Val Val Tyr Pro Tyr Asp Thr Thr Pro Phe Val Lys Ile 275 280 285 Ser Ile His Glu Val Val Lys Thr Leu Phe Glu Ala Ile Val Leu Val 295 300 Phe Leu Val Met Tyr Leu Phe Leu Gln Asn Leu Arg Ala Thr Leu Ile 310 315 320 Pro Thr Ile Ala Val Pro Val Val Leu Leu Gly Thr Phe Ala Val Leu 325 330 335 Ala Ala Phe Gly Phe Ser Ile Asn Thr Leu Thr Met Phe Gly Met Val 340 345 350 Leu Ala Ile Gly Leu Leu Val Asp Asp Ala Ile Val Val Val Glu Asn 355 360 365 Val Glu Arg Val Met Val Glu Asp Lys Leu Pro Pro Lys Glu Ala Thr 370 375 380 Gln Lys Ser Met Glu Gln Ile Gln Gly Ala Leu Val Gly Ile Ala Met 385 390 395 Val Leu Ser Ala Val Phe Ile Pro Met Ala Phe Phe Gly Gly Ser Thr 405 410 Gly Ala Ile Tyr Arg Gln Phe Ser Leu Thr Ile Val Ser Ala Met Ala 420 425 Leu Ser Val Leu Val Ala Leu Ile Leu Thr Pro Ala Leu Cys Ala Thr 435 440 445 Leu Leu Lys Pro Val Ser Ser Glu His His Glu Lys Lys Gly Gly Phe 450 455 460 Phe Gly Trp Phe Asn Ala Leu Phe Asp Lys Ser Val Glu His Tyr Ser 465 470 475 Asn Ser Val Ser Gly Ile Leu Arg Lys Thr Gly Arg Tyr Leu Leu Val 485 490 Tyr Val Ile Ile Val Gly Gly Met Ala Val Leu Phe Leu Arg Leu Pro 500 505 510 Ser Ser Phe Leu Pro Glu Glu Asp Gln Gly Val Phe Met Thr Met Val 515 520 Gln Leu Pro Ala Gly Ala Thr Gln Met Arg Thr Gln Gln Val Leu Asp 530 535 540 Gln Val Gln Asp Tyr Tyr Leu Thr Lys Glu Lys Ala Asn Val Glu Ser 545 550 555 Val Phe Thr Val Asn Gly Phe Ser Phe Ser Gly Gln Gly Gln Asn Ser 565 570 Gly Ile Ala Phe Val Ser Leu Lys Pro Trp Glu Glu Arg Pro Gly Lys 580 585 590 Glu Asn Gly Val Glu Ala Ile Val Ser Arg Ala Thr Lys Ala Phe Ser 595 600 Gln Ile Lys Asp Gly Leu Val Phe Pro Phe Asn Leu Pro Ala Ile Ile 615 620 610 Glu Leu Gly Thr Ala Thr Gly Phe Asp Phe Glu Leu Ile Asp Gln Ala 625 630 635 Asn Leu Gly His Thr Gln Leu Thr Gln Ala Arg Asn Gln Leu Leu Gly 645 650 Met Val Arg Glu His Pro Asp Leu Leu Val Arg Val Arg Pro Asn Gly 660 665 Leu Glu Asp Thr Pro Gln Phe Lys Leu Asp Val Asp Gln Glu Lys Ala 675 680 Gln Ala Leu Gly Val Ser Val Ser Asp Val Asn Gln Thr Ile Ser Thr 690 695 700 Ala Leu Gly Gly Thr Tyr Val Asn Asp Phe Ile Asp His Gly Arg Val 705 710 715 Lys Lys Val Tyr Val Gln Ala Asp Ala Arg Phe Arg Met Leu Pro Gly 725 730 735 Asp Ile Asn Gly Leu Tyr Val Arg Ser Ala Asn Gly Glu Met Val Pro 740 745

```
Phe Ser Ala Phe Ser Ser Ser His Trp Val Tyr Gly Ser Pro Arg Leu
                      760
Glu Arg Tyr Asn Gly Met Pro Ser Met Glu Ile Leu Gly Glu Ser Ala
                   775 780
Pro Gly Lys Ser Thr Gly Glu Ala Met Ala Leu Met Glu Asn Leu Ala
    790
                    795 800
Ser Lys Leu Pro Ser Gly Ile Gly Tyr Asp Trp Thr Gly Met Ser Tyr
       805 810 815
Gln Glu Arg Leu Ser Gly Asn Gln Ala Pro Ala Leu Tyr Ala Ile Ser
        820
                         825 830
Leu Ile Val Val Phe Leu Cys Leu Ala Ala Leu Tyr Glu Ser Trp Ser
 835 840 845
Ile Pro Phe Ser Val Met Leu Val Val Pro Leu Gly Val Ile Gly Ala
 850 855 860
Leu Leu Ala Ala Ser Met Arg Gly Leu Asn Asn Asp Val Tyr Phe Gln
               870 875
Val Gly Leu Leu Thr Thr Ile Gly Leu Ser Ala Lys Asn Ala Ile Leu
            885
                            890
Ile Val Glu Phe Ala Lys Asp Leu Met Asp Lys Glu Gly Lys Gly Ile
         900
                         905
                                         910
Ile Glu Ala Thr Leu Glu Ala Ser Arg Met Arg Leu Arg Pro Ile Leu
      915
                      920
                                      925
Met Thr Ser Leu Ala Phe Ile Leu Gly Val Met Pro Leu Val Ile Ser
                   935
                                   940
Ser Gly Ala Gly Ser Gly Ala Gln Asn Ala Val Gly Thr Gly Val Met
               950
                               955
Gly Gly Met Leu Ser Ala Thr Leu Leu Ala Ile Phe Phe Val Pro Val
            965
                            970
Phe Phe Val Val Val Arg Arg Phe Thr Lys His Lys Asp
         980
                         985
```

<210> 6314 <211> 165 <212> PRT <213> Enterobacter cloacae

<213> Enteropacter cloacae

<400> 6314 Leu Ser Leu Ser Pro Ala Tor Leu Val Val Trp Phe Arg Asn Ala Gly 1.0 Thr Leu Ser Met Lys Lys Ile Ala Ile Ile Gly Ser Gly Pro Thr Gly 20 25 Ile Tyr Thr Phe Tyr Ser Leu Leu Asn Asn Ala Ala Pro Leu Ser Ile 35 4.0 Thr Val Phe Glu Lys Ala Asp Gln Pro Gly Val Gly Met Pro Tyr Ser 5.5 Asp Glu Asp Asn Ser Arg Leu Met Leu Ala Asn Ile Ala Ser Ile Glu 70 7.5 Ile Pro Pro Ile Phe Ile Thr Tyr Leu Asp Trp Leu Lys Gln Gln Asn 90 Ala Ala Arg Leu Ala Arg Tyr Asn Val Asp Ser Glu Lys Leu His Asp 100 105 110 Arg Gln Phe Leu Pro Arg Ile Leu Leu Gly Glu Tyr Phe His Asp Arg 115 120 Phe Leu Ala Gly Ala Ala Glu Ala Asn Asn Ala Gly Phe His Ile Glu 135 140 Val His Pro Thr Ala Glu Ile Pro Asp Ile Asn Ala Asp Ala Asn Ala 145 150 155 Trp Pro Phe His

```
<211> 106
<212> PRT
```

<213> Enterobacter cloacae

<400> 6315

Thr Leu Ala Asp Gly Cys Ala His Ile Ala Gln Lys Ser Ile Phe Phe 1.0 Arg Arg Ile Leu Arg Ser Glu Lys His Met Thr Leu Asn Ser Asn His 25 20 Ser Asp Trp Arg Asp Met Leu Met Lys Arg Gln Asp Ile Asn Ala Leu 4.5 35 4.0 Lys Asn Phe Asp Phe Leu Ala Arg Ser Phe Ala Arg Met Tyr Ala Gln 55 5.0 Gly Gln Pro Val Asp Ile Asp Ala Val Thr Gly Asn Met Ser Asn Lys 75 7.0 65 Gln Gln Ala Trp Phe Arg Glu Arg Tyr Asp His Tyr Arg Lys Gln Ala 85 Glu Arg Ala Arg Val Ile Glu Leu Arg 100

<210> 6316 <211> 174

<212> PRT <213> Enterobacter cloacae

<400> 6316

His Leu Phe Leu Leu Lvs Lvs Glv Ile Ala Met Ala Asp Ser Phe Gln 1.5 Asn Glu Val Pro Lys Ala Arg Ile Asn Leu Lys Leu Ala Leu His Thr 3.0 20 Gly Gly Ala Gln Lys Lys Ile Glu Leu Pro Leu Lys Leu Leu Thr Val 35 4.0 Gly Asp Phe Ser Asn Gly Lys Glu Asn Arg Pro Leu Ser Glu Arg Glu 55 60 Lys Ile Asn Val Asn Lys Asn Asn Phe Asn Ser Val Leu Ser Glu Phe 8.0 65 70 75 Asn Pro Glu Val Asn Leu Thr Val Pro Asn Thr Met Ala Gly Asp Gly 85 90 Ser Glu Glu Ser Ile Lys Leu Asn Phe Ser Asp Ile Lys Asp Phe Glu 100 105 110 Pro Glu Gln Val Ala Arg Gln Ile Pro Gln Leu Arg Ala Met Leu Ala 125

115 120 125

Met Arg Asn Leu Leu Arg Asp Leu Lys Ser Asn Leu Leu Asp Asn Ala

130 135 140 140

Thr Phe Arg Lys Glu Leu Glu Lys Ile Leu Lys Asp Pro Ala Leu Ser

145 150 150 150 150

145 150 155 Gln Glu Leu Arg Asp Glu Met Ser Ala Leu Ala Pro Lys 165 170

<210> 6317 <211> 146

<212> PRT <213> Enterobacter cloacae

<400> 6317

Gly Asp Ala Leu Ser Met Met Thr Ser Ile Met Asp Thr Asp Met Lys 1 15 1 17 Arg Ile Leu Leu Thr Val Ser Val Leu Phe Asn Met Gln Ala 20 25 30 Asp Ala Ala Arg Gly Arg Gln Pro Cys Ser Gly Ser Lys Gly Gly Ile

```
Ala His Cys Thr Ser Asp Gly Arg Phe Val Cys Asn Asp Gly Ser Leu
                       5.5
  5.0
Ser Gln Ser Lys Arg Phe Cys Ser Gly Tyr Gly Ala Ser Glu Leu Pro
                   7.0
                                       75
Arg Gln Val Lys Pro Ser Pro Ser Ala Arg Lys Ala Gln Thr Lys Lys
                                   90
                                                       95
              85
Arg Ile Ala Val Lys Gly Gln Glu Gln Arg Val Val Glu Asn Asn Ala
                 105
           100
Gln Phe Asp Thr Gln Pro Arg Gln Pro Thr Cys Ala Pro Leu Tyr Met
      115 120
                                 125
Ala Asn Lys Pro Gly Phe Thr His Leu Pro Ile Cys Ser Gly Asn Gln
                      135
                                          140
Tvr
145
<210> 6318
<211> 181
<212> PRT
<213> Enterobacter cloacae
<40.0> 6318
Lys Ala Gly Lys Glu His Leu Pro Ile Arg His Glu Leu Phe Glu Tyr
                                   1.0
Ser Phe Leu Leu Phe Arg Arg Tyr Met Met Thr Leu Arg Thr Phe Pro
           20
                               25
                                                  3.0
Val Leu Asn Asp Leu Ser Asp Ser Leu Phe Ala Asp Arg Phe Asn Arg
       35
                           40
                                               4.5
Ile Asp Arg Leu Phe Ser Gln Leu Thr Gly Ser Thr Pro Leu Pro Ser
   50
Thr Pro Ser Tyr Asn Ile Arg Arg Leu Gly Asp Asn Arg Tyr Glu Leu
                   70
                                       7.5
Thr Leu Ser Val Pro Gly Trp Lys Glu Ser Glu Leu Glu Ile Glu Thr
                                   90
                                                       95
               85
Val Gly Gly Gln Leu Asn Ile Ser Gly Lys Arg Glu Glu Glu Lys Thr
                                                   110
Glu Asn Gly Glu Glu Gly Trp Ile His Arg Gly Ile Ser Arg Ser Asp
                           120
       115
Phe Arg Ala Ser Tyr Ser Leu Pro Glu His Val Lys Val Thr Gly Ala
   130
                       135
                                           140
Ser Leu Glu Asn Gly Leu Leu Ala Ile Glu Leu His Gln Asp Ile Pro
                                       155
145
Glu Glu Glu Lys Pro Gln Arg Ile Ala Ile Asn Asn Asn Pro Ala Ile
                                   170
               165
Glu His Lys Pro
            180
<210> 6319
<211> 223
<212> PRT
<213> Enterobacter cloacae
<400> 6319
Ile Thr Trp Gly Phe Ile Met Phe Asn Glu Val His Ser Leu Pro Gly
                                   1.0
His Thr Leu Leu Leu Ile Thr Lys Pro Ser Leu Gln Ala Thr Ala Leu
            20
                               25
Leu Gln His Leu Lys Gln Cys Leu Ser Leu Asn Gly Lys Leu His Asn
                           40
                                               45
Ile Gln Arg Ser Phe Asp Asp Ile Ala Ser Gly Ser Ile Ile Leu Leu
                        55
Asp Met Met Glu Ala Asp Lys Lys Leu Ile His Tyr Trp Gln Asp Asn
```

50

```
70
Leu Ser Arg Lys Asn Asn Asn Ile Arg Val Leu Leu Leu Asn Thr Pro
           85
                            90
Asp Glu Tyr Pro Phe Arg Glu Ile Glu Ser Trp Pro His Ile Asn Gly
         100
                         105
Val Phe Tyr Val Thr Glu Glu Glu Asn Arg Val Val Glu Gly Leu Gln
 115 120 125
Gly Ile Leu Arg Gly Glu Cys Tyr Phe Ser Gln Lys Leu Ala Ser Tyr
 130 135 140
Leu Ile Thr His Ser Gly Asn Tyr Arg Tyr Asn Ser Ser Glu Ser Ala
    150 155 160
Leu Leu Thr His Arg Glu Lys Glu Ile Leu Asn Lys Leu Arg Ile Gly
          165 170 175
Ala Ser Asn Ile Glu Ile Ala Arg Ser Leu Phe Ile Ser Glu Asn Thr
       180 185 190
Val Lys Thr His Leu Tyr Asn Leu Phe Lys Lys Ile Ala Val Lys Asn
    195 200 205
Arg Thr Gln Ala Val Ser Trp Ala Asn Asp Asn Leu Arg Arg
  210
                   215
<210> 6320
<211> 150
<212> PRT
<213> Enterobacter cloacae
<400> 6320
Val Leu Thr Thr Ile Pro Ile Ser Glu Ala Val Met Arg Leu Ala His
1
                            10
Thr Val Ile Ser Leu Met Leu Ile Ala Pro Leu Ser Trp Ala Gly Asn
20
                         25
                                         3.0
Met Thr Phe Gln Phe Arg Asn Pro Asn Phe Gly Gly Asn Pro Asn Asn
35
                      4.0
                                      45
Gly Ala Phe Met Leu Asn Gln Ala Gln Ala Gln Asn Ser Tyr Lys Asp
50 55
                          60
Pro Ser Tyr Asp Asp Asp Phe Gly Ile Glu Thr Pro Ser Ala Leu Asp
             70
                               75
Asn Phe Thr Gln Ala Ile Gln Ser Gln Ile Leu Gly Gly Leu Leu Thr
                             90
            85
Asn Ile Asn Thr Gly Lys Pro Gly Arg Met Val Thr Asn Asp Phe Ile
         100
                         105
                                         110
Val Asp Ile Ala Asn Lys Asp Gly Gln Leu Gln Leu Asn Val Thr Asp
      115
                      120 125
Arg Lys Thr Gly Lys Thr Ser Thr Ile Gln Val Ser Gly Leu Gln Thr
130
                   135
Ser Ser Thr Asp Phe
               150
145
<210> 6321
<211> 150
<212> PRT
<213> Enterobacter cloacae
<400> 6321
Leu Leu Lys Ile Ala Arg Arg Cys Arg Gly Gln Thr Ile Thr Ser
                            10
Gly Val Asn Ser Met Lys Arg Thr Leu Ser Trp Ile Ala Ala Ala Gly
       20
                       25
Ile Met Leu Ala Ala Gly Asn Leu Gln Ala Val Glu Val Glu Val Pro
      35
                      40
```

Gly Leu Leu Thr Asp His Thr Val Thr Ser Val Gly His Asp Phe Tyr

60

```
Arg Ala Phe Ser Asp Lys Trp Glu Ser Asp Tyr Pro Gly Asn Leu Thr
                 70
                                    7.5
Ile Asn Glu Arg Pro Ser Ala Arg Trp Gly Ser Trp Ile Thr Ile Thr
           8.5
                             90
Ala Asn Gln Asp Val Ile Tyr Gln Thr Phe Leu Phe Pro Thr Lys Arg
    100 105 110
Asp Phe Asp Gln Asn Val Ala Phe Ala Leu Ala Gln Thr Glu Glu Ala
   115 120 125
Ile Asn Arg Leu Gln Leu Asp Lys Ala Leu Leu Ser Thr Gly Asp Leu
 130 135
Ala Lys Asp Glu Phe
<210> 6322
<211> 289
<212> PRT
<213> Enterobacter cloacae
<400> 6322
Phe Leu Asn Asn Pro Glu Ile Arg Thr Ile Ile Met Gln Arg Phe Phe
                                10
Ile Leu Val Ala Val Cys Leu Leu Ser Gly Cys Leu Thr Ala Pro Pro
       2.0
                            25
                                               30
Lys Glu Ala Ala Lys Pro Thr Leu Met Pro Arg Ala Gln Ser Tyr Arg
35
                         40
                                        4.5
Asp Leu Thr His Leu Pro Val Pro Thr Gly Lys Ile Phe Val Ser Val
           55
50
                                    60
Tyr Asn Ile Gln Asp Glu Thr Gly Gln Phe Lys Pro Tyr Pro Ala Ser
               7.0
                                    75
65
Asn Phe Ser Thr Ala Val Pro Gln Ser Ala Thr Ala Met Leu Val Thr
             8.5
                                90
Ala Leu Lys Asp Ser Arg Trp Phe Ile Pro Leu Glu Arg Gln Gly Leu
                            105
          100
Gln Asn Leu Leu Asn Glu Arg Lys Ile Ile Arg Ala Ala Gln Glu Asn
   115
                        120
                                           125
Gly Thr Val Gly Val Asn Asn Arg Met Pro Leu Gln Ser Leu Thr Ala
                     135
                                       140
   130
Ala Asn Ile Met Val Glu Gly Ser Ile Ile Gly Tyr Glu Ser Asn Val
                 150
                                    155
145
Lys Ser Gly Gly Ala Gly Ala Arg Tyr Phe Gly Ile Gly Ala Asp Thr
              165
                                170
                                                  175
Gln Tyr Gln Leu Asp Gln Ile Ala Val Asn Leu Arg Val Val Asn Val
                            185
          180
                                               190
Ser Thr Gly Glu Ile Leu Ser Ser Val Thr Thr Ser Lys Thr Ile Leu
       195
                         200
Ser Tyr Glu Val Gln Ala Gly Val Phe Arg Phe Ile Asp Tyr Gln Arg
   210
                     215
Leu Leu Glu Gly Glu Ile Gly Tyr Thr Ser Asn Glu Pro Val Met Leu
                 230
Cys Leu Met Ser Ala Ile Glu Thr Gly Val Ile Phe Leu Ile Asn Asp
                                250
              245
                                                  255
Gly Ile Asp Arg Gly Leu Trp Asp Leu Gln Asn Lys Ser Asp Val Ser
                            265
                                               270
Asn Ala Val Leu Val Lys Tyr Arg Glu Met Ser Val Pro Pro Glu Ser
                         280
```

<sup>&</sup>lt;210> 6323 <211> 189

<sup>&</sup>lt;212> PRT

## <213> Enterobacter cloacae

<400> 6323 Arg Asn Lys Asn Met Asn Glu Phe Ser Ile Leu Cys Arg Val Leu Gly 10 Thr Leu Tyr Tyr Arg Gln Pro Gln Asp Pro Leu Leu Val Pro Leu Phe 25 Thr Leu Ile Arg Glu Gly Lys Leu Ala Gln Ser Trp Pro Leu Glu Gln 4.0 4.5 Asp Glu Leu Leu Glu Arg Leu Gln Lys Ser Cys Asp Met Gln Gln Ile 55 60 Ser Thr Asp Tyr Asn Ala Leu Phe Val Gly Glu Glu Cys Arg Val Ser Pro Tyr Arg Ser Ala Trp Gin Glu Gly Ala Thr Glu Ala Glu Val Arg 85 Ala Phe Leu Ser Glu Arg Gly Met Pro Leu Thr Asp Met Pro Ala Asp 105 110 100 His Ile Gly Thr Leu Leu Leu Ala A1a Ser Trp Ile Glu Asp Asn Ala 125 115 120 Gly Asp Asp Glu Asn Glu Ala Ile Glu Thr Leu Phe Glu Thr Tyr Leu 135 130 1.40 Leu Pro Trp Val Gly Thr Phe Leu Gly Lys Val Glu Ala His Ala Thr 155 160 145 Ser Pro Phe Trp Arg Thr Leu Ala Pro Leu Thr Arg Asp Ala Ile Ala 170 165 Ala Met Trp Asp Glu Leu Glu Glu Glu Asn Glu Glu 185

<210> 6324 <211> 193 <212> PRT

<213> Enterobacter cloacae

180

180

<400> 6324 Leu Glu Ser Gln Lys Ser Cys Asn Asp Thr Phe Gln Leu Ala Arg Asn 10 Val Leu Leu Ile Ser Phe Leu Tro Cys Ala Ser Ala Lys Met Arg Thr 25 Met Asn Ile Leu Leu Cys Ile Ala Ile Thr Thr Gly Ile Leu Ser Gly 35 40 4.5 Leu Trp Ser Trp Val Ala Val Ser Leu Gly Leu Leu Ser Trp Ala Gly Phe Leu Gly Cys Thr Ala Tyr Phe Ala Cys Pro Gln Gly Gly Leu Lys 70 75 Gly Leu Phe Ile Ser Gly Cys Thr Leu Leu Ser Gly Val Val Trp Ala 8.5 90 Leu Val Ile Met Lys Gly Ser Ala Leu Ala Pro His Val Glu Ile Leu 100 105 Gly Tyr Ala Met Thr Gly Ile Val Ala Phe Leu Met Cys Val Gln Ala 120 125 Lys His Leu Leu Ser Phe Val Pro Gly Thr Phe Met Gly Ala Cys 135 130 140 Ala Thr Phe Ala Gly Gln Gly Asp Trp Lys Leu Val Val Pro Ser Leu 155 145 150 Met Leu Gly Leu Leu Phe Gly Tyr Ala Met Lys Asn Ser Gly Leu Trp 165 170 175 Leu Ala Ala Arg Arg Glu Lys Ser Gln Ser Val Pro Ala Val Ser Lys

```
<210> 6325
<211> 267
<212> PRT
<213> Enterobacter cloacae
<400> 6325
Arg Ile Ala Gln Leu Glu Gly Arg Leu Gly Val Arg Leu Ile Gln Arg
                             10
Thr Thr Arg Gln Phe Ala Val Thr Glu Val Gly Gln Thr Phe Tyr Gln
   20
                           25
                                              3.0
His Cys Lys Ala Met Leu Val Glu Ala Glu Ala Ala Glu Glu Ala Val
                        4.0
                                 4.5
       35
Ala Ala Leu Gln Asp Glu Pro Arg Gly Met Val Arg Ile Thr Cys Pro
                    5.5
Val Thr Leu Leu His Val His Val Gly Pro Met Leu Ala Arg Phe Met
                                   75
                 70
Ala Arg Tyr Pro Gly Ile Asn Leu Gln Leu Glu Ala Thr Asn Arg Arg
                 90
             85
Val Asp Leu Val Ala Glu Gly Val Asp Val Ala Ile Arg Val Arg Pro
                            105
          100
Arg Pro Phe Asp Asp Ser Glu Leu Val Leu Arg Val Leu Ala Asp Arg
                                          125
                         120
      115
Gly His Cys Leu Val Ala Gly Pro Ala Leu Ile Glu Arg Met Gly Asn
                     135
                                      140
  130
Pro Ala Met Pro Ser Glu Leu Ser Glu Trp Pro Gly Leu Ser Met Gly
                                   155
                  150
Ala Gly Lys His Leu His Lys Trp Glu Leu Asn Gly Pro Glu Gly Ala
              165 170
                                     175
Lys Ala Glu Ile His Phe Thr Pro Arg Leu Val Thr Thr Asp Met Leu
                                 190
   180
                            185
Ala Leu Arg Glu Ala Ala Met Ala Gly Val Gly Val Val Gln Leu Pro
                                           205
 195
                         200
Ile Leu Met Val Lys Asp Gln Leu Ala Ser Gly Glu Leu Val Arg Val
                                       220
                     215
Leu Asn Ala Trp Glu Pro Arg Arg Glu Val Ile His Ala Val Tyr Pro
                 230 235 240
Ser Arg Arg Gly Leu Leu Pro Ser Val Arg Thr Leu Val Asp Phe Leu
          245
Thr Glu Glu Tyr Ala Lys Met Val Glu Asp
                             265
<210> 6326
<211> 145
<212> PRT
<213> Enterobacter cloacae
<400> 6326
Leu Phe Val Gly Arg Val Ser Val Ala Pro Pro Asp Thr Ile Thr Ala
                                10
Gly Ala Ala Lys Phe Glu Ser Pro Thr Gly Val Gln His Val Lys Lys
        20
                             25
 Lys Pro Ala Phe Ser Cys Glu Leu Phe Phe Lys Tyr Gly Gly Glu Gly
      35
                        4.0
 Gly Ile Asp Ser Leu Arg Ser Pro Phe Gly Gln Pro Val Arg Tyr Ala
                     55
 Leu Ser Leu Ser Asn Trp Leu Ser Pro Val Ala Glu Pro Arg Ser Gly
                  70
                                    7.5
 Gly Leu Ile Pro Pro Tyr Glu Asn Ile Lys Glu Lys Ser Pro Tyr Phe
                               90
                                                 95
            85
 Arg Thr Ser Ser His His Glu Tyr Gly Gly Glu Gly Gly Ile Arg Thr
```

105

Pro Asp Thr Leu Pro Tyr Thr His Phe Pro Gly Val Leu Leu Gln Pro 120 115 Leu Gly His Leu Thr Ile Leu Ser Ser Arg Cys Cys Arg Asp Gly Arg 140 135 130 145 <210> 6327 <211> 317 <212> PRT <213> Enterobacter cloacae <400> 6327 Lys Ala Met Thr Met Asp Ile Ile Phe Tyr His Pro Thr Phe Asp Thr 10 Ala Tyr Trp Ile Asn Ala Leu Thr Ala Ala Leu Pro Gly Ala Arg Val 20 25 Arg Glu Trp Lys Gln Gly Asp Asn Glu His Ala Asp Tyr Ala Leu Val 45 35 4.0 Trp His Pro Pro Val Glu Met Leu Gln Gly Arg Arg Leu Lys Ala Val 5.0 55 Phe Ala Leu Gly Ala Gly Val Asp Ser Ile Leu Ser Lys Leu Lys Ala 70 75 His Pro Glu Met Leu Pro Glu Asp Ile Pro Leu Phe Arg Leu Glu Asp 95 8.5 90 Thr Gly Met Gly Gln Gln Met Gln Glu Tyr Ala Val Ser Gln Val Leu 110 100 His Trp Phe Arg Arg Phe Asp Asp Tyr Gln Ala Phe Lys Gln Gln Ser 120 125 115 His Trp Glu Pro Leu Pro Asp Tyr Gln Arg Glu Asp Phe Thr Ile Gly 140 130 Ile Leu Gly Ala Gly Val Leu Gly Ser Lys Val Ala Glu Ala Leu Ala 150 155 Pro Trp Gly Phe Pro Leu Arg Cys Trp Ser Arg Ser Arg Lys Glu Tyr 170 1.65 Pro Gly Val Glu Ser Phe Ala Gly Thr Asp Glu Leu Pro Ala Phe Leu 190 180 185 Lys Gly Thr Arg Val Leu Ile Asn Leu Leu Pro Asn Thr Ala Glu Thr 200 205 195 Val Gly Ile Ile Asn Gly Thr Leu Leu Asn Gln Leu Ala Glu Asp Ser 215 Tyr Leu Met Asn Leu Ala Arg Gly Val His Val Val Glu Asp Asp Leu 240 230 235 Leu Lys Ala Leu Asp Ser Gly Lys Leu Lys Gly Ala Met Leu Asp Val 250 255 245 Tyr Ser Arg Glu Pro Leu Pro Lys Asp Ser Pro Leu Trp Ala His Pro 265 260 Arg Val Ala Met Thr Pro His Ile Ala Ala Val Thr Arg Pro Ala Glu 280 285 Ala Val Ala Tyr Ile Ser His Thr Ile Ser Glu Ile Glu Lys Gly Asn 295 Ala Val Thr Gly Gln Val Asp Arg Gln Arg Ser Tyr 310 <210> 6328 <211> 258 <212> PRT <213> Enterobacter cloacae

<400> 6328

Leu Leu Ser Phe Gly Lys Thr Ala Glu Glu Arg Lys Met Tyr Pro Val

10 Asp Leu His Met His Thr Val Ala Ser Thr His Ala Tyr Ser Asn Leu 25 30 His Asp Tyr Ile Ala Gln Ala Lys Leu Lys Gly Ile Lys Leu Phe Ala 40 Ile Thr Asp His Gly Pro Asp Met Ala Asp Ala Pro His Tyr Trp His 5.5 60 Phe Val Asn Met Arg Ile Tro Pro Arg Leu Val Asp Gly Ile Gly Ile 75 7.0 Leu Arg Gly Ile Glu Ala Asn Ile Lys Asn Thr Asp Gly Glu Ile Asp 90 85 Cys Thr Gly Pro Met Leu Thr Ser Leu Asp Leu Ile Leu Ala Gly Phe 105 110 100 His Glu Pro Val Phe Ala Pro Gln Asp Lys Glu Thr Asn Thr Ala Ala 120 125 115 Met Ile Ala Thr Ile Ala Ser Gly Asn Val His Ile Ile Ser His Pro 135 140 Gly Asn Pro Lys Tyr Pro Ile Asp Ile Gln Ala Val Ala Gln Ala Ala 155 160 150 Ala Lys His Arg Val Ala Leu Glu Ile Asn Asn Ser Ser Phe Val His 165 170 Ser Arg Lys Gly Ser Glu Ala Asn Cys Arg Glu Val Ala Ala Ala Val 185 190 180 Arg Asp Ala Gly Gly Met Val Ala Leu Gly Ser Asp Ser His Thr Ala 205 195 200 Phe Thr Leu Gly Asp Phe Ser Glu Cys Leu Lys Ile Leu Arg Asp Val 220 215 Asn Phe Pro Glu Glu Gln Ile Leu Asn Val Thr Pro Arg Arg Met Leu 230 235 Asp Phe Leu Glu Ser Arg Gly Met Ala Pro Ile Asp Glu Phe Ala Asp 250 245

<210> 6329 <211> 509

T.e11

<212> PRT

<213> Enterobacter cloacae

<400> 6329 Val Ile Thr Lys Lys Val Ser Asn Thr Lys Ala Trp Thr Gly Ser Leu 10 His Gly Asp Ala Thr Phe Gln Gly Asn His Asp Ser Gly Asp Ile Phe 25 30 20 Gln Thr Asn Ala Tyr Ala Cys Gly Pro Leu Ile Asp Gly Leu Leu Gly 35 40 Ala Lys Val Thr Gly Leu Leu Ser Arg Arg Ala Glu Asp Lys Ile Val 55 60 Asn Gly Tyr Asn Glu Gln Lys Met Arg Asn Gly Gly Ile Thr Leu Asn Phe Thr Pro Asp Glu Lys Asn Asp Phe Asp Leu Asp Phe Ala Arg Glu 90 8.5 Leu Gln Asp Arg Asn Ser Thr Pro Gly Met Ser Lys Ala Ala Glu Thr 105 110 100 Cys Arg Gly Thr Thr Cys Thr Pro Asn Thr Lys Ser Asp Ser Arg Tyr 120 125 115 Glu His Thr Thr Tyr Ser Lei Thr His Ser Gly Tyr Tyr Glu Asp Phe 135 140 Asn Thr Thr Ser Tyr Ile Gln Gln Glu Glu Thr Asn Asn Pro Gly Arg 150 155

Glu Met Arg Ser Tyr Asn Thr Thr Phe Asn Asn Gln Asn Gln Ile Phe

```
165
                            170
Leu Gly Asp His Thr Leu Thr Leu Gly Gly Gln Tyr Arg Tyr Glu Lys
        180
                       185
                                         190
Leu Arg Asp Asn Gly Asn Gln Leu Glu Ala Ala Asp Gly Leu Asn Lys
      195 200
                             205
Leu Thr Arg Trp Ser Trp Ala Leu Phe Ala Glu Asp Glu Trp Ser Met
       215 220
Thr Glu Ser Phe Thr Leu Thr Gly Gly Leu Arg Met Asp Lys Asp Gln
225 230 235
Asn Tyr Gly Thr Asn Trp Thr Pro Arg Gly Tyr Gly Val Trp His Leu
            245 250
Ala Asp Gln Trp Thr Leu Lys Gly Gly Val Ser Ala Gly Tyr Arg Ala
         260 265
                                         270
Pro Asp Leu Arg Gln Ser Ser Ala Ser Trp Gly Gln Val Thr Gly Gly
      275 280 285
Gly Arg Leu Asp Gly Ile Ile Val Gly Asn Pro Asp Leu Lys Pro Glu
                   295 300
   290
Lys Ser Leu Ser Glu Glu Leu Ala Leu Leu Trp Asp Asn Asn Asp Asp
305 310 315
Leu Asn Ala Gly Val Thr Leu Phe Asn Thr Asp Phe Lys Asp Lys Ile
                330 335
             325
Thr Glu Val Arg Arg Cys Asn Ser Ser Ala Asp Pro Ala Cys Thr Ile
                         345 350
         340
Gly Gly His Ser Tyr Asp Phe Val Ser Asp Arg Val Asn Val Asp Lys
                      360
      355
Ala Asn Met Arg Gly Val Glu Ser Ser Phe Gly Trp Lys Ile Thr Arg
                   375
                                   380
 370
Asp Val Asn Trp Thr Ala Asn Tyr Thr Tyr Thr Glu Ser Glu Gln Lys
                               395
                390
Ser Gly Gln Phe Ser Gly Lys Pro Leu Asn Lys Met Pro Lys His Met
                           410
             405
Phe Asn Thr Thr Leu Asp Trp Gln Ala Thr Pro Asp Val Gly Phe Trp
                         425
         420
Ser Arg Leu Asn Leu Arg Gly Lys Thr Ser Glu Tyr Leu Ser Arg Thr
                      440
      435
Ser Met Ser Gln Gly Thr Pro Ser Tyr Thr Gln Val Asp Val Gly Met
                  455
Arg Tyr Asn Ala Asn Lys Asn Leu Leu Val Thr Ala Gly Val Tyr Asn
                470 475
Val Leu Asp Lys Gln Ile Asp Tyr Asp Thr Tyr Asp Thr Val Leu Asp
                490
             485
Gly Arg Arg Tyr Thr Val Gly Met Thr Tyr Ser Phe
                          505
```

```
<210> 6330
<211> 368
<212> PRT
```

500

<400> 6330 Ser Ile Leu Phe Leu Ser Gln Ser Ala Val Thr Phe Ser Gln Thr Lys 10 Glu Lys Val Met Ser Glu Ile Thr Leu Gln His His Arg Thr Val Trp 30 20 25 His Phe Val Pro Gly Leu Ala Leu Ser Ala Val Val Thr Gly Val Ala 35 4.0 Leu Trp Gly Gly Ser Ile Pro Ala Val Ala Gly Ala Gly Phe Ser Ala 55 60 Leu Thr Leu Ala Ile Leu Leu Gly Met Val Val Gly Asn Thr Val Tyr 7.0 Pro His Ile Trp Lys Ser Cys Asp Gly Gly Val Ile Phe Ala Lys Gln

<sup>&</sup>lt;213> Enterobacter cloacae

```
His Leu Leu Arg Leu Gly Ile Ile Leu Tyr Gly Phe Arg Leu Thr Phe
              105
                                     110
       100
Ser Gln Ile Ala Asp Val Gly Val Ser Gly Ile Ala Ile Asp Val Leu
        120 125
    115
Thr Leu Ser Ser Thr Phe Leu Leu Ala Cys Phe Ile Gly Gln Lys Ile
      135 140
Phe Gly Leu Asp Lys Gln Thr Ser Trp Leu Ile Gly Ala Gly Ser Ser
145 150 155
Ile Cys Gly Ala Ala Ala Val Leu Ala Thr Glu Pro Val Val Lys Ala
         165 170 175
Glu Ala Ser Lys Val Thr Val Ala Val Ala Thr Val Val Ile Phe Gly
            185 190
        180
Thr Leu Ala Ile Phe Leu Tyr Pro Ala Met Tyr Pro Leu Val Ala His
         200 205
Trp Phe Ser Pro Glu Thr Tyr Gly Ile Tyr Ile Gly Ser Thr Met His
                 215 220
Glu Val Ala Gln Val Val Ala Ala Gly His Ala Ile Asn Pro Glu Ala
            230 235 240
Glu Asn Ala Ala Val Ile Ala Lys Met Leu Arg Val Met Met Leu Ala
                250 255
            245
Pro Phe Leu Ile Phe Leu Ala Ala Arg Val Lys Gln Leu Ala Pro Ala
                     265
 260
Gly Gly Ser Glu Lys Ser Lys Ile Thr Ile Pro Trp Phe Ala Ile Leu
                        285
                  280
Phe Ile Val Val Ala Val Phe Asn Ser Phe His Leu Leu Pro Lys Ala
290
                 295 300
Met Val Asp Met Leu Val Thr Leu Asp Thr Val Leu Leu Ala Met Ala
305 310 315
Met Ala Ala Leu Gly Ile Thr Thr His Val Ser Ala Leu Lys Lys Ala
          325 330
Gly Ala Lys Pro Leu Leu Met Ala Leu Val Leu Phe Ile Trp Leu Ile
    340
                       345
Val Gly Gly Gly Ala Ile Asn Leu Ala Val His Ser Leu Leu Ala
                                   365
                     360
```

<210> 6331 <211> 291 <212> PRT

<213> Enterobacter cloacae

<400> 6331

Ala Phe Arg Val Asn Arg Ser Leu Phe Met Lys Tyr Val Gly Ala His 10 Val Ser Ala Ala Gly Gly Leu Ala Asn Ala Ala Ile Arg Ala Ala Glu 3.0 20 25 Ile Glu Ala Thr Ala Phe Ala Leu Phe Thr Lys Asn Gln Arg Gln Trp 40 4.5 35 Arg Ala Ala Pro Leu Thr Ala Glu Val Ile Asp Asp Phe Lys Ala Ala 5.5 Cys Glu Lys Tyr Gly Tyr Gly Pro Gly Gln Ile Leu Pro His Asp Ser 70 75 Tyr Leu Ile Asn Leu Gly His Pro Val Ala Glu Ala Leu Glu Lys Ser 90 95 85 Arg Glu Ala Phe Leu Asp Glu Val Gln Arg Cys Glu Gln Leu Gly Leu 105 110 100 Thr Leu Leu Asn Phe His Pro Gly Ser His Leu Met Gln Ile Asp Glu 115 120 125 Asp Ala Cys Leu Ala Arg Ile Ala Glu Ser Ile Asn Met Thr Leu Asp 135 140 Lys Thr Gln Gly Val Thr Ala Val Ile Glu Asn Thr Ala Gly Gln Gly

```
155
Ser Asn Leu Gly Phe Lys Phe Glu His Leu Ala Ala Ile Ile Asp Gly
          165
               170
Val Glu Asp Lys Ser Arg Val Gly Val Cys Ile Asp Thr Cys His Ala
      180 185
                            190
Phe Ala Ala Gly Tyr Asp Leu Arg Thr Thr Glu Ala Thr Lys Asn Thr
195 200 205
Phe Glu Glu Phe Glu Arg Ile Val Gly Phe Lys Tyr Leu Arg Gly Met
  210 215 220
His Leu Asn Asp Ala Lys Ser Ala Phe Gly Ser Arg Val Asp Arg His
              230 235
His Ser Leu Gly Glu Gly Asn Ile Gly His Asp Ala Phe Arg Phe Ile
           245 250 255
Met Gln Asp Val Arg Phe Glu Gly Ile Pro Met Val Leu Glu Thr Ile
            265 270
        260
Asn Pro Asp Ile Trp Ala Glu Glu Ile Phe Trp Leu Lys Ala His Gln
                   280
Thr Pro
 290
<210> 6332
<211> 291
<212> PRT
<213> Enterobacter cloacae
```

<400> 6332 Ala Thr Met His Ile Thr Leu Arg Gln Leu Glu Val Phe Ala Glu Val 10 Leu Lys Ser Gly Ser Thr Thr Gln Ala Ser Gln Met Leu Ala Leu Ser 20 25 Gln Ser Ala Val Ser Ala Ala Leu Thr Asp Leu Glu Gly Gln Leu Gly 35 40 Val Gln Leu Phe Asp Arg Val Gly Lys Arg Leu Val Val Asn Glu His 5.5 Gly Arg Leu Leu Tyr Pro Arg Ala Leu Ala Leu Leu Glu Gln Ala Thr 75 70 Glu Ile Glu Gln Leu Phe Arg Glu Asp Asn Gly Ala Ile Arg Val Tyr 8.5 90 Ala Ser Ser Thr Ile Gly Asn Tyr Ile Leu Pro Glu Val Ile Ala Arg 105 110 100 Tyr Arg Arg Asp Phe Pro Thr Leu Pro Leu Glu Met Ser Val Gly Asn 125 115 Ser Gln Asp Val Ile Asn Ala Val Ile Asp Phe Arg Val Asp Ile Gly 130 135 140 Leu Ile Glu Gly Pro Cys His Asn Val Asp Ile Ile Ala Glu Pro Trp 150 155 Leu Glu Asp Glu Leu Val Val Phe Ala Ser Pro Ala Ser Ser Leu Leu 165 170 Gln Gly Glu Val Thr Leu Glu Arg Leu Ala Gln Ala Gln Trp Ile Leu 190 180 185 Arg Glu Gln Gly Ser Gly Thr Arg Glu Ile Val Asp Tyr Leu Leu Leu 195 200 Ser His Leu Pro Gln Phe Gln Leu Gly Met Glu Leu Gly Asn Ser Glu 210 215 220 Ala Ile Lys His Ala Val Arg His Gly Leu Gly Ile Ser Cys Leu Ser 235 230 Arg Arg Val Ile Ala Glu Gln Leu Glu Thr Gly Ser Leu Val Glu Ile 245 250 255 Pro Val Pro Leu Pro Lys Leu Val Arg Thr Leu Trp Cys Ile His His 260 265 Arg Gln Lys His Leu Ser Ser Ser Leu Gln Arg Phe Leu Arg Tyr Cys

280 275 285 Glu Met

290

<210> 6333 <211> 519

<212> PRT

<213> Enterobacter cloacae

<400> 6333

Ser Ser Leu Ile Thr Glu Tyr Phe Cys Arg Lys Gln Arg Arg Ser Ser 10 Ala Thr Ile Ala Pro His Leu Leu Asn Gly Gln His Phe His Met Val 20 25 Ser Glu Thr Lys Thr Thr Gln Ala Pro Ala Leu Arg Arg Ala Leu Lys 4.5 35 40 Ala Arg His Leu Thr Met Ile Ala Ile Gly Gly Ser Ile Gly Thr Gly 50 55 60 Leu Phe Val Ala Ser Gly Ala Thr Ile Ser Ala Ala Gly Pro Gly Gly 65 70 7.5 Ala Leu Phe Ser Tyr Ile Leu Ile Gly Leu Met Val Tyr Phe Leu Met 90 95 85 Thr Ser Leu Gly Glu Leu Ala Ala Tyr Met Pro Val Ser Gly Ser Phe 100 105 110 Ser Thr Tyr Gly Gln Lys Tyr Val Glu Glu Gly Phe Gly Phe Ala Leu 115 120 125 Gly Trp Asn Tyr Trp Tyr Asn Trp Ala Val Thr Ile Ala Val Asp Leu 135 140 130 Val Ala Ala Gln Leu Val Met Thr Trp Trp Phe Pro Asp Thr Pro Gly 145 150 155 160 Trp Ile Trp Ser Ala Leu Phe Leu Ala Val Ile Phe Leu Leu Asn Tyr 170 175 1.65 Ile Ser Val Arg Gly Phe Gly Glu Ala Glu Tyr Trp Phe Ser Leu Ile 180 185 190 Lys Val Ala Thr Val Ile Ile Phe Ile Val Val Gly Val Ala Met Ile 195 200 205 Val Gly Ile Phe Lys Gly Ala Glu Pro Ala Gly Trp Ser Asn Trp Thr 210 215 220 Ile Gly Asp Ala Pro Phe Ala Gly Gly Phe Ser Ala Met Ile Gly Val 225 230 235 Ala Met Ile Val Gly Phe Ser Phe Gln Gly Thr Glu Leu Ile Gly Ile
245 250 255 Ala Ala Gly Glu Ser Glu Asn Pro Glu Lys Asn Ile Pro Arg Ala Val 260 265 270 Arg Gln Val Phe Trp Arg Ile Leu Leu Phe Tyr Val Phe Ala Ile Leu 280 285 Ile Ile Ser Leu Ile Ile Pro Tyr Thr Asp Pro Ser Leu Leu Arg Asn 290 295 300 Asp Val Lys Asp Ile Ser Val Ser Pro Phe Thr Leu Val Phe Gln His 305 310 315 Ala Gly Leu Leu Ser Ala Ala Ala Val Met Asn Ala Val Ile Leu Thr 325 330 335 Ala Val Leu Ser Ala Gly Asn Ser Gly Met Tyr Ala Ser Thr Arg Met 340 345 350 Leu Tyr Thr Leu Ala Cys Asp Gly Lys Ala Pro Arg Ile Phe Ser Lys 355 360 365 Leu Ser Arg Gly Gly Val Pro Arg Asn Ala Leu Tyr Ala Thr Thr Val 370 375 380 Ile Ala Gly Leu Cys Phe Leu Thr Ser Met Phe Gly Asn Gln Thr Val

385 390 395

Tyr Leu Trp Leu Leu Asn Thr Ser Gly Met Thr Gly Phe Ile Ala Trp

```
410
             405
Leu Gly Ile Ala Ile Ser His Tyr Arg Phe Arg Arg Gly Tyr Val Lys
                 425 430
         420
Gln Gly His Asp Leu Asn Asn Leu Pro Tyr Arg Ser Gly Phe Phe Pro
           440 445
      435
Leu Gly Pro Ile Phe Ala Phe Val Leu Cys Leu Ile Ile Thr Leu Gly
          455 460
Gln Asn Tyr Glu Ala Phe Leu Ala Asp Thr Ile Asp Trp Gly Ala Val
              470 475
465
Thr Ala Thr Tyr Ile Gly Ile Pro Leu Phe Leu Ile Ile Trp Phe Gly
             485 490 495
Tyr Lys Leu Thr Lys Gly Thr Arg Phe Val Arg Tyr Ser Glu Met Asp
                           505
          500
Phe Pro Glu Arg Phe Lys
      515
<210> 6334
<211> 203
<212> PRT
<213> Enterobacter cloacae
<400> 6334
Arg Thr Gly Lys Met Ser Ser Leu Asp Ser Glu Ala Lys Pro Asp Asn
                               10
Ala Gly His Ser Val Leu Ala Leu Thr Thr Ser His Ser Leu Val Val
                           25
Ser Ser Ser Glu Thr Phe Leu Pro Asp Met Arg Lys Glu Leu Gly Ile
   35
                       4.0
Ile Ala Asp Leu Val Glu Ser Tyr Asn Asp Glu Leu Cys Leu Leu Lys
                                     60
                    55
His Met Ala Val Gln Phe Lys Thr His Asn His Gln Lys Leu Tyr Ser
                                  75
                 70
Tyr Leu Ser Gly Tyr Asn His Ser Ile Ser Glu Ala Asp Ala Leu Phe
                               90
             85
Ala Glu Asn Ala Leu Arg Ser Glu Tyr Trp Lys Arg Val Met Ala Leu
                                            110
          100
                            105
Thr Asp Val Leu Pro Ile Met Ser Asp Ala Lys Arg Asn Glu Trp Asp
                                         125
    115
                        120
Lys Gln Phe Thr Ala Asp Arg Tyr Ile Met Pro Pro Gln Val Ile Pro
 130
                     135
                                      140
Asp Phe Thr Ala Asp Ala Val Val Gly Thr Val Val Ala Leu Leu Asn
                                   155
Asp Arg Asn Gln Phe Ile Lys Glu Arg Val Tyr Asp Val Phe Gln Ser
              165
                               170
                                      175
Leu Ser Arg Ser His Lys Thr Asn Lys Ala Phe Gly Val Leu His Pro
    180 185
His Asp His Tyr Arg Ser Leu Arg Ala Val
```

<210> 6335 <211> 391 <212> PRT

<213> Enterobacter cloacae

195

<400> 6335
Ala Ala Val Ile Arg Gln Thr Lys Leu Leu Gly Phe Ser Thr Arg Met 1
1 10
5 10
1 5 11e Thr Thr Gly Val Cys Glu Pro Ser Lys Tyr Pro Trp Gln Lys Leu 20
20
25
30
Arg Val Asp Phe Lys Glu Ser Gly Ile Ser Pro Leu Ser Glu Leu Arg 40
40

```
Val Ile Cys Ala Phe Phe Arg Gly Glu Gln Val Lys Ala Ile His Asn
            5.5
Thr Lys Ser Leu Val Glu Ala Leu Val Glu His Glu Gly Phe Arg Lys
              70
                             75
Trp Ile Cys Ile Asp Gly Asn Ser Ile Arg Phe Arg Val Tyr Lys Asn
                          90
         85
Gly Ser Met His Ile Asp Val His Pro Asp Ile Ala Glu Arg Leu Asn
        100 105
Asn Ile Leu Ser Ala Ile Val Pro Leu Ala Leu Pro Ala Asp Arg Met
     115 120 125
Ala His Ser Lys Lys Ser Leu Glu Ala Phe Pro Val Leu Lys Gln Cys
 130 135 140
Ile Asp Phe Asp Thr Arg Met Gln Leu Ser Glu Leu Met Phe Lys Asn
              150 155 160
Asp Gly Asp Asn Lys Trp Ser Cys Trp Thr Ser Leu Gly Ser Leu Ala
           165 170 175
Glu Arg Lys Ser Ser Ser Val Ala Ala Asp Thr Leu Arg Phe Leu Gly
        180
                       185 190
Ala Thr Val Thr Lys Tyr Asp Val Thr Phe Ser Tyr Asp Pro Cys Glu
     195 200 205
Val Ile Arg Tyr Ile Gly Gln Ile Gly Glu Met Pro Asp Ile Val Ser
        215 220
 210
His Gln Phe Tyr Pro Ser Ser Cys Arg Ile Ser Glu Tyr Val Tyr Ser
                             235
              230
Leu Leu Gly Ala Gly Glu Gly Asp Thr Leu Leu Glu Pro Asn Ile Gly
                          250 255
            245
His Ala Asp Leu Leu Lys Ser Phe Pro Ala Gly Val Ile Val Thr Gly
                       265
        260
Ile Glu Leu Asp Thr Leu Asn Cys Leu Ile Ser Arg Ala Lys Gly Tyr
            280 285
 275
Asp Thr Thr Glu Ala Asp Phe Leu Thr Trp Ser Lys Ser Asn Gln Gln
       295 300
 290
Lys Lys Phe Asp Tyr Val Val Met Asn Pro Pro Phe Ala Asp Asn Arg
              310
                            315
Ala Arg Leu His Leu Gln Ala Ala Ala Ser His Leu Ala Ala Gly Gly
                           330 335
            325
Ser Leu Ala Ala Val Leu Pro Leu Ser Leu Gln Gly Leu Asp Asn Leu
                        345
                                    350
        340
Leu Gly Glu Glu Phe Arg Thr Glu Trp Met Asp Val Phe Glu Asn Glu
                         365
     355
                   360
Phe Glu Asn Thr Thr Val Ser Val Arg Ile Leu Tyr Ala Glu Arg Ile
 370
                                 380
Gln Gln Glu Glu Val Leu
               390
```

<210> 6336 <211> 396 <212> PRT <213> Enterobacter cloacae

<400> 6336

```
Arg Glu Met Gly Met Gly Asp Asp Tyr Tyr Lys Leu Pro Glu Val Glu
                           90
Glu His Ile Tyr Asn Ile Lys Asn Ala Tyr Ile Arg Gly Asp Tyr Val
            105
         100
Asp Pro Ile Arg Val Arg Val Ile Asp Gly Val Pro Phe Val Arg Gln
                          125
     115 120
Gly His Cys Arg Leu Lys Ala Ala Met Met Ala Cys Asp Glu Asp His
       135 140
Asp Ile Thr Ile Leu Cys Val Glu Ile Lys Glu Asp Glu Ile Gly Cys
      150 155
Glu Leu Ala Thr Ile Asp Gly Asn Arg Gly Leu Ala Leu Ser Pro Val
         165 170 175
Ala Leu Gly Glu Ser Tyr Arg Arg Leu His Ser Leu Ala Gly Trp Ser
               185 190
         180
Leu Glu Arg Ile Ala Gln Arg Glu Asn Lys Ser Pro Thr Thr Ile Ser
                     200
      195
Ser Leu Ile Arg Leu Thr Thr Cys Ser Val Val Ile Lys Lys Trp Ile
                                 220
                  215
 210
His Ala Asp Ala Ile Ser Tyr Val Asn Val Leu Ser Leu Ile Asp Glu
                              235
               230
Leu Gly Glu Thr Glu Ala Ile Ser Arg Ile Lys Lys Met Ile Ala Glu
                           250 255
            245
Leu Glu Gln Ala Asp Ala Asn Gly Ile Thr Val Lys Lys Thr Gln His
                        265
        260
Gly Gln Val Arg Val Arg Pro Ser Asp Phe Lys Pro Ala Arg Ile Pro
                            285
275
                     280
Pro Val Ile Ala Thr Lys Ala Val Glu Gly Val Lys Leu Ile Thr Thr
                        300
 290
                  295
Ser Leu Leu Gln Lys Leu Gly Asp Ile Glu Leu Pro Glu Met Thr Asp
                      315
305 310
Ser Ser Ala Asp Glu Glu Ile Asn Ile Thr Leu Asn Arg Ser Thr Leu
                           330 335
            325
Glu Met Leu Arg Asn Leu Ser Lys Glu Ile Thr Glu Ser Glu Asn Lys
 340
                                        350
                        345
Gln Leu Arg Arg Ala Glu Asn Arg Gln Ala Lys Leu Asn Gly Glu Lys
                      360 365
 355
Pro Lys Tyr Pro Arg Lys Lys Asn Ala Lys Lys Ala Gly Glu Glu Thr
 370 375 380
Asp Gln Asp Thr Asp Pro Gln Pro Asp Ala Glu
```

<210> 6337 <211> 286

<212> PRT <213> Enterobacter cloacae

390

<400> 6337 Ile Ser Leu Ser Gly Ile Asp Thr Leu Thr Arg His Leu Arg His Met 10 Pro Ile Ile Lys Trp Ala Gly Gly Lys Thr Lys Leu Met Pro Phe Ile 20 25 Ser His His Tyr Pro His Asp His Ser Cys Arg Trp Val Glu Pro Phe 40 Ile Gly Gly Gly Ala Val Phe Leu Asn Met Phe Ala Gln Asn Ala Leu 55 60 Leu Ala Asp Ser Asn Pro Asp Leu Ile Asn Leu Tyr Arg Thr Ile Gln 7.5 70 Arg Gln Lys Thr Asn Phe Ile Asn Gln Val Gln Asn Leu Ala Asp Lys 85 90 Thr Phe Val Glu Lys Asp Tyr Tyr Glu Met Arg Asp Arg Phe Asn Lys 105

```
Thr Cys Ile Ser Gly Gln Pro Leu Gln Arg Ala Ala Leu Phe Tyr Ser
 115 120
Leu Asn Arg Leu Gly Tyr Asn Gly Met Cys Arg Tyr Asn Ser Glu Arg
                 135
                                   140
Ile Tyr Ser Val Pro Trp Gly Lys His Thr Glu Leu Lys Leu Asp Phe
145 150 155
Asn Lys Ile Asp Tyr Leu Ser Phe Arg Leu Ser Gly Ile Glu Leu Ile
            165 170
Thr Ala Gly Phe Glu Glu Thr Leu Ala Ala Thr Gly Glu Gly Asp Gln
         180 185 190
Ile Tyr Cys Asp Pro Pro Tyr Asp Lys Thr Ser Lys Thr Ser Phe Val
                           205
      195 200
Ser Tyr Asp Gly Lys Pro Phe Ser Gln Ser Asp His Val Leu Leu Ala
       215 220
   210
Asn Met Leu Val Asp Ala His Arg Lys Gly Ala Ala Val Ala Ile Ser
                230 235 240
225
Asn Ser Leu Thr Pro Phe Thr Leu Gly Leu Tyr Glu Glu Arg Gly Phe
             245 250 255
Val Ile His Arg Leu Ser Ala Tyr Arg Ser Val Gly Ser Lys Pro Asn
       260 265 270
Thr Arg Lys Thr Glu Thr Glu Ile Leu Ala Val Leu Lys
                       280
      275
<210> 6338
<211> 199
<212> PRT
<213> Enterobacter cloacae
<400> 6338
Asp Cys Ile Thr Val Asp Cys Lys Cys Asp Phe Gln Arg Ile Val Leu
                             10
Ile Met Leu Lys Thr Leu Asn Val Ile Thr Asn Asn Asn Phe Tyr Phe
                          25
          20
Tyr Ser Leu Ile Gly Ile Phe Ser Ala Asn Asp Val Leu Ala Asn Met
                       40
Tyr His Ile Lys Lys Ile Gly Ser Arg Asp Ile Ala Ser Trp Leu Lys
                    55
Glu Thr Gln Asp Asp His Ala Ile Vai Met Ala Gly Pro Asp Thr Glu
                               7.5
                 70
Ser Leu Thr Lys Leu Ile Cys Thr Gln Arg Gly Tyr Asn Tyr Ile Ser
                             90
Ser Arg Ser Lys Val Lys Asp Met Met Gln Phe Phe Leu Lys Glu Tyr
                  105 110
       100
Lys Pro Arg Lys Asn Ser Ala Tyr Leu Lys Ala Thr Asn Ser His Ile
                                        125
                        120
    115
Ser Thr Gln Asp Ile Lys Val Leu Ile Trp Val Ser Ser Gly Leu Lys
                                     140
Pro Cys Asp Ile Ser Lys Arg Tyr Gly Ile Ser Ile Lys Thr Ile Ser
                                155
His His Lys Arg Asn Leu Met Lys Lys Leu Gln Ile Lys Ser Thr Met
                                               175
             165
                            170
Gln Leu Val Asp Val Ala Ser Gln Tyr Ser Leu Leu Cys Lys His Leu
                                            190
          180
                           185
Asn Thr Ser Cys Ala Leu
       195
<210> 6339
```

<210> 6339

<211> 2654 <212> PRT

<213> Enterobacter cloacae

```
<400> 6339
Met Arg Met Asn Lys Val Tyr Lys Val Ile Trp Asn His Ser Ala Gln
                             10
Arg Trp Asp Val Val Ser Glu Leu Thr Gly Ala Lys Lys Lys Ser Lys
                  25
Ser Ser Arg Val Gly Ala Ala Ile Ser Pro Leu Val Leu Leu Thr Ala
            40 45
Leu Thr Leu Asn Pro Gly Phe Ala Tyr Ala Asp Ile Met Leu Pro Asn
       55 60
Asn Trp Leu Ser Ser Asn Gln Asn Asn Gly Val Gly Ala Ala Val Val
                     75
Asn Gly Thr Glu Glu Asn Ile Ile Gly Pro Gly Val Ile Ser Gly Pro
            85
                             90
Ser Ser Gly Thr Ser Tyr Met Ser Ile Thr Asp Ala Gln Lys Ala Gly
                          105 110
          100
Tyr Ile Ile Ser Gly Asp Asp Leu Ser Gly Leu Val Tyr Thr Asp Ile
      115 120 125
Gly Lys Arg Thr Arg Thr Val Gln Tyr Tyr Asp Ser Ile Thr Gly Ala
                 135 140
Asn Gln Thr Val Met Val Tyr Asp Ser Gly Thr Phe Ser Glu Ser Glu
145
                150
                                 155
Ala Ala Ser Asn Val Thr Val Pro Val Phe Ser Pro Gly Ala Asn Phe
             165
                              170
Phe Tyr Lys Thr Arg Leu Val Thr Ala Lys Asn Gly Gly Thr Ala Asn
                          185 190
      180
Ile Asp Val Lys Ala Ser Ser Ile Gly Ser Tyr Phe Lys Asp Ser Gln
           200
                                     205
 195
Leu Val Val Ala Asp Gly Thr Asn Ser His Ala Asn Trp Asn Ser Gln
                    215
                         220
Asn Asn Phe Tyr Phe Gln Ala Ala Ala Arg Val Thr Asp Ser Ala Val
              230 235
Tyr Asn Lys Thr Ile Asn Phe Ser Asn Tyr Thr Gly Ser Phe Thr Asp
                           250
             245
Trp Glu Gly Lys Glu His Val Val Asn Ser Val Ala Asp Leu Gln Ser
          260
                          265
Tyr Asn Asp Tyr Leu Ala Glu Ala Leu Lys Asp Gly Arg Leu Pro Pro
                       280
       275
Gly Gln Tyr Glu Ala Glu Phe Asn Lys Ala Ile Gln Tyr Glu Ser Lys
                                     300
                    295
Asp Tyr Ile Ile Asp Lys Thr Ala Gly Gly Thr Ile Asp Ser Ser Pro
305
                 310
                                  315
Tyr Asn Ser Pro Val Gly Thr Leu Ala Val Leu Ser Ala Thr Asn Gly
                        330
             325
Gly Thr Val Thr Leu Ser Ser Ser Gly Arg Leu Thr Gly Val Leu Pro
                           345
          340
Ala Tyr Gly Tyr Gly Ala Gly Val Val Ala Ser Ser Gly Gly Thr Gly
                        360
                                        365
       355
Ile Asn Glu Gly Val Ile Asp Ala Thr Gly Ala Ala Met Arg Ala Tyr
                    375
                                     380
Gln Asp Gly Thr Val Ile Asn Asn Gly Thr Ile Tyr Val Trp Asp Asn
385
                 390
                                  395
Asn Thr Lys Tyr Thr Leu His Gly Glu Gly Met Leu Ala His Asn Ala
             405
                             410
Asn Ala Lys Ala Val Asn Asn Gly Val Ile Asn Val Arg Pro Trp Lys
        420
                          425
Asn Ser Phe Thr Pro Tyr Gly Ile Asn Thr Ala Met Leu Leu Ser Asp
                       440
                                        445
 435
Gly Gly Glu Gly Thr Asn Asn Gly Val Ile Asn Ile Thr Ala Asp Ala
  450 455
Ser Thr Leu Asp Asn Asn Gly Ala Thr Arg Gly Ile Ser Val Ser Asp
```

```
Gly Gly Thr Phe Ile Asn Ala Gly Asn Gly Lys Ile Thr Val Gly Val
                       490
          485
Asn Ala Gly Gly Thr Lys Ser His Ser Ala Val Asp Ser Ile Ala Ile
                                          510
         500
             505
Asp Ile Gly Lys Gly Ala Thr Lys Val Val Asn Glu Gly Asp Ile Ile
           520
                           525
    515
Leu Gly Gln Gly Ala Gln Gly Asp Tyr Gly Val Ser Ala Val Asp Ala
                        540
        535
Gly Thr Val Asn Phe Ile Asn Thr Gly Thr Ile Ser Val Glu Gly Gln
    550 555 560
Asp Ser Ala Thr Pro Ala Leu Asn Ala Gly Ile Arg Ser Ser Asn Ser
       565 570 575
Ser Gly Leu Val Asn Ser Gly Ile Ile Asn Val Asn Gly Thr Asn Asn
         580 585 590
Ser Gly Ile Leu Ala Glu Asn Gly Gly Ser Val Leu Ser Asp Gly Leu
      595 600 605
Ile Asn Val Gly Ser Val Ser Ala Gly Ser Gly Tyr Arg Asn Tyr Gly 610 \hspace{1cm} 620
Ala Trp Val Asp Gly Ala Ala Ser Ser Val Asp Val Ser Gly Gln Ile
                630 635
Asn Leu Ile Gly Ser Gly Ala Ile Gly Ala Phe Ala Asp Asn Ala Gly
                             650 655
            645
Ser Leu Ile Leu Ser Gly Thr Gly Ser Ile Ala Phe Asn Asp Ala Glu
                          665
                              670
         660
Gln Ile Gly Phe Tyr Val Asn Gly Lys Gly Ser Ser Val Asn Asn Thr
675
                      680
Gly Ser Gly Thr Phe Asp Val Ser Ser Arg Asp Ser Ser Met Phe Arg
                   695
                                    700
Ile Ala Gly Gly Ala Ser Phe Leu Gly Asn Ser Asp Ala Ser Ser Thr
              710 715
Ile Thr Val Ser Gly Glu Asn Ser Leu Ala Leu Val Val Thr Gly Ser
             725
                              730
Ser Asp Gln Gly Asp Val Ser Thr Ile Asn Thr Gly Gly Met Ala Ile
          740
                          745
Gln Leu Ser Glv Asn Asp Ser Thr Gly Leu Arg Val Glu Gly Gly Ala
                                       765
                       760
Leu Gly Thr Ile Asp Ala Asn Thr Thr Ile Asn Leu Asn Ala Val Ser
                                    780
 770
                   775
Ser Ile Ala Ala Val Ala Asp Gly Asn Gly Tyr Asp Ile Ser Gly Asn
                 790
                                 795
Leu Ile Asn Lys Glu Asp Asn Ala Thr Ser Leu Thr Ala Ser Ala Gln
                              810
             805
Leu Thr Ser Ser Leu Asp Ser Val Thr Gly Tyr Ile Ala Arg Asn Gly
         820
                          825
                                           830
Ala Ser Leu Asp Asn Ala Gly Asp Ile Ile Phe Thr Gly Ser Lys Thr
      835
                       840
                                     845
Thr Gly Met Arg Val Glu Glu Gly Ala Thr Gly Thr Asn Ser Gly Asn
   850
                   855
                                     860
Ile Thr Val Glu Asp Gly Gly Ala Gly Leu Ile Ala Ala Ser Gly Gly
                870
                                 875
865
Lys Asn Thr Val Ile Asn Asn Thr Gly Asn Leu Ile Leu Lys Gly Gly
                              890
             885
Asp Asn Ala Asn Arg Thr Thr Gly Ile Lys Ala Ser Gly Pro Gly Thr
          900
                          905 910
Val Ile Asn Met Asn Ala Gly Asn Ile Glu Leu Gln Gly Gln Gly Ala
      915
                      920
                                       925
Val Gly Val Glu Val Ser Asp Glu Gly Thr Val Asn Leu Ile Gly Ser
   930
                   935
                                    940
Ala Val Pro Gln Phe Ala Asp Glu Ser Thr Gly Ile Thr Asp Gln Ile
              950
                                 955
Ala Phe Arg Ile Lys Gly Ser Gly Ala Gln Ile Asn Thr Ser Ile Ala
```

965 970 Pro Gly Thr Leu Leu Asp Ala Thr Gly Lys Asp Ser Ile Leu Phe Arg 980 985 990 Ile Glu Asp Gly Ala Gln Gln Ala Gly Thr Leu Gln Met Lys Thr Ser 995 1000 1005 Gly Thr Gly Ser Ser Gly Ile Trp Val Thr Gly Thr Gly Ser Lys Val 1010 1015 1020 Val Ala Gly Ser Gly Ser Asp Phe Gln Ile Leu Gly Asp Asn Ala Lys 1025 1030 1035 1040 Gly Leu Tyr Val Thr Gly Gly Ala Glu Ala Thr Leu Glu Gln Gly Val 1045 1050 1055 Ser Val Asn Leu Val Gly Asp Gly Ala Ile Val Ala Glu Val Asp Gly 1060 1065 1070 Asn Ala Tyr Gly Leu Asp Gly Ser Val Thr Gly Gln Asn Thr Gly Ser 1075 1080 1085 Val Leu Thr Asn Glu Ala Asp Ile Thr Thr Ala Leu Ser Asn Ala Thr 1090 1095 1100 Gly Phe Ile Thr Arg Asn Gln Gly Leu Leu Val Asn Asn Gly Asn Ile 1105 1110 1115 1120 Asp Phe Thr Ala Gly Thr Asp Asn Ile Gly Ile Leu Val Asp Asp Gly 1125 1130 1135 Arg Phe Glu Asn Ser Gly Asn Ser Ile Ala Val Asn Gly Val Ala Leu 1140 1145 1150 Tyr Ile Lys Gly Ala Asn Ser Gln Val Asn Asn Thr Thr Gly Gly Asp 1155 1160 1165 Ile Ile Ala Val Asp Gly Glu Ala Ala Ile Lys Leu Gly Ala Gly Ala 1170 1175 1180 Ser Leu Asp Leu Ala Gly Asp Gly Phe Asp Gly Ser Ala Thr Ile Glu 1185 1190 1195 1200 Gly Arg Gly Ser Ala His Gly Ile Leu Leu Asp Thr Gly Ala Thr Gly 1205 1210 1215 Leu Lys Leu Asn Gly Ala Val Ile Lys Val Ser Gly Leu Glu Thr Thr 1220 1225 1230 Gly His Gly Ile Glu Asn Arg Ala Glu Ile Glu Gly Ile Gln Leu Ser 1235 1240 1245 Asn Gly Ala Arg Ile Asn Val Ser Gly Gly Gly Ile Gly Ile Arg Thr 1250 1255 1260 Ala Ala Pro Leu Ala Lys Lys Asn Gln Gly Val Ile Thr Val Arg Gly 1265 1270 1275 1280 Ala Thr Gly Ile Ala Phe Gln Lys Ala Asp Gly Ser Ala Thr Asp Gly 1285 1290 1295 Leu Phe Asp Ile Ser Asp Ser Ser Glu Leu Tyr Phe Asp Val Glu Tyr 1300 1305 1310 Gly Thr Gly Ile Leu Val Asn Thr Thr Ala Asp Ala Val Lys Thr 1315 1320 1325 Asn Ala Asn Ile Trp Val Tyr Gly Glu Asp Gly Gly Ser Ala Ile Val 1330 1335 1340 Val Lys Asp Ser Ala Ser Glu Val Val Gln Ser Gly Glu Ile Phe Ser 1345 1350 1355 1360 Ala Ser Leu Ile Asn Asp Ala Ile Ile Ala Ser Arg Thr Ser Ser Phe 1365 1370 1375 Ile Asn Glu Gly Thr Ile Phe Ala Tyr Leu Gly Thr Ala Ile Ser Phe 1380 1385 Ser Asp Asp Val Asp Ser Thr Leu Lys Asn His Gly Asn Ile Asp Gly 1395 1400 1405 Lys Val Lys Leu Asn Gly Gly Asn Asn Thr Leu Ile Asn Asn Gly Ser 1415 1420 Val Gly Ala Leu Thr Ala Gly Asp Gly Asn Asn Thr Leu Asn Leu Asn 1430 1435 1440 Asp Gly Ser Tyr Leu Gln Asp Ala Thr Leu Gly Asn Gly Asn Asn Thr 1445

Ile Ile Phe Ser Gly Phe Ser Met Ala Gly Glu Ile Val Ala Gly Thr  $1460 \hspace{1.5cm} 1465 \hspace{1.5cm} 1470 \hspace{1.5cm}$ 

Gly Glu Asn Thr Phe Ile Ile Lys Asp Ser Asp Gly Leu Arg Phe Asp 1475 1480 1485

Leu Leu Asp Gly Gly Met Gly Asp Ser Asp Lys Leu Ile Phe Asp His  $1490 \hspace{1.5cm} 1495 \hspace{1.5cm} 1500 \hspace{1.5cm}$ 

Ala Gln Tyr Phe Thr Leu Asp Ser Ala Gly Lys Ile Lys Asn Ile Glu 1505 1510 1520 Ser Val Arg Leu Asp Asn Asp Ser Asp Val Thr Ile Arg Glu Ala Leu

 $15\overline{25} \hspace{1cm} 1530 \hspace{1cm} 1535$  Leu Leu Thr Asp Asn Gly Ala Gly Pro Gly Ser Val Asp Ile His Asp

1540 1545 1550 1550
Asp Lys Ser Glu Leu Ser Val Arg Pro Ser Ala Pro Gly Gly Phe Thr 1555 1560 1565

Phe Asp Pro Arg Leu Thr Gly Glu Gly Leu Leu Ser Val Glu Leu Asp 1570 1575 1580

Ala Ala Glu Ser Glu Phe Ser Phe Ser Gln Asn Val Gly Asn Ala Phe 1585 1590 1595 Ser Gly Thr Leu Ala Leu Gly Lys Ser Asn Phe Val Leu Asp Gly Ile

1605 1610 1615 Asn Thr Glu Ser Ile Thr Asn Ala Met Leu Ile Ser Glu Thr Asp Asn

1620 1625 1630 Thr Thr Ile Val Gly Asp Gly Thr Gln His Ile Gly Gly Leu Gly Ile 1635 1640 1645

Asp Gly Gly Lys Leu Ile Phe Gly Thr Val Thr Pro Gly Asp Thr Val 1650 1660

Ala Ser Asn Ser Ile Val Thr Ser Glu Asp Gly Leu Leu Asp Ile Ser 1665 1670 1675 1680 Gly Lys Gly Thr Val Gln Val Thr Leu Pro Gly Glu Val Val Asn Val

1685 1690 Arg Pro Val Pro Asp Thr Gln Lys Asn Ile Leu Glu Gln Asp Asp Ala

1700 1705 1710 Glu Thr Leu Val Thr Leu Val Glu Ala Arg Gly Ala Val Lys Gly Thr 1715 1720 1720

Gly Ala Glu Leu Leu Leu Thr Asp Glu Asn Gly Gly Val Ile Ser Asp 1730 1740

Ser Gln Ser Phe Asp Ile Thr Gln Asp Gly Thr Pro Val Ala Arg Gly 1745 1750 1760

Thr Tyr Asp Tyr Lys Leu Met Ser Ser Lys Asp Gly Ile Ser Gly Asp 1765 1775 1775 Gly Leu Tyr Ile Gly Tyr Gly Leu Lys Ser Ile Glu Leu Gln Gly Ile

1780 1785 1790 1 Ala Gly Asn Ala Leu Ile Leu Thr Pro Lys Asp Gly Ala Arg Gly Gln 1795 1800 1805

Glu Ser Asp Leu Asn Ala Gln Leu Thr Gly Thr Gly Asp Leu Ala Ile 1810 1820 Asp Ala Gly Ser Asn Thr Val Thr Leu Ser Asn Gly Ser Asn Gly Tyr 1825 1830 1836

Thr Gly Ser Thr Arg Val Leu Ser Gly Thr Leu Lys Met Ala Asn Asp 1845 1850 1855

Asn Val Leu Gly Gln Thr Ala Asp Leu Ala Ile Asn Asn Gly Ala Ala

Phe Ile Thr Asp Gly Phe Ser Gln His Val Gly Ala Ile Gln Thr Glu 1880 Ala Gly Ala Gly Ile Gln Leu Asp Ala Gly Ser Glu Leu Thr Ile Asp

1890 1895 1900 - 1895 1900 Ser Thr Leu Arg Ala Ser Gly Glu Ala Ala Gly Gly Val Ile Glu Asp 1905 1910 1915 1926

Ser Ala Leu Tyr Gly Glu Gly Arg Leu Val Val Ser Asp Ser Ser Leu 1935 Glu Val Lys Gly Gln Asn Ser Lys Phe Thr Gly Asp Val Thr Leu Glu

1940 1945 Ser Gly Ser Val Ala Glu Leu Glu Asn Ala Gln Gly Leu Gly Ser Leu 1955 1960 1965 Gly Thr Val Leu Leu Ser Gly Asn Asp Asp Thr Leu Lys Met Asp Ile 1970 1975 1980 Val Lys Gly Ser Asn Ser Ser Thr Ser Leu Thr Lys Ser Leu Ala Gly 1985 1990 1995 2000 Lys Gly Tnr Val Asp Ile Leu Asn Asn Thr Asp Leu Thr Leu Ser Gly 2005 2010 2015 Asp Asn Ser Asn Phe Ser Gly Thr Phe Asp Ile Gly Ser Glu Ala Ala 2020 2025 2030 Leu His Ala Ser Asp Ala Lys His Leu Gly Gln Ser Val Leu Gly Asn 2035 2040 2045 Glu Gly Ser Leu Tyr Leu Thr Ala Asn Asn Asp Trp Glu Leu Thr Asn 2050 2055 2060 Glu Ile Asn Gly Ala Gly Ser Leu Thr Lys Gln Gly Ser Gly Asn Leu 2065 2070 2075 2080 Ile Ile Asn Arg Glu Leu Ser Tyr Thr Gly Ala Thr Arg Val Glu Ser 2085 2090 2095 Gly Thr Met Val Ile Gly Asp Asn Ser Lys Asp Ala Ala Gly Val Leu 2100 2105 2110 Ser Gly Thr Ser Val Val Thr Val Asn Ala Gly Ala Met Leu Ala Gly 2115 2120 2125 Thr Gly Thr Ile Ala Gly Asn Val Glu Asn Lys Gly Thr Ile Ala Ala 2130 2135 2140 Leu Asn Ser Leu Ser Gly Tyr Ser Asp Ala Gly Thr Gly Asn Phe Thr 2145 2150 2155 2160 Val Gly Ala Leu Asn Asn Thr Gly Thr Leu Leu Leu Ala Gly Ser Glu 2165 2170 2175 Thr Gly Asn Thr Leu Thr Val Asn Gly Asp Tyr His Gly Glu Gly Lys 2180 2185 2190 Leu Val Leu Asn Thr Val Leu Gly Gly Asp Asp Ser Leu Thr Asp Lys 2195 2200 2205 Leu Ile Val Lys Gly Asn Ala Ser Gly Lys Thr Asp Val Tyr Val Thr 2210 2215 2220 Asn Val Gly Gly Ser Gly Ala Gln Thr Gln Asn Gly Ile Glu Val Val 2225 2230 2235 2240 Gln Val Asp Gly Gln Ser Ala Asp Asp Ser Phe Arg Leu Ala Lys Arg 2245 2250 2255 Ala Val Gly Gly Ala Tyr Glu Tyr Tyr Leu His Lys Gly Asp Ile Asn 2260 2265 2270 Gly Ala Gly Gly Asp Trp Tyr Leu Arg Ser Glu Leu Ser Pro Ala Pro 2275 2280 2285 Glu Pro Asp Thr Thr Pro Gly Pro Asp Thr Thr Pro Glu Pro Glu Pro 2290 2295 2300 Asn Pro Thr Pro Glu Pro Ala Pro Ala Pro Thr Pro Ala Pro Glu Pro 2305 2310 2315 2320 Asp Gln His Gly Asp Lys Val Tyr Arg Pro Glu Ala Gly Ser Tyr Ile 2325 2330 2335 Ala Gly Ile Ala Ala Ser Asn Thr Leu Phe Asn Thr Arg Leu His Asp 2340 2345 2350 Arg Ala Gly Glu Thr Tyr Tyr Thr Asp Val Leu Thr Gly Glu Gln Ala 2355 2360 2365 Val Thr Ser Met Trp Met Arg His Val Gly Gly His Asn Val Trp Lys 2370 2375 2380 Asp Gly Ser Ser Gln Leu Asn Thr Gln Ser Asn Arg Tyr Val Leu Gln 2385 2390 2395 1 2400 Leu Gly Gly Asp Ile Ala Gln Trp Thr Asp Gly Lys Asp Arg Leu His \$2405\$Leu Gly Val Met Gly Gly Tyr Gly Asn Glu Lys Ser Ser Thr Thr Ser 2425

Ser Leu Ser His Tyr Lys Ser Arg Gly Thr Val Asn Gly Tyr Ser Leu 2435 2440 2445

Gly Met Tyr Ala Thr Trp Gln Gln Asn Glu Gly Glu Glu Ser Gly Ala 2450 2455 2460 Tyr Val Asp Thr Trp Ala Gln Tyr Ser Trp Phe Asp Asn Thr Val Lys

2470 2475 2480 2465 Gly Glu Gln Leu Ala Gln Glu Thr Trp Lys Ser Ser Gly Ile Thr Ala

2485 2490 2495 

His Gly Ser Glu Tyr Asn Trp Tyr Ile Gln Pro Gln Ala Gln Ile Thr  $2515 \hspace{1.5cm} 2520 \hspace{1.5cm} 2525$ 

Trp Met Asn Val Arg Ser Glu Asp His Arg Glu His Asn Gly Thr Lys 2530 2535 2540 Ile Ser Ala Gln Gly Glu Gly Asn Val Gln Ser Arg Val Gly Leu Arg  $2545 \hspace{1.5cm} 2550 \hspace{1.5cm} 2555 \hspace{1.5cm} 2560$ 

Thr Tyr Leu Lys Gly Lys Ser His Leu Asp Ser Glu Lys Glu Arg Thr 2565 2570 2575

Phe Glu Pro Phe Ile Glu Ala Asn Trp Ile His Asn Thr Arg Ser Trp 2580 2585 2590

Gly Val Arg Met Asp Asp Ala Leu Val Thr Gln Asp Gly Ala Arg Asp 2595 2600 2605 Val Gly Glu Ile Lys Thr Gly Val Glu Gly Gln Ile Ser Lys Asn Leu

2610 2615 2620 Asn Val Trp Gly Asn Val Gly Val Gln Ile Gly Asp Lys Gly Tyr Asn 2625 2630 2635

Asp Thr Gln Ala Met Leu Gly Ile Lys Tyr Ser Phe Lys 2645 2650

<210> 6340 <211> 416 <212> PRT

<213> Enterobacter cloacae

<400> 6340

Arg Lys Pro Asp Arg Asp Arg Gly Glu Lys Ser Arg Arg His Arg Gly 10 Ala Asp Gly Gly Gly Thr Arg Met Ser Val Ile Ile Val Gly Gly Gly

20 Met Thr Gly Ala Thr Leu Ala Leu Ala Ile Ser Gln Leu Thr Lys Gly 40 4.5

Gln Leu Pro Val His Leu Val Glu Ala Val Ala Pro Gln Ala Ala Asp 55 60

His Pro Gly Phe Asp Ala Arg Ala Ile Ala Leu Ala Gln Gly Thr Cys 65 70 75 Gin Gin Leu Ala Arg Ile Gly Ile Trp Gin Ala Ile Ala Asp Cys Ala

8.5 90 Thr Ala Ile Gly Thr Val His Val Ser Asp Arg Gly His Ala Gly Phe

105 Val Thr Leu Asp Ala His Asp Tyr Leu Ile Glu Ala Leu Gly Gln Val 115 125

Val Glu Leu His Asp Val Gly Leu Arg Leu Phe Arg Leu Leu Gln Asp 140 130 Ala Pro Gly Val Thr Leu His Cys Pro Ala Arg Val Ala Ser Phe Ser

150 155 160 Arg Arg Asp Glu Ala Val Ser Val Thr Leu Asp Asn Gly Thr Thr Leu 165

170 175 Glu Gly Gln Leu Leu Val Ala Ala Asp Gly Ser Arg Ser Ala Ile Ala 185 190

Thr Gln Cys Gly Val Glu Trp Arg Ser Glu Pro Tyr Gly Gln Ala Ala 195 200

```
Val Ile Ala Asn Val Ser Thr Ala Gly Ala His Asn Gly Arg Ala Phe
                      215
 Glu Arg Phe Thr Glu His Gly Pro Leu Ala Met Leu Pro Met Ser Asn
 225
               230
                        235
 Gly Arg Cys Ser Leu Val Trp Cys His Ala Gln Asp Arg Ala Asp Glu
            245 250
                                                    255
 Val Leu Ser Trp Ser Asp Glu Arg Phe Cys Ser Glu Leu Gln Lys Ala
          260
                             265
 Phe Gly Trp Arg Leu Gly Arg Ile Thr His Ala Gly Lys Arg Val Ala
       275
                          280 285
 Tyr Pro Leu Ala Leu Thr Thr Ala Ser Gln Thr Val Ser His Arg Val
  290
        295
                                        300
 Ala Leu Val Gly Asn Ala Ala Gln Thr Leu His Pro Ile Ala Gly Gln
                  310
                                  315
 Gly Phe Asn Leu Gly Leu Arg Asp Val Met Ser Leu Ala Glu Leu Leu
              325
                                 330
 Ala Arg Thr Trp Ser Glu Gln Gln Asp Cys Gly Ala Tyr Ser Val Leu
           340
                             345
Ser His Tyr Gln Lys Arg Arg Gln Ala Asp Lys Ala Ala Thr Ile Gly
  355
                         360
                                            365
Val Thr Asp Gly Leu Val His Leu Phe Ala Asn Arg Trp Ala Pro Leu
                      375
 370
                                        380
Val Ala Gly Arg Asn Leu Gly Leu Met Ala Met Glu Leu Phe Ile Pro
385 390
                          395
Ala Arg Asp Val Leu Ala Gln Arg Thr Leu Gly Trp Val Ala Arg
              405
                                 410
<210> 6341
<211> 405
<212> PRT
<213> Enterobacter cloacae
<400> 6341
Gly Val Leu Thr Val Gln Asn Val Asp Val Ala Ile Val Gly Gly Gly
Met Val Gly Leu Ala Leu Ala Cys Gly Leu Gln Gly Ser Gly Leu Arg
Val Ala Val Leu Glu Gln Lys Ala Pro Gln Pro Val Ala Gln Asp Ala
                         40
                                           4.5
Pro Pro Glu Leu Arg Val Ser Ala Ile Asn Ala Ala Ser Glu Lys Leu
                     55
                                        60
Leu Thr His Leu Gly Val Trp Ser Glu Ile Val Ala Leu Arg Ala Ser
                 7.0
                                    75
Cys Tyr His Gly Met Glu Val Trp Asp Lys Asp Ser Phe Gly Arg Ile
              8.5
                                 90
Ala Phe Asp Asp Glu Ser Met Gly Tyr Ser His Leu Gly His Ile Val
          100
                             105
Glu Asn Ala Val Ile His His Val Leu Trp Gln Lys Ala Gln Gln Cys
      115
                         120
                                        125
Ser Asp Val Thr Leu Ile Ala Pro Ala Lys Leu Gln Gln Val Ala Trp
  130
                     135
                                       140
Gly Glu Asn Asp Ala Phe Ile Thr Leu Glu Ser Gly Asp Met Leu Thr
                 150
                                   155
Ala Arg Leu Val Val Gly Ala Asp Gly Ala Asp Ser Trp Leu Arg Asp
              165
Lys Ala Asp Ile Pro Leu Thr Phe Trp Asp Tyr Arg His His Ala Leu
```

185 Val Ala Thr Ile Arg Thr Glu Glu Pro His Gly Gly Val Ala Arg Gln

200 Ile Phe His Asn Asp Gly Ile Leu Ala Phe Leu Pro Leu Ala Asp Pro

215

180

195

```
His Leu Cys Ser Ile Val Trp Ser Leu Glu Pro Glu Lys Ala Gln Gln
225
                230
                           235
Met Gln Glu Thr Thr Pro Asp Ala Phe Ser Gln Ala Leu Cys Val Ala
                             250
              245
Phe Asp Asn Arg Leu Gly Leu Cys Gly Leu Glu Ser Glu Arg Gln Thr
      260
               265 270
Phe Pro Leu Thr Gly Arg Tyr Ala Arg Gln Phe Ala Ala His Arg Leu
      275
           280
                            285
Ala Leu Val Gly Asp Ala Ala His Thr Ile His Pro Leu Ala Gly Gln
 290 295 300
Gly Val Asn Leu Gly Phe Met Asp Ala Ala Glu Leu Val Glu Glu Leu
305 310 315 320
Arg Arg Leu His Arg Glu Gly Lys Asp Ile Gly Gln His Leu Tyr Leu
       325 330 335
Arg Arg Tyr Glu Arg Ser Arg Lys His Ser Ala Ala Met Met Leu Ala
         340 345 350
Gly Met Gln Gly Phe Arg Glu Leu Phe Ala Gly Ala Asn Pro Ala Lys
      355
                       360 365
Lys Leu Leu Arg Asp Ile Gly Leu Lys Leu Ala Asp Thr Leu Pro Gly
 370 375 380
Val Lys Pro Gln Leu Leu Arg Gln Ala Met Gly Leu Asn Asp Leu Pro
                390
                                 395
Asp Trp Leu Arg
<210> 6342
<211> 142
<212> PRT
<213> Enterobacter cloacae
<400> 6342
Ala Gly Arg Leu Thr Ile Phe Ile Arg Arg Thr Ser Met Ser Asn Val
                          10
                                              15
Pro Ala Glu Leu Lys Tyr Ser Lys Glu His Glu Trp Leu Arg Lys Glu
         20
                          25
Ala Asp Gly Thr Tyr Thr Val Gly Ile Thr Glu His Ala Gln Glu Leu
                     4.0
Leu Gly Asp Met Val Phe Val Asp Leu Pro Glu Val Gly Ala Thr Val
                 5.5
                              60
Ser Ala Gly Asp Asp Cys Ala Val Ala Glu Ser Val Lys Ala Ala Ser
                70
                                 7.5
                                                 8.0
Asp Ile Tyr Ala Pro Val Ser Gly Glu Ile Val Ala Val Asn Asp Ala
             8.5
                             90
Leu Ser Asp Ser Pro Glu Leu Val Asn Ser Glu Pro Tyr Glu Gly Gly
         100
                          105
                                           110
Trp Ile Phe Lys Ile Lys Ala Ser Asp Glu Ala Gln Val Ala Ala Leu
      115
                       120
Leu Asp Ala Thr Ala Tyr Glu Ala Leu Leu Glu Asp Glu
 130
                    135
<210> 6343
<211> 402
<212> PRT
<213> Enterobacter cloacae
<400> 6343
Arg Pro Thr Leu Phe Ser Ala Ala Gly Glu His Trp Tyr Phe Thr Gly
                              10
Phe Asn Glu Pro Glu Ala Val Leu Val Leu Ile Lys Ser Asn Asp Thr
        20
                           25
His Asn His Ser Val Ile Phe Asn Arg Val Arg Asp Leu Thr Ala Glu
```

Ile Trp Phe Gly Arg Arg Leu Gly Gln Glu Ala Ala Pro Glu Lys Leu 55 60 Gly Val Asp Arg Ala Leu Ala Tyr Ser Glu Ile Asn Gln Gln Leu Tyr 75 Gln Leu Leu Asn Gly Leu Asp Val Leu Tyr His Ala Gln Gly Glu Tyr 90 Ala Tyr Ala Asp Asp Ile Val Phe Thr Ala Leu Asp Lys Leu Arg Lys 100 105 110 Gly Ser Arg Gln Asn Leu Ser Ala Pro Ala Thr Leu Thr Asp Trp Arg 115 120 125 Pro Met Val His Glu Met Arg Leu Phe Lys Ser Glu Glu Glu Leu Asn 130 135 140 Val Met Arg Arg Ala Gly Glu Ile Ser Ala Leu Ala His Thr Arg Ala 150 155 Met Glu Lys Cys Arg Pro Gly Met Phe Glu Tyr Gln Leu Glu Gly Glu 165 170 175 Ile His His Glu Phe Asn Arg His Gly Ala Arg Phe Pro Ser Tyr Asn 180 185 190 Thr Ile Val Gly Gly Gly Glu Asn Gly Cys Ile Leu His Tyr Thr Glu 195 200 205 Asn Glu Ser Glu Leu Arg Asp Gly Asp Leu Val Leu Ile Asp Ala Gly 210 215 220 Cys Glu Tyr Gln Gly Tyr Ala Gly Asp Ile Thr Arg Thr Phe Pro Val 225 230 235 240 Asn Gly Lys Phe Thr Thr Ala Gln Arg Glu Ile Tyr Asp Ile Val Leu 245 250 Glu Ser Leu Glu Thr Ala Leu Thr Leu Phe Arg Pro Gly Thr Ser Ile 265 Gln Glu Val Thr Gly Glu Val Val Arg Ile Met Ile Thr Gly Leu Val 280 Lys Leu Gly Ile Leu Lys Gly Asp Val Asp Thr Leu Ile Thr Glu Asn 295 300 Ala His Arg Pro Tyr Phe Met His Gly Leu Ser His Trp Leu Gly Leu 310 315 Asp Val His Asp Val Gly Ala Tyr Gly Pro Glu Arg Ser Arg Val Leu 330 325 335 Glu Pro Gly Met Val Leu Thr Val Glu Pro Gly Leu Tyr Ile Ala Pro 340 345 350 Asp Ala Asp Val Pro Glu Arg Tyr Arg Gly Ile Gly Ile Arg Ile Glu 355 360 365 Asp Asp Ile Val Ile Thr Glu Thr Gly Asn Glu Asn Leu Thr Ala Thr 375 380 Val Val Lys Lys Ala Asp Asp Ile Glu Ala Leu Met Ala Ala Ala Arg 385 390 395 Val

```
<210> 6344
<211> 390
<212> PRT
<213> Enterobacter cloacae
```

```
Val Arg Thr Asp Ala Gly Met Phe Asp Val Ser His Met Thr Ile Val
               7.0
                         75
Asp Leu Arg Gly Ser Arg Thr Arg Glu Phe Leu Arg Tyr Leu Leu Ala
            85
                      90 95
Asn Asp Val Ala Lys Leu Lys Thr Pro Gly Lys Ala Leu Tyr Thr Gly
       100 105 110
Met Leu Asn Ala Ser Gly Gly Val Ile Asp Asp Leu Ile Val Tyr Tyr
 115 120 125
Phe Thr Glu Asp Phe Phe Arg Leu Val Val Asn Ser Ala Thr Arg Glu
 130 135 140
Lys Asp Leu Ser Trp Ile Ser Gln His Ala Glu Pro Tyr Ala Ile Asp
145 150 155
Ile Thr Val Arg Asp Asp Leu Ser Leu Ile Ala Val Gln Gly Pro Asn $165$
Ala Gln Ala Lys Ala Ala Ser Leu Phe Ser Asp Glu Gln Arg Lys Ala
       180 185 190
Thr Glu Gly Met Lys Pro Phe Phe Gly Val Gln Ala Gly Asp Leu Phe
 195 200 205
Ile Ala Thr Thr Gly Tyr Thr Gly Glu Ala Gly Tyr Glu Ile Ala Met
                215 220
Pro Asn Glu Lys Ala Ala Asp Phe Trp Arg Ala Leu Val Glu Ala Gly
             230 235
Val Lys Pro Ala Gly Leu Gly Ala Arg Asp Thr Leu Arg Leu Glu Ala
       245
                           250
Gly Met Asn Leu Tyr Gly Gln Glu Met Asp Glu Gly Val Ser Pro Leu
 260
                         265
                              270
Ala Ala Asn Met Gly Trp Thr Ile Ala Trp Glu Pro Ala Asp Arg Asp
275
                      280
                                      285
Phe Ile Gly Arg Glu Ala Leu Glu Met Gln Arg Glu Lys Gly Thr Glu
                  295
                                   300
Gln Leu Val Gly Leu Val Met Lys Glu Lys Gly Val Leu Arg Gly Glu
305 310 315
Leu Pro Val Arg Phe Thr Asp Ala Asp Gly Asn His Arg Glu Gly Val
           325 330 335
Ile Thr Ser Gly Thr Phe Ser Pro Thr Leu Gly Tyr Ser Ile Ala Leu
       340
                         345
Ala Arg Val Pro Ala Gly Ile Gly Glu Thr Ala Val Val Gln Ile Arg
   355
                      360
Asn Arg Glu Met Pro Val Asn Val Thr Lys Pro Ile Phe Val Arg Ala
370
                   375
                                   380
Gly Lys Pro Val Ala
385
<210> 6345
<211> 345
<212> PRT
<213> Enterobacter cloacae
<400> 6345
Arg Val Val Asn Met Ile Thr Ile Arg Asp Val Ala Arg Gln Ala Gly
                            10
Val Ser Val Ala Thr Val Ser Arg Val Leu Asn Asn Ser Ala Leu Val
         20
                         25
                                        30
Ser Pro Glu Thr Arg Glu Thr Val Met Lys Ala Val Thr Gln Leu Gly
35
                     40
                                   4.5
Tyr Arg Pro Asn Ala Asn Ala Gln Ala Leu Ala Thr Gln Val Ser Asp
                5.5
                             60
Thr Ile Gly Val Val Val Met Asp Val Ser Asp Ala Phe Phe Gly Ala
               70
                               75
```

Leu Val Lys Ala Val Asp Val Val Ala Gln Gln His Gln Lys Tyr Val

```
85
Leu Ile Gly Asn Ser Tyr His Glu Ala Glu Lys Glu Arg Tyr Ala Ile
    100 105 110
Glu Val Leu Ile Arg Gln Arg Cys Asn Ala Leu Ile Val His Ser Lys
   115 120 125
Ala Leu Ser Asp Glu Glu Leu Ala Gly Phe Met Glu Gln Ile Pro Gly
 130 135 140
Met Val Leu Ile Asn Arg Ile Val Pro Gly Tyr Ala His Arg Cys Val
    150 155
Gly Leu Asp Asn Ile Ser Gly Ala Met Met Ala Thr Arg Met Leu Ile
     165 170 175
Ser Asn Gly His Gln Arg Ile Gly Tyr Leu Ala Ser Ser His Gly Ile
                       185 190
Glu Asp Asp Met Met Arg Arg Glu Gly Trp Gln Asn Ala Leu Lys Glu
    195 200 205
Gln Gly Ile Ala Pro Leu Glu Ser Trp Val Gly Thr Gly Ser Pro Asp
                 215
                                 220
Met Gln Gly Gly Glu Ala Ala Met Val Glu Leu Leu Gly Arg Asn Leu
225 230
                   235
Gln Leu Thr Ala Val Phe Ala Tyr Asn Asp Ser Met Ala Ala Gly Ala
           245 250
                                 255
Leu Thr Ala Leu Lys Asp Asn Gly Ile Ala Val Pro Gln His Leu Ser
      260
                       265
Leu Ile Gly Phe Asp Asp Ile Pro Ile Ala Arg Tyr Thr Asp Pro Gln
275 280
                                    285
Leu Thr Thr Val Arg Tyr Pro Ile Ala Ser Met Ala Lys Leu Ala Thr
                  295
                                300
Glu Leu Ala Leu Gln Gly Ala Ala Gly Leu Leu Asp Pro Asp Ala Thr
305 310
                          315
His Cys Phe Met Pro Thr Leu Val Arg Arg His Ser Val Ala Ile Arg
        325
                           330
Gln Thr Val Ala Pro Ile Thr Asn
         340
```

<210> 6346

<211> 393 <212> PRT

<213> Enterobacter cloacae

<400> 6346 Ile Tyr Phe Ser Leu Thr Ile Gly Ala Ile Met Ala Leu Arg Ile Ala Leu Ser Gly Phe Val Val Leu Val Val Ala Met Gly Ile Gly Arg Phe 20 25 3.0 Ala Phe Thr Pro Gln Val Pro Leu Met Ile Ala Ala Gly Gln Leu Thr 40 45 Leu Thr Ser Ala Gly Leu Val Ala Ala Met Asn Tyr Leu Gly Tyr Leu 5.0 55 Val Gly Ala Trp Asp Ala Met Arg Ala His Arg Phe Val Glu Thr Arg 75 Leu Trp Leu Gly IIe Thr Gly Ala Val Ala Leu Thr Leu Leu Ser Ala 85 90 95 Ala Ala Glu Asn Ala Val Val His Gly Leu Leu Arg Phe Val Ile Gly 100 105 110 Cys Met Ser Gly Trp Ser Met Val Leu Ile Ala Ala Trp Thr Asn Glu 115 120 125 Arg Leu Gly Gln Leu Gly Lys Pro Gly Leu Ser Ala Ala Val Phe Ala 140 135 Gly Pro Gly Ala Gly Ile Ala Leu Ser Gly Leu Leu Ala Val Tyr Ile 150 155 Gln Ala Lys Ser Leu Ser Ala Gly Ala Ala Trp Gln Ile Tyr Gly Val

```
165
                            170
Leu Ala Leu Val Leu Ile Val Leu Val Ala Arg Tyr Leu Pro Arg Ala
       180
             185 190
Gly Gln Leu His Arg Pro Asp Thr Ala Pro Glu Pro Leu Leu Thr
    195
          200 205
Ala Asp Leu Arg Arg Leu Val Trp Ser Tyr Ser Leu Ala Gly Phe Gly
  210
       215 220
Tyr Ile Leu Pro Ala Thr Phe Leu Ser Gln Met Ala Ala Val Arg Phe
    230 235
Pro Gly Ser Leu Phe Ala Gln Phe Val Trp Pro Ile Phe Gly Ala Ala
        245 250 255
Ser Val Val Gly Ile Ala Leu Ser Ile Ala Leu Arg His Thr Ser Ser
       260 265 270
Ala Asn Arg Arg Leu Ala Ile Val Leu Trp Leu Gln Gly Ile Gly Val
    275 280 285
Leu Ala Ala Trp Leu Leu Pro Gly Ile Gly Gly Leu Leu Thr Gly Gly
 290 295 300
Leu Leu Val Gly Gly Phe Leu Cys Ala Val Gln Leu Ser Leu Leu
305 310 315
Tyr Gly Arg Glu Leu Ala Pro Asp His Thr Arg Tyr Met Ala Gly Leu
            325 330
                                           335
Leu Thr Thr Gly Tyr Ala Ile Gly Gln Leu Val Gly Pro Val Thr Ser
       340 345
                                        350
Ala Leu Ser Thr Trp Leu Thr His Arg Leu Glu Pro Ala Leu Gly Leu
          360
                                     365
Ala Gly Ile Ala Leu Phe Val Gly Gly Ala Leu Val Trp Asn Arg Gln
370 375
                               380
Ala Glu Arg Gln Gln Gln Leu Gln
<210> 6347
<211> 253
<212> PRT
<213> Enterobacter cloacae
<400> 6347
Ile Leu Asp Tyr Val Arg Arg Leu Thr His Asn Glu Arg Thr Leu Leu
                            10
Pro Gln Arg Gly Gln Lys Tar Pro His Leu Gln Glu Lys Arg Met Ser
                        25
Ser Leu Ser Lys Glu Ala Ala Leu Val His Glu Ala Leu Val Ala Arg
         40
Gly Leu Glu Thr Pro Leu Arg Pro Pro Val Gln Glu Leu Asp Asn Val
 50 55
Thr Arg Lys Arg Leu Ile Ala Gly His Met Thr Glu Ile Met Gln Leu
      7.0
                               75
Leu Asn Leu Asp Leu Ser Asp Asp Ser Leu Met Glu Thr Pro His Arg
           85
                           90
Ile Ala Lys Met Tyr Val Asp Glu Ile Phe Ser Gly Leu Asp Tyr Ala
        100
             105
                                     110
Asn Phe Pro Lys Ile Thr Val Ile Glu Asn Lys Met Lys Val Asp Glu
 115
                         125
                     120
Met Val Thr Val Arg Asp Ile Thr Leu Thr Ser Thr Cys Glu His His
                  135
                                  140
Phe Val Thr Ile Asp Gly Lys Ala Thr Val Ala Tyr Ile Pro Lys Asp
               150
                   155
Thr Val Ile Gly Leu Ser Lys Ile Asn Arg Ile Val Gln Phe Phe Ala
            165 170 175
Gln Arg Pro Gln Val Gln Glu Arg Leu Thr Gln Gln Ile Leu Thr Ala
        180
                       185
Leu Gln Thr Leu Leu Gly Thr Asn Asn Val Ala Val Ser Ile Asp Ala
```

200 Val His Tyr Cys Val Lys Ala Arg Gly Val Arg Asp Ala Thr Ser Ala 220 210 215 Thr Thr Thr Thr Ser Leu Gly Gly Leu Phe Lys Ser Ser Gln Asn Thr 230 235 Arg Gln Glu Phe Leu Arg Ala Val Arg His His Asn <210> 6348 <211> 392 <212> PRT <213> Enterobacter cloacae <400> 6348 Ser Asp Arg Ala Gly Thr Met Glu Arg Asn Val Thr Leu Asp Phe Val 10 Arg Gly Val Ala Ile Leu Gly Ile Leu Leu Leu Asn Ile Ser Ala Phe 20 25 Gly Leu Pro Lys Ala Ala Tyr Leu Asn Pro Ala Trp Tyr Gly Asp Ile 40 Thr Arg Ser Asp Ala Trp Thr Trp Ala Ile Leu Asp Leu Phe Ala Gln 5.5 60 Val Lys Phe Leu Thr Leu Phe Ala Leu Leu Phe Gly Ala Gly Leu Gln 70 Leu Leu Leu Lys Arg Gly Thr Arg Trp Ile Gln Ser Arg Leu Thr Leu 85 90 Leu Val Ile Leu Gly Phe Ile His Gly Leu Leu Phe Trp Asp Gly Asp 100 105 110 Ile Leu Leu Ala Tyr Gly Leu Val Gly Leu Ile Cys Trp Arg Leu Ile 115 120 Arg Asp Ala Pro Gly Val Lys Ser Leu Phe Asn Thr Gly Val Met Leu 130 135 140 Tyr Val Met Gly Leu Ala Val Leu Leu Leu Gly Met Ile Ala Asp 145 150 155 Asp Ser Thr Ser Arg Ser Trp Ile Pro Asp Ala Ala Asn Leu Gln Tyr 165 170 Glu Gln Phe Trp Lys Leu Lys Gly Gly Met Glu Ala Ile Gly Asn Arg 180 185 190 Ala Asp Met Leu Gly Asp Asn Leu Leu Ala Leu Gly Ala Gln Tyr Gly 195 200 Trp Gln Leu Ala Gly Met Met Leu Met Gly Ala Ala Leu Met Arg Thr 215 220 Gly Trp Leu Lys Gly Glu Phe Ser Leu Arg His Tyr Arg Arg Thr Gly 230 235 Ala Gly Leu Val Leu Leu Gly Val Ile Ile Asn Leu Pro Ala Val Met 245 250 255 Met Gln Trp His Leu Gln Trp Asp Tyr Arg Trp Cys Ala Phe Leu Leu 260 265 270 Gln Val Pro Arg Glu Leu Ser Ala Pro Phe Gln Thr Ile Gly Tyr Ala 280 Ala Leu Ile Tyr Gly Phe Trp Pro Gln Leu Ser Arg Leu Trp Ile Val 295 300 Ser Ala Val Ala Cys Val Gly Arg Met Ala Leu Ser Asn Tyr Ile Leu 310 315 Gln Thr Leu Ile Cys Thr Thr Leu Phe Tyr Arg Phe Gly Leu Phe Met 325 330 Lys Phe Asp Arg Leu Thr Leu Leu Ala Phe Val Ile Pro Val Trp Ile 340 345 350 Val Asn Val Val Phe Ser Val Val Trp Leu Arg Phe Phe Arg Gln Gly 360

Pro Leu Glu Trp Ala Trp Arg Gln Leu Thr Ala Arg Ala Ser Gly Val

```
370
                    375
                                      380
Ser Leu Arg Asn Thr Ser Arg
385
<210> 6349
<211> 322
<212> PRT
<213> Enterobacter cloacae
<400> 6349
Thr Leu Ser Ala Val Met Ala Ser Met Leu Phe Gly Ala Ala Ala His
                                1.0
Ala Ala Asp Thr Arg Ile Gly Val Thr Ile Tyr Lys Tyr Asp Asp Asn
 2.0
                            25
                                              30
Phe Met Ser Val Val Arg Lys Ala Ile Glu Lys Asp Ala Lys Ser Ala
                      4.0
Pro Asp Val Gln Leu Leu Met Asn Asp Ser Gln Asn Asp Gln Ser Lys
                     55
                                60
Gln Asn Asp Gln Ile Asp Val Leu Leu Ala Lys Gly Val Lys Ala Leu
                  7.0
Ala Ile Asn Leu Val Asp Pro Ala Ala Ala Gly Thr Val Ile Glu Lys
             85
                                90
Ala Arq Gly Gln Asn Val Pro Ile Val Phe Phe Asn Lys Glu Pro Ser
          100
                            105
Arg Lys Ala Leu Asp Ser Tyr Asp Lys Ala Tyr Tyr Val Gly Thr Asp
115
                         120
Ser Lys Glu Ser Gly Ile Ile Gln Gly Asp Leu Ile Ala Lys His Trp
 130
                     135 140
Ala Ala Asn Pro Asn Trp Asp Leu Asn Lys Asp Gly Gln Ile Gln Phe
                        155
145 150
Val Leu Leu Lys Gly Glu Pro Gly His Pro Asp Ala Glu Ala Arg Thr
             165
                            170
Thr Tyr Val Ile Lys Glu Leu Asr Asp Lys Gly Leu Lys Thr Gln Gln
          180
                            185
                                              190
Leu Ala Leu Asp Thr Ala Met Trp Asp Thr Ala Gln Ala Lys Asp Lys
 195
                        20C
Met Asp Ala Trp Leu Ser Gly Pro Asn Ala Asn Lys Ile Glu Val Val
 210
                     215
                                       220
Ile Ala Asn Asn Asp Ala Met Ala Met Gly Ala Val Glu Ala Leu Lys
225
                 230
                                   235
                                                     240
Ala His Asn Lys Ser Ala Ile Pro Val Phe Gly Val Asp Ala Leu Pro
             245
                               250
Glu Ala Leu Ala Leu Val Lys Ser Gly Ala Met Ala Gly Thr Val Leu
          260
                           265 270
Asn Asp Ala Asn Asn Gln Ala Lys Ala Tnr Phe Asp Leu Ala Lys Asn
                        280
                                         285
Leu Ala Asp Gly Lys Gly Ala Ala Asp Gly Thr Asn Trp Lys Val Asp
          295
                              300
Asn Lys Ile Val Arg Val Pro Tyr Val Gly Val Tyr Gln Ser Asn Leu
305
                 310
Gly
<210> 6350
<211> 293
<212> PRT
<213> Enterobacter cloacae
<400> 6350
Lys Leu Cys Ile Met Arg Phe Met Asn Ser Leu Ser Tyr Lys Glu Pro
                              1.0
```

Cys Met Glu Leu Leu Glu Glu His Arg Cys Phe Glu Gly Arg Gln Gln 25 Arg Trp Arg His Asp Ser Thr Thr Leu Asn Cys Ala Met Thr Phe Ser 40 4.5 Ile Phe Leu Pro Pro Ala Asp Asn Pro Pro Val Leu Tyr Trp Leu Ser 55 Gly Leu Thr Cys Asn Asp Glu Asn Phe Thr Thr Lys Ala Gly Ala Gln 7.0 75 Arg Ile Ala Ala Glu Leu Gly Ile Ala Leu Val Met Pro Asp Thr Ser 85 90 Pro Arg Gly Glu Asp Val Ala Asp Asp Ala Gly Tyr Asp Leu Gly Lys 100 105 110 Gly Ala Gly Phe Tyr Leu Asn Ala Thr Glu Gln Pro Trp Ala Arg His 115 120 125 Tyr Arg Met Tyr Asp Tyr Ile Arg Asp Glu Leu Pro Ala Leu Val His 130 135 140 Ser Gln Phe Ala Val Ser Glu Arg Cys Ala Ile Ser Gly His Ser Met 150 155 160 Gly Gly His Gly Ala Leu Ile Met Ala Leu Lys Asn Pro Gly Lys Tyr 165 170 Thr Ser Val Ser Ala Phe Ala Pro Ile Val Asn Pro Thr Gln Val Pro 180 185 190 Trp Gly Gln Lys Ala Phe Arg His Tyr Leu Gly Glu Asp Leu Glu Lys 195 200 205 Trp Gln Glu Trp Asp Ser Cys Ala Leu Met Leu Ala Ser Gln Ser Glu 215 220 Asp Ala Ile Pro Met Leu Val Asp Gln Gly Asp Ala Asp Gln Phe Leu 230 235 Ala Gly Gln Leu Gln Pro Ala Val Leu Ala Glu Ala Ala Arg Gln Lys 245 250 255 Asp Trp Pro Leu Thr Leu Arg Ile Gln Pro Gly Tyr Asp His Ser Tyr 265 270 Tyr Phe Met Ala Ser Phe Ile Glu Asp His Leu Arg Phe His Ala Glu 280 285 His Leu Phe Arg 290

<210> 6351 <211> 221 <212> PRT

<213> Enterobacter cloacae

<400> 6351 Leu Val Val Val Thr His Gly Ala Gln Glu Leu Leu Ala Gly Val Leu 1.0 Ala Arg Phe Glu Gin Ala Ala Gin Arg Ser Gly Gly Cys Ala Gly 20 25 Ser Ile Thr His Ala Ala Arg Phe His Ala Val Val His Arg Val Asp 3.5 40 Arg His Arg His Ile Val Ser Pro Gln Gln Gly Leu Gln Cys Gly Gln 5.5 Asp Leu Leu Arg Gln Thr Phe Leu His Leu Arg Thr Leu Gly Lys Glu 70 Leu His Asp Ala Val Asp Leu Gly Gln Ala Asp Asp Arg Ile Phe Trp 8.5 Asn Ile Gly His Arg Arg Phe Thr Ile Asp Gly His Lys Val Met Leu 105 Ala Gly Ala Gly Gln Arg Asp Ile Ala Tyr Arg His His Leu Ile Asp 115 120 125 Leu His Leu Ile Phe Asn Asp Gly Asp Phe Arg Glu Val Arg Val Ile 135

<221>UNSURE

```
Gln Ala Gly Glu Asn Phe Val Asp Val His Leu Arg Asp Ala Val Arg
 145
     150
                         155
Arg Leu His Gln Ala Val Val Ala Gln Ile Glu Ile Gln Gln Leu His
            165 170 175
Asp Leu Arg His Met Ala Gly Asp Gln Thr Leu Ala Gly Asn Ile Val
     180 185 190
Gln Leu Leu His Gly Arg Ala Gln Trp Arg Phe Lys Thr Ala Arg Asn
    195 200 205
Gln Arg Phe Met Asp Lys Gly Cys Phe Phe Thr Glu
                    215
<210> 6352
<211> 222
<212> PRT
<213> Enterobacter cloacae
<400> 6352
Ile Gln Pro Val Phe Arg Arg His His Ser Asn Thr Asn Asp Phe Asn
                               10
Tyr His Leu Cys Leu Gln Phe Tyr Ile Leu Leu Tyr Asn Ser Arg Leu
          20
                            25
                                           30
Phe Ser Ile Ser Lys Ser Ser Tyr Lys Thr Lys Thr Tyr Ser Ser Gln
                        40
                                        45
Gly Tyr Pro Asp Gly Val Phe Phe Ile Phe Ile Arg Asn Val Gln Met
                   5.5
Thr Ile Pro Arg Ile Lys Leu Leu Ala Val Ala Ile Gly Ala Ala Thr
                                75
                 70
Cys Ser Pro Phe Val His Ala Ala Asp Gln Asp Thr Val Val Val Thr
            8.5
                               90
Ala Thr Gly Phe Glu Gln Lys Ile Gln Asn Ala Pro Ala Ser Ile Ser
        100
                            105
Val Ile Ser Lys Gln Gln Ile Glu Asp Lys Ala Tyr Arg Asp Val Thr
    115
                        120
Asp Ala Leu Arg Asp Val Pro Gly Val Val Val Thr Gly Gly Gly Ser
                     135
                                       140
Ser Ser Asp Ile Ser Ile Arg Gly Met Ala Ser Gln Tyr Thr Leu Phe
                 150
                                   155
Leu Val Asn Gly Lys Arg Val Ser Thr Arg Ser Thr Arg Pro Asn Ser
              165
                               170
Asp Asn Ser Gly Ile Glu Gln Gly Trp Leu Pro Pro Leu Glu Ser Ile
         180
                            185
Glu Arg Ile Glu Val Ile Arg Gly Pro Met Ser Ser Leu Tyr Gly Ser
      195
                        200
Asp Ala Met Gly Gly Val Met Asp Val Ile Thr Gln Asn Ser
                     215
<210> 6353
<211> 204
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(6)
<220>
<221>UNSURE
<220>
```

```
<222>(8)
 <220>
<221>UNSURE
<222>(9)
<220>
<221>UNSURE
<222>(10)
<220>
<221>UNSURE
<222>(14)
<220>
<221>UNSURE
<222>(21)
<220>
<221>UNSURE
<222>(22)
<220>
<221>UNSURE
<222>(23)
<220>
<221>UNSURE
<222>(26)
<220>
<221>UNSURE
<222>(27)
<220>
<221>UNSURE
<222>(33)
<220>
<221>UNSURE
<222>(40)
<400> 6353
Arg Gly Gly Glu Gly Xaa Xaa Xaa Xaa Leu Phe Pro Xaa Pro Gly
                                    10
                                                        15
Ala Trp Ala Ser Xaa Xaa Xaa His Pro Xaa Xaa Pro Asn Ser Phe Pro
                                25
                                                     30
Xaa Gly Leu Ser Pro Lys Pro Xaa Ala Arg Pro Leu Thr Ser Gly Cys
        35
                            40
                                                4.5
Asn Pro Arg Thr Asn Ile Ser Val Glu Leu Met Pro Gln Ser Arg Ile
    50
                        55
                                            60
Lys Leu Asp Ala Asn Leu Lys Asp Phe Glu Ala Gln Leu Ala Ala Thr
65
                    70
                                        75
Asp Lys Gln Val Gly Asn Glu Leu Ala Pro Leu Lys Gly Lys Gly Tyr
                85
                                    90
                                                        95
Phe Val Phe His Asp Ala Tyr Gly Tyr Tyr Glu Lys His Tyr Gly Leu
            100
                                105
                                                   110
Thr Pro Leu Gly His Phe Thr Val Asn Pro Glu Ile Gln Pro Gly Ala
       115
                            120
                                                125
Gln Arg Leu His Glu Ile Arg Thr Gln Leu Val Glu Gln Lys Ala Thr
```

135

140

1.3

1,75

10

16

13

14

15

-3

Cys Val Phe Ala Glu Pro Gln Phe Arg Pro Ala Val Val Glu Ala Val 155 Ala Arg Gly Thr Ser Val Arg Met Gly Thr Leu Asp Pro Leu Gly Thr 165 170 175 Asn Ile Gln Leu Ser Lys Ala Ser Tyr Ser Gln Phe Leu Ser Gln Leu 180 185 190 Ala Asn Gln Tyr Ala Ser Cys Leu Lys Gly Asp <210> 6354 <211> 445 <212> PRT <213> Enterobacter cloacae <400> 6354 Arg Gly Ser Glu Tyr Val Gln Gln Ile Ala Arg Ser Val Ala Leu Ala 5 10 Phe Asn Asn Leu Pro Arg Pro His Arg Val Met Leu Gly Ser Leu Thr 20 25 Val Leu Thr Leu Ala Val Ala Val Trp Arg Pro Tyr Val Tyr His Pro 40 Ser Ser Ala Pro Ile Ile Lys Thr Ile Glu Leu Glu Lys Ser Glu Ile 55 Arg Ser Leu Leu Pro Glu Ala Ser Glu Pro Ile Asp Gln Ala Ala Gln 65 70 7.5 Glu Asp Glu Ala Ile Pro Gln Asp Glu Leu Asp Asp Lys Ile Gln Asn 90 Glu Ala Gly Ile His Glu Tyr Val Val Ser Thr Gly Asp Thr Leu Ser 100 105 Ser Val Leu Asn Gln Tyr Gly Ile Asp Met Gly Asn Ile Ser Gln Leu 120 125 Ala Ala Ser Asp Lys Glu Leu Arg Asn Leu Lys Ile Gly Gln Gln Leu 130 135 140 Ser Trp Thr Leu Thr Pro Asp Gly Asp Leu Gln Arg Leu Thr Trp Glu 145 150 155 Met Ser Arg Arg Glu Thr Arg Thr Tyr Asp Arg Thr Ala Asn Gly Phe 165 170 175 Lys Met Thr Ser Glu Leu Gln Gln Gly Asp Trp Val Asn Ser Val Met 180 185 190 Lys Gly Thr Val Gly Gly Ser Phe Val Ser Ser Ala Arg Asp Ala Gly 200 205 Leu Thr Ser Ala Glu Ile Ser Ser Val Ile Lys Ala Met Gln Trp Gln 215 Met Asp Phe Arg Lys Leu Lys Lys Gly Asp Gln Phe Ser Val Leu Met 230 235 240 Ser Arg Glu Met Leu Asp Gly Lys Arg Glu Gln Ser Gln Leu Val Gly 245 250 255 Val Arg Leu Arg Ser Asp Gly Lys Asp Tyr Tyr Ala Ile Arg Ala Glu 260 265 270 Asp Gly Lys Phe Tyr Asp Arg Ser Gly Thr Gly Leu Ala Lys Gly Phe 275 280 285 Leu Arg Phe Pro Thr Ala Lys Gln Phe Arg Val Ser Ser Asn Phe Asn 295 Pro Arg Arg Leu Asn Pro Val Thr Gly Arg Val Ala Pro His Arg Gly 305 310 315 Val Asp Phe Ala Met Pro Gln Gly Thr Pro Val Leu Ala Val Gly Asp 325 330 Gly Glu Val Val Met Ala Lys Arg Ser Gly Ala Ala Gly Tyr Tyr Val 340 345 350

Ala Ile Arg His Gly Arg Thr Tyr Thr Thr Arg Tyr Met His Leu Arg 355 360 365

```
Lys Leu Leu Val Lys Pro Gly Gln Lys Val Lys Arg Gly Asp Arg Ile
               375
                                       380
Ala Leu Ser Gly Asn Thr Gly Arg Ser Thr Gly Pro His Leu His Tyr
                       395
           390
Glu Val Trp Ile Asn Gln Gln Ala Val Asn Pro Leu Thr Ala Lys Leu
            405 410 415
Pro Arg Thr Glu Gly Leu Thr Gly Lys Asp Arg Lys Asp Tyr Leu Ala
         420 425
Gln Val Lys Glu Val Met Pro Gln Leu Arg Phe Asp
                        440
<210> 6355
<211> 72
<212> PRT
<213> Enterobacter cloacae
<400> 6355
Lys Ala Gly Val Ser Met Arg Arg Leu Phe Leu Leu Cys Ala Gly Gly
                          1.0
Ser Leu Ala Thr Leu Ser Ala Tyr Ile Phe Ala Ser Pro Asp Pro Gly
                                               30
Thr Arg Met Glu Thr Lys Lys Asn Asn Ile Glu Tyr Ile His Glu Phe
 35
                        4.0
Glu Lys Ser Phe Arg His Pro Arg Asn Trp Gly Ala Trp Ile Gly Val
 50
                  5.5
Tyr Ala Phe Ala Gly Met Ala
<210> 6356
<211> 286
<212> PRT
<213> Enterobacter cloacae
<400> 6356
Leu Pro Ala Thr Leu Arg Asp Pro Val Leu Gly Lys Val Gly Arg Leu
Ala Gly Arg Leu Gly Lys Ser Ala Arg Arg Arg Ala Gln Ile Asn Leu
          20
Leu Tyr Cys Phe Pro Asp Lys Ser Asp Ala Glu Arg Glu Ala Ile Ile
       35
                        40
Asp Asp Met Tyr Thr Thr Ala Pro Gln Ala Met Ala Met Ala Glu
   50
Leu Ala Leu Lys Gly Pro Glu Lys Ile Val Glu Arg Val Asp Trp Lys
                 70
                                   75
Gly Leu Glu Ile Ile Asp Glu Met Arg Arg Asn Asp Glu Lys Val Ile
              85
                                9.0
Phe Leu Val Pro His Gly Trp Gly Val Asp Ile Pro Ala Met Leu Met
          100
                            105
Ala Ser Gln Gly Gln Lys Met Ala Ala Met Phe His Asn Gln Gly Asn
       115
                        120
                                          125
Lys Ile Tyr Asp Phe Val Trp Asn Thr Val Arg Arg Arg Phe Gly Gly
                    135
                                       140
Arg Leu His Ala Arg Asn Asp Gly Ile Lys Pro Phe Ile Gln Ser Val
                 150
                                  155
Arg Gln Gly Tyr Trp Gly Tyr Tyr Leu Pro Asp Gln Asp His Gly Pro
              165
                       170
Glu His Ser Glu Phe Val Asp Phe Phe Ala Thr Tyr Lys Ala Thr Leu
          180
                           185
                                             190
Pro Ala Ile Gly Arg Leu Met Lys Val Cys Arg Ala Arg Val Ile Pro
      195
                      200
                                 205
Leu Phe Pro Ala Tyr Asp Gly Lys Thr His Arg Leu Ser Ile Glu Val
```

```
210
                   215
Arg Pro Pro Met Asp Asp Leu Leu Thr Ala Asp Asp His Thr Ile Ala
    230 235
Arg Arg Met Asn Glu Glu Val Glu Val Leu Val Gly Pro His Lys Glu
       245 250 255
Gln Tyr Thr Trp Ile Leu Lys Leu Leu Lys Thr Arg Lys Pro Gly Glu
       260 265
Thr Glu Pro Tyr Lys Arg Lys Glu Leu Pne Pro Lys Lys
<210> 6357
<211> 257
<212> PRT
<213> Enterobacter cloacae
<400> 6357
Trp Phe Gln Glu Thr Arg Lys Ser Ser Thr Val His Cys Asn Lys Ile
Thr Thr Ile Pro Gly Arg Val Pro Gly Asp Leu Thr Glu Glu Asn Asp
       2.0
                          25
Met Ala Val Thr Gln Thr Ala Gln Ala Cys Asp Leu Val Ile Phe Gly
     35
                      40
Ala Lys Gly Asp Leu Ala Arg Arg Lys Leu Leu Pro Ser Leu Tyr Gln
                   55
Leu Glu Lys Ala Gly Gln Ile His Pro Asp Thr Arg Ile Leu Gly Val
Gly Arg Ala Asp Trp Asp Lys Glu Ala Tyr Thr Lys Val Val Arg Glu
            85
                            90
Ala Leu Glu Thr Phe Met Lys Glu Lys Ile Asp Glu Ser Leu Trp Asp
        100 105
Lys Leu Ser Gly Arg Leu Asp Phe Cys Asn Leu Asp Val Asn Asp Val
                      120
                                      125
Gly Ala Phe Thr Arg Leu Gly Glu Met Leu Asp Gln Glu Asn Arg Val
130
                 135
                                    140
Thr Ile Asn Tyr Phe Ala Met Pro Pro Ser Thr Phe Gly Ala Ile Cys
145
                150
                              155
Lys Gly Leu Gly Glu Ala Lys Leu Asn Ala Lys Pro Ala Arg Val Val
             165
                             170
Met Glu Lys Pro Leu Gly Thr Ser Leu Ala Thr Ser Arg Glu Ile Asn
         180
                          185
                                           190
Asp Gln Val Gly Glu Phe Phe Glu Glu Cys Gln Val Tyr Arg Ile Asp
      195
                       200
                              205
His Tyr Leu Gly Lys Glu Thr Val Thr Glu Leu Ala Gly Val Ala Phe
 210
                   215
                                   220
Cys Gln Leu Pro Val Cys Glu Gln Met Gly Gln Pro His Tyr Arg Pro
                             235
             230
Arg Gly Asn Tyr Arg Gly Gly Arg Gly Gly His Arg Ser Pro Leu Gly
             245
                             250
```

```
<210> 6358
<211> 253
<212> PRT
<213> Enterobacter cloacae
<400> 6358
```

Ala Ser Ser Leu Arg Ser Val Arg Phe Thr Val Leu Thr Thr Ile Trp 1 5 10 15 Ala Lys Arg Arg Leu Leu Asn Leu Leu Ala Trp Arg Phe Ala Asn Ser 20 25 30

Leu Phe Val Asn Lys Trp Asp Asn Arg Thr Ile Asp His Val Glu Ile 4.0 Thr Val Ala Glu Glu Val Gly Ile Glu Ala Arg Trp Gly Asn Phe Asp 55 60 Gln Ala Gly Gln Met Arg Asp Met Ile Gln Asn His Leu Leu Gln Ile 70 75 Leu Cys Met Ile Ala Met Ser Pro Pro Ser Asp Leu Thr Ala Asp Ser 85 90 Ile Arg Asp Ala Lys Val Lys Val Leu Lys Ser Leu Arg Arg Ile Asp 100 105 110 Arg Ser Asn Val Arg Glu Lys Thr Val Arg Gly Gln Tyr Thr Ala Gly 115 120 125 Phe Ala Gln Gly Lys Lys Val Pro Gly Tyr Leu Glu Glu Glu Gly Ala 130 135 140 Asn Lys Ser Ser Asn Thr Glu Thr Phe Val Ala Ile Arg Val Asp Ile 150 155 Asp Asp Trp Arg Trp Ala Gly Val Pro Phe Tyr Leu Arg Thr Gly Lys 165 170 175 Arg Leu Pro Ala Lys Cys Ser Glu Val Val Val Tyr Phe Lys Asn Pro 180 185 190 Glu Leu Asn Leu Phe Lys Glu Ser Trp Gln Glu Leu Pro Gln Asn Lys 195 200 205 Leu Thr Ile Arg Leu Gln Pro Asp Glu Gly Val Asp Ile Gln Ile Leu 215 220 Asn Lys Val Pro Gly Leu Asp His Lys His Asn Leu Gln Thr Thr Lys 235 230 Leu Asp Leu Ser Tyr Ser Asp Thr Val His His Tyr

<212> PRT <213> Enterobacter cloacae

<210> 6359

<211> 314

245

<400> 6359 Tyr Arg Leu Asn Arg Ile Lys Val Ser Ser Leu Tyr Glu Ile Val Tyr 10 Ala Leu Met Ser Val Leu Leu Thr Met Asn Met Leu Glu Lys Ile Gln 20 25 Phe Gln Leu Glu His Leu Ser Lys Ser Glu Arg Lys Val Ala Glu Val 3.5 40 45 Ile Leu Ala Ala Pro Ala Gln Ala Ile His Ser Ser Ile Ala Ala Leu 5.5 Ala Gln Glu Ser Gly Val Ser Glu Pro Thr Val Asn Arg Phe Cys Arg 7.0 7.5 Ser Leu Asp Thr Arg Gly Phe Pro Asp Phe Lys Leu His Leu Ala Gln 8.5 9.0 Ser Leu Ala Asn Gly Thr Pro Tyr Val Asn Arg Asn Val Asp Glu Asp 100 105 Asp Ser Val Asp Ala Tyr Thr Ala Lys Ile Phe Glu Ser Ala Met Ala 115 120 125 Thr Leu Asp His Val Arg Gln Ser Leu Asp Met Ser Ser Val Asn Arg 130 135 140 Ala Val Asp Leu Leu Thr Gln Ala Lys Arg Ile Ala Phe Phe Gly Leu 150 155 Gly Ser Ser Ala Ala Val Ala His Asp Ala Met Asn Lys Phe Phe Arg 165 170 Phe Asn Val Pro Val Ile Tyr Ser Asp Asp Ile Val Leu Gln Arg Met 180 185 190 Ser Cys Met Asn Cys Ser Glu Asp Asp Val Val Val Leu Ile Ser His 195 200

```
Thr Gly Arg Thr Lys Ser Gln Val Glu Leu Ala Gln Leu Ala Arg Asp
 210
                    215 220
Asn Asp Ala Met Val Ile Ala Leu Thr Thr Ala Gly Thr Pro Leu Ala
        230 235 240
Arg Glu Ala Thr Leu Ala Ile Tnr Leu Asp Val Pro Glu Asp Thr Asp
        245 250 255
Met Tyr Met Pro Met Val Ser Arg Leu Ala Gln Leu Thr Val Ile Asp
     260 265
Val Leu Ala Thr Gly Phe Thr Leu Arg Arg Gly Ala Lys Phe Arg Asp
    275
                        280 285
Asn Leu Lys Arg Val Lys Glu Ala Leu Lys Glu Ser Arg Phe Asp Lys
 290 295
                          300
Glu Leu Leu Ile Lys Ser Asp Val Pro
                310
<210> 6360
<211> 518
<212> PRT
<213> Enterobacter cloacae
<400> 6360
Arg Arg Ser Thr Ile Tyr Gly Ile Arg Ser Pro Arg Tyr Cys Leu Ala
                               10
Ile Asp Glu Gly Arg Phe Tyr Val His Ala Thr Pro Lys Leu Phe Gln
        20
                            25
Ser Thr Glu Tyr Tyr Met Ser Arg Arg Leu Arg Arg Thr Lys Ile Val
                        40
                                          45
Thr Thr Leu Gly Pro Ala Thr Asp Arg Asp Asn Asn Leu Glu Lys Ile
                     55
Ile Ala Ala Gly Ala Asn Val Val Arg Met Asn Phe Ser His Gly Thr
                 7.0
                                   75
Pro Glu Asp His Lys Leu Arg Ala Asp Lys Val Arg Glu Ile Ala Ala
             8.5
                               90
Lys Leu Gly Arg His Val Ala Ile Leu Gly Asp Leu Gln Gly Pro Lys
         100
                            105
Ile Arg Val Ser Thr Phe Lys Glu Gly Lys Val Phe Leu Asn Ile Gly
                       120
      115
Asp Lys Phe Leu Leu Asp Ala Asn Leu Ser Lys Gly Gly Asp Lys
   130
                    135
                                      140
Glu Lys Val Gly Ile Asp Tyr Lys Gly Leu Pro Ala Asp Val Val Pro
145
                 150
                                                     160
Gly Asp Ile Leu Leu Leu Asp Asp Gly Arg Val Gln Leu Lys Val Leu
             165
                               170
Glu Val Gln Gly Met Lys Val Phe Thr Glu Val Thr Val Gly Gly Pro
          180
                            185
                                             190
Leu Ser Asn Asn Lys Gly Ile Asn Lys Leu Gly Gly Gly Leu Ser Ala
      195
                        200
                                          205
Glu Ala Leu Thr Asp Lys Asp Lys Ala Asp Ile Val Thr Ala Ala Gln
   210
                                      220
                    215
Ile Gly Val Asp Tyr Leu Ala Val Ser Phe Pro Arg Cys Gly Glu Asp
                230
                               235
Leu Asn Tyr Ala Arg Arg Leu Ala Arg Asp Ala Gly Cys Asp Ala Lys
              245
                               250
Ile Val Ala Lys Val Glu Arg Ala Glu Ala Val Cys Asp Gln Asp Ala
          260
                           265
Met Asp Asp Val Ile Leu Ala Ser Asp Val Val Met Val Ala Arg Gly
      275
                       280
                                         285
Asp Leu Gly Val Glu Ile Gly Asp Pro Glu Leu Val Gly Ile Gln Lys
                    295
                          300
Ala Leu Ile Arg Arg Ala Arg Gln Leu Asn Arg Ala Val Ile Thr Ala
```

310

```
Thr Gln Met Met Glu Ser Met Ile Thr Asn Pro Met Pro Thr Arg Ala
             325
                            330
Glu Val Met Asp Val Ala Asn Ala Val Leu Asp Gly Thr Asp Ala Val
          340
                           345 350
Met Leu Ser Ala Glu Thr Ala Ala Gly Gln Tyr Pro Ala Glu Thr Val
      355
                       360 365
Ala Ala Met Ala Arg Val Cys Leu Gly Ala Glu Lys Ile Pro Ser Ile
         375 380
Asn Val Ser Lys His Arg Leu Asp Ile Gln Phe Asp Asn Val Glu Glu
     390 395
Ala Ile Ala Met Ser Ala Met Tyr Ala Ala Asn His Leu Lys Gly Val
       405 410
Thr Ala Ile Ile Thr Met Thr Glu Ser Gly Arg Thr Ala Leu Met Thr
     420 425
Ser Arg Ile Ser Ser Gly Leu Pro Ile Pne Ala Met Ser Arg His Glu
 435 440
                                        445
Arg Thr Leu Asn Leu Thr Ala Leu Tyr Arg Gly Val Thr Pro Val Tyr
 450 455 460
Phe Asp Ser Thr Asn Asp Gly Val Ala Ala Ala His Asp Ala Val Asn
465 470
                                 475
Leu Leu Arg Asp Lys Gly Tyr Leu Val Ser Gly Asp Ile Val Ile Val
      485 490
Thr Gln Gly Asp Val Met Ser Thr Ile Gly Ser Thr Asn Thr Thr Arg
 500
                          505
Val Leu Thr Val Glu
<210> 6361
<211> 80
<212> PRT
<213> Enterobacter cloacae
<400> 6361
Lys Glu Leu Ala Leu Lys Lys Ile Pne Val Ser Val Phe Ala Ala Ala
Val Ala Leu Ser Ala Leu Thr Gly Cys Thr Arg Thr Ser Tyr Ala Ile
                           25
                                            3.0
His Thr Asn Asp Gly Arg Thr Ile Val Ser Asp Gly Lys Pro Thr Glu
                       40
                                        45
Ser Asp Ser Gly Leu Leu Gly Tyr Lys Asp Ala Asn Gly Val Lys Gln
                 55
Gln Ile Asn Lys Ala Asp Val Lys Glu Vai Ser Glu Ile Pro His
<210> 6362
<211> 166
<212> PRT
<213> Enterobacter cloacae
<400> 6362
Arg Glu Pro Ser Met Asn Ser Leu Leu Thr Leu Ala Lys Asp Leu Glu
                              10
Gln Lys Ser Lys Val Gln Gln Gln Thr Thr Gly Glu Met Leu Lys Ala
      20
                           25
                                           3.0
Ala Phe Ser Glu His Asp Lys Ser Val Arg Thr Glu Leu Asn Glu Ser
     35
                       4.0
Glu Lys Arg Ile Ser Ala Ala Ile His Asp His Asp Arg Met Leu Ser
 50
                                    60
Ser Ala Met Ser Gln Arg Thr Lys Gly Met Leu Arg Met Val Ser Gln
                7.0
                                 75
Thr Trp Leu Thr Ile Val Leu Val Ser Val Leu Leu Ile Ala Ser Ser
```

90 Ala Gly Ile Leu Trp Trp Gln Gly Gln Gln Ile Leu Asp Asn Tyr Thr 100 105 Thr Ile Arg Glu Gln Lys Ser Thr Gln Ala Met Leu Ser Glu Arg Asn 115 120 125 Ser Gly Val Gln Leu Thr Thr Cys Gly Glu Glu Arg Arg Arg Cys Val 130 135 140 Arg Val Asn Pro Asp Ala Gly Arg Phe Gly Glu Asp Ser Ser Trp Met 145 150 Ile Leu Ala Gly Lys 165

<210> 6363 <211> 71 <212> PRT <213> Enterobacter cloacae

<400> 6363 His Met Thr Glu Leu Glu Lys Gln Leu Leu Ser Ala Leu Glu Gln Leu Gln Gln Asp Tyr Ser Lys Arg Leu Asp Glu Trp Glu Ser Ala Phe Ala 20 25 Glu Trp Arg Thr Met Cys Gly Leu Met Gln Arg Glu Asn Ala Ala Leu 35 40 4.5 Ser Glu Arg Val Thr Asp Leu Ser Thr Gln Val Leu Ser Leu Ser Glu 60

Gln Leu Arg Arg Leu Ser

<210> 6364 <211> 112 <212> PRT

<213> Enterobacter cloacae

<400> 6364 Ile Ser Val Ile Trp Gln Arg Leu Leu Lys Met Pro Glu Thr Lys Gln Glu Ala Ala Gln Ala Ile Thr Arg Gly Leu Leu Ala Leu Ala Ser Ser 25 Gly Glu Leu Lys Thr Arg His Asp Val Thr Glu Ala Leu Glu Ser Ala 35 40 Gly Phe Glu Val Val Arg Thr Thr Lys Ser Ser Ile Ser Ile Ala Asp 55 Pro Asp Gly Gly Arg Asn Ile Arg Leu Lys Gly Ala Ile Tyr Glu Gln 70 Ser Phe Asn Ala Gly Glu Gly Leu Arg Ala Glu Ile Glu Ser Ala Ala 85 90 Thr Asp Tyr Arg Arg Asp Ala Glu Ser Arg Ile Gln Arg Ala Arg 100 105

<210> 6365 <211> 236 <212> PRT <213> Enterobacter cloacae

<400> 6365 Val Cys Gln Asn Gly Thr Glu Arg Lys Arg Glu Glu Asn Gln Arg Arg 1.0 His Pro Arg Pro Arg Pro Asp Ala Val Leu Ser His Glu Pro Ala Tyr 2.5 Glu Arg Asp Ala Ala His Gly Gln Pro Asp Val Ala Asp His Arg Pro

Gly Leu Arg Ala Ala Asp Ser Leu Lys Cys Gly His Ser Met Val Ala 55 Gly Ala Ala Asp Thr Arg Gln Leu His Asp His Pro Gly Ala Glu Glu 70 7.5 His Ala Gly His Ala Val Arg Glu Glu Gln Arg Arg Ala Ala His Asp 8.5 90 Leu Arg Arg Gly Thr Thr Pro Leu Arg Glu Gly Glu Pro Gly Arg Gly 100 105 110 Thr Val Arg Arg Gly Phe Glu Leu Asp Asp Thr Gly Gly Glu Ile Ala 115 120 125 His Asp Gly Thr Gly Lys Thr Val Ala Glu Arg Ile Arg Ala Ala Thr 130 135 140 Ala Gly Leu Leu Glu Lys Ala Gly Arg Val Gly Glu Arg Leu Arg Gly 145 150 155 Met Ala Asp Asp Val Trp Ser Tyr Ala Thr Gly Glu Arg Ser Ala Glu 165 170 Arg Ala Arg His Gly Leu Glu His Ala Gly Ala Glu Phe Lys Arg Ala 185 190 180 Ala Ala Pro Val Val Val Arg Leu Asn Asp Ile Glu Ala His Arg Glu 200 205 Gln Glu Arg Ala Ala Gln His Gln Lys Ala Leu Glu Leu Glu Arg Ser 210 215 Gln Arg Gln Gln Glu Tyr Asp Gly Pro Ser Leu <210> 6366 <211> 1091 <212> PRT <213> Enterobacter cloacae <400> 6366 Lys Pro Arg Lys Ala Ala Arg Thr Ser Gly Ala Pro Asp Gln Ser Tyr 10 Thr Gly Lys Leu Leu Lys Lys Pro Lys Phe Thr Gln Trp Ala Leu Ser 25 Leu Ala Arg Gly Ser Tyr Ile Gln Lys Arg Gly Ser His Met Glu Phe 3.5 40 Phe Tyr Val Val Lys Ala Thr Gln Lys Ser Gly Lys Glu Asp Ala Val 55 60

Ile Trp Phe Thr Ala Lys Ser Glu Ala Arg Ala Asn Leu Gln Leu Asp 70 75 Val Glu Leu Glu Asp Ala Gly Ile Glu Thr Gly Arg Gly Lys Asn Tyr 8.5 90 Ser Lys Pro Ala Arg Thr Asp Phe Pro Val Tyr Asn Asp Leu Pro Glu 100 105 Glu Ser Thr Val Asp Tyr Thr Trp Cys Lys Arg Tyr Glu Leu Gln Asp 120 Asp Gly Arg Thr Trp Leu Pro Lys Ala Gly Ala Val Ser Thr Gly Ala 135 140 Val Asp Asn Thr Ala Ala Pro Glu Pro Thr Val Lys Val Glu Ala Thr 150 155 Val Glu Cys Val Pro Leu Glu Asn Arg Thr Pro Ala Val Arg Phe Ala 165 170 Val His Leu Thr Ser Asp Lys Tyr Gln Ser His Ile Thr Lys Glu Gln 180 185 190 Gln Leu Ala Ala Ser Glu Met Ser Leu Asp Glu Gly Asn Thr Tyr Leu 195 200 205 Gln Asn Leu Leu Gln Ala Lys Asn Asp Ile Pro Glu Val Asp Glu Leu 215 220 Ser Leu Asn Ala Glu Trp Lys Leu Val Gln Ala Ile Lys Gln Val Phe

230 235 Ala Pro Asp Glu Glu His Glu Val Lys Leu Leu Ala Ala Phe Met Ala 245 250 255 Asp Trp Leu Arg Val Asp Ala Gly Asp Arg Asn Glu Leu Val Arg Glu 260 265 270 Trp Arg Ser Gly Lys Leu Thr Leu Leu Lys Ser Glu Ser Thr Ser Glu 275 280 285 Thr Gly Val Thr Thr Asp Gln Asp Pro Glu Pro Asp Asn Gly Ile Gln 290 295 300 Ile Asp Glu Asn Asp Asp Glu Thr Thr Arg Tyr Pro Val Val Arg Met 310 315 Pro Phe Arg Lys Gln Leu Leu Ala Gln Phe Thr Ala Asn Glu Leu Arg 325 330 335 His His Leu Thr Arg Glu Glu Tyr Glu Gly Ile Ser Ala Leu Glu Met 340 345 350 Asp Thr Asp Asn Gly Tyr Val Gln Asn Leu Leu Leu Ala Ala Glu Asn 355 360 365 Cys Glu Glu Val Lys Gly Tyr Asp Thr Lys Asp Leu Trp Arg Tyr Thr 370 375 380 Glu Ala Ile Arg Lys Val Phe Ser Gln Glu Lys Arg His Glu Leu Ala 385 390 395 Leu Val Leu Arg Phe Thr Arg Ile Trp Ala Ala Thr Asp Tyr Ile Asp 405 410 415 Arg Gly Ile Leu Val Arg Glu Trp Ala Ala Gly Asn Arg Ile Ser Asn 420 425 Ile Gln Arg Thr Asp Ser Gly Thr Asn Ala Asp Gly Ala Tyr Val Thr 435 440 445 Asp Arg Gly Glu Gly Ala His His Thr Leu Asp Thr Leu Asp Leu Glu 450 455 460 Ile Ala Cys Ala Leu Leu Pro Met Asp Phe His His Phe Glu Ile Pro 465 470 475 Ser Ser Val Leu Arg Arg Ala Lys Glu Ile Val Ala Lys Lys Glu Glu 485 490 Pro Trp Lys Ser Trp Ser Ala Ile Leu Arg Asn Gln Pro Gly Val Leu 505 510 Ala Val Asn Arg Ala Ala Ile Phe Asn Leu Ile Arg Ile Ala Pro Glu 515 520 525 Asn Ile His His Thr Pro Ala Ala His Leu Glu Phe Val Asn Lys Ala 530 535 540 Met Thr Ala Glu Phe Asn Ser Ala Val Glu Val Leu Pro Leu Pro Thr 545 550 555 560 Ala Ala Val Glu Thr Glu Ala Pro Val Glu Gln Pro Gln Val Glu Asn 565 570 Leu Gly Ser Gly Val Phe Ser Ile Asp Gly Leu Met Gly Gly Asn Thr 580 585 Glu Pro Val Ala Asp Thr Ser Ser Asn Glu Val Glu Lys Thr Glu Asn 595 600 Ala Ala Glu Thr Thr Ser Asp Val Gln Met Glu Thr Ala Lys Pro Glu 610 615 620 Lys Asp Glu Asp Val Gly Ser Val Pro Pro Ser Glu Ser Thr Asp Ala 625 630 635 Ala Asn Ser Gln Thr Asp Ser Val Ala Leu Glu Glu Gln Gln Ala Glu 645 650 655 Pro Val Ile Glu Tyr Pro Ala Tyr Phe Glu Pro Gly Arg Tyr Glu Gly 660 665 Leu Pro Asn Asp Val Tyr His Ala Ala Asn Gly Ile Ser Ser Thr Gln 680 685 Val Lys Asp Ala Arg Val Ser Leu Met Tyr Phe Asn Ala Arg His Val 690 695 700 Ala Lys Thr Ile Gln Arg Thr Ala Ser Lys Val Leu Asp Met Gly Asn 710

```
Leu Val His Ala Leu Ala Leu Gln Pro Glu Asn Leu Glu Thr Glu Phe
           725
                          730
Ser Val Glu Pro Gln Ile Pro Glu Gly Ala Phe Thr Thr Ala Thr
                       745 750
        740
Leu Arg Glu Phe Ile Asp Ala Tyr Asn Ala Ser Leu Pro Ala Leu Leu
     755
                    760
                        765
Ser Ala Asp Glu Ile Lys Ala Leu Leu Glu Glu His Asn Ala Ser Leu
               775
                     780
Pro Ala Gln Val Pro Leu Gly Ala Ser Gln Glu Glu Thr Ala Gln Ser
            790 795
Tyr Met Ala Leu Pro Ala Glu Tyr Gln Arg Ile Glu Glu Gly Gln Lys
805 810 815
Gln Thr Ala Ala Ala Met Lys Ala Cys Ile Lys Glu Tyr Asn Ala Thr
      820 825 830
Leu Pro Val Pro Val Lys Thr Ser Gly Ser Arg Asp Ala Leu Leu Glu
 835 840 845
Gln Leu Ala Ile Ile Asn Pro Asp Leu Val Ala Gln Glu Ala Gln Lys
 850 855 860
Ser Thr Pro Leu Lys Val Ser Gly Ser Lys Ala Asp Met Ile Gln Ala
865 870 875
Val Lys Ser Val Lys Pro Asp Ala Ile Phe Ala Asp Glu Leu Leu Asp
     885
                         890 895
Val Trp Arg Asp Asn Pro Asp Glu Lys Ile Leu Val Thr Arg Gln Gln
 900 905 910
Leu Ala Thr Ala Arg Ala Ile Gln Ser Ala Leu Leu Ala His Pro Thr
915 920
                                  925
Ala Gly Met Leu Leu Thr His Pro Ser Arg Ala Val Glu Val Ser Tyr
930 935
                                940
Phe Gly Phe Asp Asp Glu Thr Gly Leu Glu Val Arg Val Arg Pro Asp
945 950
                            955
                                           960
Leu Glu Ile Glu Leu Asp Gly Val Arg Ile Gly Ala Asp Leu Lys Thr
          965
                          970
Ile Ser Met Trp Asn Val Lys Gln Glu Ser Leu Arg Ala Arg Leu His
        980 985
                                     990
Arg Glu Ile Ile Asp Arg Asp Tyr His Leu Ser Ala Ala Met Tyr Cys
995 1000 1005
Glu Thr Ala Ala Leu Asp Gln Phe Phe Trp Ile Phe Val Asn Lys Asp
1010 1015
                               1020
Glu Asn Tyr His Trp Ile Ala Ile Ile Glu Ala Ser Thr Glu Leu Leu
1025 1030 1035
Glu Leu Gly Met Leu Glu Tyr Arg Lys Thr Ile Arg Ala Ile Ala Thr
          1045
                         1050 1055
Gly Phe Asp Thr Gly Glu Trp Pro Ala Pro Ile Thr Thr Asp Tyr Thr
        1060 1065 1070
Asp Glu Leu Asn Asp Phe Asp Leu Arg Arg Leu Glu Ala Leu Arg Ala
            1080
                            1085
Gln Ala
  1090
```

<210> 6367 <211> 365 <212> PRT <213> Enterobacter cloacae

```
Lys His Leu Gln Gly Asn Gln Ala Asp Cys Met Ala Val Ala Met Gln
                 55
Ala Ala Gln Trp Gln Met Asn Pro Phe Ala Val Ala Gln Lys Thr His
                              75
Leu Ile Asn Gly Val Leu Gly Tyr Glu Ala Gln Leu Val Asn Ala Val
            85
                          90
Ile Ser Arg Ser Gly Val Leu Ala Ser Arg Phe Glu Tyr Glu Trp Tyr
         100
                       105 110
Gly Pro Trp Glu Lys Val Val Gly Lys Phe His Ile Arg Lys Gly Asp
                    120
                                   125
Lys Gly Glu Tyr Arg Val Pro Gly Trp Thr Leu Ala Asp Glu Ala Gly
           135 140
Ile Gly Ile Ile Ile Arg Ala Thr Leu Lys Gly Glu Asp Gln Pro Arg
145 150 155 160
Glu Leu Asp Leu Leu Ala Gln Ala Arg Thr Arg Asn Ser Thr Leu
      165 170 175
Trp Ala Asp Asp Pro Arg Gln Gln Leu Ala Tyr Leu Ala Val Lys Arg
 180 185 190
Trp Ala Arg Leu Phe Cys Pro Asp Val Ile Leu Gly Val Tyr Thr Pro
 195 200 205
Asp Glu Leu Asp Asp Arg Arg Glu Glu Arg Glu Val Asn Pro Ala Pro
210 215 220
Ala Gln His Val Ser Leu Ala Asp Ile Ser Gly Asp Asn Val Thr Thr
225 230 235
Thr Gln Thr Ala Gln Glu Ser Ala Gln Asn Ile Tyr Ala Leu Ala Asp
   245 250 255
Asp Phe Arg Asp Arg Ile Glu Ala Ala Gln Asp Val Asp Ser Ala Lys
 260 265 270
Ala Leu Arg Ala Asp Ile Glu Thr Val Lys Ala Thr Leu Gly Ser Ala
275 280 285
Leu Phe Thr Glu Leu Lys Asn Lys Ala Val Lys Arg Tyr Tyr Leu Val
290 295 300
Asp Ala Arg Asn Lys Val Glu Ala Ala Ile Asn Ser Leu Pro Ser Ser 305 $310$
Asp Glu Pro Asp Ala Ala Ala Arg Phe Ala Glu Val Glu Arg Val Leu
     325 330 335
Ala Ala Ser Lys Arg His Leu Gly Asp Glu Leu His Gly Gln Phe Ser
   340 345
Ile Thr Leu Ala Asp Met Lys Pro Glu Tyr Val Asp
                     360
<210> 6368
<211> 72
<212> PRT
```

<213> Enterobacter cloacae

<400> 6368 Thr Met Ser Gln Val Ile Phe Asn Glu Glu Trp Val Val Gly Ala Arg 10 Leu Thr Glu Lys Thr Gly Leu Thr Glu Arg Gln Ile Glu Lys Tyr Arg 25 20 30 Gln Gly Cys Trp Val Glu Gly Val His Phe Lys Arg Val Ser Pro Ser 40 Gly Glu Lys Thr Leu Arg Gly Thr Tnr Trp Tyr Asn Tyr Pro Arg Ile 55 Asn Gln Leu Ile Arg Asp Ala

<210> 6369 <211> 70 <212> PRT

## <213> Enterobacter cloacae

<210> 6370 <211> 417 <212> PRT

<213> Enterobacter cloacae

<400> 6370 Gly Met Arg Lys Met Ala Ala Leu Pro Thr Gly Val Glu Ile Arg Asn 1.0 Asn Lys Ile Cys Ile Trp Phe Met Tyr Arg Gly Lys Arg Cys Arg Glu 20 25 30 Ile Leu Lys Gly Trp Ile Asn Ser Pro Ala Asn Ile Lys Lys Ala Gly 40 Asn Leu Arg Ala Val Ile Val Ser Glu Ile Asn Leu Gly Glu Phe Asp 55 Tyr Asn Gln Arg Phe Pro Ser Ser Ser Arg Ala Lys Lys Thr Val Thr 65 7.0 75 Thr Val Ser Val Gln Thr Phe Ser Glu Leu Cys Glu Leu Trp Thr Ser 8.5 90 Ile Lys Glu Thr Glu Ile Ser Ala Asn Thr Met Arg Lys Thr Arg Leu 100 Gln Leu Gly Thr Leu Met His Ile Ile Asn Gly Asp Thr Pro Val Ser 115 120 Ala Ile Arg His Ser Asp Ile Leu Lys Tyr Arg Lys Glu Leu Leu Asn 130 135 140 Gly Glu Thr Leu Tyr Leu Ala Asn Pro Arg Ser Asn Lys Gln Gly Arg 145 150 155 Thr Val Arg Thr Val Asn Asn Tyr Ile Ser Leu Leu Cys Ser Leu Leu 165 170 Arg Phe Ala His Lys Ser Gly Phe Ile Ser Gly Lys Pro Phe Glu Gly 180 185 190 Ile Lys Lys Leu His Lys Gly Lys Val Lys Pro Asp Pro Leu Thr Lys 200 195 205 Gln Glu Phe Ser Leu Leu Ala Glu Ser Glu Arg Gly Gln Ser Leu Asn 215 220 Met Trp Thr Phe Ala Val Tyr Thr Gly Val Arg His Gly Glu Leu Ala 230 235 Ala Leu Ala Trp Glu Asp Ile Asp Trp Glu Lys Gly Thr Ala His Ile 245 250 Lys Arg Asn Leu Asn Ala Leu Gly Met Phe Gly Pro Pro Lys Thr Glu 260 265 270 Ala Gly Asn Arg Val Ile Thr Leu Leu Glu Pro Ala Leu Glu Ala Leu 280 285 Lys Ala Gln Arg Lys Leu Thr Ala Leu Gln Pro Lys Thr Glu Ile Val 295 300 Phe Asn His Arg Glu Tyr Gly Ala Val Glu Asn Gln Ser Leu Arg Phe 310 315 Val Phe Ile Pro Arg Met Arg Lys Gly Glu Gln Lys Ala Tyr Tyr Ser

330 Leu Ser Ser Ile Gly Ala Arg Phe Asn Ala Ala Val Lys Arg Ala Gly 340 345 350 Ile Arg Arg Arg Asn Pro Tyr His Thr Arg His Thr Phe Ala Cys Trp 355 360 365 Leu Leu Ser Ala Gly Ala Asn Pro Ser Phe Ile Ala Ser Gln Met Gly 375 380 His Glu Asn Ala Gln Met Val Tyr Glu Val Tyr Gly Ala Trp Ile Glu 385 390 395 Glu Met Asn Gly Glu Gln Val Leu Met Leu Asn Asn Lys Leu Ala Arg 405 410

<210> 6371 <211> 84 <212> PRT

<213> Enterobacter cloacae

<400> 6371 Ser His Gly Ala Leu Ala Gly Thr Gln Val Ser Ala Leu Ile Thr Leu 1.0 Thr Pro Leu Phe Thr Leu Leu Phe Ser Asp Leu Leu Ser Met Ala Trp 20 25 Pro Asp Val Phe Val Lys Pro Met Leu Asn Leu Leu Gly Tyr Leu Gly 4.0 Ala Phe Val Met Val Ala Gly Ala Met Tyr Ser Ala Ile Gly His Arg 5.5 60 Leu Trp Gly Arg Trp Arg Lys Asn Glu Ala Val Val Ile Val Pro Arg Ser Gly Glu

<210> 6372 <211> 397 <212> PRT <213> Enterobacter cloacae

<400> 6372 Val Thr Glu Ser Lys Met Lys Phe Val Asp Glu Ala Thr Ile Leu Val Val Ala Gly Asp Gly Gly Asn Gly Cys Val Ser Phe Arg Arg Glu Lys Tyr Ile Pro Arg Gly Gly Pro Asp Gly Gly Asp Gly Gly Asp Gly Gly 4.0 Asp Val Trp Leu Glu Ala Asp Glu Asn Leu Asn Thr Leu Ile Asp Tyr 5.5 Arg Phe Glu Lys Ser Phe Arg Ala Glu Arg Gly Gln Asn Gly Gln Ser 7.0 7.5 Arg Asp Cys Thr Gly Lys Arg Gly Lys Asp Val Thr Ile Lys Val Pro 8.5 90 Val Gly Thr Arg Val Ile Asp Gln Gly Thr Gly Glu Thr Met Gly Asp 100 Met Thr Lys His Gly Gln Arg Leu Met Val Ala Lys Gly Gly Trp His 115 120 Gly Leu Gly Asn Ser Arg Phe Lys Ser Ser Val Asn Arg Thr Pro Arg 135 140 Gln Lys Thr Met Gly Thr Pro Gly Asp Lys Arg Asp Leu Gln Leu Glu 150 1.55 Leu Met Leu Leu Ala Asp Val Gly Met Leu Gly Met Pro Asn Ala Gly 165 170

```
Lys Ser Thr Phe Ile Arg Ala Val Ser Ala Ala Lys Pro Lys Val Ala
                 185
        180
Asp Tyr Pro Phe Thr Thr Leu Val Pro Ser Leu Gly Val Val Arg Met
    195
                     200
                                        205
Asp Asn Glu Lys Ser Phe Val Val Ala Asp Ile Pro Gly Leu Ile Glu
 210
        215 220
Gly Ala Ala Glu Gly Ala Gly Leu Gly Ile Arg Phe Leu Lys His Leu
225
    230 235
Glu Arg Cys Arg Val Leu Leu His Leu Ile Asp Ile Asp Pro Ile Asp
        245 250
Gly Ser Asp Pro Val Glu Asm Ala Arg Ile Ile Gly Glu Leu Glu
         260 265 270
Lys Tyr Ser Glu Lys Leu Ala Gln Lys Pro Arg Trp Leu Val Phe Asn
                       280
                                         285
Lys Ile Asp Leu Met Asp Lys Ala Glu Ala Glu Ala Lys Ala Lys Ala
                    295
                                     300
Ile Ala Glu Ala Met Gly Trp Glu Asp Lys Tyr Tyr Leu Ile Ser Ala
                 310 315
Ala Ser Gln Val Gly Val Lys Asp Leu Cys Trp Asp Val Met Thr Phe
              325
                               330
Ile Ile Glu Asn Pro Val Val Gln Ala Glu Glu Ala Lys Gln Pro Glu
          340
                           345
                                             350
Lys Val Glu Phe Met Trp Asp Asp Tyr His Arg Gln Gln Leu Glu Glu
      355
                               365
                       360
Leu Glu Ala Glu Glu Asp Asp Glu Asp Trp Asp Asp Trp Asp Glu
                    375
                           380
Asp Asp Glu Glu Gly Val Glu Phe Ile Tyr Lys His
                 390
                                   395
<210> 6373
<211> 122
<212> PRT
<213> Enterobacter cloacae
<400> 6373
Ile Phe Ile Ala His Ser Glu Ser Tyr Glu Asp Val Arg Gly Ser Gly
                               10
Val Tyr Met Tyr Ala Val Phe Glr Ser Gly Gly Lys Gln His Arg Val
          20
                           25
Ser Glu Gly Gln Thr Val Arg Leu Glu Lys Leu Asp Ile Ala Thr Gly
       35
                        40
Glu Ser Val Glu Phe Ala Glu Val Leu Met Ile Ala Asn Gly Glu Glu
 50
                    55
Val Lys Ile Gly Val Pro Phe Val Asp Gly Gly Val Ile Lys Ala Glu
65
                 70
                                  75
Val Val Ala His Gly Arg Gly Glu Lys Val Lys Ile Val Lys Phe Arg
             85
                             90
Arg Arg Lys His Tyr Arg Lys Gln Gln Gly His Arg Gln Trp Phe Thr
          100
                           105
Asp Val Lys Ile Thr Gly Ile Ser Ala
                        120
<210> 6374
<211> 281
<212> PRT
<213> Enterobacter cloacae
<400> 6374
Val Arg Phe Ser Arg Ser Gly Asn Gly Leu Lys Pro Arg Asn Val Leu
                              10
Arg Gly Phe Leu His Trp Lys Pro Gly Lys Phe Ser Val Gly Lys Thr
```

```
Gly Met Lys Gln Gln Ala Gly Ile Gly Ile Leu Leu Ala Leu Thr Thr
              40
                         45
Ala Met Cys Trp Gly Ala Leu Pro Ile Ala Met Lys Gln Val Leu Glu
      55
                       60
Val Met Glu Pro Pro Thr Val Val Phe Tyr Arg Phe Leu Met Ala Ser
     70 75
Ile Gly Leu Gly Ala Ile Leu Ala Val Lys Gly Lys Leu Pro Pro Leu
      85 90 95
Arg Ile Phe Arg Lys Pro Arg Trp Leu Val Leu Leu Ala Ile Ala Thr
      100 105 110
Gly Gly Leu Phe Gly Asn Phe Ile Leu Phe Ser Ser Leu Gln Tyr
    115 120 125
Leu Ser Pro Thr Ala Ser Gln Val Ile Gly Gln Leu Ser Pro Val Gly
130 135 140
Met Met Val Ala Ser Val Phe Ile Leu Lys Glu Lys Met Arg Gly Thr
145 150 155
Gln Ile Ile Gly Ala Ser Met Leu Leu Cys Gly Leu Val Met Phe Phe 165 $170\ 
Asn Thr Ser Leu Ile Glu Ile Phe Thr Arg Leu Thr Asp Tyr Thr Trp
180 185 190
Gly Val Ile Phe Gly Val Gly Ala Ala Thr Val Trp Val Ser Tyr Gly
195 200
                                 205
Val Ala Gln Lys Val Leu Leu Arg Arg Leu Ala Ser Gln Gln Ile Leu
210 215
Phe Leu Leu Tyr Thr Leu Cys Thr Leu Ala Leu Leu Pro Leu Ala Lys
225 230 235 240
Pro Gly Val Ile Thr Gln Leu Ser Asp Trp Gln Leu Ala Cys Leu Ile
          245
                        250
Phe Cys Gly Leu Asn Thr Leu Val Gly Tyr Gly Ala Leu Ala Glu Ala
   260 265
Met Ala Arg Trp Gln Ala His Arg
```

<210> 6375 <211> 160

<212> PRT <213> Enterobacter cloacae

<400> 6375 Gln Met Gln Ala Ile Pro Met Thr Leu Arg Gly Ala Glu Lys Leu Arg 10 Glu Glu Leu Asp Phe Leu Lys Ser Val Arg Arg Pro Glu Ile Ile Ala 20 Ala Ile Ala Glu Ala Arg Glu His Gly Asp Leu Lys Glu Asn Ala Glu 40 Tyr His Ala Ala Arg Glu Gln Gln Gly Phe Cys Glu Gly Arg Ile Lys 55 Asp Ile Glu Ala Lys Leu Ser Asn Ala Gln Val Ile Asp Ile Thr Lys 70 Met Pro Asn Asn Gly Arg Val Ile Phe Gly Ser Thr Val Thr Val Leu 8.5 90 Asn Leu Asp Asn Asp Glu Glu Gln Thr Tyr Arg Ile Val Gly Asp Asp 100 105 Glu Ala Asp Phe Lys Gln Asn Leu Ile Ser Val Asn Ser Pro Ile Ala 115 120 125 Arg Gly Leu Ile Gly Lys Glu Gln Asp Asp Val Val Thr Ile Arg Thr 130 140 Pro Gly Gly Glu Val Glu Tyr Glu Ile Ile Lys Val Glu Tyr Leu 150

```
<210> 6376
<211> 86
<212> PRT
```

<213> Enterobacter cloacae

<400> 6376

Gly Lys Val Lys Phe Glu Val Lys Gly Pro Asn Asn Arg Lys Tyr Ile  $65 \\ 70 \\ 75 \\ 80$  Ser Ile Val Ala Glu

er rie var Ara Gro

275

<210> 6377 <211> 365

<212> PRT <213> Enterobacter cloacae

<400> 6377 Arg Ser His Gln Asn Arg Thr Arg Arg Gly Leu Pro Ser Gly Glu Pro 10 Glu Met Asn Ser Met Arg Arg Arg Leu Met Val Leu Leu Ala Val Ile 25 3.0 Leu Leu Phe Phe Gln Leu Ile Ser Val Val Trp Leu Trp His Glu Ser 40 45 Arg Glu Gln Ile Gly Phe Leu Val Asn Glu Thr Leu Ser Ala Lys Ala 55 60 Arg Asn Asn His Val Glu Lys Glu Ile Arg Glu Ala Ile Ala Ser Leu 70 75 Leu Val Pro Ser Leu Val Met Val Gly Phe Thr Leu Leu Phe Ser Phe 85 90 Trp Ala Val Thr Trp Ile Thr Arg Pro Leu Asn Lys Leu Arg Ala Ser 100 105 Leu Ala Asn Arg Ser Ala Asp Asn Leu Thr Pro Leu Pro Met Tyr Ser 115 120 Asp Met Glu Glu Ile Gly Ala Val Thr Thr Ser Leu Asn Gln Leu Leu 135 140 Ala Arg Leu Asp His Thr Ile Gln Gln Glu Arg Leu Phe Thr Ala Asp 150 155 Ala Ala His Glu Leu Arg Thr Pro Leu Ala Gly Ile Arg Leu His Leu 165 170 Glu Leu Met Ala Gln Ser Gly Ser Pro Gin Ala Thr Pro Leu Ile Asn 180 185 190 Arg Ile Asp Gln Leu Met His Thr Val Glu Gln Leu Leu Met Leu Ala 200 205 Arg Ala Gly Gln Ala Met Ala Ser Gly His Tyr Asp Thr Val Asn Trp 215 Thr Glu Ser Ile Ile Ala Pro Leu Ser Leu Glu His Glu Ala Lys Glu 225 230 His Thr Val Leu Trp Pro Ala His Ser Thr Leu Thr Val Gln Gly Asp 245 250 255 Ala Val Leu Leu Arg Leu Met Leu Arg Asn Leu Leu Glu Asn Ala Ala 260 265

Arg Tyr Ser Pro Ala Gly Thr Ile Ile Glu Val Ala Leu Thr Ala Thr

```
Glu Gly Gly Thr Arg Val Ser Val Thr Asp Gln Gly Pro Gly Ile Asp
                       295
                                  300
Glu Ala His Arg Gln Ser Ile Thr Glu Pro Phe Arg Arg Leu Asp Gln
                  310 315
Arg Tyr Gly Gly Ser Gly Leu Gly Leu Ser Ile Val Gln Arg Ile Val
              325
                     330
Gln Leu His His Gly His Leu Thr Leu Glu Asn Gly Ala Glu Gly Gly
        340 345
Leu Ile Ala Ser Cys Trp Leu Pro Thr Lys Ile Gly
                          360
<210> 6378
<211> 125
<212> PRT
<213> Enterobacter cloacae
<400> 6378
Tyr Ile Asn Arg Gly Ser Cys Gln Pro Gln Val Val Lys Thr Met Asn
                                 10
Arg Phe Gln Ser Gln Arg Lys Gln Lys Tyr Thr Met Asn Leu Ser Thr
                              2.5
                                                 30
Lys Gln Lys Gln His Leu Lys Gly Leu Ala His Pro Leu Lys Pro Val
                       40
                                             45
Val Met Leu Gly Asn Asn Gly Leu Thr Glu Gly Val Leu Ala Glu Ile
                     55
Glu Gln Ala Leu Glu His His Glu Leu Ile Lys Val Lys Ile Ala Ser
                  70
                                      75
Glu Asp Arg Asp Thr Lys Asn Leu Ile Val Glu Ala Ile Val Arg Glu
              8.5
                                  90
Thr Gly Ala Cys Asn Val Gln Val Ile Gly Lys Thr Leu Val Leu Tyr
           100
                              105
Arg Pro Ser Lys Glu Arg Lys Ile Ser Leu Pro Arg
                          1.20
<210> 6379
<211> 223
<212> PRT
<213> Enterobacter cloacae
<400> 6379
Leu Ala Met Lys Leu Leu Ile Val Glu Asp Asp Leu Leu Leu Gln Glu
Gly Leu Ala Leu Ala Leu Gly Asn Glu Gly Tyr Ala Leu Asp Cys Ala
           20
Ala Thr Ala Ala Glu Ala Asp Ala Leu Ile Gln Ser Gly Glu Tyr Ser
                                            4.5
Leu Val Ile Leu Asp Leu Gly Leu Pro Asp Lys Asp Gly Ala Thr Leu
   50
                      55
                                         60
Leu Cys Gln Trp Arg Arg Gly Val Glu Asn Pro Val Leu Ile Leu
                  7.0
                                     75
Thr Ala Arg Asp Ala Ile Glu Asp Arg Ile Asn Gly Leu Asp Ser Gly
                                 90
Ala Asp Asp Tyr Leu Val Lys Pro Phe Ala Leu Ala Glu Leu Gln Ala
           100
                             105
Arg Val Arg Ala Leu Ile Arg Arg Tyr Gln Gly His Ser Asp Asn Leu
       115
                          120
Leu Thr Asp Gly Asp Ile Thr Leu Asn Leu Gln Thr Gln Gln Val Leu
                      135
                              140
Arg Gln Ser Gln Pro Val Glu Val Thr Pro Lys Glu Phe Ala Leu Leu
145
                  150
                                  155
Thr Arg Leu Ile Met Arg Ser Gly Gln Thr Val His Arg Glu Thr Leu
```

165 170 Gln Gln Asp Ile Tyr Ser Trp Gln Asp Asp Pro Gly Ser Asn Thr Leu 180 185 190 Glu Val His Ile His Asn Leu Arg Arg Lys Leu Gly Lys Asp Arg Ile 195 200 205 Lys Thr Val Arg Gly Val Gly Tyr Arg Leu Glu Ser Gln Lys 210

<210> 6380 <211> 481 <212> PRT <213> Enterobacter cloacae

<400> 6380

Arg Glu Ile Met Arg Phe Ser Ser Phe Ile Ile Gly Leu Thr Thr Ser 10 Ile Thr Tyr Thr Val Gln Ala Ala Asn Val Asp Glu Tyr Ile Asn Gln 2.5 Leu Pro Ala Gly Ala Asn Leu Ala Leu Met Val Gln Lys Val Gly Ala 4.0 4.5 Gln Ala Pro Glu Ile Asp Tyr His Ser Gln Gln Met Ala Leu Pro Ala 55 60 Ser Thr Gln Lys Val Ile Thr Ala Leu Ala Ala Leu Leu Gln Leu Gly 70 80 Pro Asp Phe Arg Phe Thr Thr Leu Glu Thr Arg Gly Asn Val Glu 8.5 90 Gly Glu Leu Lys Gly Asp Leu Ile Ala Arg Phe Gly Gly Asp Pro 105 100 Thr Phe Lys Arg Gln Asp Asp Arg Asn Met Val Ala Val Leu Lys Lys 115 120 Ser Gly Val Thr Lys Ile Asp Gly Asn Val Leu Ile Asp Thr Ser Ile 130 135 140 Phe Ala Ser His Asp Lys Ala Pro Gly Trp Pro Trp Asn Asp Met Thr 145 150 155 Gln Cys Phe Ser Ala Pro Pro Ala Ala Ala Ile Val Asp Arg Asn Cys 165 170 Phe Ser Val Ser Leu Tyr Ser Ala Pro Lys Pro Asn Asp Leu Ala Phe 180 185 190 Ile Arg Val Ala Ser Tyr Tyr Pro Val Thr Met Phe Ser Gln Val Arg 195 200 205 Thr Leu Ala Lys Gly Ser Pro Glu Ala Gln Tyr Cys Glu Leu Asp Val 210 215 220 Val Pro Gly Asp Leu Asn Arg Tyr Thr Leu Thr Gly Cys Leu Thr Gln 230 235 Arg Ala Asp Pro Leu Pro Leu Ala Phe Ala Ile Gln Asp Gly Ala Gly 245 250 Tyr Ala Gly Ala Ile Phe Lys Asp Glu Leu Lys Gln Ala Gly Ile Thr 260 265 270 Tyr Thr Gly Thr Leu Leu Arg Gin Thr Gln Val Asn Glu Pro Gly Thr 275 280 285 Val Ile Ala Ser Lys Gln Ser Ala Pro Leu His Asp Leu Leu Lys Ile 295 300 Met Leu Lys Lys Ser Asp Asn Met Ile Ala Asp Thr Val Phe Arg Met 310 Ile Gly His Ala Arg Phe Gly Val Pro Gly Thr Trp Arg Ala Gly Ser 325 330 335 Asp Ala Val Arg Gln Ile Leu Arg Gln Gln Ala Gly Ile Asp Leu Gly 345 350 Asn Thr Ile Ala Val Asp Gly Ser Gly Leu Ser Arg His Asn Leu Ile 360

Ser Pro Ala Thr Met Met Gln Val Leu Gln Tyr Ile Ala Gln His Asp

```
<210> 6381
<211> 232
<212> PRT
<213> Enterobacter cloacae
<400> 6381
Cys Met Val Ser Gly Trp Pro Ser Glu Glu Cys Leu Met Lys Tyr Ser
                   10
Leu Ile Tyr Ala Asp Pro Ala Trp Leu Tyr Asp Asn Lys Ala Ser Asn
Gly Ala Ala Glu Asp His Tyr Asp Thr Met Lys Leu Ile Asp Met Lys
35 40
Arg Leu Pro Val Trp Asp Leu Ala Ala Asp Asp Ala Val Leu Ala Met
                5.5
Trp Phe Thr Gly Thr His Thr Arg Glu Ala Ile Glu Leu Ala Glu Ala
65 70
                         7.5
Trp Gly Phe Lys Val Arg Thr Met Lys Gly Phe Thr Trp Val Lys Phe
                         90 95
Asn Pro Leu Ala Glu Lys His Ile Asn Lys Ala Leu Gln Ala Gly Arg
 100 105 110
Val Glu Asp Phe Tyr Asp Phe Leu Asp Leu Leu Asn Ala Gln Thr Arg
                      120
Met Asn Gly Gly Asn Tyr Thr Arg Ala Asn Thr Glu Asp Leu Leu Ile
                135 140
Ala Thr Arg Gly Asn Gly Leu Glu Arg Lys Cys Ala Ser Ile Lys Gln
145 150
                              155
Val Ile Tyr Ser Pro Leu Gly Glu His Ser Arg Lys Pro Ala Glu Ala
            165
                            170 175
Arg Phe Arg Leu Glu Lys Leu Tyr Gly Asp Val Pro Arg Ile Glu Leu
        180 185
Phe Ser Arg Cys Gly Ala Pro Gly Trp Asp His Trp Gly Asn Gln Ser
  195 200
                             205
Glu Leu Pro Ala Val Glu Leu Ile Pro Ala Val Ala Val Pro Met Lys
 210 215
Lys Gln Gln Glu Arg Ala Ala
               230
<210> 6382
<211> 256
<212> PRT
```

<213> Enterobacter cloacae

 $<\!400\!>$  6382 Seer Glu Trp Arg Lys Gly Arg Asp Ile Asp Asn Gln Ala Ser Thr Ser I 10 15

Asn Gly Gly Asn Gly Val Arg Ala Ile Leu Thr Pro Glu Ile Ala Pro 25 Met Ser Gly Val Val Leu Phe Arg Pro Gly Asn Glu Leu Leu Trp Leu 4.0 45 Phe Arg Gln Gly Arg Val Val Ile Glu Gln Pro Ser Glu Ala Ile Gln 55 60 His Leu Pro Ser Gly Leu Ile Pro Glu Ala His Gln Pro Leu Thr Asp 7.5 Asp Ala Asn Met Lys Ala Ile Phe Val Asn Glu Arg Val Ile Gln Arg 85 90 Ala Gly Gly Leu Ser Ser Leu Asp Ala Trp Leu Glu Arg Lys Phe Glu 100 105 Cys Gln Trp Pro His Thr Asp Trp His Ala Thr Asp Phe Thr Val Met 115 120 125 Arg His Ala Pro Gly Ser Ile Arg Leu Cys Trp Ser Cys Asp Asn His 130 135 140 Leu Arg Glu Gln Thr Thr Glu Arg Leu Ala Gly Ile Ala Met Gln Asn 145 150 155 160 Leu Val Lys Trp Leu Leu Glu Arg Val Asn Ile Asp Leu Gly Phe Ser 165 170 175 Pro Glu His Thr Leu Ser Leu Pro Glu Phe Cys Trp Trp Met Val Arg 180 185 190 Asn Asp Leu Ala Asp Leu Val Pro Glu Ser Val Ala Ser Lys Ala Leu 195 205 Arg Ile Lys Pro Glu Gln His Ser Ser Val Met Arg Glu Ser Asp Ile 215 220 Val Pro Ser Leu Pro Ala Thr Gln Ile Phe Gln Glu Lys Ala Lys Lys 225 230 235 Ile Val Ala Val Lys Val Asp Pro Glu Thr Pro Asp Leu Ser Cys 245 250

<210> 6383 <211> 177 <212> PRT

<213> Enterobacter cloacae

<400> 6383 Arg Cys Ser Asn Thr Val Thr Gln Gln Ser Ala Phe Arg Asn Tyr Gln Arg Lys Asn Asn Met Val Glu Pro Ser Leu Lys Glu Val Val Lys Ala 25 Met Cys Lys Ala Tyr Pro Gly Gly Arg Glu Ala Met Ala Gly Ala Leu 35 40 Gly Met Ser Val Thr Gln Phe Asn Asn Asn Leu Tyr Glu Lys Asn Gly 55 Cys Arg Phe Phe Glu Val Asn Glu Leu Glu Ala Met Glu Asp Ile Ser 7.0 7.5 Asn Thr Ser Leu Leu Ala Asp Tyr Phe Ala Arg Arg Arg Gly Ala Leu 8.5 Leu Val Asp Val Pro Gln Leu Glu Asp Leu Asp Arg Val Asp Leu Phe 100 105 110 Asp Arg Ala Met Arg Thr Ser Ala Ala Arg Gly Arg Val Asp Thr Val 120 115 Ile Gln Arg Ala Leu Glu Asp Gly Val Ile Glu Arg His Glu Ala Glu 135 Glu Ile Asn Glu Tyr His Arg Arg His Leu Ala Ala Arg Glu Glu Glu 150 155 Ile Arg Ala Ile Val Ala Leu Phe Ser Arg Lys Lys Ser Gln Lys Lys 165 170

```
<210> 6384
<211> 190
<212> PRT
<213> Enterobacter cloacae
<400> 6384
Gly Trp Asn Leu Gln Ile Gln Leu Gln Glu His Arg Val Gln Gln Ser
                             1.0
Pro Gly Gly Leu Gln Arg Ser Glu Leu Met Ser Leu Leu Lys Asp Ile
         20
                         25
                                     3.0
Gln Ile Phe Ile Ala Ala Asn Pro Gly Leu Thr Asn Lys Glu Ile Ala
      35
                    4.0
                                  4.5
Ala Ser Met Pro Gln Tyr Asp Val His Ala Val Gln Arg Gly Val Cys
                 5.5
                              60
His Leu Val Lys Leu Asn Arg Ala Thr Arg Gln His Asn Gly Lys Cys
          70
                                75
Tyr Gln Tyr Phe Ala Lys Ala Pro Gly Gly Glu Val Gly Glu Gly Arg
          85
                             90
Ser Ala Leu Lys Ile Asn Arg Ala Asp Lys Pro Ala Val Pro Glu Gln
       100 105 110
Glu Glu Gly Leu Asn Pro Ala Val Thr Thr Met Met Asp Lys Ala Gln
115 120 125
Gly Leu Phe Glu Lys Gly Lea Tyr Gln Arg Ala Ala Thr Ile Leu Met
130 135 140
Asp Ala Phe Asn Arg Ser Lys Asn Glu Glu Gln Arg Met Lys Ile Leu
145 150 155
Ile Glu Arg Gln Arg Cys Leu Ser Met Ala Pro Lys Val Lys Ala Pro
         165 170
Ser Asp Ala Trp Cys Leu Ala Gly Arg Ala Arg Asn Val
         180
<210> 6385
<211> 139
<212> PRT
<213> Enterobacter cloacae
<400> 6385
Met Ala Glu Lys Thr Gly Ser Asp Val Met Lys Leu Val Leu Pro Phe
Pro Pro Ser Val Asn Thr Tyr Trp Arg Ala Pro Asn Lys Gly Pro Leu
                          25
                                          30
Lys Gly Arg His Leu Ile Ser Ala Lys Gly Arg Ala Tyr Gln Ser Ala
                      4.0
Ala Cys Val Ala Ile Val Glu Gln Leu Arg Phe Leu Pro Lys Pro Ser
 50 55
                                 60
Thr Ala Pro Ala Ala Val Glu Ile Met Leu Tyr Pro Pro Asp Glu Arg
               70
                                75
Arg Arg Asp Ile Asp Asn Tyr Asn Lys Ala Leu Phe Asp Ala Leu Thr
            85
                             90
```

His Ala Gly Ile Trp Glu Asp Asp Ser Gln Val Gln Arg Met Leu Val

Glu Trp Gly Pro Lys Val Asn Gly Gly Arg Val Glu Ile Ser Ile Thr

105

<210> 6386 <211> 152 <212> PRT

<212> PRT <213> Enterobacter cloacae

100

115 120 Lys His Gln Pro Ala Met Gly Val Met Val 130 135

```
<400> 6386
Ser Glu Ile Arg Arg Pro Val Asn Ala Ala Val Ser Val Phe Arg Ser
                                1.0
Cys Ala Gly Asn Arg Arg Ile Ser Met Lys Ser Gly Asp Asn Met Arg
                            25
Asp Ile Gln Met Val Leu Val Arg Trp Gly Asn Trp Ser Lys Tyr Lys
       35
                        40
                                           4.5
Ile Glu Ala Asp Val Gly Tyr Ser Pro Ile Ala Ala Gly Phe Lys Gly
                     5.5
                                      60
Leu Leu Pro Glu Ser Gly Ala Met Pro Lys Cys Thr Glu Asp Asp Ala
           70
                                   7.5
Leu Ile Ile Asp Ser Cys Leu Ala Arg Leu Lys Leu Lys Arg Pro Asp
             85
                               90
Glu Tyr Glu Leu Ile Phe Asp His Tyr Val Lys Gly Val Ser Lys Arg
          100 105
                                              110
Gly Ile Gly Arg Lys Leu Lys Leu Ser Glu Gly Met Val Arg Ile Lys
      115 120
Phe Gln Met Ala Glu Gly Phe Val Glu Gly Cys Leu Ala Met Leu Asp
130 135
Ile Arg Leu Gln Met Asp Glu
<210> 6387
<211> 312
<212> PRT
<213> Enterobacter cloacae
<400> 6387
Arg Thr Thr Met Ser Leu Leu Met Pro Ser Arg Pro Ile Val Ile Asn
              5
                                10
Pro Asp Leu Ala Tyr Ser Ile Gly Leu Asn Glu Ala Ile Ala Leu Gln
         2.0
                            25
Gln Val Asn Tyr Trp Leu Lys Glu Thr Thr Ser Gly Leu Glu Arg Asp
                        40
Gly Val Arg Trp Ile Tyr Asn Thr Tnr Glu Gln Trp Leu Glu Gln Phe
 5.0
                    55
                            60
Pro Phe Trp Ser Glu Ser Thr Leu Lys Arg Thr Phe Thr Arg Leu Lys
                 70
65
                                    75
Asn Leu Gly Val Leu Lys Val Asp Gln Leu Asn Lys Ser Gln Arg Asp
            85
                                90
Met Thr Asn Tyr Tyr Thr Ile Asn Tyr Glu Ser Glu Leu Leu Asp Glu
         100
                      105 110
Val Lys Val Thr Lys Ser Lys Ser Ser Lys Cys Thr Leu Pro Ser Gly
      115
                         120
Gln Asn Glu Pro Met Glu Glu Val Lys Val Glu Arg Ser Ile Gly Ser
                     135
                                       140
Lys Arg Thr Ala Leu Ile Arg Ser Asn Cys Thr Asp Val Leu Thr Glu
              150
                                   155
                                                      160
Asn Thr Thr Glu Asn Thr Thr Asp Ile Lys Lys Pro Ile Cys Pro Val
              165
                                170
Ala Pro Gln Pro Asp Ser Asp Val Leu Ile Thr Asp Gln Ala Lys Gln
         180
                            185
                                              190
Val Leu Thr His Leu Asn His Val Thr Ser Ser Arg Tyr Gln Val Ser
      195
                         200
                                           205
Thr Thr Ser Leu Gln Asn Ile Arg Ala Arg Ile Gly Glu Gly Phe Thr
   210
                     215
                                       220
Val Glu Glu Leu Ser Leu Val Val Asp Tyr Cys Asn Ala Lys Trp Ser
                 230
                                  235
Asp Asp Leu Thr Met Ala Ser Tyr Leu Arg Pro Gln Thr Leu Phe Gln
```

```
Satisfied to the first to the f
```

```
Pro Thr Lys Phe Pro Ala Tyr Leu Lys Ser Ala Thr Asn Trp Ala Asn
           260
                            265 270
 Ala Gly Arg Pro Ala Arg Val Asn Gly Lys Trp Glu Arg Glu Asp Gly
        275
                    280
 Ile Phe Lys Ser Ser Phe Lys Asn Thr Glu Tyr Ser Lys Val Pro Ala
        295
 Gly Phe Arg Gly Ala Asn Ser
<210> 6388
<211> 125
<212> PRT
<213> Enterobacter cloacae
<400> 6388
Ala Tyr Thr Gly Ser Cys Arg Ser His Glu Lys Thr Ala Gly Ala Arg
                                  1.0
Arg Met Lys Pro Glu Leu Thr Pro Arg Gln Asn Glu Val Phe Glu Ala
          20
                               25
 Ile Lys Val His Ile Glu Lys Ala Gly Phe Pro Pro Thr Met Leu Glu
     3.5
                           40
                                       45
Leu Ala Gly Leu Ile Gly Cys Ala Ser Pro Asn Ala Ala Val Ala His
                                      60
Val Lys Ser Leu Lys Lys Gly Tyr Ile Thr Val Ala Pro Gly Ala
                  7.0
                                      75
Ala Arg Gly Ile Thr Val Val Lys Thr Glu Trp Asp Ala Asp Pro Val
               8.5
                                  90
Thr Ile Ile Lys Gly Leu Leu Ser Gly Gly Asp Lys Ala Arg Asp Asn
           100
                              105
Ala Val Glu Trp Leu Lys Lys Gln Gly Val Thr Leu
                           120
<210> 6389
<211> 72
<212> PRT
<213> Enterobacter cloacae
<400> 6389
Cys Asn Asn Pro Ala Asp Asp Pro His His Leu Ile Gly His Gly Gln
                                  10
Gly Gly Met Gly Thr Lys Ala His Asp Leu Phe Val Ile Pro Leu Cys
                              25
Arg Ala His His Asp Glu Leu His Ala Asp Pro Val Ala Phe Glu Ala
       3.5
                          40
                                             45
Lys Tyr Gly Asp Gln Leu Thr Leu Leu Phe Arg Phe Leu Asp Arg Ala
 5.0
                    5.5
Leu Ala Ile Gly Val Leu Ala
                   7.0
<210> 6390
<211> 482
<212> PRT
<213> Enterobacter cloacae
<400> 6390
Ile Thr Pro Gln Thr Gln Asn Phe Asp Phe Phe Leu Leu Leu Asn Ile
                                 1.0
Ser Ile Ala Ala Ile Val Ala Ala Asn Ala Thr His Leu Thr Pro Val
          20
                              25
Ile Ser Thr Phe Thr Arg Phe Phe Phe Ala Ser Trp Gly Val Leu Asn
                          40
```

Leu Gly Ile Ile Trp Arg Leu Asp Glu Leu Met Phe Ile Val Leu Met 55 60 Leu Asn Leu Leu Tyr Gly Phe Ala Ile Tyr Arg His Ala Leu Thr Ser 70 7.5 His Ala Phe Phe Ile Gln Gln Ala Leu Leu Glu Glu Lys Ser Ser Arg 8.5 90 Leu Ala Glu Gln Phe Arg Gln Ala Lys Glu Asp Ala Glu Gln Ala Leu 100 105 110 Leu Asp Lys Asn Gln Phe Leu Thr Thr Ala Ser His Asp Leu Arg Gln 115 120 125 Pro Val His Ala Met Gly Phe Leu Ile Glu Ala Ile Leu His Arg Asn 130 135 140 Arg Asp Gly Ser Leu Thr Pro Gln Leu Leu Asp Leu Gln Gln Ser Val 145 150 155 Arg Ser Val His Leu Met Leu Asn Ser Leu Leu Asp Leu Ser Lys Ile 165 170 175 Glu Ser Gly Asn Val Leu Ser Ala Pro Thr Lys Val Asp Ile Gly Ala 185 190 Leu Leu Asp Ser Val Ile Thr Leu Phe Arg Glu Glu Ala Asn Ser Arg 200 205 Ala Leu Arg Leu Cys Ile Arg Arg Pro Lys Arg His Ile Tyr Val Met 210 215 220 Gly Asp Pro Leu Leu Val Arg Gln Ser Leu Ile Asn Leu Ile Gln Asn 225 230 235 240 Ala Leu Arg Tyr Thr Leu Gln Gly Gly Val Leu Val Ala Ile Arg Pro 245 250 255 Arg Gly Asp Glu Cys Met Val Glu Val Trp Asp Thr Gly Val Gly Ile 260 265 270 Ala Asp Glu Glu Lys Gly Lys Ile Phe Ser Pro Tyr Tyr Arg Pro Glu 275 280 285 Leu Ala Trp Lys Ile Asp Ser Ala Gly His Gly Leu Gly Leu Ala Val 290 295 300 Val Ala Arg Cys Ala Lys Leu Met Lys Val Lys Tyr Gly Met Gln Ser 305 310 315 Ile Glu Gly Lys Gly Ser Arg Phe Trp Met Arg Phe Thr Gln Tyr Ala 330 335 325 Gly Glu Asp Ser Val Leu Asp Thr Pro Pro Ala Ala Asp Asn Thr Ala 340 345 Thr Pro Val Arg Tyr Ala Pro Leu His Gly Ser Cys Leu Val Val Asp 360 365 Asp Asp Pro Leu Val Thr Ser Ala Trp Glu Ser Leu Met Ser Val Trp 370 375 380 Gly Ile Asp Val Arg Cys Ala Ala Ser Ala Glu Glu Ala Phe Ala Ile 385 390 395 400 Ile Asp Asp Gly Phe Thr Pro Phe Ala Val Leu Cys Asp Gln Arg Leu 405 410 415 Arg Ser Gly Glu Ser Gly Phe Asp Ile Leu Lys Ala Leu Phe Glu Arg 420 425 Leu Pro Asp Met Ser Gly Ala Ile Val Ser Gly Glu Phe Asn Ser Pro 435 440 Val Leu Leu Glu Ala Glu Gln Glu Gly Tyr Leu Val Leu Arg Lys Pro 450 455 460 Leu Glu Pro Ala Lys Leu His Ala Leu Leu Thr Gln Trp Leu Gly Cys 465 470 475 Arg

<sup>&</sup>lt;210> 6391

<sup>&</sup>lt;211> 462

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 6391
Pro Gly Arg Cys Val Met Ser Glu Met Met Met Pro Cys Ser Tyr Glu
                        10 15
Ala Glu Gln Ala Val Leu Gly Gly Leu Met Leu Asp Asn Asp Arg Trp
                       25
Asp Glu Val Ile Leu Gln Ile Ser Pro Glu Asp Leu Phe Ser Arg Pro
                   40
His Arg Met Val Phe Arg Val Met Ala Glu Leu Ala Gly Glu Gly Leu
              5.5
                     60
Pro Leu Asp Leu Ile Thr Ile Thr Glu Arg Leu Glu Asn Arg Gly Asp
         70 75
Leu Glu Gln Cys Gly Gly Phe Ala Tyr Leu Ala Glu Met Ser Lys Asn
          85 90 95
Thr Pro Ser Ala Ala Asn Ile Leu Ala Tyr Ala Gly Val Val Ala Glu
     100 105 110
Lys Ser Arg Leu Arg Gln Leu Met Thr Val Gly Asn Ser Leu Leu Ser
 115 120 125
Asp Val Gln Ala Pro Lys Ala Ser Ser Ala Gly Ile Leu Glu Ser Ala
 130 135 140
Glu Gly Lys Leu Pne Asn Ile Ala Glu Gln Gly Ala Met Gln Leu Asn
145 150 155
Ser Glu Thr Gly Val Asn Glu Ala Leu Asp Lys Leu Leu Thr Gln Leu
   165 170
Glu Ser Met Ser Ala Ser Asp Gly Leu Thr Gly Thr Pro Thr Gly Phe
 180
                     185
                                     190
Ser Glu Leu Asp Ala Met Thr Cys Gly Leu Glu Pro Gly Asp Leu Ala
 195 200 205
Leu Leu Ala Ala Arg Pro Ser Met Gly Lys Thr Ser Leu Ala Met Ala
 210 215 220
Ala Cys Thr Ala Ala Val Ser Ala Lys Pro Asp Asp His Val Phe Val
225 230
                            235
Phe Ser Leu Glu Met Pro Ser Glu Gln Leu Met Met Arg Leu Leu Ala
     245
                         250 255
Met Glu Gly Arg Val Glu Leu Ser Arg Leu Arg Ser Gly Asn Met Asp
   260
                      265
Asp Glu Asp Trp Ala Arg Val Ser Glu Ala Thr Gly Arg Ile Ile Glu
  275
                    280
                                  285
Trp Lys Asn Arg Leu Ile Ile Asp Asp Thr Ser Tyr Gln Thr Pro Ala
 290 295
                                300
Thr Leu Arg Ala Arg Ala Arg Tyr Val Arg Lys Tyr Gly Arg Pro
             310
                            315
Ser Leu Ile Met Leu Asp Tyr Leu Gln Leu Val Arg Ser Pro Glu Gln
          325
                         330
Glu Asn Arg Thr Gln Glu Ile Ala Glu Ile Ser Arg Ser Leu Lys Ala
       340
                      345
                                     350
Leu Gly Lys Glu Leu Gly Cys Pro Val Leu Ala Leu Ser Gln Leu Asn
                    360
                                  365
Arg Leu Val Glu Gln Arg Ala Asp Lys Arg Pro Asn Asn Gly Asp Leu
 370 375
                               380
Arg Asp Ser Gly Ala Leu Glu Gln Asp Ala Asp Leu Ile Met Phe Ile
             390 395
Tyr Arg Asp Glu Val Tyr Asn Pro Gly Thr Pro Asp Ala Gly Val Ala
          405
                         410
Glu Ile Ile Val Gly Lys Gln Arg Gln Gly Pro Thr Gly Thr Val Lys
        420
                      425 430
Val Lys Phe Asp Gly Arg Tyr Thr Leu Phe Ser Glu Phe Gln Glu Gly
   435 440 445
Ser Tyr Asp Phe Gly Tyr Arg Ser Gly Arg Lys Gln Ala
                 455
```

```
<210> 6392
<211> 296
<212> PRT
<213> Enterobacter cloacae
<400> 6392
Arg Val Cys Lys Met Lys Ile Leu Pro Val Ile Ser Pro Lys Gly Gly
                       10
Glu Gly Lys Ser Thr Phe Ala Ala Tyr Leu Ala Gly Phe Leu Ala Asp
                                       3.0
                        25
Ala Gly Leu Asn Thr Leu Leu Val Asp Ala Asp Tyr Ser Gln Pro Thr
     35
               40
                                   45
Ala Ser Ser Ile Phe Ala Leu Glu Asp Glu Ser Pro Phe Gly Leu Tyr
             55 60
Glu Leu Leu Met Gln Met Val Ser Asp His Thr Gln Cys Ile Ser Gln
            70 75
Thr Ala Ile Lys Asn Leu Asp Val Ile Tyr Ser Asn Asp Pro Asp Glu
           85
                           90
Leu Leu Pro Thr Ala Met Leu His Ala Ala Asp Gly Arg Leu Arg Leu
 100 105 110
Arg Asn Ile Leu Gln His Pro Phe Phe Asn Arg Tyr Asp Ala Ile Ile
115 120
                                  125
Val Asp Ser Lys Gly Ala Thr Gly Val Met Thr Glu Leu Ser Leu Leu
130 135
                                 140
Ser Ser Thr Gly Asn Val Met Gly Ile Val Lys Pro Ile Leu Pro Asp
145 150
                              155
Val Arg Glu Phe Ile Arg Gly Ser Leu His Met Leu Thr Arg Leu Lys
     165
                           170
                                         175
Thr Tyr Glu Asn Tyr Gly Ile Arg Leu Pro Asp Ile Ser Ile Leu Val
 180 185 190
Asn Cys Ile Glu Asn Thr Leu Leu Asp Arg Glu Ala Met Asp Gly Leu
195
                     200
                                    205
Ala Ala Ile Ile Asn Glu Lys His Tyr Asp Ala Ser Ala Leu Gly Asn
210 215
                                 220
Arg Asp Val Tyr Arg Leu Leu Asp Thr Arg Ile Glu Ala Leu Asp Ile
225 230
                             235
                                              240
Phe Lys Leu Gly His Val Lys Gln Gln Pro Val His Arg Leu Glu Tyr
          245
                           250 255
Lys Thr Arg Arg Lys Gly Pro Ala Ala Ala Val Thr Met His Asp Leu
        260
            265 270
Ala Cys Glu Leu Phe Pro Glu Trp Gln Ser His Phe Ser Asp Val Leu
 275 280
Thr Arg Glu Val Arg His Val
  290
<210> 6393
<211> 575
<212> PRT
<213> Enterobacter cloacae
<400> 6393
Leu Arg Leu Pro Gln Arg Glu Glu Thr Gly Met Ser Arg Lys Ser Ser
                           10
Asn Val Gly Ala Ala Met Leu Gln Pro Gly Arg Gln Ser Gln Ala Ala
        20
                       25
Gly Asn Ile Ser Val Met Pro Ala Ala Glu Met Pro Met Val Leu Thr
    35
                     40
Leu Asp Gln Leu Ser Pro Asn Pro Asp Asn Pro Arg Thr Ser Arg Asn
               55
                          60
Pro Arg Tyr Asp Asp Ile Lys Ala Ser Ile Arg Ser Arg Gly Leu Asp
                              75
```

Thr Val Pro Lys Val Thr Arg Asp Pro Asp Gly Glu Pro Asp Met Tyr 90 8.5 Ile Phe Ser Asp Gly Gly Asn Thr Arg Tyr Gln Ile Leu Ser Glu Leu 100 105 Trp Gln Glu Thr Gly Glu Asp Arg Phe Phe Arg Val His Val Leu Phe 115 120 125 Lys Pro Trp Pro Gly Arg Leu Gln Cys Val Ile Gly His Leu Ala Glu 135 140 Asn Glu Val Arg Gly Glu Leu Ser Phe Ile Glu Lys Ala Gln Gly Ile 145 150 155 His Lys Ala Arg Ser Ile Tyr Glu Glu Gln Met Gly Lys Thr Val Ser 165 170 175 Leu Arg Gln Leu Ser Glu Leu Leu Thr His Glu Gly Leu Pro Val His 180 185 190 Tyr Ser Thr Val Ser Arg Met Glu Asp Ala Leu Lys Tyr Leu Tyr Pro 195 200 205 Trp Ile Pro Asp Leu Leu Glu Ser Gly Leu Gly Arg Pro Gln Ile Thr 215 220 Ala Leu Leu Ala Leu Arg His Asp Ala Glu Arg Val Trp Asp Glu Phe 225 230 235 Cys Leu Ile Ser Asp Thr Gly Asp Lys Ser Phe Ser Asp Val Phe Gly 245 250 255 Gln Cys Cys Gly Arg Phe Asn Ser Pro Glu Leu Trp Ser Leu Glu Met 260 - 270 265 Phe Arg Asp Glu Leu Ile Gly Asp Leu Leu His Ala Leu Pro His Pro 280 285 Glu Leu Asp Tyr Asp Arg Trp Met Met Glu Leu Asp Pro Lys Glu Arg 295 300 Asn Arg Arg His His Phe Gly Asp Pro Glu Pro Val Ser Ile Pro Pro 305 310 315 Ala Asn Ser Leu Val Thr Ala Asp Ser Ala Gly Gln Ala Thr Pro Ala 325 330 335 Gln Lys Ser Val Glu Val Val Gln Pro Phe Ser Ser Pro Arg Arg Glu 340 345 350 Ile Ser Gly Glu Pro Val Thr Pro Ala Pro Asp Asn Thr Pro Pro Glu 355 360 Lys Leu Asp Lys Gln His Pro Arg His Glu Val Gln Pro Asp Met Tyr 370 375 380 Gly Ala Ala Pro Val Ile Ser Gly Glu Ser Ala Asp Val Ser Gly Leu 390 395 Val Thr Leu Ser Asp Gly Tyr Gly Glu Glu Asn Gly Gly Glu Glu Gly 405 410 415 Asn Gly Glu Asp Gly Leu Leu Ser Leu Leu Thr Pro Glu Pro Glu Val 420 425 430 Val Leu Gln Asp Asp Ala Pro Val Thr Asn Asp Ser Ile Trp His Val 435 440 Pro Ala His Gln Asp Asp Ile Glu His Leu Gln Asn Thr Ala Phe Arg 455 460 Leu Ala Trp Glu Leu Gly Glu Val Leu Gly Cys Glu Asp Glu Ile Leu 470 475 Pro Gln Arg Asp Asn Asp Met Ser Ala Gly Tyr Val Gly Ala Gly Glu 485 490 495 Met Cys Ser Glu Ala Ala Ala Phe Leu Leu Gly Leu Thr Gly Glu Ala 500 505 510 Pro Ala Leu His Pro Ala Ala Gly Val Cys Gly Leu Pro Glu Leu Phe 515 520 525 Thr Gly Gly Pro Gly Glu Gly Glu Ala Pro Ala Leu Thr Asp Glu Asp 535 540 Ala Leu Lys Leu Leu Arg Leu Leu Arg Val Met Arg Arg Leu Arg Glu 550 555 Leu Gln Arg Gly Leu Thr Tyr Gly Glu Asp Asn Ser Asp Glu

```
<210> 6394
<211> 268
```

<212> PRT

<213> Enterobacter cloacae

<400> 6394

1.5

13

113

0.75

10

Ch

10

.

11

1.00

13

Gln His Asp Ser Leu Phe Thr Leu Pro Pro Tyr Ala Gly Ala Val Leu 1.0 Ser Ile Leu Thr Val Gln Asn Gly Arg Asp Gly Gly Arg Lys Gly Lys

25 2.0 Ile Met Ser Leu Pro Ala Glu Ser Leu Ile Ala Tyr Thr Leu Asp Lys

35 40 Met Asn Ala Arg Leu Ala Ala Ser Pro Arg Arg Asp Asp Gly Arg Ile

55 Arg Asn Gly Leu Leu Phe Thr Gly Asn Val His Asp Ser Ile Pro Arg

70 75 Arg Leu Leu Asp Thr Arg Leu Ser Pro Leu Asp Lys Met Gly Trp 85 90 95

Met Met Ile Arg Leu Tyr Ala Gln Asn Asn Glu Gly Ala Val Phe Pro 100 105 110 Ser Tyr Asp Glu Leu Gln Leu Gln Leu Ala Ser Pro Gly Lys Gly Lys

115 120 125 Ala Ser Arg Glu Thr Val Ser Arg Val Leu Leu Met Leu Arg Ile Thr

130 135 140 Gly Trp Leu Ser Leu Cys Lys Arg Val Arg Asp Asp Lys Gly Arg Val 145 150

155 Arg Gly Asn Ile Tyr Ala Gln His Asp Glu Pro Leu Thr Phe Ser Asp 165 170 175

Ala Glu Met Leu Asp Pro Arg Phe Leu Asp Val Val Ala Asp Ala Cys 180 185 190 Leu Ser Lys Asn Arg Thr Ile Ser Gln Asn Ala Arg Glu Val Leu Asp

195 200 205 Asp Ile Lys Asn Asp Pro Thr Met Arg His Tyr Arg Ser His Leu Ala 210 215

220 Leu Ile Glu Ser Arg Leu Asp Ser Pro Gln Ser Pro Ser Gln Met Ala 225 230 235 240

Lys His His Arg Ile Pro Cys Pro Ala Pro Gly Ser Glu Thr Ala 245 250

Arg Leu His Tyr Glu Met Arg Ile Arg Thr Asp Cys 260 265

<210> 6395 <211> 285

<212> PRT <213> Enterobacter cloacae

<400> 6395

Thr Gly Ser Arg Gly Leu Pro Gly Glu Lys Trp Val Trp Leu Tyr Leu Trp Arg Arg Leu Pro Arg Val Arg Gln Gln Ile Gln Pro Val Gln Gln

20 Pro Pro His Arg Arg Asp Gly Cys Asp Gln Gln Asn Gly Ala Ala Pro 35 40

Met Ile Glu Leu Val Ile Val Ser Arg Leu Leu Glu Tyr Pro Asp Ala 55

Ala Leu Val Gln His Gln Gln Glu Leu Phe Asp Ala Leu Ala Ser Ser 70 75

Glu Asn Leu Asp Lys Glu Asp Ala Gln Lys Leu Gly Val Phe Leu Arg 8.5 90

```
Asp Leu Leu Ala Arg Asp Leu Leu Asp Ala Gln Ala Asp Tyr Ser Gln
                  105 110
      100
Leu Phe Asp Arg Gly Arg Ala Thr Ser Leu Leu Leu Phe Glu His Val
     115
          120
                                 125
His Gly Glu Ser Arg Asp Arg Gly Gln Ala Met Val Asp Leu Met Ala
      135 140
  130
Gln Tyr Glu Gln His Gly Leu Gln Leu Asp Ser Arg Glu Leu Pro Asp
145
    150 155 160
His Leu Pro Leu Tyr Leu Glu Tyr Leu Ala Gln Leu Pro Lys Glu Glu 165 170 175
Ala Leu Gly Gly Leu Gln Asp Ile Ala Pro Ile Leu Ala Leu Leu Gly
       180 185 190
Ala Arg Leu Gln Gln Arg Glu Ser Ser Tyr Ala Val Leu Phe Asp Leu
 195 200 205
Leu Val Lys Leu Ala Asn Ala Ser Val Asp Ser Gln Lys Val Ala Glu
210
      215 220
Lys Ile Ala Asp Glu Ala Arg Asp Asp Thr Pro Gln Ala Leu Asp Ala
225 230 235
Val Trp Glu Glu Glu Gln Val Lys Phe Phe Ala Asp Gln Ser Cys Gly
      245 250 255
Glu Ser Glu Ile Ser Ala His Gln Arg Arg Phe Ala Gly Ala Val Ala
   260 265
Pro Gln Tyr Leu Asn Ile Ser Asn Gly Gly Gln His
     275
                   280
```

<210> 6396 <211> 519 <212> PRT

<213> Enterobacter cloacae

<400> 6396 Pro Gly Thr Gly Glu Arg Lys Met Lys Ile Arg Ser Gln Val Gly Met 1.0 Val Leu Asn Leu Asp Lys Cys Ile Gly Cys His Thr Cys Ser Val Thr 20 25 30 Cys Lys Asn Val Trp Thr Ser Arg Glu Gly Met Glu Tyr Ala Trp Phe 45 4.0 Asn Asn Val Glu Ser Lys Pro Gly Thr Gly Phe Pro Thr Asp Trp Glu 55 Asn Gln Glu Lys Trp Lys Gly Gly Trp Ile Arg Lys Ile Asn Gly Lys 70 75 Leu Gln Pro Arg Met Gly Asn Arg Ala Met Leu Leu Gly Lys Ile Phe 85 90 Ala Asn Pro His Leu Pro Gly Ile Asp Asp Tyr Tyr Glu Pro Phe Asp 100 105 110 Tyr Asp Tyr Gln Asn Leu His Asn Ala Pro Glu Ser Lys His Gln Pro 115 120 125 Ile Ala Arg Pro Arg Ser Leu Ile Thr Gly Gln Arg Met Asp Lys Ile 130 135 140 Thr Ser Gly Pro Asn Trp Glu Glu Ile Leu Gly Gly Glu Phe Glu Lys 150 155 145 160 Arg Ala Lys Asp Gln Asn Phe Glu Asn Met Gln Lys Ala Met Tyr Gly 165 170 Gln Phe Glu Asn Thr Phe Met Met Tyr Leu Pro Arg Leu Cys Glu His 185 190 180 Cys Leu Asn Pro Ala Cys Val Ala Thr Cys Pro Ser Gly Ala Ile Tyr 195 200 205 Lys Arg Glu Glu Asp Gly Ile Val Leu Ile Asp Gln Asp Lys Cys Arg 215 220 Gly Trp Arg Met Cys Ile Thr Gly Cys Pro Tyr Lys Lys Ile Tyr Phe 230 235

Asn Trp Lys Ser Gly Lys Ser Glu Lys Cys Ile Phe Cys Tyr Pro Arg 245 250 255 Ile Glu Ala Gly Met Pro Thr Val Cys Ser Glu Ser Cys Val Gly Arg 260 265 270 Ile Arg Tyr Leu Gly Val Leu Leu Tyr Asp Ala Asp Ala Ile Glu Asn 285 275 280 Ala Ala Ser Thr Glu Asn Glu Lys Asp Leu Tyr Gln Arg Gln Leu Asp 295 300 Val Phe Leu Asp Pro Asn Asp Pro Lys Val Ile Glu Gln Ala Leu Lys 310 315 320 Asp Gly Ile Pro Gln Ser Val Ile Asp Ala Ala Gln Gln Ser Pro Val 325 330 335 Tyr Lys Met Ala Met Asp Trp Lys Leu Ala Leu Pro Leu His Pro Glu 340 345 350 Tyr Arg Thr Leu Pro Met Val Trp Tyr Val Pro Pro Leu Ser Pro Ile 355 360 Gln Ser Ala Ala Asp Ala Gly Glu Leu Gly Ser Asn Gly Ile Leu Pro 370 375 Asp Val Glu Ser Leu Arg Ile Pro Val Gln Tyr Leu Ala Asn Leu Leu 385 390 395 Thr Ala Gly Asp Thr Gln Pro Val Leu Leu Ala Leu Lys Arg Met Leu 405 410 415 Ala Met Arg His Phe Lys Arg Ala Glu Thr Val Asp Gly Val Asn Asp 420 425 430 Thr Arg Ala Leu Glu Glu Val Gly Leu Thr Glu Ala Gln Ala Gln Glu 435 440 445 Met Tyr Arg Tyr Leu Ala Ile Ala Asn Tyr Glu Asp Arg Phe Val Val 455 460 Pro Ser Ser His Arg Glu Leu Ala Arg Glu Ala Phe Pro Glu Lys Ser 465 470 475 Gly Cys Gly Phe Thr Phe Gly Asp Gly Cys His Gly Ser Asp Ser Lys 485 490 495 Phe Asn Leu Phe Asn Ser Arg Arg Ile Asp Ala Met Asp Val Thr Ser 500 505 Lys Thr Glu Pro His Gln

515

<210> 6397
<211> 1280
<212> PRT
<213> Enterobacter cloacae

<220> <221>UNSURE <222>(516)

<400> 6397 Ser Leu Ser Ile Leu Thr Ile Phe His Ser Val Thr Phe Ala Ala Asn 10 Gln Gln Cys Arg Phe Arg Glu Pro Gln Ala Pro His Arg Arg Tyr Pro 20 25 30 Met Ser Lys Phe Leu Asp Arg Phe Arg Tyr Phe Lys Gln Lys Gly Glu 4.0 Thr Phe Ala Asp Gly His Gly Gln Val Leu Asp Thr Asn Arg Asp Trp 50 55 Glu Asp Gly Tyr Arg Gln Arg Trp Gln His Asp Lys Val Val Arg Ser 70 75 Thr His Gly Val Asn Cys Thr Gly Ser Cys Ser Trp Lys Ile Phe Val 85 90 Lys Asn Gly Leu Val Thr Trp Glu Met Gln Gln Thr Asp Tyr Pro Arg 100 105

Thr Arg Pro Asp Met Pro Asn His Glu Pro Arg Gly Cys Pro Arg Gly 115 120 Ala Ser Tyr Ser Trp Tyr Leu Tyr Ser Ala Asn Arg Leu Lys Tyr Pro 135 140 Leu Met Arg Lys Arg Leu Met Lys Met Trp Arg Glu Ala Lys Val Gln 145 150 155 His Ser Asp Pro Val Asp Ala Trp Ala Ser Ile Ile Glu Asp Ala Asp 165 170 175 Lys Ala Lys Ser Phe Lys Gln Ala Arg Gly Arg Gly Gly Phe Val Arg 180 185 Ser Ser Trp Lys Glu Val Asn Glu Leu Ile Ala Ala Ser Asn Val Tyr 195 200 205 Thr Val Lys Thr Tyr Gly Pro Asp Arg Val Ala Gly Phe Ser Pro Ile 210 215 220 Pro Ala Met Ser Met Val Ser Tyr Ala Ser Gly Ala Arg Tyr Leu Ser 225 230 235 Leu Ile Gly Gly Thr Cys Leu Ser Phe Tyr Asp Trp Tyr Cys Asp Leu 245 250 255Pro Pro Ala Ser Pro Gln Thr Trp Gly Glu Gln Thr Asp Val Pro Glu 260 265 270 Ser Ala Asp Trp Tyr Asn Ser Ser Tyr Ile Ile Ala Trp Gly Ser Asn 275 280 285 Val Pro Gln Thr Arg Thr Pro Asp Ala His Phe Phe Thr Glu Val Arg 290 295 300 Tyr Lys Gly Thr Lys Thr Val Ale Val Thr Pro Asp Tyr Ala Glu Ile 305 310 315 Ala Lys Leu Cys Asp Leu Trp Leu Ala Pro Lys Gln Gly Thr Asp Ala 325 330 335Ala Met Ala Leu Ala Met Gly His Val Met Leu Arg Glu Phe His Leu 340 345 350 Asp Lys Pro Ser Gln Tyr Phe Thr Asp Tyr Val Arg Arg Tyr Thr Asp 355 360 365 Met Pro Met Leu Val Met Leu Glu Glu Arg Asp Gly Tyr Tyr Ala Ala 370 375 380 Gly Arg Met Leu Arg Ala Ala Asp Leu Val Asp Ala Leu Gly Gln Glu 385 390 395 Asn Asn Pro Glu Trp Lys Thr Val Ala Cys Asn Ser Asn Gly Glu Leu 405 410 Val Ala Pro Asn Gly Ser Ile Gly Phe Arg Trp Gly Glu Lys Gly Lys 420 425 430 Trp Asn Leu Glu Gln Arg Asn Gly Thr Thr Gly Glu Glu Thr Glu Leu 435 440 445 Arg Leu Ser Met Leu Gly Ser Gln Asp Glu Ile Ala Asp Val Gly Phe 450 455 460 Pro Tyr Phe Gly Asn Glu Gly Ser Glu His Phe Asn Lys Val Glu Leu 465 470 475 Gln Asn Val Leu Met His Lys Leu Pro Val Lys Arg Leu Gln Leu Ala 485 490 495 Asp Gly Ser Thr Ala Leu Val Thr Thr Ala Tyr Asp Leu Thr Met Ala 500 505 510 Asn Tyr Gly Xaa Glu Arg Gly Leu Asn Asp Glu Asn Cys Ala Thr Ser 515 520 525 Tyr Asp Asp Val Lys Ala Tyr Thr Pro Ala Trp Ala Glu Gln Ile Thr 530 535 540 Gly Val Pro Arg Ala Gln Ile Thr Arg Ile Ala Arg Glu Phe Ala Glu 550 555 545 Asn Ala Asp Lys Thr His Gly Arg Ser Met Ile Ile Val Gly Ala Gly 565 570 Leu Asn His Trp Tyr His Leu Asp Met Asn Tyr Arg Gly Leu Ile Asn  $580 \hspace{1.5cm} 585 \hspace{1.5cm} 590$ Met Leu Ile Phe Cys Gly Cys Val Gly Gln Ser Gly Gly Gly Trp Ala

```
595
                    600
His Tyr Val Gly Gln Glu Lys Leu Arg Pro Gln Thr Gly Trp Gln Pro
         615 620
Leu Ala Phe Ala Leu Asp Trp Gln Arg Pro Ala Arg His Met Asn Ser
     630
                  635
Thr Ser Tyr Phe Tyr Asn His Ser Ser Gln Trp Arg Tyr Glu Thr Val
         645 650 655
Thr Ala Gln Glu Leu Leu Ser Pro Met Ala Asp Lys Ser Arg Tyr Ser
       660 665 670
Gly His Leu Ile Asp Phe Asn Val Arg Ala Glu Arg Met Gly Trp Leu
     675 680 685
Pro Ser Ala Pro Gln Leu Gly Thr Asn Pro Leu Arg Ile Ala Glu Ala
 690 695 700
Ala Lys Lys Ala Gly Met Ser Pro Val Asp Tyr Thr Val Lys Ser Leu
705 710 715
Lys Asp Gly Ser Ile Arg Phe Ala Ala Glu Gln Pro Glu Asn Gly Lys
          725 730 735
Asn His Pro Arg Asn Leu Phe Ile Trp Arg Ser Asn Leu Leu Gly Ser
        740
            745
Ser Gly Lys Gly His Glu Tyr Met Leu Lys Tyr Leu Leu Gly Thr Glu
                                   765
     755 760
Asn Gly Ile Gln Gly Lys Asp Leu Gly Lys Gln Gly Gly Val Lys Pro
               775
                                780
Glu Glu Val Glu Trp Lys Asp Asn Gly Leu Asp Gly Lys Leu Asp Leu
              790
                             795
Val Val Thr Leu Asp Phe Arg Leu Ser Ser Thr Cys Leu Tyr Ser Asp
          805
                          810 815
Ile Val Leu Pro Thr Ala Thr Trp Tyr Glu Lys Asp Asp Met Asn Thr
     820
                       825 830
Ser Asp Met His Pro Phe Ile His Pro Leu Ser Ala Ala Val Asp Pro
                  840
     835
                                   845
Ala Trp Glu Ser Lys Ser Asp Trp Glu Ile Tyr Lys Asp Ile Ala Lys
                 855
Lys Phe Ser Glu Val Cys Val Gly His Leu Gly Lys Glu Thr Asp Val
865 870 875
Val Thr Leu Pro Ile Gln His Asp Ser Ala Ala Glu Leu Ala Gln Pro
                              895
           885
               890
Leu Asp Val Lys Asp Trp Lys Lys Gly Glu Cys Asp Leu Ile Pro Gly
         900
                       905
Val Thr Ala Pro His Ile Ile Pro Val Glu Arg Asp Tyr Pro Ala Thr
                    920
                                   925
Tyr Glu Arg Phe Thr Ser Ile Gly Pro Leu Met Glu Lys Ile Gly Asn
                 935
                                940
Gly Gly Lys Gly Ile Ala Trp Asn Thr Gln Ser Glu Met Asp Leu Leu
                  955
945
              950
Arg Lys Leu Asn Tyr Thr Lys Ala Asp Gly Pro Ala Lys Gly Gln Pro
      965 970
Met Leu Asn Thr Ala Ile Asp Ala Ala Glu Met Ile Leu Thr Leu Ala
                       985
Pro Glu Thr Asn Gly His Val Ala Val Lys Ala Trp Ala Ala Leu Ser
                    1000 1005
Glu Phe Thr Gly Arg Asp His Thr His Leu Ala Lys Asn Lys Glu Glu 1010 1015 1020
Glu Lys Ile Arg Phe Arg Asp Ile Gln Ala Gln Pro Arg Lys Ile Ile
     1030 1035 1040
Ser Ser Pro Thr Trp Ser Gly Leu Glu Asp Glu His Val Ser Tyr Asn
         1045 1050 1055
Ala Gly Tyr Thr Asn Val His Glu Leu Ile Pro Trp Arg Thr Leu Ser
        1060 1065 1070
Gly Arg Gln Ser Leu Tyr Gln Asp His Gln Trp Met Arg Asp Phe Gly
                    1080
```

```
Glu Ser Leu Leu Val Tyr Arg Pro Pro Ile Asp Thr Arg Ser Val Lys
 1090 1095 1100
Ala Val Met Gly Ala Lys Ser Asn Gly Asn Pro Glu Lys Ala Leu Asn
1105 1110 1115 1120
Phe Leu Thr Pro His Gln Lys Trp Gly Ile His Ser Thr Tyr Ser Asp
    1125 1130 1135
Asn Leu Leu Met Leu Thr Leu Ser Arg Gly Gly Pro Ile Val Trp Met
        1140 1145 1150
Ser Glu Ala Asp Ala Lys Asp Leu Gly Ile Glu Asp Asn Asp Trp Ile
   1155 1160 1165
Glu Val Phe Asn Ser Asn Gly Ala Leu Thr Ala Arg Ala Val Val Ser
 1170 1175 1180
Gln Arg Val Pro Ala Gly Met Thr Met Met Tyr His Ala Gln Glu Arg
1185 1190 1195 1200
Ile Val Asn Leu Pro Gly Ser Glu Ile Thr Glu Gln Arg Gly Gly Ile
      1205 1210 1215
His Asn Ser Val Thr Arg Ile Thr Pro Lys Pro Thr His Met Ile Gly
         1220 1225 1230
Gly Tyr Ala Gln Leu Ala Tyr Gly Phe Asn Tyr Tyr Gly Thr Val Gly
      1235 1240 1245
Ser Asn Arg Asp Glu Phe Val Val Val Arg Lys Met Lys Asn Ile Asn
 1250 1255 1260
Trp Leu Asp Gly Glu Gly Asn Asp Gln Val Gln Glu Ser Val Lys
                              1275
1265
      1270
<210> 6398
<211> 91
<212> PRT
<213> Enterobacter cloacae
<221>UNSURE
<222>(69)
<220>
<221>UNSURE
<222>(86)
<220>
<221>UNSURE
<222>(87)
<400> 6398
Arg Arg Thr Ala Leu Met His Phe Leu Asn Met Phe Phe Phe Asp Ile
                  10 15
Tyr Pro Tyr Ile Ala Gly Thr Val Phe Leu Val Gly Ser Trp Leu Arg
                                        30
          20
                        25
Tyr Asp Tyr Gly Gln Tyr Thr Trp Arg Ala Ala Ser Ser Gln Met Leu
             40 45
      35
Asp Arg Lys Gly Met Asn Leu Ala Ser Asn Leu Phe His Ile Gly Ile
                55 60
Leu Gly Ile Phe Xaa Arg Ser Leu Pro Gly Ala Leu Thr Pro His Trp
               7.0
                               75
                                             8.0
 Tyr Ser His Pro Ala Xaa Xaa Glu Leu Gln Ser
             85
<210> 6399
<211> 299
```

<sup>&</sup>lt;2112 29

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 6399
Tyr Ala Ala Leu Glu Asn Arg Ala Gly Glu Gly Gly Met Ile Trp His
                                1.0
Leu Phe Phe Gln Pro Phe Ile Glu Tyr Gly Phe Met Arg Arg Ala Leu
        20
                         25
                                               3.0
Val Val Cys Leu Ala Leu Ser Val Ser Thr Thr Ala Leu Gly Val Phe
             40
Leu Gln Leu Arg Arg Met Ser Leu Met Gly Asp Ala Leu Ser His Ala
                 55
Ile Leu Pro Gly Val Ala Val Gly Tyr Leu Leu Ser Gly Met Ser Leu
                                 75
                 7.0
Leu Ala Met Thr Val Gly Gly Phe Ile Ala Gly Ile Ala Val Ala Leu
             85
                      90
Val Ala Gly Leu Val Ser Arg Arg Thr Pro Leu Lys Glu Asp Ala Ser
                            105
          100
Phe Ala Gly Phe Tyr Leu Gly Ser Leu Ala Leu Gly Val Thr Leu Val
       115 120 125
Ser Leu Arg Gly Ser Asn Val Asp Leu Leu His Leu Leu Phe Gly Ser
           135
                                       140
   130
Ile Leu Ala Val Asp Ser Ala Ser Ala Leu Phe Val Thr Gly Val Cys
                 150
                                    155
Met Phe Thr Leu Leu Thr Leu Ala Ile Phe Tyr Arg Gly Leu Val Ser
             165
                                170
Glu Ala Phe Asp Thr Ala Trp Leu Gln Val Asn Ala Arg Trp Leu Pro
          180
                            185
                                              190
Gly Met Leu His Gly Leu Phe Leu Ala Leu Leu Val Leu Asn Leu Val
                         200
                                           205
       195
Ala Gly Phe Gln Val Leu Gly Thr Leu Met Ala Val Gly Leu Met Met
                     215
   210
Leu Pro Ala Val Ala Ala Arg Cys Trp Val Arg Thr Leu Pro Gly Leu
                 230
                                    235
Leu Leu Met Ala Gly Ile Ser Gly Ile Phe Cys Ala Trp Leu Gly Leu
                                 250
              245
                                                   255
Ser Leu Ser Trp Ala Val Ser Leu Pro Ala Gly Pro Ser Ile Val Leu
                            265
          260
Thr Ala Ser Ala Leu Phe Phe Ile Ser Val Leu Phe Gly Thr Arg Ser
           280
Arg Leu Ala Asp Ser Leu Arg Ala Leu Phe
```

290 <210> 6400 <211> 211

<212> PRT <213> Enterobacter cloacae

<400> 6400

Asn Lys Arg Leu Ser Gly Arg Cys Ala Arg Ile Gly Phe Phe Leu Lys Pro Pro Arg Lys Thr Arg Arg Ala Ser Pro Tyr Leu Met Arg Lys Cys 20 Tyr Leu Val Leu His Val Phe Leu Arg Pro Gly Ala Arg Met Thr Asp 40 His Glu Leu Met Gln Leu Ser Glu Val Val Gly Leu Ala Leu Lys Gln 55 Arg Gly Ala Thr Leu Thr Thr Ala Glu Ser Cys Thr Gly Gly Trp Val 75 8.0 Ala Lys Ala Ile Thr Asp Ile Ala Gly Ser Ser Ala Trp Phe Glu Arg 90 85 Gly Phe Val Thr Tyr Ser Asn Glu Ala Lys Ala Gln Met Ile Gly Val 105 1.00 Arg Glu Ala Thr Leu Glu Gln His Gly Ala Val Ser Glu Pro Val Val

```
Ile Glu Met Ala Ile Gly Ala Leu Lys Glu Ala Arg Ala Asp Tyr Ala
                                        140
 130
                      135
Ile Ser Ile Ser Gly Ile Ala Gly Pro Asp Gly Gly Ser Asp Val Lys
                  150
                                     155
Pro Val Gly Thr Val Trp Phe Gly Phe Ala Thr Ser Lys Gly Glu Gly
             165
                         170
                                                    175
Ile Thr Arg Arg Glu Cys Phe Ser Gly Asp Arg Glu Ser Val Arg Arg
        180 185
                                      190
Gln Ala Thr Glu Tyr Ala Leu Lys Thr Leu Trp Gln Gln Phe Leu Gln
                          200
Asn Thr
   210
<210> 6401
<211> 196
<212> PRT
<213> Enterobacter cloacae
<400> 6401
Leu Asp Phe Arg Ile Ile Met Ser Lys Ser Thr Ala Glu Ile Arg Gln
                                10
Ala Phe Leu Asp Phe Phe His Ser Lys Gly His Gln Val Val Ala Ser
                                                30
        20
                             25
Ser Ser Leu Val Pro Asn Asn Asp Pro Thr Leu Leu Phe Thr Asn Ala
                         40
                                            45
      35
Gly Met Asn Gln Phe Lys Asp Val Phe Leu Gly Leu Asp Lys Arg Asn
                      55
                                         60
Tyr Ser Arg Ala Thr Thr Ser Gln Arg Cys Val Arg Ala Gly Gly Lys
                  7.0
                                     7.5
His Asn Asp Leu Glu Asn Val Gly Tyr Thr Ala Arg His His Thr Phe
              8.5
                                                    95
Phe Glu Met Leu Gly Asn Phe Ser Phe Gly Asp Tyr Phe Lys His Asp
                             105 110
           100
Ala Ile Gln Tyr Ala Trp Glu Leu Leu Thr Gly Glu Asn Trp Phe Asn
                                            125
       115
                         120
Leu Pro Lys Glu Arg Leu Trp Val Thr Val Tyr Glu Thr Asp Asp Glu
                      135
                                         140
   130
Ala Phe Asp Ile Trp Glu Lys Glu Val Gly Ile Pro Arg Glu Arg Ile
                  150
                                     155
145
Ile Arg Ile Gly Asp Asn Lys Gly Ala Pro Tyr Ala Ser Asp Asn Phe
               165
                      170
Trp Gln Met Gly Asp Thr Gly Pro Val Phe Tyr His Gly Ala Gly Arg
           180
                              185
Ile Arg Ala
       195
<210> 6402
<211> 253
<212> PRT
<213> Enterobacter cloacae
<400> 6402
Asp Ile His Val Pro Val Phe Ser Leu Ile Leu Ala Ser Ala Ala Ala
                                 10
Gly Ala Gly Ala His Ser Val Ser Arg Pro Gly Arg Ala Leu Gly Gly
           20
                              25
Gly Val Ala Met Ile Val Met Asn Asp Leu Val Ala Gly Tyr Asp Arg
                          40
Gln Pro Val Thr Arg Ala Leu Ser Gly Val Ile Glu Arg Gly Ser Met
```

Thr Ala Ile Val Gly Ala Asn Gly Cys Gly Lys Ser Thr Leu Leu Lys 7.0 Thr Leu Ala Gly Phe Leu Pro Pro Val Ser Gly Thr Phe Arg Trp Gln 90 Gly Arg Arg Pro Val Val Gly Trp Leu Ala Gln Arg His Ala Leu Glu 105 110 Ala Gln Phe Pro Leu Thr Val Gln Asp Val Val Ser Met Gly Cys Trp 120 115 Pro Ala Ile Ser Leu Phe Ala Gly Phe Arg Arg Asp Ala Arg Met Arg 135 140 Ile Ala Gly Ala Leu Glu Arg Val Gly Leu Glu Ser Met Ala Phe Ser 155 160 145 150 Thr Ile Asp Glu Leu Ser Gly Gly Gln Phe Gln Arg Met Leu Phe Ala 165 170 175 Arg Val Leu Val Gln Gln Ala Pro Leu Val Met Leu Asp Glu Pro Phe 180 185 190 Thr Gly Val Asp Glu Ala Thr Cys Asn Val Leu Met Asp Leu Met Leu 195 200 205 Glu Met Tyr Met Gln Gly Gln Thr Leu Leu Ala Val Leu His Asp Ser 210 215 220 Glu Arg Val Ser Arg His Phe Pro Gln Thr Leu Arg Leu Asp Ala Asp 225 230 235 Thr Pro His Trp Lys Thr Glu Arg Val Arg Val Ala 245

<210> 6403 <211> 172 <212> PRT

<213> Enterobacter cloacae

<400> 6403 Ile Asp Arg Phe Phe Met Ser Glu Pro Thr Ser Arg Arg Pro Ala Tyr 10 Ser Arg Leu Leu Asp Arg Ala Val Arg Ile Leu Ala Val Arg Asp His 2.5 30 Ser Glu Gln Glu Leu Arg Arg Lys Leu Ser Ala Pro Val Met Ser Lys 40 4.5 Asn Gly Pro Glu Asp Ile Asp Ala Thr Ala Glu Asp Tyr Asp Arg Val 55 Val Ala Trp Cys Tyr Glu His His Tyr Leu Asp Asp Gly Arg Phe Ala 7.5 65 70 Ala Arg Phe Leu Ala Ser Arg Gly Arg Lys Gly Tyr Gly Pro Ala Arg 85 90 Ile Arg Gln Glu Leu Asn Gln Lys Gly Val Ala Arg Glu Ser Ile Glu 105 110 100 Lys Ala Met Arg Glu Ser Glu Ile Asp Trp Cys Glu Leu Ala Arg Glu 120 125 115 Gln Ala Val Arg Lys Tyr Gly Glu Pro Leu Pro Arg Glu Phe Ser Glu 135 140 130 Lys Val Lys Ile Gln Arg Phe Leu Leu Tyr Arg Gly Phe Leu Met Glu 145 150 155 Asp Ile Gln Asp Ile Trp Arg Asn Phe Thr Asp

<210> 6404 <211> 304 <212> PRT <213> Enterobacter cloacae

 $<\!400\!>$  6404 Pro Ala Gly Ala Phe Leu Thr Gln Gly Glu Thr Met Lys Arg Thr Gly

```
Leu Ala Val Ala Leu Ala Leu Gly Met Met Thr His Gly Val Met Ala
                            25
Lys Thr Leu Asn Val Val Thr Ser Phe Ser Ile Leu Gly Asp Ile Thr
                                          45
      35
                       40
Gln Gln Val Gly Gly Asp Arg Val Lys Val Thr Thr Leu Val Gly Pro
                   55
                                   60
Asp Gly Asp Pro His Thr Phe Glu Pro Ser Pro Lys Asp Ser Ala Ala
                     75
          70
Leu Ser Lys Ala Asp Val Val Val Val Asn Gly Leu Gly Leu Glu Gly
                            90
             8.5
Trp Leu Asp Arg Leu Val Lys Ala Ser Gly Phe Lys Gly Gln Leu Val
                 105
Val Ala Ser Asp Gly Val Lys Thr His Thr Leu Glu Glu Asp Gly Lys
                        120 125
      115
Thr Val Thr Asp Pro His Ala Trp Asn Ser Ala Ala Asn Gly Ala Leu
 130
                    135
Tyr Ala Gln Asn Ile Leu Ser Gly Leu Val Lys Ala Asp Pro Glu Asp
                 150
                                  155
145
Thr Ala Ala Leu Glu Ala Thr Gly Lys Pro Tyr Ile Ala Gln Leu Ser
              165
                      170
Gln Leu Asp Gly Trp Ala Lys Lys Arg Phe Ser Asp Ile Pro Gln Ala
          180
                 185
                                 190
Lys Arg Lys Val Leu Thr Ser His Asp Ala Phe Gly Tyr Phe Ser Arg
                     200 205
      195
Ala Tyr Gly Val Thr Phe Met Ala Pro Gln Gly Leu Ser Ser Glu Ser
                     215
                                       220
210
Glu Ala Ser Ala Ala Glr Val Ala Glu Ile Ile Asn Gln Ile Lys Ala
                 230
                                   235
Asp Gly Val Lys Thr Trp Phe Met Glu Asn Gln Leu Asp Pro Arg Leu
                               250
              245
Val Lys Gln Ile Ala Thr Ala Thr Gly Ala Gln Pro Gly Gly Glu Leu
                            265
                                             270
          260
Tyr Pro Glu Ala Leu Ser Ala Lys Gly Gly Val Ala Asp Thr Tyr Val
                        280
      275
Lys Ala Phe Arg His Asn Val Asp Thr Leu Ala Asn Ser Met Lys
   290
                                       300
                     295
```

<210> 6405 <211> 365 <212> PRT

<213> Enterobacter cloacae

<400> 6405

Ser Ala Val Ala Ser Pro Gly Met Thr Gly Val Ile Met Ala Ile Asp 10 Glu Asn Lys Gln Lys Ala Leu Ala Ala Leu Gly Gln Ile Glu Lys 25 Gln Phe Gly Lys Gly Ser Ile Met Arg Leu Gly Glu Asp Arg Ser Met 4.0 Asp Val Glu Thr Ile Ser Thr Gly Ser Leu Ser Leu Asp Ile Ala Leu 55 Gly Ala Gly Gly Leu Pro Met Gly Arg Ile Val Glu Ile Tyr Gly Pro 75 7.0 Glu Ser Ser Gly Lys Thr Thr Leu Thr Leu Gln Val Val Ala Ala Ala 85 90 Gln Arg Glu Gly Lys Thr Cys Ala Phe Ile Asp Ala Glu His Ala Leu 105 100 Asp Pro Val Tyr Ala Arg Lys Leu Gly Val Asp Ile Asp Asn Leu Leu 120 Cys Ser Gln Pro Asp Thr Gly Glu Gln Ala Leu Glu Ile Cys Asp Ala

```
Leu Ala Arg Ser Gly Ala Val Asp Val Ile Ile Val Asp Ser Val Ala
                          155
145
          150
Ala Leu Thr Pro Lys Ala Glu Ile Glu Gly Glu Ile Gly Asp Ser His
         165
                    170
Met Gly Leu Ala Ala Arg Met Met Ser Gln Ala Met Arg Lys Leu Ala
      180 185
                                    190
Gly Asn Leu Lys Gln Ser Asn Thr Leu Leu Ile Phe Ile Asn Gln Ile
  195 200
                        205
Arg Met Lys Ile Gly Val Met Phe Gly Asn Pro Glu Thr Thr Thr Gly
 210 215
                             220
Gly Asn Ala Leu Lys Phe Tyr Ala Ser Val Arg Leu Asp Ile Arg Arg
225 230 235
Ile Gly Ala Val Lys Glu Gly Asp Asn Val Val Gly Ser Glu Thr Arg
          245 250
Val Lys Val Val Lys Asn Lys Ile Ala Ala Pro Phe Lys Gln Ala Glu
       260 265 270
Phe Gln Ile Leu Tyr Gly Glu Gly Ile Asn Phe Leu Gly Glu Leu Val
    275 280 285
Asp Leu Gly Val Lys Glu Lys Leu Ile Glu Lys Ala Gly Ala Trp Tyr
290 295 300
Ser Tyr Asn Gly Asp Lys Ile Gly Gln Gly Lys Ala Asn Ala Ile Ser
305 310 315 320
Trp Leu Lys Glu Asn Pro Ala Ala Ala Lys Glu Ile Glu Lys Lys Val
          325 330 335
Arg Glu Leu Leu Asn Asn Gln Asp Ser Lys Pro Asp Phe Val Val
      340 345 350
Asp Gly Ala Asp Ala Glu Glu Thr Asn Glu Asp Phe
<210> 6406
```

<210> 6406 <211> 80 <212> PRT

<213> Enterobacter cloacae

<210> 6407 <211> 110 <212> PRT <213> Enterobacter cloacae

Tyr Glu Arg Leu Arg Met Thr Ser Asn Arg Tyr Ser Ser Ile Arg Val 65 75 75 86 Asn Ser Lys Tyr Arg Leu Phe Phe Glu Trp Asn Asp Gly Ala His Asn 90 95 Val His Leu Ser Ala His Asp Tyr Lys Ser Leu Ile His 100 105 110

<210> 6408 <211> 420 <212> PRT

<213> Enterobacter cloacae

<400> 6408 Gly Trp Leu Met Ser Thr Ile Ser Thr Asp Leu Ile Ala Arg Ile Tyr Ala Ala Ser Glu Leu Pro Leu Ser Asn Asp Glu Leu Tyr Arg Glu Val Gln Arg Glu Thr Gly Met Ser Asp Ala Glu Leu His Glu Leu Lys Glu Phe Gly Ser Asp Lys Thr Arg Thr Ser Gly Val Lys His Lys Val Arg Trp Phe Gln Gln Thr Leu Arg Gln Ala Gly Val Ile Glu Arg Val Pro Glu Lys Arg Gly Val Trp Arg Tyr Ser Ser Lys Thr Lys Thr Asn Leu His Glu Ser Trp Glu Lys Leu Cys Val Val Gly Phe Ser Thr Ser Leu Gly Ala Ser Val Phe Gly Asn Ala Tyr Ala Phe Phe Ser Asn Ile Thr Glu Gln Ile His Leu Cys Leu Thr Ser Pro Pro Tyr Leu Leu Arg Asn Ser Arg Asp Tyr Gly His Gly Gly Gly Arg Gly Glu Gln Val Tyr Ile Asp Trp Leu Leu Arg Ile Leu Glu Pro Ile Val Lys Gln Leu Val Pro Gly Ala Ser Val Ala Leu Asn Ile Thr Gln Asp Ser Phe Asn Arg Gly Arg Pro Ser Arg Ser Leu Tyr Leu Glu Arg Leu Thr Leu Ala Leu Cys Asp Lys Leu Gly Leu Glu Leu Met Asp Arg Leu Gln Trp Val Asn Arg Ser Lys Pro Pro Ser Pro Thr His Trp Ala Cys Lys Gln Arg Val Gln Leu Cys Ser Ser Tyr Glu Pro Val Leu Trp Phe Thr Asn Asp Ala Ser Lys Val Arg Ser Asn Asn Leu Arg Val Leu Gln Pro His Ser Glu Gln His Leu Lys Leu Gln Ala Ala Gly Gly Glu Asn Arg Thr Thr Phe Tyr Gly Asp Gly Ala Tyr Gln Leu Lys Ser Gly Ser Phe Gly Asn Lys Thr Glu Gly Thr Ile Pro Lys Asn Thr Leu Phe Tyr Gly Asn Ser Cys Ala Asp Thr Arg Phe Cys His Ser Ile Ala Arg Glu Leu Gly Phe Pro Leu His Gly Ala Thr Ser Pro Thr Arg Leu Ala Ala Phe Leu Ile Glu Phe Leu Thr Glu Pro Gly Asp Leu Val Val Asp Pro Phe Ala Gly Leu His Lys Val Pro Ile Ala Ala Glu Arg Leu Gly Arg Arg Trp Leu Ala Thr

```
2608
Asp Lys Ile Met Glu Trp Leu Ala Ile Ser Arg Asn Leu Phe Thr Ala
       390
                                  395
385
Ala Pro Gly Tyr Lys Ser Asn Pro Met Leu Asp Glu Leu Ala Glu Leu
            405
                    410
Tyr Arg Ala
          420
<210> 6409
<211> 272
<212> PRT
<213> Enterobacter cloacae
<400> 6409
Cys Gly Thr Ile Lys Asn Gly Gly Trp Pro Val Ser Tyr Ser Ile Lys
                               10
Ile Gly Lys His Ser Ile Glu Leu Ala Gly Tyr Ala Gly Lys Val Val
                           25
                                             30
          2.0
Ala Pro Asn Thr Gln Met Ala Ala Leu Phe Arg Gly Met Ala Gly Glu
                                         4.5
   35
                        40
Leu Thr Asn Leu Arg Thr Thr Ala Gln Gln Ala Glu Ala Glu Ala Asp
                     55
   50
Leu Leu Asp Val Ile Arg Asn Asp Pro Asp Leu Asn Glu Gln Ala Lys
                                   75
65
                 7.0
Asn Arg Arg Ala Gly Glu Ala Arg Asn Pro Asp Thr Leu Lys Asp Phe
             85
                               90
Thr Arg Gly Val Ala Ala Val Ser Glu Gln Ala Ala Asn Ile Leu Asp
          100
                            105
Tyr Leu Lys Asn Arg Leu Ala Pro Val Asn Pro Leu Ala Pro Asp Asp
                        120 125
    115
Val Gln Gly Phe Met Arg Asp Ser Glu Met Arg Gln Ala Phe Ala Arg
                     135
                                       140
   130
Leu Asp Arg Arg Ser Gln Glu Lys Met Leu Leu Ser Met His Ser Gly
                  150
                                   155
Lys His Gln Glu Leu Ala Asp Ala Leu Leu Arg Ala His Ala Val Cys
                    170
              165
Ser Gly Leu Asp Thr Glu Gln Leu Lys Arg Leu Gly Phe Ser Arg Ile
          180
                            185 190
Ala Ser Glu Asn Gly Gln Val Ile Ser Ala Val Ala Asp Leu Val Asp
                         200
                                           205
       195
Ala Val Arg Lys Asp Val Tar Gln Ile Thr Ala Val Arg Thr Trp Tyr
                                       220
                     215
   210
Asn Asn Leu Val Tyr Gly Lys Asn Asp Asp Pro Ser Glu Val Leu Pro
                  230
                                   235
225
Arg Met Thr Gly Leu Asp Gln Leu Ser Glu His Val Ser Ala Met Leu
                               250
              245
Lys Gly Ser Gln Arg Gln Thr His Ser Glu Glu Lys Gln Ala Ala
                             265
<210> 6410
<211> 195
<212> PRT
<213> Enterobacter cloacae
<400> 6410
Pro Gly Lys Thr Asn Met Thr Ile Lys Asn Ala Arg Ala Gly Gln Gly
```

Phe Ala His Pro Glu Asn Ser Ser Asp Asp Ile Ser Val Ile Lys Phe 25 30 20 Glu Asp Ala Lys Val Arg Ile Val Lys Ile Leu Gly Glu Pro Trp Phe 40 35 Val Ala Ala Asp Val Cys Ala Ala Leu Glu Ile Ala Asp His Lys Val Ala Leu Arg Arg Leu Asp Asp Glu Lys Gly Glu Cys Leu Ile Pro 75 7.0 Thr Pro Gly Gly Lys Gln Thr Met Arg Thr Val Cys Glu Ser Gly Phe 85 90 Tyr Lys Leu Ile Ser Arg Ser Arg Lys Ala Ile Thr Pro Gly Thr Phe 100 105 110 Ala His His Phe Ser Asn Trp Val Phe Arg Glu Val Ile Pro Ser Ile 115 120 Arg Lys Thr Gly Phe Tyr Gly Val Pro Phe Val Phe Leu Asn Asp Phe 130 135 140 Ser Arg Arg Met Ala Ala Tyr Gin Glu Ala Ser Lys Arg Gly Tyr 145 150 155 Lys Leu Gln Gln Cys Lys Gly Val Lys Glu Ala Leu Glu Arg Glu Glu 165 170 175 Ile Gln Leu Trp Leu Lys Tyr Gln Pro Glu Leu Leu Lys Glu Asn Gly 180 185 Asp Glu 195

195

<210> 6411 <211> 627 <212> PRT

<213> Enterobacter cloacae

<400> 6411 Ile Cys Phe Phe Arg Ala Gly Arg Arg Arg Lys Arg Tyr Arg Ser Asp 10 Tyr Ala Gly Thr Gly His Arg Thr Asn Ser Gly Tyr Ala Gly Asn His 2.5 Gln Gly Ala Arg Glu Gln Lys Met Lys Asn Ala Pro Asn Leu Lys Lys 40 Gln Pro Ala Asp Leu Met Glu Glu Ser Ile Ile Phe Ala Gly Ala Asp 5.5 Ala Trp Thr Phe Ala Lys Ala Trp Gln Glu Met Asn Pro Ile Gly Asp 70 75 Thr Val Pro Pro Val Val Leu Asp Lys Lys Gln Leu Ala Glu Leu Glu 90 95 8.5 Asn Ile Arg Ile Val Asp Asp Gly Arg Leu Tyr Ala Arg Val Cys Arg 100 105 Gly Gly His Leu Thr Glu Arg Gln Ile Thr Ile Leu Ala Thr Lys Leu 120 125 115 Ala Val Ala Gly Val Glu Arg Ala Gln Phe Tyr Ser Glu Gly Tyr Gln 130 135 140 Leu Leu Glu Asp Trp Thr Pro Gln Leu Pro Arg Leu Lys Ala Asp Ala 150 155 Gln Ala Gly Lys Ser Met Val Ile Gly Lys Pro Leu Thr Asp Val Asn 165 170 Leu Arg Asp Leu Ala Asp Asn Glu Lys Ala Leu Ile Leu Ala Ala Arg 180 185 Tyr Thr Gly Ile Ala Ile Asn Glu Asn Asn Glu Gly Val Tyr Val Tyr 200 205 195 Arg Ala Gly Ile Trp Glu Lys Thr Ser Leu Leu Glu Leu Ser Arg Glu 220 210 Met Val Ala Ile Tyr Asn Glu Asn Lys Thr Asn Phe Ser Lys Arg Ala 230 235 225 Ile Asn Asn Val Ile Asp Ala Leu Lys Ile Val Ile Pro Val Met Gly 245 250 255 Glu Pro Arq Arq Ser Leu Ile Pro Phe Ala Asn Gly Val Tyr Asp Met 265 270 Glu Thr Gly Val Phe Ser Glu His Ser Gln Asp Asn Trp Leu Thr Asn

```
280
His Asn Gly Val Ser Tyr Thr Pro Ala Val Pro Gly Glu Asn Leu Arg
                 295
                             300
Asp His Ala Pro Asn Phe His Lys Trp Leu Ser Tyr Ala Ser Asp Arg
      310
                            315
Asp Ala Ile Lys Met Gln Arg Ile Ala Ala Ala Leu Phe Met Val Leu
                                         335
         325 330
Ala Asn Arg Tyr Asp Trp Gln Leu Phe Leu Glu Ile Thr Gly Glu Gly
    340 345
                            350
Gly Ser Gly Lys Ser Val Phe Thr His Ile Ala Thr Met Leu Ala Gly
   355 360 365
Ala His Asn Thr Ala Ser Gly Asn Met Ala Ala Leu Asp Ser Ala Arg
 370 375 380
Gly Arg Ala Gln Phe Val Gly Lys Ser Met Ile Thr Leu Pro Asp Gln
    390 395
Pro Lys Tyr Ser Gly Glu Gly Thr Gly Ile Lys Ala Ile Thr Gly Gly
       405 410 415
Asp Ala Val Glu Ile Asp Pro Lys His Glu His Gln Tyr Thr Ala Val
        420 425 430
Leu Arg Ala Val Val Val Ala Thr Asn Asn Thr Pro Met Ile Phe Thr
435 440 445
Glu Arg Ala Gly Gly Val Ser Arg Arg Arg Val Ile Phe Gln Phe Asn
      455 460
Arg Arg Val Ser Glu Glu Asp Lys Asp Pro Asp Leu Ala Glu Lys Ile
465 470 475 480
Ser Ala Glu Ile Pro Val Val Val Arg Arg Leu Leu Ala Asn Phe Ala
           485 490 495
Asn Pro Glu Lys Ala Arg Ala Leu Leu Leu Glu Gln Arg Asn Ser Glu
            505 510
      500
Glu Ala Leu Glu Val Lys Gln Lys Thr Asp Pro Leu Tyr Ala Phe Cys
515 520 525
Ala His Leu Glu Arg Leu Ala Asp Cys Ala Gly Met Met Val Gly Asn
               535 540
Arg Asn Pro Pro His Tyr Pro Arg Ile Tyr Leu Tyr His Ala Tyr Leu
545 550 555
Ala Phe Leu Glu Ala Asn Gly Phe Asp Lys Pro Leu Thr Leu Asn Lys
           565 570 575
Phe Ala Glu Gly Met Glu Ser Ala Met Arg Glu Phe Asn His Glu Tyr
                     585
         580
Arg Lys Glu Arg Arg Ala Arg Gly Met Val Thr Asn Val Glu Leu Ser
   595 600 605
Glu Ser Ala Glu Asp Trp Leu Pro Gln Thr His Pro Val Ala Gly His
                 615
 610
Lys Glu
625
<210> 6412
<211> 131
<212> PRT
<213> Enterobacter cloacae
<400> 6412
Lys Thr Gln Tyr Leu Phe Phe Glu Asp Tyr Ala Leu Ile Asp Leu Trp
                          10
Leu Lys Ser Lys Arg Phe Phe Phe Glu Glu Lys Leu Leu Phe Tyr Tyr
                                       3.0
         20
                25
Leu Ser Arg Leu Lys Asn Arg Leu Phe Thr Leu Ser Ser Ser Thr Arg
              40
                                    45
Val Tyr Leu Ser Ala Phe Arg Asn Lys Gly Val Asn Met Ser Lys Ala
                 55
Leu Ile Arg Leu Pro Glu Val Gln Arg Arg Thr Gly Tyr Ser Lys Ala
```

```
Trp Ile Tyr Arg Leu Leu Lys Glu Arg Lys Phe Pro Gln Ser Val Lys
                             90
Ile Gly Ser Arg Ser Ile Ala Phe Val Glu Ser Glu Ile Asp Ala Trp
          100
                      105
Ile Thr Gln Arg Ile Glu Glu Arg Asp Ala Leu Leu Val Arg Arg Pro
               120
Gln Leu
  130
<210> 6413
<211> 325
<212> PRT
<213> Enterobacter cloacae
<400> 6413
Pro Leu Tyr Lys Val Tyr Phe Gly Asp Phe His Cys Phe Glu Pro Val
Met Lys Leu Ile Arg Gly Ile His Asn Leu Ser Gln Ala Pro His Gly
 20 25
                                            3.0
Cys Val Leu Thr Ile Gly Asn Phe Asp Gly Val His Arg Gly His Gln
 35
                   40
                                        4.5
Ala Leu Leu Gln Gly Leu Arg Lys Glu Gly Glu Ala Arg Gly Leu Pro
                  5.5
                                    60
Val Val Val Met Ile Phe Glu Pro Gln Pro Leu Glu Leu Phe Ala Gly
                7.0
                                  7.5
Glu Lys Ser Pro Ala Arg Leu Thr Arg Leu Arg Glu Lys Leu Arg Tyr
       8.5
                              90
Leu Ala Glu Ser Gly Val Asp Tyr Val Leu Cys Val Arg Phe Asp Arg
         100 105
Arg Phe Ala Ala Leu Thr Ala Gln Asn Phe Val Ser Asp Leu Leu Val
 115 120
                                        125
Arg Gln Leu Gly Val Gln Phe Leu Ala Val Gly Asp Asp Phe Arg Phe
                    135
                                     140
Gly Ala Gly Arg Gln Gly Asp Phe Leu Leu Leu Gln Lys Ala Gly Leu
145 150 155
Glu Tyr Gly Phe Asp Val Thr Ser Thr Met Thr Phe Cys Glu Gly Gly
       165
                              170
                                     175
Val Arg Val Ser Ser Thr Ala Val Arg Gln Ala Leu Ala Asn Asp Glu
         180
                           185
                                           190
Leu Asp Thr Ala Glu Thr Leu Leu Gly His Pro Phe Thr Ile Ser Gly
                       200
                                        205
Arg Val Val His Gly Asp Ala Leu Gly Arg Thr Ile Gly Phe Pro Thr
                    215
                                     220
Ala Asn Ile Pro Leu Arg Arg Gln Val Ser Pro Val Lys Gly Val Tyr
                230
                                  235
Ala Val Glu Val Ala Gly Leu Gly Glu Lys Pro Phe Tyr Gly Val Ala
             245
                              250
Asn Ile Gly Thr Arg Pro Thr Val Ala Gly Val Arg Gln Gln Leu Glu
          260
                           265
Val His Leu Leu Asp Val Val Met Asp Leu Tyr Gly Arg His Ile Asp
      275
                        280
                              285
Val Ile Leu His Lys Lys Ile Arg Asn Glu Gln Arg Phe Ala Ser Leu
                   295
                           300
Asp Glu Leu Lys Ala Gln Ile Ala Arg Asp Glu Leu Thr Ala Arg Glu
305
              310
                                 315
Phe Phe Gly Leu
```

<210> 6414 <211> 954 <212> PRT <213> Enterobacter cloacae

<400> 6414 Asn Arg Leu Asn Cys Leu Arg Asp Lys Tyr Gly Thr Glu Asn Leu Met 10 Ser Asp Tyr Lys Ser Thr Leu Asn Leu Pro Glu Thr Gly Phe Pro Met 25 Arg Gly Asp Leu Ala Lys Arg Glu Pro Gly Met Leu Ala Arg Trp Thr 35 40 Asp Asp Asp Leu Tyr Gly Ile Ile Arg Ala Ala Lys Lys Gly Lys Lys 50 60Thr Phe Ile Leu His Asp Gly Pro Pro Tyr Ala Asn Gly Ser Ile His 70 7.5 Ile Gly His Ser Val Asn Lys Ile Leu Lys Asp Ile Ile Val Lys Ser 85 90 95 Lys Gly Leu Ala Gly Tyr Asp Ser Pro Tyr Val Pro Gly Trp Asp Cys 100 105 110 His Gly Leu Pro Ile Glu Leu Lys Val Glu Gln Glu Tyr Gly Lys Pro 115 120 125 Gly Glu Lys Phe Thr Ala Ala Glu Phe Arg Ala Lys Cys Arg Glu Tyr 130 135 140 Ala Ala Thr Gln Val Asp Gly Gln Arg Ala Asp Phe Ile Arg Leu Gly 150 155 160 Val Leu Gly Asp Trp Ser His Pro Tyr Leu Thr Met Asp Phe Lys Thr 165 170 175 Glu Ala Asn Ile Ile Arg Ala Leu Gly Lys Ile Ile Gly Asn Gly His 190 180 185 Leu His Lys Gly Ala Lys Pro Val His Trp Cys Val Asp Cys Arg Ser 195 200 205 Ala Leu Ala Glu Ala Glu Val Glu Tyr Tyr Asp Lys Thr Ser Pro Ser 210 215 220 Ile Asp Val Ala Phe Glu Ala Val Asp Gln Asp Ser Ile Lys Ala Lys 225 230 235 Phe Gly Leu Pro Gly Val Ser Gly Pro Val Ser Leu Val Ile Trp Thr 245 250 Thr Thr Pro Trp Thr Leu Pro Ala Asn Arg Ala Ile Ser Leu Ser Gly 260 265 270 Glu Phe Glu Tyr Ala Leu Val Gln Ile Asp Gly Arg Ala Val Ile Leu 280 285 Ala Lys Asp Leu Val Glu Ser Val Leu Lys Arg Ala Asn Ile Thr Asp 290 295 300 Tyr Thr Val Leu Gly Thr Val Lys Gly Asp Ala Leu Glu Leu Met Arg 310 315 Phe Lys His Pro Phe Leu Asp Phe Asp Val Pro Ala Ile Leu Gly Asp 335 325 330 His Val Thr Leu Asp Ala Gly Thr Gly Ala Val His Thr Ala Gly Gly 340 345 His Gly Pro Asp Asp Tyr Asn Ile Ser Leu Lys Tyr Gly Leu Glu Ile 355 360 365 Ala Asn Pro Val Gly Pro Asp Gly Ser Tyr Leu Pro Gly Thr Tyr Pro 375 380 Ala Leu Asp Gly Ile Asn Val Phe Lys Ala Asn Asp Ile Ile Val Asp 395 390 Met Leu Arg Thr Ser Gly Ala Leu Leu His Val Glu Lys Met Gln His 405 410 Ser Tyr Pro Cys Cys Trp Arg His Lys Thr Pro Ile Ile Phe Arg Ala 420 425 Thr Pro Gln Trp Phe Val Ser Met Asp Gln Lys Gly Leu Arg Glu Gln 440 435 Ser Leu Lys Glu Ile Lys Gly Val Gln Trp Ile Pro Asp Trp Gly Gln

455 Ala Arg Ile Glu Ser Met Val Ala Asn Arg Pro Asp Trp Cys Ile Ser 470 475 480 Arg Gln Arg Thr Trp Gly Val Pro Met Ser Leu Phe Val His Lys Glu 485 490 495 Thr Gln Glu Leu His Pro Asn Thr Leu Glu Leu Met Glu Glu Val Ala 500 505 510 Lys Arg Val Glu Val Asp Gly Ile Gln Ala Trp Trp Asp Leu Asp Ala 515 520 525 Arg Asp Ile Leu Gly Ala Asp Ala Asp Asn Tyr Glu Lys Val Pro Asp 530 535 540 Thr Leu Asp Val Trp Phe Asp Ser Gly Ser Thr His Ala Ser Val Val 550 555 Asp Val Arg Pro Glu Phe Ala Gly His Ala Ala Asp Met Tyr Leu Glu 565 570 575 Gly Ser Asp Gln His Arg Gly Trp Phe Met Ser Ser Leu Met Ile Ser 580 585 590 Thr Ala Met Lys Gly Lys Ala Pro Tyr Arg Gln Val Leu Thr His Gly 595 600 605 Phe Thr Val Asp Gly Gln Gly Arg Lys Met Ser Lys Ser Ile Gly Asn 610 615 620 Thr Val Ser Pro Gln Asp Val Met Asn Lys Leu Gly Ala Asp Ile Leu 625 630 635 Arg Leu Trp Val Ala Ser Thr Asp Tyr Thr Gly Glu Met Ala Val Ser 645 650 655 Asp Glu Ile Leu Lys Arg Ala Ala Asp Ser Tyr Arg Arg Ile Arg Asn 660 665 670 Thr Ala Arg Phe Leu Leu Ala Asn Leu Asn Gly Phe Asp Pro Val Lys 675 680 685 Asp Met Val Lys Pro Glu Glu Met Val Val Leu Asp Arg Trp Ala Val 690 695 700 Gly Cys Ala Lys Ala Ala Gln Glu Asp Ile Leu Lys Ala Tyr Glu Ser 705 710 715 720 Tyr Asp Phe His Glu Val Val Gln Arg Leu Met Arg Phe Cys Ser Ile 725 730 735 Glu Met Gly Ser Phe Tyr Leu Asp Ile Ile Lys Asp Arg Gln Tyr Thr 740 745 750 Ala Lys Ala Asp Ser Val Ala Arg Arg Ser Cys Gln Ser Ala Leu Tyr 755 760 765 His Ile Ala Glu Ala Leu Val Arg Trp Met Ala Pro Ile Met Ser Phe 770 775 780 Thr Ala Asp Glu Ile Trp Gly Tyr Leu Pro Gly Asp Arg Glu Lys Tyr 785 790 795 Val Phe Thr Gly Glu Trp Tyr Glu Gly Leu Phe Asp Leu Ser Ser Thr 805 810 815 Glu Ala Met Asn Asp Ala Tyr Trp Asp Glu Leu Leu Lys Val Arg Gly 820 825 Glu Val Asn Lys Val Ile Glu Gln Ala Arg Ala Asp Lys Lys Val Gly 835 840 845 Gly Ser Leu Glu Ala Thr Val Thr Leu Tyr Ala Glu Pro Glu Leu Ala 860 855 Ala Lys Leu Thr Ala Leu Gly Asp Glu Leu Arg Phe Val Leu Leu Thr 870 875 Ser Gly Ala Lys Val Ala Asp Tyr Ala Glu Ala Ser Ala Asp Ala Gln 885 890 Gln Ser Glu Leu Leu Lys Gly Leu Lys Val Ala Leu Ser Lys Ala Asp 900 905 910 Gly Glu Lys Cys Pro Arg Cys Trp His Tyr Thr Thr Asp Val Gly Gln 915 920 Val Ala Glu His Ala Asp Ile Cys Gly Arg Cys Val Ser Asn Val Ala 935

```
Gly Asp Gly Glu Lys Arg Lys Phe Ala
                 950
<210> 6415
 <211> 183
 <212> PRT
 <213> Enterobacter cloacae
 <400> 6415
Arg Val Ala Ile Pro Ala Tyr Arg Ile Cys Gly Pro Arg Arg Pro Gly
                               10
Lys Arg Ser Ala Thr Gly Gln Gln Val Thr Gln Asn Lys Arg Ala Ile
                          25
Cys Met Ser Lys Ser Val Gln Ser Asn Ser Ala Val Leu Val His Phe
                      4.0
 Thr Leu Lys Leu Asp Asp Gly Ser Thr Ala Glu Ser Thr Arg Asn Asn
                     55
Gly Lys Pro Ala Leu Phe Arg Leu Gly Asp Thr Ser Leu Ser Glu Gly
              70
                                  7.5
Leu Glu Gln Gln Leu Leu Gly Leu Lys Glu Gly Glu Lys Lys Ala Phe
           8.5
                              90
Ser Leu Glu Pro Asp Ala Ala Phe Gly Val Pro Ser Pro Asp Leu Ile
        100 105 110
Gln Tyr Phe Ser Arg Arg Glu Phe Met Asp Ala Gly Glu Pro Glu Ile
 115 120 125
Gly Ala Ile Met Leu Phe Thr Ala Met Asp Gly Ser Glu Met Pro Gly
 130 135 140
Val Ile Arg Glu Ile Asn Gly Asp Ser Ile Thr Val Asp Pne Asn His
145 150 155 160
Pro Leu Ala Gly Arg Thr Val His Phe Asp Val Glu Val Leu Glu Ile
                        170
     165
Asp Pro Ala Leu Glu Ala
 180
<210> 6416
<211> 170
<212> PRT
<213> Enterobacter cloacae
<400> 6416
Val Cys Leu Met Ser Lys Thr Leu Cys Ser Thr Gly Leu Arg Trp Leu
                                                 15
Trp Leu Val Val Val Leu Ile Ile Asp Leu Gly Ser Lys Phe Leu
                           2.5
                                             30
Ile Leu Gln Asn Phe Ala Leu Gly Asp Thr Val Pro Leu Phe Pro Ser
                       4.0
Leu Asn Leu His Tyr Ala Arg Asn Tyr Gly Ala Ala Phe Ser Phe Leu
                    55
                                      60
Ala Asp Ser Gly Gly Trp Gln Arg Trp Phe Phe Ala Gly Ile Ala Ile
                 70
Gly Ile Cys Val Val Leu Ala Val Leu Met Tyr Arg Ser Lys Ala Thr
           85
                               90
Gln Lys Leu Asn Asn Ile Ala Tyr Ala Leu Ile Ile Gly Gly Ala Leu
                           105
                                             110
Gly Asn Leu Phe Asp Arg Leu Trp His Gly Phe Val Val Asp Met Ile
                        120
                                         125
Asp Phe Tyr Val Gly Asp Trp His Phe Ala Thr Phe Asn Leu Ala Asp
                  135
                                      140
Ser Ala Ile Cys Val Gly Ala Ala Leu Ile Val Leu Glu Gly Phe Leu
                150
Pro Lys Pro Ala Ala Lys Glu Gln Ala
```

```
<210> 6417
<211> 329
<212> PRT
<213> Enterobacter cloacae
<400> 6417
Lys Cys Trp Arg Ser Ile Arg His Trp Arg Pro Glu Met Gln Ile Leu
                        10
Leu Ala Asn Pro Arg Gly Phe Cys Ala Gly Val Asp Arg Ala Ile Ser
    20
                          25
Ile Val Glu Asn Ala Leu Glu Ile Tyr Gly Ala Pro Ile Tyr Val Arg
    3.5
                40
His Glu Val Val His Asn Arg Tyr Val Val Asp Ser Leu Arg Glu Arg
 50
                   55
Gly Ala Ile Phe Ile Glu Gln Ile Ser Glu Val Pro Asp Gly Ala Ile
                70
                                 75
                                                  80
Leu Ile Phe Ser Ala His Gly Val Ser Gln Ala Val Arg Asn Glu Ala
     85
                             90
Lys Asn Arg Asp Leu Thr Val Phe Asp Ala Thr Cys Pro Leu Val Thr
         100 105 110
Lys Val His Met Glu Val Ala Arg Ala Ser Arg Arg Gly Glu Glu Ser
 115
                      120
                                       125
Ile Leu Ile Gly His Ala Gly His Pro Glu Val Glu Gly Thr Met Gly
                    135 140
Gln Tyr Ser Asn Pro Gla Gly Gly Met Tyr Leu Val Glu Ser Pro Gla
               150
                                 155
Asp Val Phe Thr Leu Asn Val Lys Asn Glu Ala Arg Leu Ser Phe Met
             165 170
Thr Gln Thr Thr Leu Ser Val Asp Asp Thr Ser Asp Val Ile Asp Ala
         180
                          185
                                           190
Leu Arg Gln Arg Phe Pro Lys Ile Val Gly Pro Arg Lys Asp Asp Ile
195 200
                                        205
Cys Tyr Ala Thr Thr Asn Arg Gln Glu Ala Val Arg Ala Leu Ala Glu
 210
                   215
                                    220
Gln Ala Asp Val Val Leu Val Val Gly Ser Lys Asn Ser Ser Asn Ser
                230
                              235
Asn Arg Leu Ala Glu Leu Ala Gln Arg Met Gly Lys Ala Ala Phe Leu
             245
                              250
                                              255
Ile Asp Asp Ala Thr Asp Ile Gln Glu Ala Trp Val Lys Asn Ala Val
         260
                          265
Cys Val Gly Val Thr Ala Gly Ala Ser Ala Pro Asp Ile Leu Val Gln
      275
                       280
Asn Val Ile Ala Arg Leu Gln Glu Leu Gly Gly Gly Glu Ala Val Pro
                   295
                                    300
Leu Glu Gly Arg Glu Glu Asn Ile Val Phe Glu Val Pro Lys Glu Leu
              310
                                 315
Arg Ile Asp Ala Arg Glu Val Glu
             325
<210> 6418
```

<211> 128

<212> PRT

<213> Enterobacter cloacae

<400> 6418

Lys Met Thr Asn Arg Ala Ile Pro Leu Pro Asp Glu Gln Ala Thr Leu 10 Asp Leu Gly Lys Arg Val Ala Gln Ala Cys Gln Gly Ala Thr Val Ile 20

```
Tyr Leu Tyr Gly Asp Leu Gly Ala Gly Glu Thr Thr Phe Ser Arg Gly
     35
Phe Leu Gln Ala Leu Gly His Asn Gly Asn Val Lys Ser Pro Thr Tyr
                                 60
Thr Leu Val Glu Thr Tyr Thr Leu Glu Asn Ile Met Val Val His Phe
                      75 80
Asp Leu Tyr Arg Leu Ala Gly Pro Gly Arg Ala Gly Asn Leu Trp Gly
                      90
Ser Ala Ile Thr Leu Pro Thr Thr Pro Ser Ala Trp Trp Ser Gly Arg
         100
             105 110
Asn Lys Val Arg Val Cys Cys Leu Thr Arg Met Ser Lys Phe Thr
           120
<210> 6419
<211> 456
<212> PRT
<213> Enterobacter cloacae
<400> 6419
Pro Val Glu Arg Arg Asp Asn Gly Met Ile Asn Arg Val Lys Gly Trp
                         10
Val Leu Ala Ala Thr Val Leu Leu Cys Ala Gln Val Gly Ala Ala Ser
 20 25
                                       3.0
Leu Ser Asp Ile Gln Val Ser Ash Gly Asp Ser Gln Ala Arg Ile Thr
35 40
                         4.5
Phe Ser Phe Met Gly Asp Pro Glu Tyr Ala Phe Ser Gln Ile Asp Ser
50 55
Arg Ser Val Ala Leu Asp Ile Lys Gln Thr Gly Val Ile Gln Gly Leu
65 70
                            75
Pro Leu Gln Phe Ser Gly Asn Asn Leu Val Lys Ser Ile Arg Ser Gly
      85 90
Thr Pro Lys Asp Thr Gln Ser Leu Arg Leu Val Val Asp Leu Thr Glu
 100 105
                                       110
Lys Gly Lys Thr Lys Ala Val Lys Gln Gln Asn Gly Ala Asn Tyr Thr
 115 120 125
Val Val Phe Thr Ile Asn Ala Asp Val Pro Pro Pro Pro Pro Pro Pro
 130 135
                                 140
Ala Pro Val Val Ala Lys Arg Val Glu Ala Pro Val Tyr Thr Pro Arg
145 150
                             155
Pro Ser Glu Pro Ala Arg Asn Pro Phe Lys Ser Gln Asn Asp Arg Leu
      165 170
Thr Ala Val Thr Ser Ser Asn Tnr Val Thr Arg Pro Ala Val Ser Ala
   180 185
                            190
Arg Arg Thr Pro Val Ser Gly Asp Lys Val Ile Ile Ala Ile Asp Ala
                    200
                                    205
Gly His Gly Gly Gln Asp Pro Gly Ala Ile Gly Pro Gly Gly Thr Arg
                 215
                                 220
Glu Lys Asn Val Thr Ile Ala Ile Ala Arg Lys Leu Arg Ala Leu Leu
            230
                             235 240
Asn Asp Asp Pro Met Phe Lys Gly Val Met Thr Arg Asp Gly Asp Tyr
           245
                           250
Phe Ile Ser Val Met Gly Arg Ser Asp Val Ala Arg Lys Gln Asn Ala
        260
                       265
Asn Phe Leu Val Ser Ile His Ala Asp Ala Ala Pro Asn Arg Asn Ala
         280
Thr Gly Ala Ser Val Trp Val Leu Ser Asn Arg Arg Ala Asn Ser Glu
 290 295
                                300
Met Ala Asn Trp Leu Glu Glu His Glu Lys Gln Ser Glu Leu Leu Gly
305 310
                             315
Gly Ala Gly Asp Val Leu Ala Asn Ser Gln Ala Asp Pro Tyr Leu Ser
```

330

Gln Ala Val Leu Asp Leu Gln Phe Gly His Ser Gln Arg Val Gly Tyr 345 340 Asp Val Ala Thr Asn Val Leu Ser Gln Leu Gln Ser Ile Gly Ser Leu 360 365 355 His Lys Arg Arg Pro Glu His Ala Ser Leu Gly Val Leu Arg Ser Pro 370 375 380 Asp Ile Pro Ser Ile Leu Val Glu Thr Gly Phe Ile Ser Asn His Gly 390 395 400 Glu Glu Arg Leu Leu Gly Ser Asp Ser Tyr Gln Gln Gln Ile Ala Glu 405  $\phantom{000}410$   $\phantom{000}415$ Ala Ile Tyr Asn Gly Leu Arg Lys Tyr Phe Asp Ala His Pro Leu Gln 420 425 430 Ser Ala Pro Gln Gly Gly Ala Ala Gln Thr Ala Ser Ala Ala Leu Pro 435 440 Gly Glu Met Thr Ala Thr Asn 450 455 <210> 6420 <211> 606 <212> PRT <213> Enterobacter cloacae <400> 6420 Gly Glu Phe Met Pro Ile Gln Val Leu Pro Pro Gln Leu Ala Asn Gln 10 Ile Ala Ala Gly Glu Val Val Glu Arg Pro Ala Ser Val Val Lys Glu 20 25 Leu Val Glu Asn Ser Leu Asp Ala Gly Ala Thr Arg Ile Asp Ile Asp 4.0 Ile Glu Arg Gly Gly Ala Lys Leu Ile Arg Ile Arg Asp Asn Gly Cys Gly Ile Lys Lys Asp Glu Leu Ala Leu Ala Leu Ala Arg His Ala Thr 65 70 75 Ser Lys Ile Ala Ser Leu Asp Asp Leu Glu Ala Ile Ile Ser Leu Gly 8.5 90 Phe Arg Gly Glu Ala Leu Ala Ser Ile Ser Ser Val Ser Arg Leu Thr 100 105 110 Leu Thr Ser Arg Thr Ala Asp Gln Gln Glu Ala Trp Gln Ala Tyr Ala 115 120 125 Glu Gly Arg Asp Met Asp Val Thr Val Lys Pro Ala Ala His Pro Val 130 135 140 Gly Thr Thr Leu Glu Val Leu Asp Leu Phe Tyr Asn Thr Pro Ala Arg 145 150 155 160 Arg Lys Phe Met Arg Thr Glu Lys Thr Glu Phe Gly His Ile Asp Glu 165 170 Ile Ile Arg Arg Ile Ala Leu Ala Arg Phe Asp Val Thr Leu Asn Leu 180 185 Ser His Asn Gly Lys Val Met Arg Gln Tyr Arg Ala Val Ala Glu Gly 195 200 Gly Gln Lys Glu Arg Arg Leu Gly Ala Ile Cys Gly Thr Pro Phe Leu 210 215 220 Glu Lys Ala Leu Ala Ile Glu Trp Gln His Gly Asp Leu Ala Leu Arg 230 235 Gly Trp Val Ala Asp Pro Asn Ala Ser Ser Ala Ala Phe Ala Glu Ile 245 250 255 Gln Tyr Cys Tyr Val Asn Gly Arg Met Met Arg Asp Arg Leu Ile Asn 260 265 270 His Ala Ile Arg Gln Ala Cys Glu Asp Lys Leu Gly Ala Asp Gln Gln 280 Pro Ala Phe Val Leu Tyr Leu Glu Ile Asp Pro His Gln Val Asp Val

295

```
Asn Val His Pro Ala Lys His Glu Val Arg Phe His Gln Ser Arg Leu
               310
                              315
Val His Asp Phe Ile Tyr Gln Gly Val Ala Ala Val Leu Gln Gln Gln
            325
                            330
Ala Glu Pro Glu Leu Pro Leu Ala Lys Glu Glu Pro Ala Pro Arg Pro
         340
                        345 350
Leu Pro Glu Asn Arg Val Ala Ala Gly Arg Asn His Phe Ala Glu Pro
                     360
                          365
Ala Val Ala Arg Glu Pro Ala Ala Pro Arg Leu Ser Pro Ala Gly Asn
   370
                  375
                      380
Ala Pro Arg Pro Thr Gly Ala Asn Tyr Pro Asn Ala Gln Pro Gly Tyr
     390
                   395 400
His Lys Gln Gln Gly Ala Leu Tyr Arg Lys Leu Leu Asp Thr Pro Ala
          405 410 415
Val Glu His Lys Glu His Ile Thr Val Ser Thr Pro Ser Leu Asp Gly
         420
             425 430
His Ser Gln Ser Phe Gly Arg Val Leu Thr Ile Ile Ala Pro Asp Met
           440 445
Ala Leu Leu Glu Arg Glu Gly Lys Leu Leu Leu Leu Ala Leu Ser Val
       455 460
Ala Glu Arg Trp Leu Lys Gln Ala Gln Leu Thr Pro Gly Val Asn Ala
    470 475
Ala Cys Ala Gln Pro Leu Leu Ile Pro Val Arg Leu Lys Ile Ser Pro
       485 490
Glu Glu Thr Gly Val Leu Arg Arg Val Gln Thr Gln Leu Ala Glu Met
   500 505
Gly Ile Glu Ile Val Leu Asp Ala Gln His Val Thr Ile Arg Ala Val
 515 520
                                    525
Pro Leu Pro Leu Arg Gln Gln Asn Leu Gln Asn Leu Ile Pro Glu Leu
 530 535 540
Ile Gly Tyr Leu Ala Gln Gln Thr Thr Phe Asp Ala Ala Asp Thr Ala
545 550 555
Gln Trp Ile Ala Arg His Leu Ala Ser Glu His Ala Pro Trp Ser Met
       565 570
Ala Gln Ala Ile Thr Val Leu Ala Glu Val Glu Arg Leu Cys Pro Gln
    580 585 590
Leu Val Lys Ala Pro Ala Arg Trp Phe Val Thr Thr Cys
                     600
<210> 6421
<211> 108
<212> PRT
<213> Enterobacter cloacae
<400> 6421
Gly Lys Asp Arg Met Ala Lys Gly Gln Ser Leu Gln Asp Pro Phe Leu
                         10
Asn Ala Leu Arg Arg Glu Arg Val Pro Val Ser Ile Tyr Leu Val Asn
                        2.5
                                       30
Gly Ile Lys Leu Gln Gly Gln Ile Glu Ser Phe Asp Gln Phe Val Ile
                 40
Leu Leu Lys Asn Thr Val Ser Gln Met Val Tyr Lys His Ala Ile Ser
       55
                               60
Thr Val Val Pro Ser Arg Pro Val Ser His His Ser Asn Asn Ala Gly
              70
                            75
Gly Gly Thr Gly Ser Asn Tyr His His Gly Ser Asn Ala Gln Gly Ser
                    90
```

Ser Thr Pro Ala Gln Asp Ser Glu Glu Thr Glu

```
<211> 564
```

<212> PRT

<213> Enterobacter cloacae

<400> 6422 Arg Ala Ile His Ser Ile Ser Pro Trp Tyr Cys Leu Ser Ser His Ala 1.0 Trp Ser Leu Gly Ser Leu Ala Glu Arg Ser Val Ser Val Ile Pro Thr 20 25 Phe Trp Lys Pro Ser Ser Ala Pro His Cys Phe 11e Phe Cys Ala Asn 35 40 4.5 Ser Leu Arg Ser Arg Gly Cys Asp Met Thr Asp His Thr Val Lys Lys 5.5 Asn Leu Ala Ser Ile Pro His Ser Ile Trp His Ala Asp Asp Leu Arg 70 75 Arg Ala Glu Lys Glu Ala Ala Asp Ser Leu Gly Ile Thr Leu Tyr Glu 85 90 95 Leu Met Gln Arg Ala Gly Glu Ala Ala Phe Asn Val Ala Arg Thr Ala 100 105 110 Tyr Pro Asp Ala Ser His Tyr Leu Ile Leu Cys Gly His Gly Asn Asn 115 120 125 Gly Gly Asp Gly Tyr Val Val Ala Arg Leu Ala Val Ala Ala Gly Leu 130 140 Arg Val Thr Leu Met Ala Leu Glu Ser Asp Lys Pro Leu Pro Glu Glu 145 150 155 Ala Gly Met Ala Arg Glu Ala Trp Leu Asn Ala Gly Gly Ile Ile His 165 170 Ala Pro Asp Ile Ile Trp Pro Glu Asp Val Asp Val Ile Val Asp Gly 180 185 190 Leu Leu Gly Thr Gly Leu Met Arg Ala Pro Arg Asp Asp Val Ala Ala 195 200 205 Leu Ile Thr Arg Ala Asn Ala His Pro Ala Pro Val Val Ala Leu Asp 210 215 220 Ile Pro Ser Gly Leu Met Ala Gln Thr Gly Ala Thr Pro Gly Val Ser 225 230 235 Ile Glu Ala Ala His Thr Val Thr Pne Ile Ala Leu Lys Pro Gly Leu 245 250 250 255 Leu Thr Gly Lys Ala Arg Asp Val Val Gly Thr Leu His His Asn Ala 260 265 270 Leu Gly Leu Glu Asn Trp Leu Ile Gly Gln Asp Thr His Ile Thr Arg 275 280 285 Phe Asp Ala Ser Gln Leu Ala Gln Trp Leu Pro Pro Arg Arg Pro Thr 290 295 300 Ser His Lys Gly Asp His Gly Arg Leu Leu Ile Ile Gly Gly Asp His 305 310 315 Gly Thr Ala Gly Ala Ile Arg Met Thr Gly Glu Ala Ala Leu Arg Ser 325 330 Gly Gly Gly Leu Ile Arg Val Leu Thr Arg Ser Glu Asn Ile Pro Pro 345 Ile Ile Thr Ala Arg Pro Glu Leu Met Val His Glu Leu Thr Pro Gln 360 365 Ala Ile Glu Lys Gly Leu Glu Trp Ala Asp Val Val Ile Gly Pro 370 375 380 Gly Leu Gly Gln Gln Glu Trp Gly Lys Gln Ala Leu Gln Lys Ala Glu 390 395 Asn Phe Arg Lys Pro Met Leu Trp Asp Ala Asp Ala Leu Asn Leu Leu 405 410 415 Ala Ile Asn Pro Asp Lys Arg His Asn Arg Ile Leu Thr Pro His Pro 425 Gly Glu Ala Ala Arg Leu Leu Asn Cys Ser Val Ala Glu Ile Glu Ser 440

```
Asp Arg Leu Leu Ser Ala Gln Arg Leu Val Lys Arg Tyr Gly Gly Val
             455
                                        460
 Ala Val Leu Lys Gly Ala Giy Thr Val Ile Ala Ser Asp Asp Ala Met
             470
                                     475
Gly Ile Val Asp Ala Gly Asn Ala Gly Met Ala Ser Gly Gly Met Gly
               485
                                 490
Asp Val Leu Ser Gly Ile Ile Gly Ala Leu Leu Gly Gln Lys Leu Pro
           500
                             505 510
 Leu Tyr Asp Ala Ala Cys Ala Gly Cys Val Ala His Gly Thr Ala Ala
     515 520
Asp Arg Leu Ala Ala Arg Tyr Gly Thr Arg Gly Met Leu Ala Thr Asp
  530 535
Leu Phe Cys Thr Leu Arg Arg Val Val Asn Pro Asp Val Ile Asp Val
545 550
                                     555
Glu Asn Asp
<210> 6423
<211> 75
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(12)
<400> 6423
Phe Ile Ser Ser Cys Arg Thr Arg Lys Ser Arg Xaa Phe Met Gly Ile
                                 10
Arg Asp Tyr Phe Ala Asn Asp Ala Ile Cys Leu Val Glu Trp Pro Gln
           20
                              25
Gln Gly Ala Gly Val Leu Pro Asp Pro Asp Val Glu Ile His Leu Asp
 3.5
                          40
Tyr Gln Ala Gln Gly Arg Glu Ala Arg Ile Ser Ala Val Ser Ser Ser
                      55
Gly Cys Ser Leu Leu Ala Arg Leu Ala Gly
<210> 6424
<211> 318
<212> PRT
<213> Enterobacter cloacae
<400> 6424
Asn Met Thr Asp Val Ser Lys Ala Ser Leu Pro Lys Ala Ile Phe Leu
                                 10
Met Gly Pro Thr Ala Ser Gly Lys Thr Ala Leu Ala Ile Glu Leu Arg
                              25
                                                30
Lys Val Leu Pro Val Glu Leu Ile Ser Val Asp Ser Ala Leu Ile Tyr
       35
                                            45
Arg Gly Met Asp Ile Gly Thr Ala Lys Pro Asn Ala Asp Glu Leu Arg
   50
                                        60
Ala Ala Pro His Arg Leu Leu Asp Ile Leu Asp Pro Ala Gln Ala Tyr
                  70
                                    7.5
Ser Ala Ala Asp Phe Arg Arg Asp Ala Leu Ala Glu Met Ala Glu Ile
               8.5
                                 90
Thr Ala Ala Gly Arg Ile Pro Leu Leu Val Gly Gly Thr Met Leu Tyr
           100
                             105
                                               110
Phe Lys Ala Leu Leu Glu Gly Leu Ser His Leu Pro Ser Ala Asp Pro
                         120
Glu Val Arg Ala Lys Ile Glu Arg Gln Ala Ala Glu Gln Gly Trp Asp
```

```
135
Val Leu His Arg Gln Leu Glu Glu Ile Asp Pro Val Ala Ala Ala Arg
                        155
         150
                                               160
Ile His Pro Asn Asp Pro Gln Arg Leu Ser Arg Ala Leu Glu Val Phe
          165
                          170
                                175
Phe Ile Ser Gly Lys Thr Leu Thr Glu Leu Thr Gln Thr Ser Gly Asp
        180
                 185 190
Ala Leu Pro Tyr Gln Val His Gln Phe Ala Ile Ala Pro Ala Ser Arg
    195
            200 205
Glu Leu Leu His Gln Arg Ile Glu Gln Arg Phe His Gln Met Leu Ala
                215 220
Ser Asp Phe Glu Ala Glu Val Arg Ala Leu Phe Ala Arg Gly Asp Leu
              230
                    235
His Thr Asp Met Pro Ser Ile Arg Cys Val Gly Tyr Arg Gln Met Trp
                 250 255
            245
Ser Tyr Leu Glu Gly Glu Ile Ser Tyr Asp Glu Met Val Tyr Arg Gly
       260 265 270
Val Cys Ala Thr Arg Gln Leu Ala Lys Arg Gln Ile Thr Trp Leu Arg
   275 280 285
Gly Trp Lys Gly Val His Trp Leu Asp Ser Glu Lys Pro Gln Gln Ala
 290 295 300
Leu Asn Glu Val Ile Glu Val Ile Gly Asp Ile Ala Asp
                310
<210> 6425
<211> 124
<212> PRT
<213> Enterobacter cloacae
<400> 6425
Arg Gly Leu Arg Leu Phe Asp Arg Tyr Asp Ala Gly Glu Gln Ala Val
                            10
Leu Val His Ile Tyr Phe Ser Gln Asp Lys Asp Met Glu Asp Leu Gln
20
                  25
                                         3.0
Glu Phe Glu Ser Leu Val Ser Ser Ala Gly Val Glu Ala Met Gln Val
35 40
Ile Thr Gly Ser Arg Lys Ala Pro His Pro Lys Tyr Phe Val Gly Glu
                55
                                  60
Gly Lys Ala Val Lys Ile Ala Asp Ala Val Lys Ala Thr Gly Ala Ser
             70
Val Val Leu Phe Asp His Ala Leu Ser Pro Ala Gln Glu Arg Asn Leu
          85 90
Glu Ala Leu Cys Glu Cys Arg Val Ile Asp Arg Thr Gly Leu Ile Leu
        100 105
Asp Ile Phe Ala Gln Arg Ala Arg Thr His Glu Gly
<210> 6426
<211> 417
<212> PRT
<213> Enterobacter cloacae
<400> 6426
Arg Val Met Pro Arg Leu Ser Ala Ala Ser Phe Ser Ala Arg Arg Arg
                           10
Ser Ser Ala Cys Gln Met Glu Cys Gly Ile Leu Ala Arg Phe Phe Phe
        20
                       25
Thr Val Trp Ser Val Met Ser Gin Pro Leu Asp Leu Asn Glu Leu Ala
    35
                    40
```

Gln Lys Ile Lys Gln Trp Gly Ala Glu Leu Gly Phe Gln Lys Val Gly

5.5

```
Ile Thr Asp Thr Asp Leu Ser Ala Ser Glu Pro Lys Leu Gln Ala Trp
                             75
Leu Asp Lys Gln Tyr His Gly Glu Met Glu Trp Ile Ala Arq His Gly
           85
                          90
Met Met Arg Ala Arg Pro His Glu Leu Leu Pro Gly Thr Leu Arg Val
         100
             105 110
Ile Ser Val Arg Met Asn Tyr Leu Pro Ala Asn Ala Ala Phe Ala Arg
         120
     115
Thr Leu Lys Asn Pro Ser Leu Gly Tyr Val Ser Arg Tyr Ala Leu Gly
       135 140
Arg Asp Tyr His Lys Leu Leu Arg Asn Arg Leu Lys Lys Leu Gly Glu
    150 155
Thr Ile Gln Gln His Cys Val Ser Leu Asn Phe Arg Pro Phe Val Asp
       165 170 175
Ser Ala Pro Ile Leu Glu Arg Pro Ile Ala Glu Lys Ala Gly Leu Gly
       180 185 190
Trp Thr Gly Lys His Ser Leu Ile Leu Ser Arg Asp Ala Gly Ser Phe
   195 200 205
Phe Phe Leu Gly Glu Leu Leu Ile Asp Leu Pro Leu Pro Val Asp Ser
 210 215 220
Pro Val Glu Glu Gly Cys Gly Arg Cys Val Ala Cys Met Thr Ile Cys
225 230 235
                                         240
Pro Thr Gly Ala Ile Val Glu Pro Tyr Thr Val Asp Ala Arg Arg Cys
        245
                         250
Ile Ser Tyr Leu Thr Ile Glu Leu Glu Gly Ala Ile Pro Glu Glu Phe
        260
                       265 270
Arg Pro Leu Ile Gly Asn Arg Ile Tyr Gly Cys Asp Asp Cys Gln Leu
                   280
                       285
Ile Cys Pro Trp Asn Arg Tyr Ser Gln Leu Thr Asp Glu Glu Asp Phe
 290 295 300
Ser Pro Arg Lys Ala Leu His Ala Pro Gln Leu Ile Glu Leu Phe Ala
              310 315
Trp Ser Glu Ala Trp Pne Leu Lys Val Thr Glu Gly Ser Ala Ile Arg
           325 330
                                        335
Arg Ile Gly His Leu Arg Trp Leu Arg Asn Val Ala Val Ala Leu Gly
       340 345
                                     350
Asn Ala Pro Trp Asp Glu Ala Asn Leu Gln Ala Leu Glu Ser Arg Arg
     355 360 365
Gly Glu His Pro Leu Leu Asp Glu His Ile Glu Trp Ala Ile Ala Gln
 370 375
                               380
Gln Ile Glu Lys Arg Asn Ala Gly Val Val Glu Val Gln Leu Pro Lys
385 390
                           395 400
Lys Gln Arg Leu Val Arg Val Ile Glu Lys Gly Leu Pro Arg Asp Val
          405
                         410
```

```
<210> 6427
<211> 91
<212> PRT
<213> Enterobacter cloacae
```

```
Glu Val Leu Val Asp Gly Arg Leu Ile Tyr Thr Ala Asn Asp Leu Lys
                  70
Val Gly Leu Phe Gln Asp Thr Ser Ala Phe
              8.5
<210> 6428
<211> 150
<212> PRT
<213> Enterobacter cloacae
<400> 6428
Ile Gly Ile Val Ile Ala Arg Val Ser His Gln Leu Ala Ala Val Glu
                                  10
Val Asp Asn Ala Arg Gly His Ile Ala Asp Glu Arg Thr Val Val Gly
          2.0
                             25
Asp Glu Asp Asn Gly Ala Val Lys Gly Phe Gln Glu Pro Phe Gln Pro
      35
                          40
                                     4.5
Val Asn Arg Phe Asp Ile Gln Val Val Arg Arg Phe Val Gln Gln
                      55
                                       60
His Leu Arg Pro Ala His Gln Gly Thr Ala Gln Arg Arg Phe Thr Gln
                  70
                                    7.5
Pro Ala Ala Gly Glu Arg Arg Gln Leu His Ile Arg Phe Gln Ala Lys
              85
                     90
Leu Gly Gln His Phe Ile Asn Ala Val Phe Gln Leu Pro Gln Thr Val
        100 105
Val Ile Glu His Leu Leu His Phe Cys Gln Leu Val Glu Ile Leu Val
 115
                         120
                              125
Ala Arg Val Arg His Asp Gln Met Arg Asn Leu Val Val Thr Leu Glu
 130
Val Phe Arg Leu Leu
145
<210> 6429
<211> 105
<212> PRT
<213> Enterobacter cloacae
<400> 6429
Val Thr Ser Leu Pro Arg Ser Arg Ser Thr Met Arg Val Ala Ile Leu
                                 10
Arg Met Asn Glu Arg Ser Trp Glu Met Lys Ile Met Val Pro Leu Lys
                             25
                                                30
Val Phe Arg Asn Pro Ser Ser Gln Ser Ile Ala Ser Ile Ser Arg Trp
                         4.0
                                            45
Phe Val Gly Ser Ser Ser Ser Thr Leu Gly Pro Leu Thr Arg Ala
                      5.5
                                        60
Arg Pro Ser Ala Ala Leu Arg Ser Gln Pro Pro Glu Ser Ala Asp Ser
                  7.0
                                                       80
Ser Ile Ser Ala Ser Arg Pro Ser Trp Ala Ser Thr Ser Leu Met Arg
              8.5
                                 90
Phe Ser Ser Cys His Arg Pro Trp
<210> 6430
<211> 419
<212> PRT
<213> Enterobacter cloacae
<400> 6430
Ser Met Cys Asp Gln His His Ala Asp Arg His Ile Leu Cys Ser Gln
```

```
Cys Asp Met Leu Val Ala Leu Pro Glu Leu Gly His Gly His Lys Ala
                     25
         20
Ala Cys Pro Arg Cys Gly Ala Thr Leu Thr Thr Glu Trp Asp Ala Pro
                     40
Arg Gln Arg Pro Thr Ala Tyr Ala Leu Ala Ala Leu Phe Met Leu Leu
                  55
Leu Ser Asn Leu Phe Pro Phe Ile Tyr Met Lys Val Gly Gly Met Thr
                              75
Ser Gln Val Asp Leu Leu Glu Ile Pro Gly Val Met Phe Ser Glu Asp
                          90
Tyr Ala Ser Leu Gly Thr Phe Phe Leu Leu Phe Val Gln Ile Val Pro
                     105 110
         100
Ala Phe Cys Leu Val Val Ile Leu Leu Leu Val Asn Arg Val Arg Met
     115
                    120 125
Pro Thr Val Leu Lys Ile Lys Leu Ala Arg Ile Leu Phe Gln Leu Lys
                135 140
 130
Ser Trp Gly Met Ala Glu Ile Phe Leu Ala Gly Ile Leu Val Ser Phe
            150 155 160
Val Lys Leu Met Ala Tyr Gly Asp Val Gly Ile Gly Ser Ser Phe Ile
      165 170 175
Pro Trp Cys Leu Tyr Cys Val Leu Gln Leu Arg Ala Phe Gln Cys Val
 180 185 190
Asp Arg Arg Trp Ala Trp Asp Asp Ile Ala Pro Ala Pro Thr Leu Ser
 195 200 205
Gln Thr Val Lys Val Gly Val Pro Gly Ile Arg Gln Gly Leu Arg Ser
210 215 220
Cys Ser Cys Cys Thr Ala Val Leu Pro Ala Asp Val Glu Val Cys Pro
225 230 235
Arg Cys Glu Thr Lys Gly His Val Arg Arg Lys Asn Ser Leu Gln Trp
           245 250
Thr Met Ala Leu Leu Val Thr Ser Val Met Leu Tyr Leu Pro Ala Asn
   260 265
                                      270
Ile Leu Pro Ile Met Ile Thr Asp Leu Leu Gly Asp Arg Met Pro Ser
275
                     280
Thr Ile Leu Ala Gly Val Ile Leu Leu Trp Ser Glu Gly Ser Tyr Pro
 290 295
                                300
Val Ala Gly Val Ile Phe Leu Ala Ser Ile Met Val Pro Thr Leu Lys
305
            310
                             315
                                            320
Met Ile Ala Ile Ala Trp Leu Cys Trp Asp Ala Lys Gly His Gly Lys
           325
                          330
                                          335
Arg Asp Ser Glu Arg Met His Leu Ile Tyr Glu Val Val Glu Phe Val
        340
                       345
                                       350
Gly Arg Trp Ser Met Ile Asp Val Phe Val Ile Ala Val Leu Ser Ala
     355
                    360
                                    365
Leu Val Arg Met Gly Gly Leu Met Ser Ile Tyr Pro Ala Met Gly Ala
 370 375
                                 380
Leu Met Phe Ala Leu Val Val Ile Met Thr Met Phe Ala Ala Met Thr
              390 395
Phe Asp Pro Arg Leu Ser Trp Asp Arg Glu Pro Asp Ser Ser His Glu
                          410
Glu Glu
```

<210> 6431 <211> 77 <212> PRT <213> Enterobacter cloacae

<400> 6431 Pro Ser Thr Leu Val Tyr Arg Gly Ile Val Ser Pro Ile Gln Ala Met 1.0

```
2625
Arg Lys Ser Lys Ser Met Glu Asn Lys Ser Gly Glu Ala Lys Val Gln
                               25
Lys Val Arg Asn Trp Ser Pro Val Trp Ile Phe Pro His Arg Asp Arg
                                             4.5
Ala Asp Arg Cys Met Asp Pro Val Leu Ser Leu Gln Pro Ser Gly Thr
                      55
Gly Ser His Ala Asn Tyr His Gln Cys Arg Gly Asp
                   7.0
<210> 6432
<211> 193
<212> PRT
<213> Enterobacter cloacae
<400> 6432
Glu Gly Glu Thr Met Lys Lys Trp Leu Ile Ile Ala Gly Ala Leu Val
                                10
Leu Thr Ala Cys Ser Phe Gly Ser Asp Asn Lys Ser Tyr Tyr Gln Leu
           20
                              25
                                                 30
Pro Leu Ser Ala Gln Ser Gly Ala Gln Ser Ser Thr Ser Gln Gly Ser
 35
                         40
                                             4.5
Arg Leu Leu Trp Val Glu Gln Val Ala Val Pro Asp Tyr Leu Ala Gly
                      55
Asn Gly Val Val Tyr Gln Thr Ser Asp Val Gln Tyr Val Ile Ala Asn
                  70
                                   7.5
                                                         80
Asn Asn Leu Trp Ala Ser Pro Leu Asp Gln Gln Leu Arg Asn Thr Leu
             8.5
                                 90
Val Ala Asn Leu Ser Ser Gln Leu Pro Gly Trp Val Val Ala Ser Gln
          100
                              105
Pro Leu Gly Ser Asp Gln Asp Thr Leu Asn Val Asn Val Thr Gly Phe
      115
                          120
His Gly Arg Tyr Asp Gly Ala Val Val Ile Ser Gly Glu Trp Leu Leu
                  135
                                         140
Asn His Gln Gly Gln Leu Ile Lys Arg Pro Phe His Leu Glu Leu Lys
                  150 155
Gln Gln Lys Asp Gly Tyr Asp Glu Met Val Lys Val Leu Ala Gln Gly
              165
                                  170
```

```
<210> 6433
<211> 675
<212> PRT
<213> Enterobacter cloacae
```

<400> 6433 Arg Val Val Gln Gly Gly Val His Phe Glu Gly Asp Thr Arg Leu Ile Tyr Gln Ser Leu Met Trp Ser Arg Leu Ala Ser Arg Ile Met Leu Pro 20 Met Lys Glu Cys Lys Val Tyr Ser Asp Leu Asp Leu Tyr Thr Gly Val 40 Gln Met Ile Asp Trp Thr Glu Ile Phe Thr Pro Asp Ala Thr Phe Ala 55 60 Val His Phe Asn Gly Val Asn Asp Glu Ile Arg Asn Ser Gln Tyr Gly 70 7.5 Ala Leu Arg Val Lys Asp Ala Ile Val Asp Cys Phe Thr Arg Arg Asn 90 Lys Glu Arg Pro Asn Val Asp Arg Glu Asn Pro Asp Leu Arg Ile Asn

Trp Ala Gln Glu Ser Ala Ala Ile Ala Arg Glu Ile Ser Arg Leu Pro 185

1.00 105 Val Trp Leu Asn Gly Asp Thr Ala Ser Ile Ser Leu Asp Leu Ser Gly 115 120 125 Ala Gly Leu His Leu Arg Gly Tyr Arg Asp Arg Thr Gly Met Ala Pro 135 140 Ile Lys Glu Thr Leu Ala Ala Ile Val Met Arg Ser Gly Trp Gln 150 155 160 Pro Gly Thr Pro Leu Leu Asp Pro Met Cys Gly Ser Gly Thr Leu Leu 165 170 175 Ile Glu Ala Ala Met Leu Ala Thr Asp Arg Ala Pro Gly Leu His Arg 180 185 190 Gly His Trp Gly Phe Lys Gly Trp Ala Gln His Asp Glu Ala Ile Trp 195 200 205 Lys Glu Val Lys Asp Asp Ala Gln Thr Arg Ala Arg Lys Gly Leu Ala 210 215 220 Glu Tyr Thr Ser His Phe Tyr Gly Ser Asp Ser Asp Ala Arg Val Ile 230 235 240 Glu Arg Ala Arg Ser Asn Ala Arg Arg Ala Gly Ile Gly Glu Leu Val 245 250 255 Thr Phe Glu Val Lys Asp Val Ala Asn Leu Thr Asn Pro Leu Pro Lys 260 265 270 Gly Pro Tyr Gly Thr Val Ile Ser Asn Pro Pro Tyr Gly Glu Arg Leu 275 280 285 Asp Ser Glu Pro Ala Leu Ile Ala Leu His Ser Leu Leu Gly Arg Asn 290 295 300 Met Lys Ala His Phe Gly Gly Trp Asn Leu Ser Leu Phe Ser Ala Ser 310 315 Pro Glu Leu Leu Ser Cys Leu Gln Leu Arg Ala Asp Arg Gln Phe Lys 325 330 335 Ala Lys Asn Gly Pro Leu Asp Cys Val Gln Lys Asn Tyr His Leu Ala 340 345 350 Glu Ile Ala Ala Asp Ser Lys Pro Ser Gly Val Ala Glu Asp Tyr Ala 355 360 365 Asn Arg Leu Arg Lys Asn Leu Lys Lys Phe Glu Lys Trp Ala Lys Gln 370 375 380 Glu Gly Ile Glu Cys Tyr Arg Leu Tyr Asp Ala Asp Leu Pro Glu Tyr 385 390 395 400 Asn Val Ala Val Asp Arg Tyr Ala Asp Trp Val Val Val Gln Glu Tyr 405 410 415 Ala Pro Pro Lys Thr Ile Asp Ala Gln Lys Ala Arg Gln Arg Met Leu 420 425 Asp Val Ile Ala Ala Thr Phe Ala Val Leu Gly Ile Ser Pro Asn Lys 435 440 445 Leu Val Leu Lys Thr Arg Glu Arg Gln Lys Gly Lys Asn Gln Tyr Gln 450 455 460 Lys Met Gly Glu Lys Gly Asp Phe Ile Glu Val Gly Glu Tyr Asn Ala 465 470 475 480 Arg Leu Trp Val Asn Leu Thr Asp Tyr Leu Asp Thr Gly Leu Phe Leu 485 490 495 Asp His Arg Ile Ala Arg Arg Met Leu Gly Gln Met Ser Lys Gly Lys 500 505 510 Asp Phe Leu Asn Leu Phe Ser Tyr Thr Gly Ser Ala Ser Val His Ala 515 520 525 Gly Leu Gly Gly Ala Arg Ser Thr Thr Thr Val Asp Met Ser Arg Thr 530 535 540 Tyr Leu Glu Trp Ala Glu Arg Asn Leu Arg Leu Asn Gly Leu Thr Gly 545 550 555 560 Arg Gln His Arg Leu Leu Gln Ala Asp Val Leu Gly Trp Leu Arg Asp 565 570 575 Thr Asp Glu Gln Phe Asp Leu Ile Phe Ile Asp Pro Pro Thr Phe Ser 585

```
Asn Ser Lys Arg Met Glu Asp Ser Phe Asp Val Gln Arg Asp His Leu
   595
                     600
Arg Leu Met Thr Asp Leu Lys Arg Leu Leu Arg Lys Gly Gly Thr Ile
                  615
                                 620
Met Phe Ser Asn Asn Lys Arg Gly Phe Arg Met Asp His Asp Gly Leu
                     635
             630
Ala Glu Leu Gly Leu Lys Ala Gln Glu Ile Ser Gln Lys Thr Leu Ser
                 650 655
            645
Gln Asp Phe Ala Arg Asn Arg Gln Ile His Asn Cys Trp Leu Ile Ser
              665 670
Ala Val
     675
<210> 6434
<211> 636
<212> PRT
<213> Enterobacter cloacae
<400> 6434
Met Ser Leu Ile Ser Met His Gly Ala Trp Leu Ser Phe Ser Asp Ser
                           1.0
Pro Leu Leu Asp Asn Ala Glu Leu His Ile Glu Asp Asn Glu Arg Val
 20
                        25
Cys Leu Val Gly Arg Asn Gly Ala Gly Lys Ser Thr Leu Met Lys Ile
35
                  40
Leu Asn Arg Glu Gln Gly Leu Asp Asp Gly Arg Ile Val Tyr Glu Gln
                 5.5
Asp Leu Ile Val Ser Arg Leu Gln Gln Asp Pro Pro Arg Asn Val Thr
            70
                             75
Gly Ser Val Tyr Asp Phe Val Ala Glu Gly Ile Ser Glu Gln Ala Glu
           85 90
Tyr Leu Lys Arg Tyr His Glu Ile Ser His Leu Val Met Thr Asp Pro
   100 105
                                        110
Ser Asp Lys Asn Leu Asn Glu Leu Ala Lys Val Gln Glu Met Leu Asp
   115 120 125
His His Gly Leu Trp Gln Leu Glu Asn Arg Ile Asn Glu Val Leu Ala
 130 135 140
Gln Leu Gly Leu Glu Ala Asp Met Glu Leu Ser Ala Leu Ser Gly Gly
145 150 155
                                             160
Trp Leu Arg Lys Ala Ala Leu Gly Arg Ala Leu Val Ser Gly Pro Lys
           165 170
                                           175
Val Leu Leu Asp Glu Pro Thr Asn His Leu Asp Ile Glu Ala Ile
   180 185
                                       190
Asp Trp Leu Glu Gly Phe Leu Lys Thr Phe Asn Gly Thr Ile Ile Phe
     195 200 205
Ile Ser His Asp Arg Ser Phe Ile Arg Asn Met Ala Thr Arg Ile Val
  210 215
                                 220
Asp Leu Asp Arg Gly Lys Leu Val Thr Tyr Pro Gly Asp Tyr Asp Thr
             230 235
Tyr Leu Leu Glu Lys Glu Glu Asn Leu Arg Val Glu Glu Leu Gln Asn
           245 250
                                          255
Ala Glu Phe Asp Arg Lys Leu Ala Gln Glu Glu Val Trp Ile Arg Gln
                       265
                                       270
Gly Ile Lys Ala Arg Arg Thr Arg Asn Glu Gly Arg Val Arg Ala Leu
     275 280
Lys Ala Met Arg Arg Glu Arg Ser Glu Arg Arg Glu Val Met Gly Ser
      295
Ala Lys Met Gln Val Glu Glu Ala Ser Arg Ser Gly Lys Ile Val Phe
305 310
                              315
Glu Met Glu Asn Val Asn Tyr Ser Val Asp Gly Lys Val Leu Val Asn
```

```
Asp Phe Ser Ala Gln Val Gln Arg Gly Asp Lys Ile Ala Leu Ile Gly
   340
                       345
Pro Asn Gly Cys Gly Lys Thr Thr Leu Leu Lys Leu Met Leu Gly Gln
    355
                    360
                                  365
Leu Gln Ala Asp Ser Gly Arg Ile His Cys Gly Thr Lys Leu Glu Val
                               380
                 375
Ala Tyr Phe Asp Gln His Arg Ala Glu Leu Asp Pro Asp Arg Thr Val
              390 395 400
Met Asp Asn Leu Ala Glu Gly Lys Gln Glu Val Met Val Asn Gly Lys
           405 410 415
Pro Arg His Val Leu Gly Tyr Leu Gln Asp Phe Leu Phe His Pro Lys
    420 425 430
Arg Ala Met Thr Pro Val Arg Ala Leu Ser Gly Gly Glu Arg Asn Arg
 435
         440 445
Leu Leu Leu Ala Arg Leu Phe Leu Lys Pro Ser Asn Leu Leu Ile Leu
 450 455 460
Asp Glu Pro Thr Asn Asp Leu Asp Val Glu Thr Leu Glu Leu Leu Glu
   470
                            475
Glu Leu Ile Asp Gly Tyr Gln Gly Thr Val Met Leu Val Ser His Asp
      485 490
Arg Gln Phe Val Asp Asn Thr Val Thr Glu Cys Trp Ile Phe Glu Gly
 500 505
                                     510
Glu Gly Arg Ile Gly Gln Tyr Val Gly Gly Tyr His Asp Ala Arg Gly
515 520
                                  525
Gln Gln Ser Gln Ser Leu Ala Gln Lys Gln Ala Lys Thr Lys Asn Val
530 535
                               540
Ala Glu Pro Val Val Ala Lys Ala Glu Thr Val Lys Lys Ser Pro Ala
545 550
                            555
Lys Met Ser Tyr Asn Leu Gln Arg Glu Leu Glu Gly Leu Pro Gln Arg
 565
Leu Glu Glu Leu Glu Ala Ala Leu Glu Ala Leu Gln Ile Gln Val Ala
580 585
                                     590
Asp Ala Ser Phe Phe Thr Gln Pro His Asp Tyr Thr Gln Lys Val Leu
595
                   600
Ala Glu Leu Ser Gln Ala Glu Gln Ala Leu Glu Glu Ala Phe Glu Arg
610 615 620
Trp Glu Tyr Leu Glu Ser Leu Lys Asn Gly Ala
              630
```

<210> 6435 <211> 552 <212> PRT

<213> Enterobacter cloacae

<400> 6435 Gly Arg Val Arg Ala Trp Lys Ile Arg Val Glu Arg Leu Lys Cys Arg 10 Arg Ser Glu Thr Gly Arg Arg Cys Gly Phe Ser Pro Ile Val Thr Ala 25 Leu Ile Gly Ala Trp Ile Leu Phe Tyr His Tyr Ser His Gln Gly Pro 40 4.5 Glu Val Thr Leu Ile Thr Thr Asn Ala Glu Gly Ile Glu Gly Gly Lys 55 Thr Thr Ile Lys Ser Arg Ser Val Asp Val Gly Val Val Glu Ser Ala 70 75 Thr Leu Thr Asp Asp Leu Thr His Val Glu Ile Lys Ala Arg Leu Asn 85 90 95 Ala Gly Met Glu Lys Leu Leu His Glu Asp Ser Val Phe Trp Val Val 100 105 110 Lys Pro Gln Val Gly Arg Glu Gly Ile Ser Gly Leu Gly Thr Leu Leu 120

```
Ser Gly Ala Tyr Ile Glu Leu Gln Pro Gly Asn Lys Gly Ala Gln Pro
         135 140
Ala Asn Tyr Gln Leu Leu Asp Ser Pro Pro Leu Ala Pro Pro Asp Ala
         150
Lys Gly Ile Arg Val Ile Leu Asp Ser Lys Lys Ala Gly Gln Leu Ser
              170
           165
Pro Gly Asp Pro Val Leu Phe Arg Gly Tyr Arg Val Gly Ser Val Glu
        180 185 190
Thr Ser Thr Phe Asp Pro Gln Lys Arg Thr Ile Ser Tyr Gln Leu Phe
     195
         200
                       205
Ile Asn Ala Pro Asn Asp Arg Leu Val Thr Ser Asn Val Arg Phe Trp
 210 215 220
Lys Asp Ser Gly Ile Ala Val Asp Leu Thr Ser Ala Gly Met Arg Val 225 230 230
Glu Met Gly Ser Leu Thr Thr Leu Phe Gly Gly Gly Val Ser Phe Asp
         245 250 255
Val Pro Glu Gly Ile Asp Leu Gly Gln Pro Val Ala Glu Lys Thr Ala
       260 265 270
Phe Arg Leu Phe Asp Asp Gln Lys Ser Ile Gln Asp Ala Leu Tyr Thr
 275 280 285
Asp His Ile Asp Tyr Leu Met Phe Phe Lys Asp Ser Val Arg Gly Leu
290 295 300
Gln Pro Gly Ala Pro Val Glu Phe Arg Gly Ile Arg Leu Gly Thr Val
305
   310 315
Gly Gln Val Pro Tyr Phe Val Pro Gly Leu Lys Gln Met Leu Asp Asp
      325 330 335
Asp Tyr Arg Ile Pro Val Leu Ile Arg Ile Glu Pro Glu Arg Leu Ile
 340 345 350
Asn Gln Ile Gly Glu Asp Gln Asp Ile Gly Glu His Ile Ser Asp Leu
355 360 365
Leu Asn Arg Gly Leu Arg Gly Ser Leu Lys Thr Gly Asn Leu Val Thr
370 375
                              380
Gly Ala Leu Tyr Val Asp Met Asp Pne Tyr Pro Lys Ala Pro Pro Met
385 390 395 400
Thr Gly Val Arg Glu Phe Gly Gly Tyr Lys Ile Ile Pro Thr Val Ser
      405 410 415
Ser Gly Leu Ala Gln Ile Gln Gln Arg Leu Met Glu Thr Leu Asp Lys
  420 425
Ile Asn Asn Leu Pro Leu Asn Pro Met Leu Glu Ala Ala Thr Gly Ser
435 440 445
Leu His Gln Ser Gln Ala Thr Met Leu Arg Leu Gln Thr Thr Leu Asp
450 455 460
Asn Ile Asn Lys Ile Thr Ala Asn Gln Ser Met Gln Gln Leu Pro Gln
465 470 475
Asp Met Gln Lys Thr Leu Arg Glu Leu Asn Arg Ser Met Gln Gly Phe
         485 490 495
Gln Pro Gly Ser Ala Ala Tyr Asn Lys Met Val Ala Asp Met Gln Arg
        500 505 510
Leu Asp Gln Val Leu Arg Glu Leu Gln Pro Val Leu Lys Thr Leu Asn
    515 520 525
Glu Lys Ser Asn Ala Leu Val Phe Glu Ala Lys Asp Lys Lys Asp Pro
530 535
                              540
Glu Pro Lys Arg Ala Lys Gln
<210> 6436
```

<211> 133

<212> PRT

<213> Enterobacter cloacae

Val Phe Tyr Phe Ser Asn Thr Thr Arg Cys Phe Tyr Cys Asp Glu Asn Asn Ile Ser Arg Pro Glu Asp Ala Ile Glu Val Ser Glu Gln Asp Val 25 His Lys Tyr Ser Gly Gln Asn Pro Gln Trp Met Leu Pro Asn Val Ser 45 4.0 Glu Gly Gly Lys Met Glu Trp Ile Asp Asp Ile Ser Ile Asp Lys Arg 60 Thr Ala Arg Tyr Glu Ile Asn Lys Gln Glu Lys Glu Arg Leu Leu Asn 7.0 Arg Thr Ile Lys Glu Arg Tyr Thr Leu Glu Val Ile Gly Gln Thr Ser 85 90 Val Leu Ser Val Glu Gln Ser Thr Met Met Gln Ser Leu Ser Ala Tyr 100 105 110 Ile Asn Glu Leu Asn Gln Val Asp Leu Tyr Ala Asp Asn Pro Val Trp 115 120 Pro Ile His Pro 130

<210> 6437 <211> 358 <212> PRT

<213> Enterobacter cloacae

<400> 6437 Glu Val Asn Met Thr Thr Asp Phe Leu His Gly Val Arg Thr Ile Glu 1.0 Tyr Asp Asp Gly Thr Glu Glu Ile Ser Thr Val Thr Val Ser Val Ile 25 3.0 Gly Ile Val Gly Thr Ala Pro Asp Ser Thr Ala Ala Thr Cys Ala Ser 40 45 Leu Val Thr Gly Ser Glu Leu Thr Asn Asn Lys Ile Thr Trp Gln Ala 5.5 Glu Asp Ala Gly Ile Lys Gly Asn Ser Phe Ser Val Glu Ile Val Pro 70 7.5 Gly Asp Val Tyr Pro Ala Asn Thr Lys Trp Gly Gly Asp Val Asn Tyr 90 85 Ser Thr Ile Tyr His Tyr Ser Ile Lys Pro Asp Gly Ser Leu Lys Leu 100 105 Ser Val Arg Met Pro Val Asp Ser Asp Gly Lys Lys Leu Met Asn Ala 1.15 120 Glu Leu Ile Thr Ser Ile Trp Asp Met Val Pro Pro Leu Asp Asn Tyr 135 Cys Arg Ile Lys Ala Ile Ile Tyr Ser Thr Ser Asn Asp Asn Gly Lys 145 150 155 160 Val Met Tyr Met Ser Glu Thr Asn Leu Ala Gly Gly Ala Asp Glu Ala 165 170 Phe Pro Leu Asn Val Pro Thr Val Ile Ala Gly Ser Thr Thr Lys Ala 180 185 Ala Lys Leu Gly Ala Thr Gly Thr Leu Pro Ala Asp Ile Asn Asp Ile 195 200 205 Phe Asn Gln Thr Arg Ala Leu Ile Val Val Val Arg Val Ala Asp Asp 215 220 Ala Asp Ala Ser Lys Leu Gln Gln Asn Val Ile Ala Gly Leu Asn Thr 230 235 Leu Pro Ser Ser Gly Gln Leu Asn Glu Val Met Pro Arg Ile Ile Ile 245 250 255 Ala Pro Asp Phe Ser Ala Thr Asp Pro Val Ala Val Gln Ile Glu Val 260 265 270 Ile Ala Asn Lys Val Arg Gly Val Gly Tyr Ile Asp Ser Pro Ser Phe 275 280

Ala Thr Ala Lys Asp Val Ala Leu Arg Arg Gln Ser Tyr Gly Lys Arg 290 295 Val Glu Ile Leu Arg Pro Arg Val Phe Thr Thr Ser Ser Ala Gly Ser 310 305 315 320 Thr Ser Arg Ala Tyr Ser Ala Ser Ala Ala Gly Leu Arg Cys Pro Ile 325 330 335 Asp Asn Lys Lys Gly Phe Trp Trp Ser Lys Ser Asn Gln Gln Ile Met 340 345 Gly Arg Asp Ser Thr 355 <210> 6438 <211> 194 <212> PRT <213> Enterobacter cloacae <400> 6438 Thr Arg His Arg Ser Leu Leu Leu Lys Met Trp Pro Cys Ala Gly Arg 10 Val Thr Glu Ser Ala Ser Lys Ser Tyr Ala Arg Ala Cys Leu Leu Pro 20 25 Val Gln Arg Val Ala Arg His Ala His Ile Gln Arg Ala Arg Arg Ala 35 40 Tyr Val Val Gln Leu Ile Thr Arg Lys Ala Phe Gly Gly Val Ser Pro 5.0 55 Ile Asn Lys Ser Trp Gly Val Thr Ala Leu Glu Gln Val Asp Glu Tyr 70 80 Ile Ile Gly Asp Asp Thr Cys Val Val Asn Leu Leu Asn Lys Asn Gln 85 90 Val Ser Thr Ile Val Arg Arg Ser Gly Phe Lys His Trp Gly Asn Tyr 100 105 110 Leu Cys Ser Thr Asp Pro Pro Trp Ala Phe Glu Cys Val Arg Arg Thr 115 120 Ala Asp Val Ile Glu Asp Ser Ile Ala Asp Thr Val Glu Asn Glu Phe 130 135 140 Ile Asp Arg Pro Ile Asp Leu His Leu Gly Asp Asp Ile Ile Glu Ser 145 150 155 Ile Asn Gly Phe Ile Arg Tyr Leu Phe Asp Ile Gly Ala Ile Asn Gly 165 170 Gly Lys Ala Trp Leu Asp Pro Glu Leu Asn Thr Lys Glu Ser Leu Ala 180 185 Gly <210> 6439 <211> 175 <212> PRT <213> Enterobacter cloacae <400> 6439 Lys Gly Ile Lys Met Ala Glu Ala Asn Val Tyr Arg Ala His Ala Leu Trp Val Gln Gly Arg Leu Val Cys Gly Cys Glu Ser Tyr Thr Pro Val 20 25 Asp Met Lys Ile Ile Glu Asp Glu Phe Lys Thr Gly Ser Met Asp Met 40 45 Ala Met Thr Leu Asp Gly Gly Met Glu Arg Met Gly Ala Ser Phe Lys 5.5 Val Lys Gly Ser Asp Val Asp Val Met Ser Met Phe Gly Phe Ile Pro 70 75 Gly Val Arg Thr Arg Phe Glu Ile Arg Ser Ala Phe Val Thr Asn Ser

Gly Glu Thr Ile Ile Arg Lys Asp Phe Tyr Glu Gly Pro Ile Thr Gly 100 105 Ile Thr Asp Asp Glu Glu Gly Thr Asp Ser Lys Ser Gly Val Gly Gln 115 120 125 Thr Val Thr Ile Ala Pro Asn Tyr Phe Lys Arg Ile Gln Gly Asp Lys 135 140 Glu Ile Tyr Glu Ile His Pro Ala Lys Met Ile Arg Arg Val Asn Gly 150 155 Val Asn Val Leu Gly Glu Ile Ala Ser Gly Leu Lys Ile Tyr 165 <210> 6440 <211> 513 <212> PRT <213> Enterobacter cloacae <400> 6440 Gly Ser Tyr Val Lys Lys Met Ala Ile Ser Gln Asn Phe Arg Ser Thr 10 Val Thr Phe Gly Gly Arg Val Asp Pro Ser Phe Arg Arg Gly Ser Asp 20 2.5 30 Glu Leu Lys Gly Ala Ile Lys Glu Ala Gly Gln Ser Val Ser Gln Leu 40 Thr Lys Arg Gln Glu Lys Leu Lys Gln Gln Met Ala Ser Leu Lys Leu 50 5.5 60 Ala Gly Lys Asp Val Ser Ala Leu Ile Lys Gln Tyr Glu Lys Leu Ser 65 70 7.5 Arg Gln Ile Val Asn Ala Thr Glu Asp Gln Glu Lys Leu Asn Gln Gln 85 90 Leu Lys Arg Gln Glu Arg Leu Asp Lys Trp Lys Gly Arg Ala Ala Ala 100 105 110 Val Pro Lys Trp Ala Gly Lys Ala Ala Trp Gly Ala Ala Lys Gly Leu 120 Ala Phe Ser Ser Leu Ala Pro Ala Ala Met Phe Ala Gly Ala Ile Gln 130 135 140 Met Asn Ser Glu Thr Ser Glu Lys Leu Gly Leu Ala Lys Ser Tyr Gly 150 155 Val Gly Ile Asp Lys Tyr Gly Ala Trp Glu Asn Ile Ala Lys Lys Ala 165 170 Gly Leu Asn Gly Glu Asn Val Gly Asp Leu Ala Glu Glu Leu Thr Asn 185 190 Lys Ile Gly Glu Lys Asp Asn Glu Lys Thr Phe Asn Pro Met Leu Ala 195 200 Gln Ile Asn Leu Ser Lys Arg Arg Met Ala Gly Trp Ser Arg Glu Lys 215 220 Gln Phe Asp Glu Val Met Ser Arg Ile Ser Arg Met Lys Asp Glu Lys 230 235 Gln Ala Ala Ser Leu Ala Asp Gln Leu Met Gly Gly Glu Ala Asn Lys 245 250 255 Ile Met Thr Tyr Met Arg Met Thr Gly Lys Thr Trp Glu Gln Thr Met 260 265 Ala Lys Ala Lys Lys Ser Asn Leu Leu Thr Gln Glu Gly Ala Glu Gly 275 280 285 Ala Ala Arg Ala His Phe Ala Val Thr Asn Leu Trp Gly Ala Ile Thr 295 300 Ser Gly Leu Ser Asp Thr Leu Gly Lys Ile Gly Gly Glu Leu Glu Pro 310 315 Asp Ile Asn Arg Phe Lys Glu Ser Thr Ile Ser Trp Phe Lys Glu Asn 325 330

Gln Gly Ala Phe Val Glu Gly īle Arg Asn Trp Ile Lys Pro Asp Glu

345 350 Ser Gly Arg Thr Gly Pro Gln Arg Leu Phe Asp Thr Val Lys Lys Phe 355 360 365 Gly Glu Gly Leu Leu Glu Leu Gly Lys Ile Val Trp Ala Val Ala Lys 375 380 Lys Leu Ala Trp Ile Leu Pro Asp Asp Glu Lys Asn Gln Ala Lys Ile 390 395 Asp Glu Phe Val Lys Asn Gly Asn Ser Tyr Glu Gly Ala Lys Ser Leu 405 410 Ala Asp Glu Tyr Gly Leu Glu Asp Trp Phe Lys Glu Asn Tyr Thr Pro 420 425 430 Glu Lys Val Ala Ala Ala Gln Gln Lys Ala Ala Gly Glu Gly Glu Thr 435 440 445 Pro Ala Ala Leu Ala Lys Arg Gln Ala Ser Gln Pro Val Gly Tyr Gly 450 455 460 Asn Tyr Ser Pro Arg Val Glu Ile Asn Val Gln Ala Leu Pro Gly Gln 465 470 475 Ser Ala Glu Glu Val Gly Gln Ser Thr Tyr Ala Ala Phe Lys Ala Gly 485 490 Leu Pro Thr Ala Pro Gly Gly Ser Gly Ala Met Tyr Asp Ile Pro Gly 505

<210> 6441 <211> 73 <212> PRT <213> Enterobacter cloacae

<400> 6441 Phe Met Ala Ile Thr Tyr Thr Thr Arg Asp Gly Asp Arg Leu Asp Thr 1.0 Ile Cys Leu Lys Ile Tyr Gly Lys Thr Gly Lys Thr Thr Glu Glu Val 20 30 Leu Tyr Gln Val Ala Asn Tyr Gly Val Val Asp Met Cys Ala Val Phe 40 4.5 Pro Ala Gly Lys Glu Ile Val Leu Pro Glu Ile Ser Ser Glu Pro Ile 55 60 Val Glu Ala Thr Gln Leu Trp Glu 7.0

<210> 6442 <211> 103 <212> PRT

<213> Enterobacter cloacae

<400> 6442 Arg Ser Val Arg Ala Ala Phe Gln Tyr Asp Tyr Ser Trp Asn Lys Ser 10 15 Met Ala Arg Ile Ser Gly Ile Tyr Ala Asn Gly Phe Gly Glu Pro Val 25 Ala Gly Val Cys Ile Leu Leu Thr Ala Arg Ala Thr Ser Ser Gly Val 35 4.0 Val Met Ala Thr Thr Ala Asn Gln Val Thr Gly Glu Asp Gly Ser Tyr 50 55 Gly Phe Asp Leu Arg Pro Gly Val Tyr Val Val Thr Ala Asn Gly Leu 70 65 7.5 Tyr Leu Gly Val Ile Thr Val Ser Asp Asp Ser Gln Asp Gly Thr Leu 8.5 90 Asn Asp Tyr Leu Val Ile

```
<210> 6443
 <211> 302
 <212> PRT
 <213> Enterobacter cloacae
<400> 6443
Lys Leu Val Met Val Ile Val Cys His Asn Thr Arg Gln Thr Arg Arg
                                1.0
Arg Phe Ile Met Ile Ala Ile Thr Gly Ala Thr Gly Gln Leu Gly Gln
           20
                             25
His Val Ile Glu Glu Leu Leu Lys Thr Val Pro Ala Ser Gln Ile Val
       35
                         40
Ala Ile Val Arg Asn Leu Ala Lys Ala Glu Ala Leu Arg Gln Gln Gly
                   55
   50
Val Val Val Arg Gln Ala Asp Tyr Thr Asp Glu Ala Ala Phe Thr Thr
65
                70
                                    7.5
Ala Leu Asn Gly Val Asp Lys Leu Leu Leu Ile Ser Ser Ser Glu Val
             8.5
                      90
Gly Gln Arg Ala Val Gln His Gln Asn Val Ile Asn Ala Ala Lys Ala
          100
                            105
                                               110
Ala Gly Val Lys Phe Ile Ala Tyr Thr Ser Leu Leu His Ala Asp Lys
      115
                      120
                                           125
Ser Pro Leu Gly Leu His Val Glu His Val Glu Thr Glu Asn Ala Leu
 130 135
                                       140
Ala Ala Ser Gly Val Pro Tyr Ala Leu Leu Arg Asn Gly Trp Tyr Thr
     150 155
Glu Asn Tyr Leu Ala Ser Ala Pro Pro Ala Leu Glu His Gly Val Phe
              165 170
                                                   175
Met Gly Ala Ala Gly Glu Gly Lys Ile Ala Ser Ala Thr Arg Ala Asp
        180
                            185
                                               190
Tyr Ala Ala Ala Ala Lys Val Ile Ser Glu Glu Gly His Ala Gly
 195
                        200
                                           205
Lys Val Tyr Glu Leu Ala Gly Asp Asn Ala Trp Thr Leu Ser Glu Leu
                    215
                                        220
Ala Ala Glu Leu Ser Lys Gln Ser Gly Lys Pro Val Thr Tyr Gln Asn
                 230
                                    235
Leu Ser Glu Ala Asp Phe Ala Ala Ala Leu Lys Gly Val Gly Leu Pro
              245
                                250
Ala Gly Leu Ala Glu Met Leu Ala Asp Ser Asp Thr Gly Ala Ser Lys
                           265
Gly Gly Leu Phe Asp Asp Ser His Thr Leu Ser Lys Leu Ile Gly Arg
                        280
Pro Thr Thr Pro Leu Ala Glu Ser Val Lys Ala Ile Leu
                     295
                                        300
<210> 6444
<211> 281
<212> PRT
<213> Enterobacter cloacae
<400> 6444
Pro Thr Arg Arg Leu Thr Val Gln Gly Val Pro Glu Gln Phe Thr Asp
                                10
Glu Arg Asp Ser Ala Arg Phe Arg His Leu Ala Gln Leu Pro Gly Leu
         20
                             25
                                               30
Glu Leu Tyr His Ala His Ile Ser Asp Tyr Ala Phe Glu Pro His Thr
                         40
                                           45
His Glu Ala Phe Gly Ile Gly Thr Ile Glu Thr Gly Ala Glu Arg Phe
                     55
                                       60
Arg Tyr Arg Gly Thr Gln His Leu Ala Ala Glu Lys Ser Val Val Thr
```

Met Asn Pro Asp Glu Ile His Thr Gly Glu Ser Ala Thr Glu Gly Gly 85 90 Trp Arg Tyr Arg Met Val Tyr Ile Glu Pro Asp Leu Leu Glu Glu Val 100 105 110 Thr Gly Leu Arg His Trp Trp Phe Ser Asp Val Thr Arg His Asp Pro 115 120 125 Leu Arg Ser Gln Gln Ile Gly Gln Leu Ile Tyr Gly Leu Trp His Thr 130 135 140 Asp Asp Pro Leu Ala Gln Lys Gly Leu Leu Leu Asp Leu Ile Gln Thr 145 150 155 Phe Gln Pro Leu Ala His His Ala Pro Val Val Gln Glu Ala Thr His 165 170 Arg Phe Glu Arg Val Arg Asp Tyr Leu His Asp Asn Tyr Met Arg Ser 180 185 190 Leu Thr Leu Asp Glu Leu Ala Asn Val Val Ser Leu Ser Pro Tyr His 200 205 Phe Gln Arg Gln Phe Lys Ala His Phe His Val Thr Pro His Gln Met 210 215 220 Leu Met Ala Ile Arg Leu Trp Arg Ala Lys Ala Phe Leu Thr His Gly 230 235 Met Pro Ala Ala Glu Val Ala Ala Ala Thr Gly Leu Thr Asp Gln Ser 245 250 His Leu Thr Arg Ala Phe Thr Arg Arg Tyr Gly Ile Thr Pro Val Arg 260 265 Tyr Gln Lys Gln Val Met Pro Arg 275 <210> 6445 <211> 328 <212> PRT <213> Enterobacter cloacae <400> 6445 Ile Lys Met Asp Gly Lys Met Ile Ser Gly Val Leu Tyr Ala Leu Leu 10 Ala Gly Leu Met Trp Gly Leu Ile Phe Val Gly Pro Leu Ile Val Pro 25 30 Glu Tyr Pro Ala Ile Leu Gln Ser Thr Gly Arg Tyr Leu Ala Leu Gly 3.5 Leu Ile Ala Val Pro Leu Ala Trp Leu Gly Arg Thr Arg Leu Arg Gln 55 Leu Gly Arg Gln Asp Trp Leu Thr Ala Leu Ala Leu Thr Met Met Gly 70 75 Asn Leu Ile Tyr Tyr Val Cys Leu Ala Ser Ala Ile Gln Arg Thr Gly 85 90 Ala Pro Val Ser Thr Met Ile Ile Gly Thr Leu Pro Val Val Ile Pro 100 105 Val Phe Ala Asn Leu Leu Tyr Ser Gln Arg Asp Gly Lys Leu Ala Trp 115 120 125 Ser Lys Met Ala Pro Ala Leu Val Cys Ile Ala Val Gly Leu Val Cys

Ser Lys Met Ala Pro Ala Leu Val Cys Ile Ala Val Gly Leu Glu Asn Phe Ser Val Trp Ide Ile Ser Val Val Cys Trp Ide Ile Val Cys Ile Val Trp Ide Ile Val Cys Val Cys Val Trp Leu Gly Ser Glu Asn Ile Val Cys Val Cys Val Cys Val Cys Ile Val Cys Ile Val Cys Val Cys Val Cys Cys Val Cys Ile Val Cys Val Cys Val Cys Val Cys Cys Val Cy

```
215
                                220
Gln Pro Ala Phe Thr Leu Pro Phe Gly Pro Arg Pro Trp Val Phe Val
                      235 240
       230
Gly Leu Met Val Ala Ile Ala Val Leu Cys Ser Trp Val Gly Ala Leu
          245
                250 255
Cys Trp Asn Ile Ala Ser Gln Lys Leu Pro Thr Val Ile Leu Gly Pro
      260
             265 270
Leu Ile Val Phe Glu Thr Leu Ala Gly Leu Leu Tyr Thr Phe Leu Met
    275
          280 - 285
Arg Gln Ser Val Pro Pro Leu Leu Thr Ala Cys Gly Ile Ala Leu Leu
 290 295 300
Val Val Gly Val Val Ile Ala Val Arg Ala Lys Pro Glu Lys Pro Met
305 310
                      315
Val Val Pro Ala Ser Glu Gly
            325
<210> 6446
<211> 233
<212> PRT
<213> Enterobacter cloacae
<400> 6446
Asn Ala Ser Tyr Ile Ser Asp Asp Glu Val Thr Ala Met Ala Phe Arg
                     10
Asp Gln Pro Leu Gly Glu Leu Ala Leu Ser Ile Pro Arg Ala Ser Ala
20
                       25
Leu Phe Arg Lys Tyr Asp Met Asp Tyr Cys Cys Gly Gly Lys Gln Thr
35
               4.0
                                   4.5
Leu Ala Arg Ala Ala Ser Arg Lys Glu Leu Asp Val Glu Ala Ile Glu
50 55 60
Ala Glu Leu Ala Gln Leu Ala Glu Gln Pro Val Asp Lys Asp Trp Arg
65 70 75
                                            8.0
Thr Ala Pro Leu Ala Glu Ile Ile Asp His Ile Ile Val Arg Tyr His
 85 90 95
Asp Arg His Arg Glu Gln Leu Pro Glu Leu Ile Leu Gln Ala Thr Lys
 100 105 110
Val Glu Arg Val His Ala Asp Lys Pro Ser Val Pro Arg Gly Leu Ala
 115 120 125
Lys Tyr Leu Thr Met Leu His Glu Glu Leu Ser Ser His Met Met Lys
 130 135
                                140
Glu Glu Gln Ile Leu Phe Pro Met Ile Lys Gln Gly Met Gly Ser Gln
145 150 155
Ala Met Gly Pro Ile Ser Val Met Glu Ser Glu His Asp Asp Ala Gly
       165
                          170 175
Glu Leu Leu Glu Val Ile Lys His Thr Thr Asp Asn Val Thr Pro Pro
                       185
                           190
Pro Glu Ala Cys Thr Thr Trp Lys Ala Met Tyr Asn Gly Ile Asn Glu
    195 200 205
Met Ile Asp Asp Leu Met Glu His Ile Ser Leu Glu Asn Asn Val Leu
210 215
Phe Pro Arg Ala Leu Ala Gly Glu
             230
<210> 6447
<211> 139
<212> PRT
<213> Enterobacter cloacae
<400> 6447
Leu Leu Val Ser Thr Tyr Lys Lys Val Ser Met Lys Thr Thr Ile Pro
                          10
```

Thr Leu Ser Glu Gln Met Arg Asp Gly Asn Leu Phe Ala Glu Gln Cys 25 Pro Ser Arg Glu Val Leu Lys His Val Thr Ser Arg Trp Gly Val Leu 40 4.5 Ile Leu Val Ala Leu Arg Gln Gly Thr His Arg Phe Ser Asp Leu Arg 5.5 60 Arg Lys Met Gly Gly Val Ser Glu Lys Met Leu Ala Gln Ser Leu Gln 7.0 75 Ala Leu Glu His Asp Gly Phe Val Asp Arg Val Ser Tyr Pro Val Val 85 90 95 Pro Pro His Val Glu Tyr Ser Lea Thr Pro Leu Gly Arg Glu Val Ser 100 105 110 Glu Lys Val Ala Ala Leu Ala Asp Trp Ile Glu Val Asn Thr Pro Gln 115 120 125 Val Met Ala Asn Arg Asp Glu Arg Ala Ala 130 135

<210> 6448 <211> 554 <212> PRT <213> Enterobacter cloacae

<400> 6448 Lys Arg Gln Arg Met Phe Lys Arg Ile Lys Val Ile Thr Leu Leu Ile 2.0 Ser Val Leu Leu Val Leu Gly Ile Met Gln Leu Ile Ser Ala Gly Ile 20 Phe Ile Asn Ala Leu Asn Asn Asp Lys Glu Asn Phe Thr Val Ser Gln 35 40 4.5 Leu Ser Ser Gln Asn Val Ala Glu Phe Thr Asp Ala Trp Ile Ser Leu 50 55 60 Asn Gln Ala Arg Val Thr Leu Asn Arg Gly Met Leu Arg Leu Gln Ser 65 70 75 Ser Met Ala Ser Gln Ile Asn Gly Gly Gln Leu Asn Glu Leu Val Asn 8.5 90 Thr Ala Lys Asn Leu Leu Ala Asp Ala Gln Thr His Tyr Asp Lys Tyr 100 105 110 Tyr Ala Leu Pro Glu Thr Pro Gly Met Asp Glu His Leu Ala Asp Arg 115 120 125 Leu Glu Glu Gln Tyr Arg Val Tyr Ser Ala Thr Leu Thr Gln Met Asn 130 135 140 Val Leu Leu Gly Gln Gly Asn Leu Glu Asp Met Phe Lys Gln Asn Ala 145 150 155 160 Glu Gln Lys Gln Thr Ala Met Gln Lys Val Tyr Arg Glu Trp Arg Glu 165 170 Ala Gln Ala Ala Leu Thr Ala Lys Gly Ile Gln Asp Asn Glu Ser Asp 185 190 Tyr Lys Arg Ile Leu Trp Ile Leu Ser Ala Val Met Leu Leu Val Ile 200 205 Ala Val Ile Ile Ser Ser Trp Ile Ala Met Arg Arg Val Leu Leu 210 215 220 Pro Leu Glu Glu Val Ile Asn His Ile Arg Ala Ile Ala Ala Gly Asp 230 235 Leu Thr Gln Pro Ile Gln Ala Glu Gly Lys Asn Glu Met Ala Ile Leu 245 250 Ala Arg Asn Val Gln Glu Met Gin Thr Ala Leu Ala Asn Thr Val Gly 260 265 Val Val Arg Glu Gly Ala Asp Thr Ile Tyr Thr Gly Ala Gly Glu Ile 280 285 Ser Ala Gly Ser Asn Asp Leu Ser Ser Arg Thr Glu Gln Gln Ala Ala 295 300

```
Ser Leu Glu Glu Thr Ala Ala Ser Met Glu Gln Leu Thr Ala Thr Val
305
             310
                         315
Lys Gln Asn Ala Asp Asn Ala Arg Gln Ala Ser Arg Leu Ala Leu Asp
          325 330
Ala Ser Ser Thr Ala Lys Lys Gly Gly Asn Val Val Glu Gly Val Val
       340
           345 350
Arg Thr Met Asp Glu Ile Ala Thr Ser Ser Ser Lys Ile Ala Gln Ile
     355
         360 365
Thr Asn Val Ile Asp Gly Ile Ala Phe Gln Thr Asn Ile Leu Ala Leu
 370 375 380
Asn Ala Ala Val Glu Ala Ala Arg Ala Gly Glu Gln Gly Arg Gly Phe
     390 395 400
Ala Val Val Ala Gly Glu Val Arg Thr Leu Ala Gln Arg Ser Ala Gln
        405 410 415
Ala Ala Lys Glu Ile Lys Ala Leu Ile Asp Asp Ser Gly Glu Arg Val
       420 425 430
Asn Ala Gly Ser Gln Leu Val Asn Glu Ala Gly Ala Thr Met Ala Glu
 435 440 445
Ile Val Asn Ala Val Thr Arg Val Thr Asp Ile Met Gly Glu Ile Ala
450 455 460
Ser Ala Ser Asp Glu Gln Ser Arg Gly Ile Asp Gln Val Gly Gln Ala
465 470 475
Val Ala Glu Met Asp Arg Val Thr Gln Gln Asn Ala Ser Leu Val Glu
   485 490 495
Glu Ser Ala Ala Ala Ala Ala Leu Glu Asp Gln Ala Ala Arg Leu
500 505
                                   510
Asn Asp Ala Val Ala Val Phe Lys Ile Thr Arg Asn Gln Ala Val Lys
515 520 525
Ala Ala Pro Val Lys Thr Tyr Ala Pro Lys Ala Gln Pro Val Ala Ala
530 535
                    540
Ala Ser Glu Ala Asn Trp Glu Thr Phe
             550
```

<210> 6449 <211> 240 <212> PRT <213> Enterobacter cloacae

<400> 6449 Asp Asp Glu His Met Asp Gly Trp Gln Arg Ala Phe Val Leu His Ser 10 15 Arg Pro Trp Ser Glu Thr Ser Leu Met Leu Asp Val Phe Thr Glu Glu 20 25 3.0 Ser Gly Arg Val Arg Leu Val Ala Lys Gly Ala Arg Ser Arg Arg Ser 4.0 Asn Leu Lys Gly Ala Leu Gln Pro Phe Thr Pro Leu Leu Val Arg Phe 60 55 Gly Gly Arg Gly Glu Val Lys Thr Leu Arg Ser Ala Glu Ala Val Ser 75 7.0 Leu Ala Leu Pro Leu Ser Gly Ile Thr Leu Tyr Ser Gly Leu Tyr Val 85 90 Asn Glu Leu Ile Ser Arg Val Leu Glu His Glu Thr Arg Phe Ser Glu 100 105 110 Leu Phe Phe Asp Tyr Leu His Cys Ile Gln Ser Leu Ala Gly Ala Thr 115 120 Gly Thr Pro Glu Pro Val Leu Arg Arg Phe Glu Leu Ala Leu Leu Gly 130 135 His Leu Gly Tyr Gly Val Asp Phe Leu His Cys Ala Gly Ser Gly Asp 145 150 155 Glu Val Glu Asp Thr Met Thr Tyr Arg Tyr Arg Glu Glu Lys Gly Phe 165 170

Ile Ala Ser Val Val Val Asp Asn Ser Thr Phe Thr Gly Arg Gln Leu 180 185 Arg Ala Leu Tyr Glu Arg Glu Phe Pro Asp Ala Asp Thr Leu Arg Ala 195 205 Ala Lys Arg Phe Thr Arg Ile Ala Leu Lys Pro Tyr Leu Gly Gly Lys 215 220 Pro Leu Lys Ser Arg Glu Leu Phe Arg Gln Phe Met Pro Lys Arg 225 230 235 <210> 6450 <211> 251 <212> PRT <213> Enterobacter cloacae <400> 6450 Thr Lys Ile Pro Arg Ile Val Met Ala Glu Leu Leu Gly Val Asn 10 Ile Asp His Ile Ala Thr Leu Arg Asn Ala Arg Gly Thr Ala Tyr Pro 2.0 25 Asp Pro Val Gln Ala Ala Phe Ile Ala Glu Gln Ala Gly Ala Asp Gly 3.5 4.0 4.5 Ile Thr Val His Leu Arg Glu Asp Arg Arg His Ile Thr Asp Arg Asp 50 55 60 Val Arg Ile Leu Arg Gln Thr Leu Asp Asn Arg Met Asn Leu Glu Met 70 7.5 Ala Val Thr Glu Glu Met Leu Thr Ile Ala Cys Asp Thr Lys Pro His 85 90 Phe Cys Cys Leu Val Pro Glu Lys Arg Gln Glu Val Thr Thr Glu Gly 100 105 Gly Leu Asp Val Ala Gly Gln Leu Asp Lys Met Arg Asp Ala Cys Lys 115 120 125 Arg Leu Ala Asp Ala Gly Ile Leu Val Ser Leu Phe Ile Asp Ala Asp 130 135 140 Phe Thr Gln Ile Lys Ala Ala Ala Asp Val Gly Ala Pro Tyr Ile Glu 150 155 160 Ile His Thr Gly Cys Tyr Ala Asp Ala Glu Asn Asp Ala Ala Gln Ala 165 170 Lys Glu Leu Glu Arg Ile Ala Lys Ala Ala Thr Tyr Ala Ala Ser Leu Gly Leu Lys Val Asn Ala Gly His Gly Leu Thr Tyr His Asn Val Lys 195 200 205 Ala Ile Ala Ala Leu Pro Glu Met His Glu Leu Asn Ile Gly His Ala 210 215 220 Ile Ile Gly Arg Ala Val Met Ser Gly Leu Lys Asp Ala Val Ser Glu 225 230 235 Met Lys Arg Leu Met Leu Glu Ala Arg Gln 245 <210> 6451 <211> 145 <212> PRT <213> Enterobacter cloacae <400> 6451 Arg Arg Leu Asn Val Asp Thr Ile Ala Gly Ile Val Arg Lys His Leu Pro Glu Ala Thr His His Phe Pro Glu Asp Tyr Ile Thr Asp Arg Ser 25 Gln Arg Phe Met Ala Ser Glu Ile Ile Arg Glu Lys Leu Met Arg Phe 40 Leu Gly Ala Glu Leu Pro Tyr Ser Val Thr Val Glu Ile Glu Arg Phe

Gln Ser Asn Glu Arg Gly Gly Tyr Asp Ile Asn Gly Leu Ile Leu Val 75 Glu Arg Glu Gly Gln Lys Lys Met Val Ile Gly Asn Lys Gly Ala Lys 8.5 90 Ile Lys Thr Ile Gly Ile Glu Ala Arg Lys Asp Met Gln Asp Met Phe 100 105 110 Glu Ala Pro Val His Leu Glu Leu Trp Val Lys Val Lys Ser Gly Trp 115 120 125 Ala Asp Asp Glu Arg Ala Leu Arg Ser Leu Gly Tyr Gly Glu Asp Gln 145 <210> 6452 <211> 312 <212> PRT <213> Enterobacter cloacae <400> 6452 Cys Val Tyr Tyr Glu Leu Lys Ile Pro Glu Val Asn Asn Met Asn Leu 1.0 Gly Ser Leu Val Ser Glu Thr Arg Asn Pro Gln Thr Met Asp Leu Asp 20 25 Ala Leu Ser Thr Leu Glu Leu Val Asn Arg Phe Asn Gln Gln Asp Thr 4.0 4.5 Leu Val Ala Leu Ala Val Lys Glu Thr Leu Pro Glu Val Ala Lys Ala 55 60 Val Asp Ala Ala Asp Ala Leu Lys Ala Gly Gly Arg Ile Ile Tyr 7.5 Met Gly Ala Gly Thr Ser Gly Arg Leu Gly Val Leu Asp Ala Ser Glu 85 Cys Pro Pro Thr Phe Gly Val Pro His Gly Leu Val Val Gly Leu Ile 100 105 Ala Gly Gly Pro Gly Ala Leu Leu Lys Ala Val Glu Gly Ala Glu Asp 115 120 Asn Lys Gln Leu Gly Glu Asp Asp Leu Arg Ala Leu Asn Leu Thr Ala 135 140 Gln Asp Leu Val Val Gly Leu Ala Ala Ser Gly Arg Thr Pro Tyr Val 150 155 Ile Gly Gly Leu Glu Tyr Ala Arg Gln Thr Gly Cys Thr Thr Val Ala 165 170 Ile Ser Cys Asn Pro Gly Ser Pro Ile Ala Gln Val Ala Ala Ile Ala 180 185 190 Ile Ser Pro Val Val Gly Pro Glu Ala Leu Thr Gly Ser Thr Arg Leu 195 200 Lys Ser Gly Thr Ala Gln Lys Leu Val Leu Asn Met Ile Ser Thr Gly

Ala Met Val Lys Phe Gly Lys Val Tyr Gln Asn Leu Met Val Asp Met

220

235

215

230

Thr Asp His Asp Val Lys Pro Ala Ile Leu Met Ile Leu Thr Gly Leu 275 Asp Ala Ala Ala Ala Arg Ala Arg Leu Glu Ala His His Gly Phe Leu

290 295 Arg Ala Ala Leu Glu His Gln

Arg Ala Ala Leu Glu His G 305 310

```
<210> 6453
<211> 458
<212> PRT
<213> Enterobacter cloacae
<400> 6453
Glu Ala Phe Met Asp Lys Thr Ala Ala Leu Ala Ser Asp Ile Leu Leu
                          10
Gly Ile Gly Gly Glu Lys Asn Ile Gln Arg Leu Glu Asn Cys Met Thr
         20
                         25
Arg Val Arg Val Glu Val Tyr Asn Asp Glu Lys Leu Asp Leu Thr Arg
    35
                     4.0
Leu Lys Gln Leu Pro Gly Val Ser Gly Tyr Val Lys Gln Gly Gln Gln
 50 55 60
His Gln Leu Ile Val Gly Pro Gly Lys Ala Ala Gln Val Val Asp Ala
    70
                               7.5
Met Arg Ala Leu Met Thr Gly Gly Glu Thr Ala Pro Ala Phe Asp Asp
       85
                            90
Ala Glu Arg Thr Lys Ala Gln Ala Lys Ala Lys Tyr Lys Ala Pro Met
  100 105
Ser Asp Ala Leu Arg Gln Leu Ala Asn Val Phe Ile Pro Leu Ile Pro
115 120 125
Ala Phe Ile Ala Ser Gly Leu Ile Thr Gly Ile Ile Asn Ile Leu Lys
                 135 140
Arg Pro Asp Ile Val Gly Asn Phe Ala Thr Gln Tyr Pro Asn Leu Leu
145 150 155
Gly Ile Leu Ala Ile Phe Gly Ser Ala Val Phe Ala Ile Met Asn Ile
       165
                            170 175
Leu Val Gly Val Asn Thr Ala Lys Val Phe Gly Gly Ser Leu Ala Met
        180 185
                                         190
Gly Gly Val Met Ala Gly Ile Leu Ser Ser Pro Gln Leu Ala Gln Ile
195
                     200
                                     205
Thr Leu Phe Gly Glu Ala Leu Gln Pro Gly Arg Gly Gly Val Ile Ala
                  215
                                  220
Val Leu Leu Val Val Ile Leu Met Cys Trp Ile Glu Lys Lys Leu Arg
               230
                               235
Glu Leu Leu Pro Gly Ser Ile Glu Leu Ile Leu Asn Pro Leu Leu Thr
          245
                            250 255
Thr Leu Ile Thr Gly Ser Val Ala Ile Val Ala Leu Gln Pro Leu Gly
         260
                        265
                                        270
Gly Ala Ile Ser Glu Ala Ile Ala His Gly Ala Ser Leu Ala Ile Asp
                            285
                      280
Arg Gly Gly Leu Leu Val Gly Ala Val Leu Ser Gly Thr Phe Leu Pro
                  295
                                  300
Leu Val Leu Thr Gly Leu His Gln Gly Leu Val Pro Ile His Val Glu
               310
                             315
Leu Val Gln Ala His Gly Tyr Asn Ala Leu Leu Pro Ile Leu Ser Met
            325
                            330
Ala Gly Val Gly Gln Val Gly Ala Ala Ile Ala Val Leu Met Lys Thr
         340
                         345
                                         350
Arg Asn Ala Arg Leu Lys Lys Val Ile Lys Gly Ala Leu Pro Val Gly
 355
                     360
                                     365
Leu Leu Gly Ile Gly Glu Pro Leu Ile Phe Gly Val Thr Leu Pro Leu
 370
                  375
                                  380
Gly Lys Pro Phe Leu Ala Ala Cys Leu Gly Gly Ala Val Gly Gly Ala
               390
                               395
Leu Ile Ser Tyr Trp Lys Val Ala Thr Val Ile Thr Phe Gly Ile Ser
            405
                           410
```

Gly Leu Pro Leu Ala Leu Thr Ile Val Thr Gly Lys Val Met Leu Tyr

425 Leu Leu Gly Tyr Leu Val Ala Val Ile Ala Gly Phe Leu Phe Thr Trp

```
435
                        440
                                          445
Leu Leu Gly Phe Asn Asp Pro Glu Glu
   450
<210> 6454
<211> 213
<212> PRT
<213> Enterobacter cloacae
<400> 6454
Gly Leu Ala Ser His Glu Arg Arg Val Val Phe Phe Asp Leu Asp Gly
                            10
Thr Leu His Gln Gln Asp Met Phe Gly Thr Phe Met Arg Tyr Leu Leu
 20
                         25
Arg Arg Gln Pro Leu Asn Ala Leu Leu Val Leu Pro Leu Pro Val
 35
                        4.0
                                   4.5
Ile Gly Ile Ala Leu Leu Val Lys Gly Arg Ala Ala Arg Trp Pro Met
 50
                    5.5
                                      60
Ser Leu Leu Trp Gly Cys Thr Phe Gly His Ser Glu Ala Arg Leu
                 70
                                   75
Lys Gln Leu Glu Gln Asp Phe Ala His Trp Phe Arg Gly His Val Ala
    85
                                90
Ala Phe Pro Val Val Gln Ala Arg Leu Thr Ser Tyr Leu Asp Ala Asn
         100
                            105
                                   110
Asp Ala Asp Ile Trp Leu Ile Thr Gly Ser Pro Gln Thr Leu Val Glu
 115
                        120
                               125
Gln Val Tyr Phe Asp Thr Pro Trp Leu Pro Arg Val Asn Leu Ile Ala
                     135
                                       140
Thr Gln Ile Ala Arg Gly Tyr Gly Gly Trp Val Leu Thr Leu Arg Cys
145 150
                                   155
Leu Gly His Glu Lys Val Val Gln Leu Glu Lys Arg Ile Gly Thr Pro
           165
                               170
Leu Arg Leu Tyr Ser Gly Tyr Ser Asp Ser Lys Gln Asp Asn Pro Leu
        180 185
Leu Tyr Phe Cys Gln His Arg Trp Arg Val Thr Pro Leu Gly Glu Leu
                       200
Gln Gln Leu Glu
  210
<210> 6455
<211> 188
<212> PRT
<213> Enterobacter cloacae
<400> 6455
Ser Tyr Leu Tyr Arg Leu Cys Ile Met Pro Pro Ala Phe Arg Leu Glu
                               10
Tyr Gln Pro Leu Ser Asn Pro Glu His Asn His Glu Tyr Trp Met Arg
         20
                           25
                                              30
His Ala Leu Ala Leu Ala Gln Arg Ala Trp Glu Glu Gly Glu Val Pro
    35
                      40
Val Gly Ala Val Leu Val His Asn Asn Gln Val Ile Gly Glu Gly Trp
                    55
Asn Arg Pro Ile Gly Arg His Asp Pro Thr Ala His Ala Glu Ile Met
65
                 70
                                   75
Ala Leu Arg Gln Gly Gly Leu Val Leu Gln Asn Tyr Arg Leu Leu Asp
           8.5
                               90
Thr Thr Leu Tyr Val Thr Leu Glu Pro Cys Val Met Cys Ser Gly Ala
       100
                           105
Met Val His Ser Arg Ile Gly Thr Leu Val Phe Gly Ala Arg Asp Glu
       115
                        120
```

```
Lys Thr Gly Ala Ala Gly Ser Leu Met Asp Val Leu Gly His Pro Gly
                      135
                              140
Met Asn His Gln Val Lys Thr Ile Gly Gly Val Leu Ala Pro Glu Cys
                  150
                       155 160
Ser Gly Leu Leu Ser Asp Phe Phe Arg Met Arg Arg Gln Gln Lys Lys
              165 170
Gln Gln Lys Ala Glu Leu Lys Pro Gln Gly Asp
           180
<210> 6456
<211> 181
<212> PRT
<213> Enterobacter cloacae
<400> 6456
Arg Arg Ser Arg Pro Asp Leu Ser Gln Arg Lys Ser His Arg Cys Pro
              5
Ala Gly Asn Ala Arg Ala Glu His Arg Pro Arg Tyr His Trp Pro Cys
        20
                            25
Gly Asp Glu Arg Ser Glu Arg Arg Gly Phe Arg Asp Glu Ala Ser Asp
                        40
                                  4.5
Ala Gly Ser Ala Ser Val Met Ala Ile Leu Gly Leu Gly Thr Asp Ile
                     55
Val Glu Thr Ala Arg Ile Glu Ala Val Ile Ala Arg Ser Gly Asp Arg
65 70
                                    7.5
Leu Ala Arg Arg Val Leu Ser Asp Asn Glu Trp Ala Ile Trp Glu Ala
            8.5
                                90
His Gln Gln Pro Val Arg Phe Leu Ala Lys Arg Phe Ala Val Lys Glu
                          105
         100
                                       110
Ala Ala Ala Lys Ala Phe Gly Thr Gly Ile Arg Asn Gly Leu Ala Phe
 115 120
                                          125
Asn Gln Phe Glu Val Phe Asn Asp Glu Leu Gly Lys Pro Arg Leu Arg
                  135
                                        140
Leu Trp Gly Glu Ala Leu Lys Leu Ala Glu Lys Leu Gly Val Ala His
                 150
Met His Val Thr Leu Ala Asp Glu Arg His Tyr Ala Cys Ala Thr Val
              165
                                170
Ile Ile Glu Gly
          180
<210> 6457
<211> 96
<212> PRT
<213> Enterobacter cloacae
<400> 6457
Cys Arg Pro Val Ser Thr Asn Gly Arg Lys Val Pro Asp Ser Thr Ala
Pro Thr Ser Ser Pro Pro Arg Ser Ile Ala Arg Asp Ala Pro Trp Ala
        20
                             25
Met Ala Ser Glu Ile Ala Pro Pro Asn Gly Cys Ser Ala Thr Ile Ala
      3.5
                         40
Thr Leu Pro Val Ile Asn Val Val Ser Ser Gly Leu Arg Ile Ser Ser
                     55
Ile Glu Pro Gly Ser Asn Ser Arg Ser Phe Phe Ser Ile Gln His Ile
               70
                                75
Arg Met Thr Thr Ser Ser Thr Ala Ile Thr Pro Pro Arg Pro Gly
              85
<210> 6458
```

<210> 645 <211> 297

```
<212> PRT
<213> Enterobacter cloacae
<400> 6458
Phe Val Phe Ala Arg Val Ile Thr Phe Ser Pro Gly Asp Arg Met Asn
Cys Leu Ile Arg Ile Arg Gln Arg Tyr Ala Gly Phe Ala Gln Ser Asp
                          25
Lys Lys Leu Ala Asp Tyr Leu Leu Ser Gln Pro Asp Arg Ala Arg His
                       40
Leu Ser Ser Gln Gln Leu Ala Gly Glu Ala Gly Val Ser Gln Ser Ser
            55
                         60
Val Val Lys Phe Ala Gln Lys Ile Gly Tyr Lys Gly Phe Pro Ala Leu
          70
                              7.5
Lys Leu Ala Ile Ser Glu Ala Leu Val Ser Asn Pro Asn Pro Gln Ser
           85
                       90
Met Pro Val His Asn Gln Ile Arg Gly Asp Asp Pro Met Arg Leu Val
      100 105 110
Gly Glu Lys Leu Ile Lys Glu Asn Val Ala Ala Met His Ala Thr Leu
 115 120 125
Asp Val Asn Thr Glu Glu Lys Leu Leu Glu Ser Val Ala Met Leu Arg
 130 135 140
Asp Ala Arg Arg Ile Val Leu Thr Gly Ile Gly Ala Ser Gly Leu Val
145 150
                              155 160
Ala Arg Asn Phe Gly Trp Lys Leu Thr Lys Ile Gly Tyr Asn Ala Ile
     165 170 175
Val Glu Gln Asp Met His Ala Leu Leu Ala Thr Val Gln Ala Met Asp
 180 185
                                          190
Pro Asp Asp Leu Leu Ala Ile Ser Tyr Ser Gly Glu Arg Arg Glu
 195 200
                                    205
Ile Asn Met Ala Thr Asp Glu Ala Leu Arg Val Gly Gly Lys Ile Leu
210 215
                                   220
Ala Ile Thr Gly Phe Ser Pro Asn Ala Leu Gln Gln Arg Ala Thr Arg 225 \phantom{\bigg|}230\phantom{\bigg|}230\phantom{\bigg|}235\phantom{\bigg|}
Cys Leu Tyr Thr Ile Ala Glu Glu Gln Ala Thr Arg Ser Ala Ala Ile
    245
                             250 255
Ser Ser Thr Ser Ala Gln Met Met Leu Thr Asp Leu Leu Phe Met Ala
       260 265 270
Leu Val Gln Gln Asp Leu Glu Arg Ala Pro Glu Arg Ile Arg His Ser
 275 280
Glu Glu Leu Val Lys Lys Leu Val
 290
<210> 6459
<211> 273
<212> PRT
<213> Enterobacter cloacae
<400> 6459
Ala Thr Val Arg Glu Lys Ile Glu Ser Leu Lys Lys Asp Pro Val Arg
                           10 15
Leu Glu Glu Lys Tyr Leu Gly His Gly Asp Asp Phe Asp Tyr Val Asp
                         25
Thr Arg Thr Phe Leu Arg Ala Val Asp Ser Val Leu Pro Asp Leu Gln
                      40
Pro Leu Phe Glu Lys Tyr Ala Gln Glu Ile Asp Trp Lys Leu Leu Ala
                 55
Ala Ile Ser Tyr Gln Glu Ser His Trp Asp Ala Gln Ala Thr Ser Pro
            70
                               75
Thr Gly Val Arg Gly Leu Met Met Leu Thr Lys Asn Thr Ala Gln Ser
```

Leu Gly Ile Ser Asp Arg Thr Asp Ala Glu Gln Ser Ile Ser Gly Gly 100 Ala Gln Tyr Leu Gln Asp Met Met Ala Lys Val Pro Glu Thr Val Pro 115 120 125 Glu Gly Glu Arg Ile Trp Phe Ala Leu Ala Ala Tyr Asn Met Gly Tyr 130 135 140 Ala His Met Leu Asp Ala Arg Ala Leu Thr Ala Lys Thr Lys Gly Asn 145 150 155 Pro Asp Ser Trp Ser Asp Val Lys Gln Arg Leu Pro Leu Leu Ser Gln 165 170 175 Lys Gln Trp Tyr Gln Lys Leu Thr Tyr Gly Tyr Ala Arg Gly His Glu 180 185 190 Ala Tyr Ala Tyr Val Glu Asn Ile Arg Lys Tyr Gln Ile Ser Leu Val 195 200 205 Gly Tyr Leu Leu Glu Lys Glu Lys Glu Ala Ala Glu Ala Gln Gln Leu 210 215 220 Ala Glu Ser Tyr Pro Val Val Ala Pro Glu Glu Leu Asn His Pro Ala 230 235 240 Val Ser Ile Leu Pro Phe Val Ala Phe Ser Ala Ala Asp Ala Phe Glu 245 250 Lys Ser His Leu Thr Asp Pro Asn Ile Leu Val Gln Val Pro Arg Arg 260 265

<210> 6460 <211> 102 <212> PRT

<213> Enterobacter cloacae

<400> 6460 Ala Tyr Asn Ala Arg Pro Val Cys Asp Val Ser Glu Asn Phe Leu Met 10 Ala Leu Leu Ile Thr Lys Lys Cys Ile Asn Cys Asp Met Cys Glu Pro 20 25 Glu Cys Pro Asn Glu Ala Ile Ser Met Gly Asp Ser Ile Tyr Glu Ile 3.5 4.0 Asn Ser Asp Arg Cys Thr Glu Cys Ile Gly His Tyr Glu Thr Pro Thr 5.0 55 Cys Gln Lys Val Cys Pro Ile Pro Asn Thr Ile Leu Lys Asp Pro Ala 65 7.0 75 His Val Glu Asn Glu Glu Gln Leu Trp Asp Lys Phe Val Leu Met His 85 90 His Ala Asp Lys Ile 100

<210> 6461 <211> 516 <212> PRT <213> Enterobacter cloacae

```
Asn Val Ile Gly Glu Pro Glu Val Phe Tyr Cys Lys Pro Ala Asp Asp
            85
                      90
Tyr Leu Pro Gln Pro Gly Ala Val Met Val Thr Gly Ile Thr Pro Gln
        100 105
Glu Ala Arg Asp Lys Gly Val Ser Glu Ala Glu Phe Ala Arg Arg Ile
115 120 125
His Asp Leu Phe Thr Val Pro Asn Thr Cys Val Val Gly Tyr Asn Asn
  130 135 140
Ile Arg Phe Asp Asp Glu Val Thr Arg Asn Ile Phe Tyr Arg Asn Phe
145 150 155 160
Tyr Asp Pro Tyr Ala Trp Ser Trp Gln Asn Arg Asn Ser Arg Trp Asp $165$ $170$
Leu Leu Asp Ile Met Arg Ala Cys Tyr Ala Leu Arg Pro Glu Gly Ile
 180 185 190
Asn Trp Arg Glu Asn Asp Asp Gly Leu Pro Ser Phe Arg Leu Glu His
 195 200 205
Leu Thr Arg Ala Asn Gly Ile Glu His Ser Asn Ala His Asp Ala Met
 210 215 220
Ala Asp Val Tyr Ala Thr Ile Ala Met Ala Lys Leu Val Lys Thr Ala 225 \phantom{\bigg|} 230 \phantom{\bigg|} 235 \phantom{\bigg|} 240
Gln Pro Arg Leu Phe Glu Tyr Leu Leu Ser His Arg Ser Lys Gln Lys
 245 250
                                         255
Leu Met Thr Leu Ile Asp Val Pro Gln Met Lys Pro Leu Val His Ile
260 265 270
Ser Gly Met Phe Gly Ala Trp Arg Gly Asn Thr Ser Trp Val Ala Pro
275 280
                                    285
Leu Ala Trp His Pro Asp Asn Arg Asn Ala Val Ile Met Val Asp Leu
290 295
                       300
Ala Gly Asp Ile Ser Pro Leu Leu Glu Leu Asp Ser Asp Thr Leu Arg
305 310 315 320
Glu Arg Leu Tyr Thr Pro Lys Glu Ala Leu Gly Asp Leu Pro Ala Val
         325 330
Pro Val Lys Leu Val His Ile Asn Lys Cys Pro Val Leu Ala Gln Ala
      340 345
                            350
Asn Thr Leu Arg Pro Giu Asp Ala Asp Arg Leu Gly Ile Asn Arg Gln
 355 360 365
His Cys Leu Asp Asn Leu Lys Val Leu Arg Asp Asn Pro Gln Val Arg
370 375 380
Glu Lys Val Val Ala Ile Phe Ala Glu Ala Glu Pro Phe Val Pro Ser
385 390 395 400
Glu Asn Val Asp Ala Gln Leu Tyr Asn Gly Phe Phe Ser Asp Ala Asp
         405 410 415
Arg Ala Ala Met Asn Ile Val Leu Gln Thr Asp Pro Arg Asn Leu Pro
      420 425
Ala Leu Asp Ile Thr Phe Ala Asp Lys Arg Ile Glu Lys Leu Met Phe
 435 440
Asn Tyr Arg Ala Arg Asn Tyr Pro Gly Thr Leu Asp Glu Ala Glu Gln
450 455 460
Glu Arg Trp Leu Gln His Arg Arg Ser Val Phe Thr Pro Glu Phe Leu
465 470 475
Asn Ser Tyr Ala Gln Glu Leu Glu Met Leu Tyr Gly Gln Tyr Glu Gly
           485
                          490 495
Asn Ala Glu Lys Gln Ala Leu Leu Lys Ala Leu Phe Gln Tyr Ala Gln
        500
                       505
Glu Ile Val
     515
```

<210> 6462

<211> 389 <212> PRT <213> Enterobacter cloacae

```
<400> 6462
Ser Thr Lys Trp Asp Asn Pro Ala Lys Arg Arg Val Phe Gln Pro Gly
Ala Ile His Pro Ala Glu Asn Thr Val Gln Leu Trp Phe Ala Val Glu
                        2.5
                                     30
Leu Glu Thr Gly Val Arg Pro Asp Lys Ser Leu Thr Pro Phe Glu Ile
                40
                                4.5
Arg Leu Tyr Lys His Tyr Arg Val Val His Gly Cys Arg Ile Ala Leu
                 55
Ala Phe Val Leu Thr Phe Val Leu Val Arg Leu Leu Asp Ile Pro Glu
                              75
            70
Gly Thr Trp Pro Leu Ile Thr Leu Val Val Val Met Gly Pro Ile Ser
           85
                      90
Phe Trp Gly Asn Val Val Pro Arg Ala Phe Glu Arg Ile Gly Gly Thr
        100
                        105
                                       110
Val Leu Gly Ser Ala Leu Gly Leu Ile Ala Leu Lys Leu Glu Leu Ile
   115
                    120
                                  125
Ser Phe Pro Phe Met Leu Leu Trp Cys Ala Val Ala Met Phe Leu Cys
130 135 140
Gly Trp Leu Thr Leu Gly Lys Lys Pro Tyr Gln Ala Leu Leu Ile Gly
   150
                            155 160
Ile Thr Leu Ala Val Val Val Gly Ala Pro Ala Gly Asp Met Thr Thr
      165
                                           175
Ala Leu Trp Arg Ser Gly Asp Val Ile Leu Gly Ser Leu Leu Ala Met
 180 185 190
Leu Phe Thr Gly Ile Trp Pro Gln Arg Ala Phe Leu His Trp Arg Ile
195 200
                                    205
Gln Met Ala Asn Tyr Val Thr Ala Phe Asn Arg Val Tyr Gln Ala Gly
210 215 220
Phe Ser Pro Asn Leu Ile Glu Arg Pro Arg Leu Glu Lys His Leu Gln
225 230 235
Lys Ile Leu Asn Asp Val Val Lys Met Arg Gly Leu Ile Thr Pro Ala
         245 250
Ser Lys Glu Thr His Ile Gln Lys Ala Ile Phe Glu Ala Ile Gln Thr
      260 265
                                        270
Val Ser Arg Asn Leu Val Cys Met Leu Glu Leu Gln Ile Asn Ala His
   275 280 285
Trp Ala Ser Arg Pro Ser His Leu Leu Met Leu Asn Ala His Thr Leu
 290 295
                                 300
Lys Glu Thr Gln Gln Met Thr Gln Gln Thr Leu Leu Thr Ile Ala His
305
              310
                              315
                                              320
Ala Leu Tyr Glu Gly Asn Pro Gln Pro Ile Arg Ala Asn Ser Glu Arg
           325
                           330
                                           335
Leu Asn Glu Ile Val Ala Glu Leu Lys Gln Leu Met Asn Glu Arg Gln
   340
                        345
Gly Asp Asn Val Ala Glu Thr Pro Ile His Gly Tyr Val Trp Leu Ser
                    360
Met Glu Leu Ala Arg Gln Leu Glu Leu Leu Ser Gln Leu Ile Cys Arg
                  375
                                 380
Ala Leu Arg Lys
385
```

<210> 6463 <211> 128

<212> PRT <213> Enterobacter cloacae

<400> 6463

Asn Gly Cys Phe Asn Glu Ser Glu Ser His Ile Ile Arg Gly Val Lys

Gly Lys Ser Thr Ser

1.0 Met Glu Thr Thr Lys Pro Ser Phe Gln Asp Val Leu Glu Phe Val Arg 25 Leu Phe Arg Arg Lys Asn Lys Leu Gln Arg Glu Ile Gln Asp Val Glu 40 4.5 Lys Lys Ile Arg Asp Asn Gln Lys Arg Val Leu Leu Leu Asp Asn Leu 55 60 Ser Asp Tyr Ile Lys Pro Gly Met Ser Val Glu Ala Ile Gln Gly Ile 70 75 Ile Ala Ser Met Lys Ser Asp Tyr Glu Asp Arg Val Asp Asp Tyr Ile 85 90 Ile Lys Asn Ala Glu Leu Ser Lys Glu Arg Arg Asp Ile Ser Lys Lys 100 105 110 Leu Lys Val Met Gly Glu Ile Lys Asn Val Asp Ala Lys Gly Glu <210> 6464 <211> 310 <212> PRT <213> Enterobacter cloacae <400> 6464 Asn Arg Leu Leu Asp Val Leu Ile Ile Pro Gly Gly Ala Gly Lys Arg 10 Arg Gly Ala Cys Pro Pro His Arg Ala Lys Leu Tyr Lys Thr Arg Ser 20 Val Met Ser Tyr Thr Val Gln Lys Leu Glu Ser Asp Val Asn Ile Gln 40 45 Ile Val Asp Arg Thr Gly His Arg Ala Arg Phe Thr Arg Thr Gly Gln 55 60 Met Leu Leu Glu Lys Gly Arg Asp Val Leu His Thr Val Arg Glu Leu 70 7.5 80 Asp Lys Gln Ala Val Lys Phe His Gln Val Trp Glu Asn Glu Leu Val 8.5 90 Ile Gly Val Asp Asp Thr Phe Pro Leu Ser Val Leu Thr Pro Leu Ile 100 105 110 Glu Ala Phe Tyr Gln Arg His Ser Val Thr Arg Leu Val Phe Ile Asn 115 120 125 Gly Val Leu Gly Gly Phe Trp Glu Ala Leu Thr Gln Gly Arg Ala Asp 135 140 Ile Ile Val Gly Ala Val His Glu Pro Pro Gln Leu Ser Glu Phe Gly 150 155 Phe Ala Arg Leu Gly Val Leu Glu Gln Val Phe Ala Val Ala Pro His 165 170 His Pro Leu Ala Asn Glu Pro Glu Pro Val Thr Arg Arg Val Ile Lys 180 185 190 Asn Tyr Arg Ala Ile Val Val Gly Asp Ser Ser Arg Pro Glu Cys Gly 200 205 Ile Ser Ser Gln Met Leu Asp Glu Gln Glu Ala Ile Thr Val Phe Asp 215 Phe Lys Thr Lys Leu Glu Leu Gln Ile Ser Gly Leu Gly Cys Gly Tyr 230 235 Leu Pro Arg Tyr Leu Ala Gln Arg Phe Ile Asp Ser Gly Ala Leu Val 245 250 Glu Lys Gln Val Leu Ala Gln Ser Ser Asn Glu Ser Val Trp Val Gly 260 265 270 Trp Asn Glu Gln Thr Ala Gly Leu Ala Ser Ala Trp Trp Arg Asp Glu 280 285 Ile Leu Ala Asn Ser Ala Ile Ala Thr Val Tyr Thr Gln Ala Asp Asp 290 295 300

<210> 6466 <211> 457

```
<210> 6465
<211> 394
<212> PRT
<213> Enterobacter cloacae
<400> 6465
Pro Glu Asp Ile Pro Leu Lys Arg Arg Leu Phe Ile Ala Val Ser Leu
                       10
Leu Ala Ser Ser Ile Ser Ser Ala Leu Ala Ala Glu Pro Leu Asp Phe
       20
                      25
Ser Pro Gln Pro Pro Ala Ile Gln Ala Gly Ser Trp Val Leu Met Asp
     35
                  4.0
                           4.5
Tyr Thr Thr Gly Gln Ile Leu Thr Ala Gly Asn Glu His Gln Gln Arg
           55 60
Asn Pro Ala Ser Leu Thr Lys Leu Met Thr Gly Tyr Val Val Asp Arg
            70 75
Ala Ile Asp Ser His Arg Ile Ser Pro Asp Asp Ile Val Thr Val Gly
     85 90 95
Arg Asp Ala Trp Ala Lys Gly Asn Ser Val Phe Asp Gly Ser Ser Leu
 100 105 110
Met Phe Leu Lys Glu Gly Asp Arg Val Ser Val Arg Asp Leu Ser Arg 115 $120\ 
Gly Leu Ile Val Asp Ser Gly Asn Asp Ala Cys Val Ala Leu Ala Asp
130 135
                               140
His Val Ala Gly Gly Gln Pro Gln Phe Val Arg Met Met Asn Asp Tyr
145 150 155
Val Glu Lys Leu Asn Leu Arg Asp Thr His Phe Glu Thr Val His Gly
   165 170 175
Leu Asp Ala Pro Gly Gln His Ser Ser Ala Tyr Asp Leu Ala Val Leu
 180 185
                                    190
Ser Arg Ala Ile Ile His Gly Glu Pro Glu Phe Tyr His Met Tyr Ser
195 200 205
Glu Lys Ser Leu Thr Trp Asn Gly Ile Thr Gln Gln Asn Arg Asn Gly
210 215
                                220
Leu Leu Trp Asp Lys Thr Met Asn Val Asp Gly Leu Lys Thr Gly His
225 230
                            235
Thr Ser Gly Ala Gly Phe Asn Leu Ile Ala Ser Ala Val Asp Gly Gln
          245
                          250
Arg Arg Leu Ile Ala Val Val Met Gly Ala Asp Thr Pro Lys Gly Arg
     260 265
Glu Asp Gln Ala Arg Lys Leu Leu His Trp Gly Gln Gln Asn Phe Asp
                   280
                                   285
Thr Val Gln Ile Leu His Asn Gly Lys Lys Val Gly Thr Glu Arg Ile
 290 295
                                300
Trp Tyr Gly Asp Lys Glu Gln Ile Ala Leu Gly Thr Asp Gln Asp Phe
            310
                             315
Trp Leu Ala Leu Pro Lys Ser Glu Val Pro Asn Ile Lys Ala Lys Tyr
           325
                          330
Val Met Asp Lys Lys Glu Leu Glu Ala Pro Ile Ala Ala His Gln Arg
        340
                      345
                                      350
Val Gly Glu Ile Gln Leu Tyr Asp Arg Asp Lys Val Val Ala His Trp
     355 360 365
Pro Leu Val Thr Leu Glu Ser Val Glu Lys Gly Gly Leu Phe Ser Arg
 370 375
                                380
Leu Gly Asp Tyr Leu His His Lys Leu
              390
```

<212> PRT <213> Enterobacter cloacae

<400> 6466

Arg Arg Ile Thr Met Ser His Asn Ala Thr Pro Asn Thr Ser Arg Val 10 Glu Leu Arg Lys Thr Leu Thr Leu Ile Pro Val Val Met Met Gly Leu 20 25 Ala Tyr Met Gln Pro Met Thr Leu Phe Asp Thr Phe Gly Ile Val Ser 40 45 Gly Leu Thr Asp Gly His Val Pro Thr Ala Tyr Gly Phe Ala Leu Ile 50 55 60 Ala Ile Leu Phe Thr Ala Leu Ser Tyr Gly Lys Leu Val Arg Arg Tyr 65 70 75 80 Pro Ser Ala Gly Ser Ala Tyr Thr Tyr Ala Gln Lys Ser Ile Ser Pro 85 90 Thr Val Gly Phe Met Val Gly Trp Ser Ser Leu Leu Asp Tyr Leu Phe 105 110 Ala Pro Met Ile Asn Ile Leu Leu Ala Lys Ile Tyr Phe Glu Ala Leu 115 120 125 Val Pro Ser Ile Pro Ser Trp Met Phe Val Val Ala Leu Val Ala Phe 130 135 140 Met Thr Ala Phe Asn Leu Arg Ser Ile Lys Ser Val Ala Asn Phe Asn 145 150 155 160 Ser Val Ile Val Val Leu Gln Val Val Leu Ile Ala Val Ile Leu Gly 165 170 Met Val Ile Tyr Gly Val Phe His Gly Glu Gly Ala Gly Thr Leu Ala 180 185 Ser Ser Lys Pro Phe Trp Ser Gly Asp Ala His Val Ile Pro Met Ile 195 200 205 Thr Gly Ala Thr Ile Leu Cys Phe Ser Phe Thr Gly Phe Asp Gly Ile 215 220 Ser Asn Leu Ser Glu Glu Thr Lys Asp Ala Glu Arg Val Ile Pro Arg 230 235 Ala Ile Phe Leu Thr Ala Leu Ile Gly Gly Leu Ile Phe Ile Phe Ser 245 250 Thr Tyr Phe Leu Gln Leu Tyr Pne Pro Asp Ile Ser Arg Phe Lys Asp 260 265 270 Pro Asp Ala Ser Gln Pro Glu Ile Met Leu Tyr Val Ala Gly Lys Ala 280 285 Phe Gln Val Gly Ala Leu Ile Phe Ser Thr Ile Thr Val Leu Ala Ser 295 Gly Met Ala Ala His Ala Gly Val Ala Arg Leu Met Tyr Val Met Gly 310 315 Arg Asp Gly Val Phe Pro Lys Ser Phe Phe Gly Tyr Val His Pro Thr 325 330 Trp Arg Thr Pro Ala Met Asn Ile Ile Leu Val Gly Ala Ile Ala Leu 340 345 350 Leu Ala Ile Asn Phe Asp Leu Val Met Ala Thr Ala Leu Ile Asn Phe 355 360 365 Gly Ala Leu Val Ala Phe Thr Phe Val Asn Leu Ser Val Ile Ser Gln 375 380 Phe Trp Ile Arg Glu Lys Arg Asn Lys Thr Leu Lys Asp His Phe Gln 390 395 Tyr Leu Phe Leu Pro Met Cys Gly Ala Met Thr Val Gly Ala Leu Trp 405 410 Val Asn Leu Glu Glu Ser Ser Met Val Leu Gly Leu Ile Trp Ala Gly 420 425 430 Ile Gly Leu Val Tyr Leu Ala Cys Val Thr Lys Ser Phe Arg Asn Pro 440 Val Pro Gln Tyr Glu Asp Val Ala

```
<210> 6467
<211> 175
<212> PRT
<213> Enterobacter cloacae
```

Val Ala Val Tyr Tyr Asp Asn Pro Asp Asp Val Pro Ala Glu Lys Leu 65 70 75 80

Arg Cys Val Thr Ala Val Thr Val Val Asp Val Phe Thr Ile Pro Glu

85 90 95

Asn Ser Glu Gly Val Met Met Thr Glu Ile Ala Ala Gly Glu Tyr Ala
100 105 110

Ile Ala Ala Ala Arg Val Glu Asn His Asp Phe Ala Thr Pro Trp Tyr 115 120 Gln Phe Phe Asn Ser Leu Leu Glu Asp Ser Lys Phe Gln Ile Ala Ala

130 140 Lys Pro Cys Phe Glu Arg Tyr Leu Asn Asp Gly Asn Ala Asp Gly Tyr 145 150 150 160

Trp Asp Ile Glu Met Phe Val Pro Val Glu His Lys Val Gly 165 170 175

<210> 6468

<211> 65 <212> PRT

<213> Enterobacter cloacae

65

<210> 6469 <211> 273 <212> PRT

<400> 6469

<213> Enterobacter cloacae

Ala Lys Arg Phe Ala Trp Arg Ala Glu Ala Asn Leu Arg Pro Glu Arg 1 5 10 15 Cys Gly Asp Glu Leu Gln Arg Gln Leu Ile Glu Ile Ile Pro Ser Pro 20 25 30 Trp Pro Ser Pro Gln Arg Gly Glu Gly Ser Val Tyr Ser Leu Ser Leu

20 25 30

Trp Pro Ser Pro Gln Arg Gly Glu Gly Ser Val Tyr Ser Leu Ser Leu
35 40 45

Glu Gly Glu Gly Arg Gly Glu Gly Glu Ala Asp Val His Arg Asn Val

Asn Gly Ala Val Ala Leu Ser Ile Phe Ser Ala Pro Phe Leu Phe Thr 70 75 Arg Gly Lys Glu Ile Pro Thr Gln Thr Phe Ser Phe Ser Val Arg Ile 90 Arg Pro Glu Leu Asp Asp Arg Ala Phe Asn Arg Gly Thr His Met Val 100 105 110 Trp Ile Asp Tyr Ala Ile Ile Ala Val Ile Gly Phe Ser Cys Leu Val 115 120 125 Ser Leu Ile Arg Gly Phe Val Arg Glu Ala Leu Ser Leu Val Thr Trp 130 135 140 Gly Cys Ala Phe Phe Val Ala Ser His Tyr Tyr Thr Tyr Leu Ser Val 150 155 Trp Phe Thr Gly Phe Glu Asp Glu Leu Val Arg Asn Gly Ile Ala Ile 165 170 175 Ala Val Leu Phe Ile Ala Thr Leu Ile Val Gly Ala Ile Val Asn Tyr 180 185 190 Val Ile Gly Gln Leu Val Glu Lys Thr Gly Leu Ser Gly Thr Asp Arg 195 200 205 Val Leu Gly Ile Cys Phe Gly Ala Leu Arg Gly Val Leu Ile Val Ala 210 215 220 Ala Ile Leu Phe Phe Leu Asp Thr Phe Thr Gly Phe Ser Lys Ser Glu 225  $\phantom{\bigg|}230\phantom{\bigg|}$ Asp Trp Gln Lys Ser Gln Leu Ile Pro Glu Phe Ser Phe Ile Ile Arg 245 250 255 Trp Phe Phe Asp Tyr Leu Gln Ser Ser Ser Ser Phe Leu Pro Arg Ala 265

<210> 6470 <211> 517 <212> PRT

<213> Enterobacter cloacae

<400> 6470 Thr Leu Arg Cys Gly Leu Thr Arg Lys Arg Arg Met Cys Gly Ile Val Gly Ile Ala Gly Phe Met Pro Val Asn Gln Ser Ile Tyr Asp Ala Leu 25 Thr Val Leu Gln His Arg Gly Gln Asp Ala Ala Gly Ile Ile Thr Ile 4.0 45 Asp Ala Asn Asn Cys Phe Arg Leu Arg Lys Ala Asn Gly Leu Val Asn 55 60 Asp Val Phe Glu Ala Arg His Met Gln Arg Leu Gln Gly Asn Met Gly 70 75 80 Ile Gly His Val Arg Tyr Pro Thr Ala Gly Ser Ser Ser Ala Ser Glu 85 90 Ala Gln Pro Phe Tyr Val Asn Ser Pro Tyr Gly Ile Thr Leu Ala His 100 Asn Gly Asn Leu Thr Asn Ala His Glu Leu Arg Lys Lys Leu Phe Glu 115 120 Glu Lys Arg Arg His Ile Asn Thr Thr Ser Asp Ser Glu Ile Leu Leu 130 135 140 Asn Ile Phe Ala Ser Glu Leu Asp Asn Phe Arg His Tyr Pro Leu Glu 150 155 Ala Asp Asn Ile Phe Ala Ala Val Ala Ala Thr Asn Arg Gln Ile Arg 165 170 Gly Ala Tyr Ala Cys Val Ala Met Ile Ile Gly His Gly Met Val Ala 180 185 Phe Arg Asp Pro Asn Gly Ile Arg Pro Leu Val Leu Gly Lys Arg Asp

```
Leu Gly Asp Gly Arg Ser Glu Tyr Met Val Ala Ser Glu Ser Val Ala
  210
                  215
                            220
Leu Asp Thr Leu Gly Phe Glu Phe Leu Arg Asp Val Ala Pro Gly Glu
                     235
               230
Ala Val Tyr Ile Thr Glu Lys Gly Gln Leu Phe Thr Arg Gln Cys Ala
            245
                   250 255
Asp Asn Pro Val Ser Asn Pro Cys Leu Phe Glu Tyr Val Tyr Phe Ala
         260
             265 270
Arg Pro Asp Ser Phe Ile Asp Lys Ile Ser Val Tyr Ser Ala Arg Val
    275
          280 285
Asn Met Gly Thr Lys Leu Gly Glu Lys Ile Ala Arg Glu Trp Asp Asp
       295 300
Leu Asp Ile Asp Val Val Ile Pro Ile Pro Glu Thr Ser Cys Asp Ile
    310 315
Ala Leu Glu Ile Ala Arg Ile Leu Asp Lys Pro Tyr Arg Gln Gly Phe
       325 330 335
Val Lys Asn Arg Tyr Val Gly Arg Thr Phe Ile Met Pro Gly Gln Gln
    340 345 350
Leu Arg Arg Lys Ser Val Arg Arg Lys Leu Asn Ala Asn Arg Ala Glu
 355 360 365
Phe Arg Asp Lys Asn Val Leu Leu Val Asp Asp Ser Ile Val Arg Gly
 370 375 380
Thr Thr Ser Glu Gln Ile Ile Glu Met Ala Arg Glu Ala Gly Ala Lys
385 390 395 400
Lys Val Tyr Leu Ala Ser Ala Ala Pro Glu Ile Arg Phe Pro Asn Val
       405 410 415
Tyr Gly Ile Asp Met Pro Thr Ala Asn Glu Leu Ile Ala His Gly Arg
       420 425
Glu Val Asp Glu Ile Arg Gln Ile Ile Giy Ala Asp Gly Leu Ile Phe
435 440
Gln Asp Leu Asn Asp Leu Ile Asp Ala Val Arg Ala Glu Asn Pro Asp
 450 455 460
Ile Gln Gln Phe Glu Cys Ser Val Phe Asn Gly Ile Tyr Val Thr Lys
465 470 475
Asp Val Asp Gln Gln Tyr Leu Asp Tyr Leu Asp Ser Leu Arg Asn Asp
         485
Asp Ala Lys Ala Val Gln Leu Gln Asn Asp Leu Glu Ser Leu Glu Met
       500
His Asn Glu Gly
     515
<210> 6471
<211> 253
<212> PRT
<213> Enterobacter cloacae
<400> 6471
Arg Ala Ala Pro Pro Val Pro Gly Gly Glu Lys Thr Arg Phe His His
Ser Arg Asp Asp Arg Ala Arg Gly Met Leu Tyr Gly Phe Ser Gly Val
                        25
Ile Leu Gln Gly Ala Leu Val Thr Leu Glu Leu Ala Ile Ser Ser Val
                     40
Val Leu Ala Val Leu Ile Gly Leu Ala Gly Ala Gly Ala Lys Leu Ser
                  55
Ala Asn Arg Pro Leu Ala Leu Ile Phe Glu Gly Tyr Thr Thr Leu Ile
                   75
              7.0
Arg Gly Val Pro Asp Leu Val Leu Met Leu Leu Ile Phe Tyr Gly Leu
                           90
Gln Ile Ala Leu Asn Gly Val Thr Asp Ala Ile Gly Met Glu Gln Ile
```

```
1.00
                         105
Asp Ile Asp Pro Met Val Ala Gly Ile Ile Thr Leu Gly Phe Ile Tyr
                120
     115
                                     125
Gly Ala Tyr Phe Thr Glu Thr Phe Arg Gly Ala Tyr Met Ala Val Pro
   130
                  135
                            140
Lys Gly His Ile Glu Ala Ala Thr Ala Tyr Gly Phe Thr Ser Ser Gln
                       155
       150
Thr Phe Arg Arg Ile Met Phe Pro Ala Met Met Arg Tyr Ala Leu Pro
            165 170 175
Gly Ile Gly Asn Asn Trp Gln Val Ile Leu Lys Ala Thr Ala Leu Val
        180 185 190
Ser Leu Leu Gly Leu Glu Asp Val Val Lys Ala Thr Gln Leu Ala Gly
     195
          200 205
Lys Ser Thr Trp Glu Pro Phe Tyr Phe Ala Val Val Cys Gly Leu Ile
  210
       215 220
Tyr Leu Val Phe Thr Thr Val Ser Asn Gly Val Leu Leu Leu Glu
225 230 235
Arg Arg Tyr Ser Val Gly Val Lys Arg Ala Asp Leu
            245
<210> 6472
<211> 154
<212> PRT
<213> Enterobacter cloacae
<400> 6472
Ser Arg Pro Gly Lys Thr Ala Ala Arg Ser Leu Asp Pro Ser Gly Leu
      5
                           10
Gly Thr Asn Asn Asn Ile Glu Ile Asp Pro Val Pro Glu Glu Gln His
20
                      2.5
                                         30
Lys Pro Val Glu Lys Pro Lys Pro Val Glu Lys Pro Gln Pro Lys Pro
35
                     40
                                     45
Gln Arg Asp Lys Ala Ala Glu Gln Leu Ala Ala Ala Ser Glu Thr Pro
50
       55
                                  60
Pro Gln Ala Lys Gln Asp Ala Ala Pro Thr Gly Lys Ala Tyr Val Val
            70
                               75
Gln Leu Gly Ala Leu Lys Asn Ala Asp Lys Val Asn Glu Ile Val Ser
          85
                           90
                                            95
Lys Leu Arg Gly Ala Gly Tyr Arg Val Tyr Thr Ser Pro Thr Thr Pro
         100 105 110
Val Gln Gly Lys Ile Thr Arg Ile Leu Val Gly Pro Asp Ala Ser Lys
     115
                    120 125
Asp Lys Leu Lys Gly Ser Leu Gly Glu Leu Lys Gln Ile Ser Gly Leu
130 135
Ser Gly Val Val Met Asn Tyr Ser Ala Asn
               150
<210> 6473
<211> 329
<212> PRT
<213> Enterobacter cloacae
<400> 6473
Phe Ala Phe Ser Phe Phe Leu Phe Pro Val Arg Ser Ala Asp Leu Leu
                           10
Ser Phe Thr Ile Lys Ala Val Ser Gln Arg Phe Ile Asn Ile Phe Asn
      20
                         25
Val Val Val Leu Ser Arg Arg Gln Cys Gly Ile Arg Pro Ala Arg Ala
                     40
```

Ala Cys Asn Thr Thr His Asn Ile Asn His Asn Lys Ile Thr Val Leu

```
Glu Gly Lys Cys Met Lys Lys Thr Val Leu Ala Leu Ser Leu Leu Val
Gly Leu Ser Ala Ala Ala Ser Ser Tyr Ala Ala Leu Pro Gln Thr Val
             8.5
                             90
                                 95
Arg Ile Gly Thr Asp Ala Thr Tyr Ala Pro Phe Ser Ser Lys Asp Ala
        100 105 110
Lys Gly Asp Phe Val Gly Phe Asp Ile Asp Leu Gly Asn Glu Met Cys
          120 125
      115
Lys Arg Leu Glu Val Lys Cys Thr Trp Val Gly Ser Asp Phe Asp Ala
130 135 140
Leu Ile Pro Ser Leu Lys Ala Lys Lys Ile Asp Ala Ile Ile Ser Ser
    150 155 160
Leu Ser Ile Thr Glu Lys Arg Gln Gln Glu Ile Ala Phe Ser Glu Lys
          165 170 175
Leu Tyr Ala Ala Asp Ser Arg Leu Ile Ala Ala Lys Gly Ser Pro Ile
        180
                         185 190
Gln Pro Thr Ile Asp Ser Leu Lys Gly Lys His Val Gly Val Leu Gln
                      200 205
Gly Ser Thr Gln Glu Gly Phe Ala Asn Ala Asn Trp Arg Glu Lys Gly
 210 215 220
Val Asp Val Val Ala Tyr Gln Asn Gln Asp Leu Ile Tyr Ser Asp Leu
225 230 235
Ala Ala Gly Arg Leu Asp Ala Ala Phe Gln Asp Glu Val Ala Ala Ser
            245 250 255
Glu Gly Phe Leu Lys Gln Pro Ala Gly Lys Glu Tyr Ala Phe Ala Gly
         260 265
                                          270
Pro Ser Val Lys Asp Lys Lys Tyr Phe Gly Asp Gly Thr Gly Ile Gly
                      280
                                       285
Leu Arg Lys Asp Asp Thr Glu Leu Lys Ala Ala Phe Asp Lys Ala Phe
290 295 300
Asn Glu Leu Arg Lys Asp Gly Thr Tyr Asp Lys Leu Ala Lys Lys Tyr
             310
                                315
Phe Asn Phe Asn Val Tyr Gly Asp
             325
<210> 6474
<211> 72
<212> PRT
<213> Enterobacter cloacae
<400> 6474
Thr Gly Pro Lys Arg Asn Arg His Arg Gly Ala Val Tyr Arg Asp Val
                            10
Asp Cys Arg Arg Tyr Arg Gln Leu Arg Asp Arg Ser Ala Gly Arg Glu
         20
                         25
Asn Arg Ser Val Arg Asn Gly Gln Gly Ala Arg His Leu Phe Arg Arg
     35
                      40
Val Ala Arg Arg Ala His Cys Gly Arg Asp Pro Val Leu Pro Gly Tyr
                   55
Leu Tyr Arg Val Leu Gln Lys
<210> 6475
<211> 204
<212> PRT
<213> Enterobacter cloacae
<400> 6475
Asn Pro Ala Gln Ser Ala Leu Lys Ser Ala Arg Ala Lys Ile Met Lys
                             1.0
```

Arg Leu Ile Val Gly Ile Ser Gly Ala Ser Gly Ala Ile Tyr Gly Val

25 Arg Leu Leu Gln Val Leu Arg Asp Val Ala Gly Val Glu Thr His Leu 4 0 Val Met Ser Gln Ala Ala Arg Gln Thr Leu Ser Leu Glu Thr Asp Leu 55 60 Ser Leu Arg Asp Val Gln Ala Leu Ser Asp Val Val His Asp Ala Arg 70 7.5 Asp Ile Ala Ala Ser Ile Ser Ser Gly Ser Phe Lys Thr Ala Gly Met 8.5 90 Val Ile Leu Pro Cys Ser Ile Lys Thr Leu Ser Gly Ile Val Asn Ser 100 105 Tyr Thr Asp Thr Leu Val Thr Arg Ala Ala Asp Val Val Leu Lys Glu 115 120 125 Arg Arg Pro Leu Val Leu Cys Val Arg Glu Thr Pro Leu His Leu Gly 130 135 140 His Leu Arg Leu Met Thr Gln Ala Ala Glu Leu Gly Ala Val Ile Met 145 150 155 160 Pro Pro Val Pro Ala Phe Tyr His Arg Pro Gln Thr Leu Asp Asp Val 165 170 175 Ile Asn Gln Thr Val Asn Arg Val Leu Asp Gln Phe Asp Ile Asp Leu 180 185 Pro Glu Asp Leu Phe Tar Arg Trp Gln Gly Ala 195

<210> 6476 <211> 268 <212> PRT <213> Enterobacter cloacae

<400> 6476 Asp Ser Leu Leu Arg Thr Asp Met Lys Lys Leu Val Leu Ser Leu Ser 10 Leu Val Leu Ala Phe Ser Ser Ala Thr Ala Ala Phe Ala Ala Ile Pro 25 3.0 Gln Lys Ile Arg Ile Gly Thr Asp Pro Thr Tyr Ala Pro Phe Glu Ser 35 4.0 Lys Asn Ala Lys Gly Glu Leu Val Gly Phe Asp Ile Asp Leu Ala Asn 5.5 60 Glu Leu Cys Lys Arg Ile Lys Val Gln Cys Thr Tyr Val Glu Asn Pro 70 7.5 Leu Asp Ala Leu Ile Pro Ser Leu Lys Ala Lys Lys Ile Asp Val Ile 85 90 95 Met Ser Ser Leu Ser Ile Thr Glu Lys Arg Gln Gln Glu Ile Ala Phe 100 105 110 Thr Asp Lys Leu Tyr Ala Ala Asp Ser Arg Leu Val Val Ala Lys Ser 120 Ser Asp Ile Gln Pro Thr Leu Glu Ser Leu Lys Gly Lys Arg Val Gly 135 140 Val Leu Gln Gly Thr Thr Gln Glu Thr Tyr Gly Asn Glu His Trp Ala 150 155 Pro Lys Gly Ile Glu Ile Val Ser Tyr Gln Gly Gln Glu Asn Ile Tyr 165 170 Ala Asp Leu Thr Ala Gly Arg Ile Asp Ala Ala Phe Gln Asp Glu Val 180 185 190 Ala Ala Ser Glu Gly Phe Leu Lys Gln Pro Val Gly Lys Asp Tyr Lys 195 200 205 Phe Gly Gly Pro Ser Ile Lys Asp Glu Lys Leu Phe Gly Val Gly Thr 215 220 Gly Met Gly Leu Arg Lys Glu Asp Asn Glu Leu Arg Glu Ala Leu Asn 235 230 Lys Ala Phe Ala Glu Met Arg Ala Asp Gly Thr Tyr Asp Lys Leu Ala

```
245
                                               255
Lys Lys Tyr Phe Asp Phe Asn Val Tyr Gly Gly
          260
<210> 6477
<211> 239
<212> PRT
<213> Enterobacter cloacae
<400> 6477
Pro Val Ile Glu Ile Ile Gln Glu Tyr Trp Lys Ser Leu Leu Trp Thr
                        10
Asp Gly Tyr Arg Phe Thr Gly Val Ala Ile Thr Leu Trp Leu Leu Ile
 20
                           25
                                            30
Ser Ser Val Val Met Gly Gly Ile Leu Ala Val Phe Leu Ala Ile Gly
 35 40
                               4.5
Arg Val Ser Asn Asn Lys Phe Ile Gln Phe Pro Ile Trp Leu Phe Thr
 50 55
Tyr Val Phe Arg Gly Thr Pro Leu Tyr Val Gln Leu Leu Val Phe Tyr
               70
                                  7.5
Ser Gly Met Tyr Thr Leu Glu Ile Val Lys Gly Thr Glu Met Leu Asn
           8.5
                              90
Ala Phe Phe Arg Ser Gly Leu Asn Cys Thr Val Leu Ala Leu Thr Leu
         100 105
                                            110
Asn Thr Cys Ala Tyr Thr Thr Glu Ile Phe Ala Gly Ala Ile Arg Ser
115
                       120
                                        125
Val Pro His Gly Glu Ile Glu Ala Ala Arg Ala Tyr Gly Phe Ser Ser
                    135
                                     140
Val Lys Leu Tyr Arg Cys Ile Ile Leu Pro Ser Ala Leu Arg Ile Ala
145 150 155
Leu Pro Ala Tyr Ser Asn Glu Val Ile Leu Met Leu His Ser Thr Ala
           165
                              170
Leu Ala Phe Thr Ala Thr Val Pro Asp Leu Leu Lys Ile Ala Arg Asp
                           185
                                            1.90
Ile Asn Ser Ala Thr Tyr Gln Pro Phe Thr Ala Phe Gly Ile Ala Ala
                       200 205
Val Leu Tyr Leu Ile Ile Ser Tyr Val Leu Ile Ser Leu Phe Arg Lys
 210 215
                         220
Ala Glu Lys Arg Trp Leu Gln His Ile Lys Pro Ser Thr His
                230
                                  235
<210> 6478
<211> 309
<212> PRT
<213> Enterobacter cloacae
<400> 6478
Leu Tyr Leu Ser Ala Ala Pro Ala Ser Leu Arg Gly Glu Asp Leu Gln
                           10
Lys Arg Leu Arg Arg Asn Val Gly Glu Ala Ile Ala Asp Phe Asn Met
       20
                           25
                                            30
Ile Glu Glu Gly Asp Arg Ile Met Val Cys Leu Ser Gly Gly Lys Asp
      35
                       40
Ser Tyr Thr Met Leu Glu Ile Leu Arg Asn Leu Gln Gln Ser Ala Pro
 50
                               60
Val Asn Phe Ser Leu Val Ala Val Asn Leu Asp Gln Lys Gln Pro Gly
              70
                                 7.5
Phe Pro Glu His Ile Leu Pro Glu Tyr Leu Asp Asn Leu Gly Val Glu
            8.5
                              90
Tyr Lys Ile Val Glu Glu Asn Thr Tyr Gly Ile Val Lys Glu Lys Ile
```

```
Pro Glu Gly Lys Thr Thr Cys Ser Leu Cys Ser Arg Leu Arg Arg Gly
                      120
Ile Leu Tyr Arg Thr Ala Thr Glu Leu Gly Ala Thr Lys Ile Ala Leu
             135 140
Gly His His Arg Asp Asp Ile Leu Gln Thr Leu Phe Leu Asn Met Phe
      150 155 160
Tyr Gly Gly Lys Met Lys Gly Met Pro Pro Lys Leu Met Ser Asp Asp
          165 170 175
Gly Lys His Ile Val Ile Arg Pro Leu Ala Tyr Cys Arg Glu Lys Asp
      180 185 190
Ile Glu Arg Phe Ser Gln Ala Lys Ala Phe Pro Ile Ile Pro Cys Asn
  195 200 205
Leu Cys Gly Ser Gln Pro Asn Leu Gln Arg Gln Val Ile Gly Asp Met
 210 215 220
Leu Arg Asp Trp Asp Lys Arg Tyr Pro Gly Arg Ile Glu Thr Met Phe
               230 235
Ser Ala Met Gln Asn Val Val Pro Ser His Leu Ala Asp Val Glu Leu
            245 250 255
Phe Asp Phe Lys Gly Ile Asn His Gly Ser Glu Val Val Asn Gly Gly
 260
                          265 270
Asp Leu Ala Phe Asp Arg Glu Glu Ile Pro Met Gln Pro Ala Gly Trp
 275 280
                           285
Gln Pro Glu Glu Glu Asp Ala Gln Phe Asp Glu Leu Arg Leu Asn Val
                  295
                             300
Val Glu Val Lys
<210> 6479
<211> 388
<212> PRT
<213> Enterobacter cloacae
<400> 6479
Cys Gln Pro Lys Tyr Asn Ala Pro Gly Lys Arg Met Leu Arg Asn Ile
                             1.0
Ser Val Arg Thr Phe Ile Val Tyr Phe Leu Leu Cys Val Phe Leu Val
                          25
Ser Asp Gly Val Ile Ala Leu Phe Ser Arg Asn Ser Ser Leu Phe Ile
                           4.5
                    40
Ala Val Ile Ile Val Gln Phe Ile Ala Leu Phe Leu Leu Trp Ala Tyr
                   55
                                   60
Met Thr Lys Tyr Leu Val Thr Pro Ile Asn Thr Val Lys Lys Ser Ile
              7.0
Glu Glu Val Thr Ser Gly Lys Leu Gly Val Ser Ile Pro Glu Phe Gly
            8.5
                             90
Asn Asn Cys Ala Gly Arg Leu Ile Pro Gly Ile Asn Ser Leu Ser Ser
         100
                          105
Asn Ile Ala Thr Leu Val Arg Glu Ile Arg Ala Ser Ser Gln Thr Ala
                      120
     115
Met Thr Leu Ser Asp Gln Leu Ser Ser Arg Ser Ala Gln Leu Ser Val
                135
                                140
Lys Thr Glu Gln Gln Ser Ala Ser Leu Val Gln Thr Ala Ala Ser Met
               150
                                155
Glu Glu Met Ala Ala Ser Thr Lys Asn Asn Ala Asp Asn Thr Arg Leu
                             170
             165
                                           175
Ala Ser Glu Gln Ala Asn Leu Ala Thr Leu Gln Ala Arg Lys Gly Gly
                       185
         180
                                          190
Glu Leu Met Gly Gln Val Ala Asn Asn Met Gln Ser Ile Thr Asp Cys
      195
                      200
Ala Gln Gln Met Thr Glu Ile Ile Ser Leu Ile Asp Gly Ile Ala Phe
```

```
Gln Thr Asn Ile Leu Ala Leu Asn Ala Ala Val Glu Ala Ala Arg Ala
              230
                              235
Gly Asp His Gly Lys Gly Phe Ser Val Val Ala Gly Glu Val Arg Ser
           245
                           250 255
Leu Ala His Arg Ser Ala Glu Ala Ala Lys Asn Ile Lys Ser Leu Ile
         260 265 270
Glu Val Thr Ser His Asn Val Thr Gln Gly Val Asn Val Val Ser Glu
      275 280 285
Ala Glu Lys Asn Met His Asp Ile Val Thr Gly Ser Gly Asn Val Ser
 290 295 300
Arg Leu Met Asp Glu Ile Ser Ala Ser Thr Ser Glu Gln Glu Lys Gly
305 310 315
Ile Ser Gln Ile Thr Gln Ala Leu Ser Glu Leu Glu Arg Val Thr Gln
       325 330 335
Ser Asn Val Ser Met Val Glu Glu Leu Asn Gly Ser Ser Asp Val Leu
         340
                         345
                                         350
Arg Asn Gln Val Ile Glu Leu Gln Thr Arg Thr Arg Asn Phe Arg Leu
 355 360 365
Glu Asn Glu Leu Gln Ala Asp Asn Ala Leu Arg Ser Arg Glu Trp Ala
370 375
Val Asn Ser
385
<210> 6480
<211> 333
<212> PRT
<213> Enterobacter cloacae
<400> 6480
Asn Gly Gly Gly Ala Val Glu Ser Ile Lys Gly Ser Glu Val Asn Val
                            10
Pro Asp Ala Val Phe Ala Trp Val Phe Asp Gly Arg Gly Ala Arg
         2.0
                         25
                                         3.0
Pro Leu Glu Asp Gln Asp His Ile Asp Asn Glu His Pro Cys Trp Leu
                     40
His Leu Asn Tyr Thr His Pro Asp Ser Ala Glu Trp Leu Ala Ser Thr
            55
Pro Leu Leu Pro Asn Asn Val Arg Asp Ala Leu Ala Gly Glu Ser Leu
                               75
            7.0
Arg Pro Arg Val Ser Arg Met Gly Glu Gly Thr Leu Ile Thr Leu Arg
            8.5
                            90
Cys Ile Asn Gly Ser Thr Asp Glu Arg Pro Asp Gln Leu Val Ala Met
         100 105
                                   1.1.0
Arg Val Tyr Met Asp Glu Arg Leu Ile Val Ser Thr Arg Gln Arg Lys
     115 120
Val Leu Ala Leu Asp Asp Val Ile Asn Asp Leu Lys Glu Gly Thr Gly
 130 135 140
Pro Thr Asp Cys Gly Ser Trp Leu Val Asp Val Cys Asp Ala Leu Thr
               150
                               155
Asp His Ala Ser Glu Phe Ile Glu Glu Leu His Asp Lys Ile Ile Asp
            165
Leu Glu Asp Asn Leu Leu Asp Gln Gln Ile Pro Pro Arg Gly Phe Leu
         180
                         185
                                         190
Ala Leu Leu Arg Lys Gln Leu Ile Val Met Arg Arg Tyr Met Thr Pro
     195
                   200
                                     205
Gln Arg Asp Val Tyr Ala Arg Leu Ala Ser Glu Arg Met Ser Trp Met
 210
                  215 220
Asn Asp Asp Gln Arg Arg Met Gln Asp Ile Ala Asp Arg Leu Gly
               230
                               235
Arg Gly Leu Asp Glu Ile Asp Ser Cys Ile Ala Arg Thr Ala Val Met
            245
                            250
```

<211> 467 <212> PRT <213> Enterobacter cloacae

<210> 6481

<400> 6481 Leu Gln Ser Leu Leu Arg Glu Tyr Ile Val Thr Ala Phe Ser Thr Leu 10 Asn Val Leu Pro Glu Ala Gln Leu Ala Asn Leu Asn Glu Leu Gly Tyr 20 25 Leu Thr Met Thr Pro Val Gln Ala Ala Ala Leu Pro Ala Ile Leu Glu 35 40 Gly Arg Asp Val Arg Val Gln Ala Lys Thr Gly Ser Gly Lys Thr Ala 50 Ala Phe Gly Leu Gly Leu Leu Gln His Ile Asp Ala Thr Leu Phe Gln 70 7.5 Thr Gln Ser Leu Ile Leu Cys Pro Thr Arg Glu Leu Ala Asp Gln Val 8.5 90 Ala Gly Glu Leu Arg Arg Leu Ala Arg Phe Leu Pro Asn Thr Lys Ile 100 105 Leu Thr Leu Cys Gly Gly Gln Pro Phe Gly Ala Gln Arg Asp Ser Leu 120 125 Gln His Ala Pro His Ile Ile Val Ala Thr Pro Gly Arg Leu Leu Asp 135 140 His Leu Gln Lys Gly Thr Val Ser Leu Asp Ala Leu Gln Thr Leu Val 145 150 155 Met Asp Glu Ala Asp Arg Met Leu Asp Met Gly Phe Ser Asp Ala Ile 165 170 Asp Glu Val Ile Arg Phe Ala Pro Ala Thr Arg Gln Thr Leu Leu Phe 180 185 190 Ser Ala Thr Trp Pro Glu Ala Ile Ala Ala Ile Ser Gly Arg Val Gln 195 200 205 Lys Asn Pro Leu Thr Ile Glu Ile Asp Thr Val Asp Ala Leu Pro Ala 215 Ile Glu Gln Gln Phe Phe Glu Thr Ser Gln Gln Gly Lys Ile Pro Leu 235 230 Leu Gln Lys Leu Leu Ser Gln His Gln Pro Ala Ser Cys Val Val Phe 250 245 Cys Asn Thr Lys Lys Asp Cys Gln Ala Val Cys Asp Ala Leu Asn Asp 260 265 270 Ala Gly Gln Ser Ala Leu Ser Leu His Gly Asp Leu Glu Gln Arg Asp 275 280 285 Arg Asp Gln Thr Leu Val Arg Phe Ala Asn Gly Ser Ala Arg Val Leu 295 300 Val Ala Thr Asp Val Ala Ala Arg Gly Leu Asp Ile Lys Ser Leu Glu 310 315 Leu Val Val Asn Phe Glu Leu Ala Trp Asp Pro Glu Val His Val His 325 330 Arg Ile Gly Arg Thr Ala Arg Ala Gly Asn Ser Gly Leu Ala Ile Ser 345

```
Phe Cys Ala Pro Glu Glu Ala Gln Arg Ala Asn Ile Leu Ser Glu Met
       355
                          360
Leu Gln Leu Lys Leu Asn Trp Val Asn Thr Pro Asp Asn Ile Ser Ile
                      375
                                        380
Ala Pro Leu Ala Ala Glu Met Ala Thr Leu Cys Ile Asp Gly Gly Lys
                  390
                                    395
Lys Ala Lys Met Arg Pro Gly Asp Val Leu Gly Ala Leu Thr Gly Asp
              405
                                410
Met Gly Leu Asp Gly Ala Asp Ile Gly Lys Ile Thr Val His Pro Ala
           420
                   425
His Val Tyr Val Ala Val Arg Gln Ser Val Ala His Lys Ala Trp Lys
       435
             440
                               445
Gln Leu Gln Gly Gly Lys Ile Lys Gly Lys Thr Cys Arg Val Arg Leu
          455
 450
                             460
Leu Lys
465
<210> 6482
<211> 174
<212> PRT
<213> Enterobacter cloacae
<400> 6482
His Leu Phe Leu Leu Lys Lys Gly Ile Ala Met Ala Asp Ser Phe Gln
           5
                                10
                                                   15
Asn Glu Val Pro Lys Ala Arg Ile Asn Leu Lys Leu Ala Leu His Thr
    20
                             25
Gly Gly Ala Gln Lys Lys Ile Glu Leu Pro Leu Lys Leu Leu Thr Val
                         40
Gly Asp Phe Ser Asn Gly Lys Glu Asn Arg Pro Leu Ser Glu Arg Glu
                      55
                                        60
Lys Ile Asn Val Asn Lys Asn Asn Phe Asn Ser Val Leu Ser Glu Phe
               7.0
                                  7.5
                                                       8.0
Asn Pro Glu Val Asn Leu Thr Val Pro Asn Thr Met Ala Gly Asp Gly
                                 90
                                                   95
Ser Glu Glu Ser Ile Lys Leu Asn Phe Ser Asp Ile Lys Asp Phe Glu
          100
                            105
                                                110
Pro Glu Gln Val Ala Arg Gln Ile Pro Gln Leu Arg Ala Met Leu Ala
                         120
                                            125
Met Arg Asn Leu Leu Arg Asp Leu Lys Ser Asn Leu Leu Asp Asn Ala
                     135
                                        140
Thr Phe Arg Lys Glu Leu Glu Lys Ile Leu Lys Asp Pro Ala Leu Ser
145 150
                                    155
Gln Glu Leu Arg Asp Glu Met Ser Ala Leu Ala Pro Lys
              165
<210> 6483
<211> 219
<212> PRT
<213> Enterobacter cloacae
<400> 6483
Thr Gly Ala Val Ser Met Phe Thr Gly Ile Val Gln Gly Thr Ala Lys
                                 10
Val Val Ser Ile Asp Glu Lys Pro Asn Phe Arg Thr His Val Val Glu
                             25
                                               30
Leu Pro Glu Tyr Met Leu Asp Gly Ile Glu Thr Gly Ala Ser Ile Ala
                         40
His Asn Gly Cys Cys Leu Thr Val Thr Glu Ile Asn Gly Asn Gln Ile
                   5.5
Ser Phe Asp Leu Met Lys Glu Thr Leu Arg Ile Thr Asn Leu Gly Glu
```

Leu Val Val Gly Asp Ile Ile Asn Val Glu Arg Ala Ala Lys Phe Ser 8.5 90 Asp Glu Ile Gly Gly His Leu Met Ser Gly His Ile Met Thr Thr Ala 100 105 110 Glu Val Ala Lys Ile Val Thr Ser Glu Asn Asn Arg Gln Ile Trp Phe 120 125 Lys Val Gln Asp Pro Ser Leu Met Lys Tyr Ile Leu Tyr Lys Gly Phe 135 140 Ile Gly Ile Asp Gly Ile Ser Leu Thr Val Gly Glu Val Thr Pro Thr 150 155 Arg Phe Cys Val His Leu Ile Pro Glu Thr Leu Gln Arg Thr Thr Leu 165 170 Gly Ala Lys Lys Leu Gly Gln Arg Val Asn Ile Glu Ile Asp Pro Gln 180 185 190 Thr Gln Ala Val Val Asp Thr Val Glu Arg Val Leu Ala Ala Lys Glu 195 200 Ala Ala Ile Ile Lys Thr Val Glu Glu Glu 210

<210> 6484 <211> 444 <212> PRT

<213> Enterobacter cloacae

<400> 6484 Ile Lys Arg Ser Ala Ser Ser Gln Ala Ala Ser Arg Thr His Ser Met 10 Pro Arg Gln Pro Ala Ala Lys Ile Ala Ser Pro Asn Asn Arg Thr Gly 20 25 Leu Arg Pro Lys Arg Ser Glu Ser Gly Pro His Ser Asn Cys Ala Lys 4.0 Ala Lys Pro Ala Arg Asn Lys Leu Lys Leu Ala Leu Met Ala Ala Ala 50 5.5 60 Gly Val Cys Lys Ser Ser Cys Ile Ala Ala Asn Ala Gly Arg Tyr Ile 70 75 Ser Val Ala Lys Lys Pro Ser Thr Leu Lys Pro Pro Ser Gln Thr Lys 90 Asn Pro Phe Leu Gly Cys Thr Phe Phe Leu Leu Arg Arg Gln Val Tyr 100 105 Val Gly Ala Glu Cys Arg Glu Cys Lys Ala Ala Cys Glu Thr Leu Ile 120 125 Phe Gly Gly Cys Ile Gln Lys Ile Cys Arg Leu Lys Met Trp Ser Asp 135 140 Tyr Ser Leu Glu Val Val Asp Ala Val Ala Arg Asn Gly Ser Phe Thr 150 155 Gly Ala Ala Gln Glu Leu His Arg Val Pro Ser Ala Ile Ser Tyr Thr 165 170 175 Val Arg Gln Leu Glu Ala Trp Leu Ala Val Pro Leu Phe Glu Arg Arg 180 185 His Arg Asp Val Glu Leu Thr Pro Ala Gly Ala Trp Phe Leu Lys Glu 200 Gly Arg Ser Val Ile Lys Lys Met Gln Ile Thr Arg Glu Gln Cys Gln 215 220 Gln Ile Ala Asn Gly Trp Arg Gly His Leu Ala Ile Ala Val Asp Asn 230 235 Ile Val Lys Pro Glu Arg Thr Arg Gln Met Ile Val Asp Phe Tyr Arg 245 250 His Phe Ser Asp Val Glu Leu Arg Val Ser Gln Glu Val Phe Asn Gly 260 265 Val Trp Asp Ala Leu Ala Asp Gly Arg Ala Glu Met Ala Ile Gly Ala

280 Thr Gln Ala Ile Pro Val Gly Gly Arg Tyr Ala Phe Arg Asp Met Gly 295 300 Met Leu Ser Trp Thr Cys Val Val Ala Arg Asp His Pro Leu Ala Ala 310 315 320 Leu Glu Gly Pro Leu Ser Asp Asp Thr Leu Arg Asn Trp Pro Ser Leu 325 330 335 Val Leu Glu Asp Thr Ser Arg Ser Leu Pro Lys Arg Ile Thr Trp Leu 340 345 350 Leu Asp Asn Gln Arg Arg Val Val Ala Pro Asp Trp Glu Ser Ser Ala 360 Thr Cys Leu Ser Ala Gly Leu Cys Val Gly Met Val Pro Val His Phe 375 380 Ala Arg Pro Arg Ile Asp Ala Gly Glu Trp Val Ala Leu Thr Leu Glu 390 395 400 Asn Pro Phe Pro Asp Ala Ala Cys Cys Leu Thr Trp Gln Gln Asn Asp 405 410 415 Val Ser Pro Ala Met Ala Trp Leu Leu Asp Tyr Leu Gly Asp Ser Glu 420 425 Thr Leu Asn Arg Glu Trp Leu Arg Glu Pro Ala <210> 6485 <211> 279 <212> PRT <213> Enterobacter cloacae <400> 6485 Phe Cys Ala Gly Leu Trp His Gly Ile Arg Ser Leu Phe Met Lys Ile 1.0 Asn Phe Pro Leu Leu Ala Leu Ala Ile Gly Ala Phe Gly Ile Gly Thr 20 25 Thr Glu Phe Ser Pro Met Gly Leu Leu Pro Val Ile Ala Arg Gly Val 35 40 Asp Val Ser Ile Pro Ala Ala Gly Met Leu Ile Ser Ala Tyr Ala Ile 50 55 60 Gly Val Met Val Gly Ala Pro Leu Met Thr Leu Leu Leu Ser His Arg 65 70 75 Ala Arg Arg Asn Ala Leu Ile Phe Leu Met Ala Ile Phe Thr Leu Gly 8.5 90 Asn Val Phe Ser Ala Ile Ser Pro Asp Tyr Thr Thr Leu Met Leu Ser 105 110 Arg Ile Leu Thr Ser Leu Asn His Gly Ala Phe Phe Gly Leu Gly Ser 115 120 125 Val Val Ala Ala Ser Val Val Pro Lys His Lys Gln Ala Ser Ala Val 130 135 140 Ala Thr Met Phe Met Gly Leu Thr Ile Ala Asn Ile Gly Gly Val Pro 145 150 155 Ala Ala Thr Trp Leu Gly Glu Ala Ile Gly Trp Arg Met Ser Phe Leu 165 170 Ala Thr Ala Gly Leu Gly Val Val Ala Met Val Ala Leu Phe Phe Ser 180 185 Leu Pro Lys Gly Ser Ala Gly Glu Arg Pro Glu Val Arg Lys Glu Leu 195 200 205 Ala Val Leu Met Arg Pro Gln Val Leu Ser Ala Leu Leu Thr Thr Val 210 215 220 Leu Gly Ala Gly Ala Met Phe Thr Leu Tyr Thr Tyr Ile Ser Pro Val 225 230 235 Leu His Asp Ile Thr His Ala Thr Pro Leu Phe Val Thr Ala Met Leu

Val Leu Ile Gly Val Gly Phe Ser Thr Gly Pro Ile Ser Val Phe Thr

260 265 270 Thr Arg Thr Gly Pro Arg Thr 275 <210> 6486 <211> 109 <212> PRT <213> Enterobacter cloacae <400> 6486 Gly Arg Ile Ser Thr Ala Ser Ser Leu Arg Thr Ser Gly Arg Ser Pro 10 Ala Leu Pro Phe Gly Ser Glu Lys Asn Ser Ala Thr Ile Ala Thr Thr 20 25 Pro Ser Pro Ala Val Ala Arg Lys Asp Ile Arg Gln Pro Met Ala Ser 35 4.0 Pro Ser Gln Val Ala Ala Gly Thr Pro Pro Ile Leu Ala Met Val Arg 55 Pro Ile Asn Ile Val Ala Thr Ala Leu Ala Cys Leu Cys Phe Gly Thr 65  $\phantom{-}70\phantom{0}$  70  $\phantom{-}75\phantom{0}$  80 Thr Leu Ala Ala Thr Thr Glu Pro Ser Pro Lys Lys Ala Pro Trp Leu 85 90 Arg Leu Val Arg Met Arg Glu Ser Ile Arg Val Val 100 <210> 6487 <211> 465 <212> PRT <213> Enterobacter cloacae <400> 6487 Leu Gln Tyr Lys Gly Val His Val Gln Lys Tyr Met Ile Glu Ala Arg Gln Leu Leu Ala Leu Ala Ile Pro Val Ile Val Ala Gln Val Ala Gln 20 25 3.0 Thr Ala Met Gly Phe Val Asp Thr Val Met Ala Gly Gly Tyr Ser Ala Thr Asp Met Ala Ala Val Ala Ile Gly Thr Ser Ile Trp Leu Pro Ala 50 55 60 Ile Leu Phe Gly His Gly Leu Leu Leu Ala Leu Thr Pro Val Ile Ala 70 75 Gln Leu Asn Gly Ser Gly Arg Arg Asp Arg Val Ala His Gln Val Arg 90 Gln Gly Phe Trp Leu Ala Gly Phe Val Ser Val Leu Ile Met Ile Val 100 105 110 Leu Trp Asn Ala Gly Tyr Ile Ile Arg Ala Met His Asn Ile Asp Pro 120 125 Ala Leu Ala Asp Lys Ala Val Gly Tyr Leu Arg Ala Leu Leu Trp Gly 130 135 140 Ala Pro Gly Tyr Leu Phe Phe Gln Val Ala Arg Asn Gln Cys Glu Gly 150 160 Leu Ala Lys Thr Lys Pro Gly Met Val Met Gly Phe Ile Gly Leu Leu 165 170 Val Asn Ile Pro Val Asn Tyr Ile Phe Ile Tyr Gly His Phe Gly Met 180 185 Pro Glu Leu Gly Gly Val Gly Cys Gly Val Ala Thr Ala Ala Val Tyr 195 Trp Val Met Phe Gly Ser Met Leu Thr Tyr Ile Lys His Ala Arg Ser 210 215 220 Met Arg Asp Ile Arg Asn Asp Thr Thr Phe Ser Thr Pro Asp Trp Ser 230

Met Leu Thr Arg Leu Thr Gln Leu Gly Leu Pro Ile Ala Leu Ala Leu 245 250 Phe Phe Glu Val Thr Leu Phe Ala Val Val Ala Leu Leu Val Ser Pro 260 265 Leu Gly Ile Ile Asp Val Ala Gly His Gln Ile Ala Leu Asn Phe Ser 280 285 Ser Leu Met Phe Val Leu Pro Met Ser Leu Ala Ala Ala Val Thr Ile 290 295 300 Arg Val Gly Phe Arg Leu Gly Gln Gly Ser Thr Leu Asp Ala Gln Thr 305 310 315 320 Ala Ala Arg Thr Gly Leu Gly Val Gly Val Cys Met Ala Val Cys Thr 325 330 335 Ala Leu Phe Thr Val Leu Leu Arg Glu Gln Ile Ala Leu Leu Tyr Asn 340 345 350 Asp Asn Pro Glu Val Val Thr Leu Ala Ser His Leu Met Leu Leu Ala 355 360 365 Ala Ile Tyr Gln Ile Ser Asp Ser Ile Gln Val Ile Gly Ser Gly Val 370 375 380 Leu Arg Gly Tyr Lys Asp Thr Arg Ser Ile Phe Phe Ile Thr Phe Ile 385 390 395 Ala Tyr Trp Val Leu Gly Leu Pro Ser Gly Tyr Ile Leu Ala Leu Thr 405 410 415 Asp Leu Val Val Asp Arg Met Gly Pro Ala Gly Phe Trp Met Gly Phe 420 425 430 Ile Ile Gly Leu Thr Ser Ala Ala Ile Met Met Met Leu Arg Met Arg 435 440 445 Phe Leu Gln Arg Gln Pro Ser Thr Val Ile Leu Gln Arg Ala Ala Arg

465

<210> 6488 <211> 344 <212> PRT

<213> Enterobacter cloacae

450 455

<400> 6488

His Leu Met Ala Thr Ile Lys Asp Val Ala Lys Arg Ala Asn Val Ser 1 5 10 Thr Thr Thr Val Ser His Val Ile Asn Lys Thr Arg Phe Val Ala Glu 20 2.5 Glu Thr Arg Asn Ala Val Trp Ala Ala Ile Lys Glu Leu His Tyr Ser 40 Pro Ser Ala Val Ala Arg Ser Leu Lys Val Asn His Thr Lys Ser Ile 55 Gly Leu Leu Ala Thr Ser Ser Glu Ala Ala Tyr Phe Ala Glu Ile Ile 70 7.5 Glu Ala Val Glu Lys Asn Cys Phe Gln Lys Gly Tyr Thr Leu Ile Leu 85 90 Gly Asn Ala Trp Asn Asn Ile Glu Lys Gln Arg Ala Tyr Leu Ser Met 100 105 110 Met Ala Gln Lys Arg Val Asp Gly Leu Leu Val Met Cys Ser Glu Tyr 115 120 Pro Glu Ser Val Leu Ser Met Leu Glu Glu Tyr Arg His Ile Pro Met 135 140 Val Val Met Asp Trp Gly Glu Ala Arg Ala Asp Phe Thr Asp Ser Val 145 150 155 Ile Asp Asn Ala Phe Glu Gly Gly Tyr Met Ala Gly Arg Tyr Leu Val 165 170 175 Glu Arg Gly His Arg Glu Ile Gly Val Ile Pro Gly Pro Leu Glu Arg 180 185

```
Asn Thr Gly Ala Gly Arg Leu Ala Gly Phe Met Lys Ala Met Glu Glu
 195
                        200
Ala Leu Ile Thr Val Pro Glu Asn Trp Ile Val Gln Gly Asp Phe Glu
                 215
                                     220
Pro Glu Ser Gly Tyr Arg Ala Met Gln Gln Ile Val Ser Gln Pro His
                 230 235 240
Arg Pro Thr Ala Val Phe Cys Gly Gly Asp Ile Met Ala Met Gly Ala
             245 250 255
Leu Cys Ala Ala Asp Glu Leu Gly Leu Arg Val Pro Gln Asp Ile Ser
          260 265 270
Val Ile Gly Tyr Asp Asn Val Arg Asn Ala Arg Phe Phe Thr Pro Ala
      275
           280 285
Leu Thr Thr lle His Gln Pro Lys Asp Ser Leu Gly Glu Thr Ala Phe
 290 295 300
Asn Met Leu Leu Asp Arg Ile Val Asn Lys Arg Glu Gln Ser Gln Ser
305 310 315
Ile Glu Val His Pro Arg Leu Ile Glu Arg Arg Ser Val Ala Asp Gly
     325 330
Pro Phe Arg Asp Tyr Arg Arg
          340
<210> 6489
<211> 430
<212> PRT
<213> Enterobacter cloacae
<400> 6489
Met His Pro Pro Asn Ile Ser Val Ser Gln Ala Ala Leu His Ser Leu
                              10
His Ser Ala Pro Thr Tyr Thr Cys Leu Leu Arg Arg Lys Lys Val Gln
                          25
Pro Arg Lys Gly Phe Leu Val Trp Leu Gly Gly Leu Ser Val Leu Gly
                       4.0
Phe Leu Ala Thr Asp Met Tyr Leu Pro Ala Phe Ala Ala Met Gln Glu
Asp Leu Gln Thr Pro Ala Ala Ala Ile Ser Ala Ser Leu Ser Leu Phe
65 70
                                  75
Leu Ala Gly Phe Ala Phe Ala Gln Leu Leu Trp Gly Pro Leu Ser Asp
           85
                              90
Arg Phe Gly Arg Lys Pro Val Leu Leu Leu Gly Leu Ala Ile Phe Ala
         100
                          105 110
Ala Gly Cys Leu Gly Met Leu Trp Val Arg Asp Ala Ala Trp Leu Leu
      115
                       120
Ala Leu Arg Phe Ile Gln Ala Val Gly Val Cys Ala Ala Ala Val Thr
                 135
Trp Gln Ala Leu Val Thr Asp Tyr Tyr Pro Ala Ser Arg Thr Asn Arg
145
                150
                                 155
Ile Phe Ala Thr Ile Met Pro Leu Val Gly Leu Ser Pro Ala Leu Ala
             165
                              170
Pro Leu Met Gly Ser Trp lle Leu Ala His Phe Asp Trp Gln Ala Ile
          180
                           185
                                           190
Phe Ala Thr Leu Phe Ala Ile Thr Leu Val Leu Met Leu Pro Ala Phe
      195
                       200
Gly Leu Lys Pro Ala His Lys Lys Glu Thr His Pro Asp Ala Lys Pro
   210
                 215
                                    220
Ile Thr Phe Thr Ser Leu Leu Arg Ser Lys Ala Tyr Arg Gly Asn Val
             230
                               235
Leu Ile Tyr Ala Ala Cys Ser Ala Ser Phe Phe Ala Trp Leu Thr Gly
             245
                   250
```

Ser Pro Phe lle Leu His Asp Met Gly Tyr Ser Pro Ala Ala Ile Gly

265

```
Leu Ser Tyr Val Pro Gln Thr Ile Ala Phe Leu Val Gly Gly Tyr Gly
                       280
 275
                              285
Cys Arg Ala Ala Leu Gln Lys Trp Glu Gly Gln Gln Met Leu Pro Trp
  290
                   295
                            300
Leu Leu Val Leu Tyr Ala Leu Ser Val Ile Ala Thr Trp Ala Val Gly
                310 315
Phe Ile Pro Gly Ala Gly Leu Ala Glu Ile Leu Ile Pro Phe Cys Val
            325 330 335
Met Ala Ile Ala Asn Gly Ala Ile Tyr Pro Ile Val Val Ala Gln Ala
         340 345 350
Leu Arg Pro Phe Pro Gln Ala Thr Gly Arg Ala Ala Ala Leu Gln Asn
     355 360 365
Thr Leu Gln Leu Gly Leu Cys Phe Leu Ala Ser Leu Val Val Ser Ala
 370 375 380
Leu Ile Ala Thr Pro Leu Leu Thr Thr Thr Ser Val Met Leu Ile Thr
385 390 395
Val Ala Leu Ala Gly Leu Gly Tyr Arg Met Gln Ser Ser Ala Leu Arg
    405 410
Glu Gln Asn Asp Asn Ala Gln Thr Glu Thr Ser His Ala
                425
                                          430
<210> 6490
<211> 391
<212> PRT
<213> Enterobacter cloacae
<400> 6490
Ser Gln Gln Gly Asp Gly Glu Ala Met Ser Ser Ser Cys Ile Glu Glu
                             10
Val Ser Val Pro Asp Asp Asn Trp Ser Arg Ile Val Ser Glu Leu Leu
                         2.5
                                          30
Gly Arg Ala Gly Ile Thr Ile Asc Gly Ser Ser Pro Ser Asp Pro Gln
                      4.0
                                     4.5
Ile Lys His Pro Asp Phe Phe Lys Arg Val Leu Gln Glu Gly Ser Leu
                 55
Gly Leu Gly Glu Ser Tyr Met Asp Gly Trp Trp Glu Cys Glu Arg Leu
        70 75
Asp Met Phe Phe Ser Ser Val Leu Arg Ala Gly Leu Glu Lys Gln Leu
                            90
           8.5
Pro Arg His Phe Lys Asp Thr Leu Arg Ile Ala Ser Ala Arg Leu Phe
         100 105
                                         110
Asn Leu Gln Ser Lys Lys Arg Ala Trp Ile Val Gly Lys Glu His Tyr
      115
                      120
Asp Leu Gly Asn Asp Leu Phe Ser Arg Met Leu Asp Pro Leu Met Gln
                  135
                                 140
Tyr Ser Cys Gly Tyr Trp Lys Lys Ala Thr Thr Leu Glu Glu Ala Gln
145
               150
                                155
Gln Asp Lys Leu Gln Leu Ile Cys Asp Lys Leu Gln Leu Gln Pro Gly
            165
                            170 175
Met Arg Val Leu Asp Ile Gly Cys Gly Trp Gly Gly Leu Ala Trp Phe
         180
                         185
Met Ala Lys Asn Tyr Gly Val Ser Val Val Gly Val Thr Ile Ser Ala
      1.95
                      200
                                       205
Glu Gln Gln Lys Met Ala Gln Glu Arg Cys Leu Gly Leu Asp Val Asp
                   215
                                   220
Ile Arg Leu Gln Asp Tyr Arg Asp Leu Asn Glu Gln Phe Asp Arg Ile
                   235
                230
Val Ser Val Gly Met Phe Glu His Val Gly Pro Lys Asn Tyr Lys Thr
             245
                            250
                                             255
Tyr Phe Glu Val Ala Asp Arg Asn Leu Lys Pro Asp Gly Ile Phe Leu
         260
```

Leu His Thr Ile Gly Ser Lys Arg Thr Asp Asn Asn Val Asp Pro Trp 275 280 285 Ile Asn Lys Tyr Ile Phe Pro Asn Gly Cys Leu Pro Ser Val Arg Gln 290 295 300 Ile Ala Asn Ala Ser Glu Pro His Phe Ile Val Glu Asp Trp His Asn 310 315 305 Phe Gly Ala Asp Tyr Asp Thr Thr Leu Met Ala Trp His Glu Arg Phe 325 330 Gln Ala Ala Trp Pro Glu Ile Ala Asp Asn Tyr Ser Glu Arg Phe Lys 340 345 350 Arg Met Phe Ser Tyr Tyr Leu Asn Ala Cys Ala Gly Ala Phe Arg Ala 355 360 Arg Asp Ile Gln Leu Trp Gln Val Val Phe Ser Arg Gly Ile Glu His 370 375 Gly Leu Arg Val Ala Arg <210> 6491 <211> 364 <212> PRT <213> Enterobacter cloacae <400> 6491 Ala Arg Trp Ala Ala Pro Ser Ala Ala Tyr Ser Ala Trp Trp Ala Ala 10 Ser Ser Ala Val Ser Ser Ala Pro Lys Arg Glu Ala Arg Cys Thr His 25 3.0 Gly Pro His Cys Arg Ala Ile Phe Leu Phe Gln Pro Arg Ile Ile Met Phe Ser Leu Phe Gln Tyr Lys Lys Gln Gly Lys Thr Pro Val Ile Arg Gln His Glu Phe Thr Glu Cys Gly Leu Ala Cys Leu Ala Met Val Leu 65 70 75 Gly His Tyr Asp His His Val Ser Val Ser Gln Leu Arg Arg Glu Ile 90 Ser Val Ser Ala Asp Ala Gly Thr Ser Met Ala Glu Leu Met Thr Leu 100 Ala Ser Asp Lys Asn Met Ser Gly Arg Val Leu Lys Gly Glu Ile Thr 120 125 Glu Ile Glu Thr Ser Glu Leu Pro Leu Ile Ala Phe Trp Arg Gly Asn 135 140 His Phe Val Val Ile Val Lys Ile Asp Ser Arg Ser Val Thr Val His 150 155 Asp Pro Ala Ser Gly Val Arg Arg Tyr Arg Leu Lys Glu Ala Glu Lys 165 170 Leu Phe Ser Gly Tyr Val Leu Glu Leu Lys Pro Thr Pro Cys Phe Glu 185 180 Lys Lys Ser Pro Asp Glu Thr Leu Tar Leu Gly Arg Leu Ala Asn Lys 200 Ser Pro Ser Leu Phe Gln Arg Gln Leu Leu Leu Phe Val Leu Cys Ile 215 220 Phe Thr Leu Ile Thr Met Leu Ala Ser Pro Thr Tyr Val Gln Leu Ile 230 235 Met Asp Glu Ala Ile Ser Arg Ser Asp Ser Asp Leu Val Ile Leu Leu 245 250 Thr Ala Ile Phe Ala Ile Val Phe Ile Phe Glu Val Ile Gly Lys Phe

265

Leu Lys Gln Leu Leu Glu Ile Leu Met Arg Asn Ile Ala Tyr Asp Asp 275 Leu Ser Gln Ser Val Arg His Tyr Met Leu Arg Thr Gln Thr Ser Trp

295

270

300

260

```
2669
Phe Arg Ser Arg Pro Pro Gly Ile Val Leu Ala Ile Glu Lys Ser Leu
                  310
                                   315
His Ala Cys Ala Glu Phe Ile Ser Asn Gly Tyr Val Gln Ile Leu Phe
              325
                                330
Ser Ser Leu Ile Ala Val Thr Ser Leu Leu Phe Met Leu Leu Tyr Asn
          340
                            345
Val Gln Ile Ala Leu Ala Asp Asn Ala Ala Asp Gly
                         360
<210> 6492
<211> 208
<212> PRT
<213> Enterobacter cloacae
<400> 6492
Met Asn Lys Leu Asn Ala Ile Val Leu Gly Ser Leu Leu Ser Val Ser
                                1.0
Ala Leu Ser Ala Val Asn Ala Ala Glu Thr Thr Ala Ser Ala Thr Trp
          20
                            25
                                              3.0
Gln Ala Thr Ala Thr Lys Asp Ser Glu Ser Asp Leu Val Val Thr Pro
                        4.0
                                     4.5
Thr Arg Ala Leu Asn Phe Val Tyr Ser Ala Asn Thr Lys Ser Phe Asn
 5.0
                  55
                                      60
Thr Asp Thr Gly Leu Phe Asp Val Ala Ile Arg Gly Asp His Ser Thr
                                   75
              70
Ala Thr Ser Phe Lys Leu Glu Ala Ile Leu Asp Asp Ser Asn Asn Thr
             8.5
                               90
Leu Phe Ser Val Gly Gly Glu Ala Thr Lys Leu Lys Val Gly Ala Arg
         100
               105
                                              110
Trp Gly Gly Asn Asp Leu Gly Ser Ile Gly Gly Thr Val Gly Ala Lys
      115
                        120
Ser Thr Ala Trp Thr Thr Leu Val Asp Ser Ser Ser Asn Thr Gly Val
 130
       135 140
Ser Ser Gly Leu Trp Asn Leu Thr Thr Ser Ala Gly Ala Ala Ala Asp
               150 155
Thr Glu Ile Thr Gly Gln Asp Lys Phe Val Phe Tyr Val Asp Ser Ala
             165 170
Gln Asp Asn Ala Gly Thr Ala Lys Glu Phe Lys Asp Leu Thr Asn Ser
        180 185 190
Leu Trp Glu Gly Thr Val Ser Val Ala Phe Arg Ala Thr Trp Gly
                         200
<210> 6493
<211> 229
<212> PRT
<213> Enterobacter cloacae
<400> 6493
Gly Asn Ser Met Phe Asn Leu Lys Ser Ala Phe Leu Phe Leu Leu Phe
Ile Ser Ser Ser Ala Leu Ala Ile Asn Val Gly Lys Val Thr Thr Ile
    20
                            25
                                              30
Ile Ser Ala Asp Ala Asp Ser Thr Ala Lys Glu Ile Lys Asn Glu Ala
                         4.0
Asp Ser Val Arg Ile Val Ser Val Arg Ala Gln Arg Ile Ser Ser Pro
                     5.5
Met Asp Glu Gly Ile Val Ile Asn Pro Glu Lys Val Asp Glu Leu Leu
                 70
                                   75
                                                    8.0
Leu Thr Pro Thr Arg Met Val Met Pro Ala Gly Thr Ser Asn Ile Val
             8.5
                               90
```

Lys Phe Tyr Tyr His Gly Asn Ala Asp Asn Lys Glu Arg Tyr Tyr Arg

100 105 Ile Thr Phe Thr Asp Glu Gly Val Ser Glu Glu Val Asp Ser Gly Ser 120 Pro Lys Asn Gly Thr Gly Met Thr Arg Ala Val Val Ser Thr Ile Leu 135 140 Val Val Gln Pro Arg Asp Lys Lys Ile Asp Phe Val Tyr Val Ala Gly 150 155 Lys Ile Thr Asn Lys Gly Asn Thr Ser Phe Arg Val Asn Ala Thr Gly 175 165 170 Thr Cys Leu Lys Pro Asn Pro Glu Ser Pro Gly Thr Pro Cys Ser Lys 185 180 190 Asn Phe Tyr Leu Met Pro Glu Thr Ser Arg Ala Ile Glu Asp Ile Asn 195 200 205 Val Thr Asp Asn His Phe His Leu Gly Ile Trp Asp Leu Lys Gln Phe 210 215 Ile Pro Val Lys 225 <210> 6494 <211> 867 <212> PRT <213> Enterobacter cloacae <400> 6494 Gly Cys Met Val Lys Asn Lys Leu Val Leu Pro Val Met Met Ala Cys 10 15 Ala Ser Gly Thr Leu Pro Ala Leu Ala His Ala Ala Ser Ser Ser Val 20 25 Val Ile Ala Asn Tyr Arg Phe Pro Asp Ser Leu Tyr Ala Leu Leu Glu 35 40 Gln Gly Ile Lys Ile Pro Val Tyr Leu Val Asn Thr Arg Pro His Ser 50 55 60 Ala Gln Gln Gly Asn His Glu Gly Thr Ala Ser Glu Tyr Val Arg Ile 65 70 75 Gly Asp Val Thr Leu Phe Ala Lys Asp Leu Lys Leu Gly Leu Arg Asp 85 90 95 Val Gln Val Gln Glu Ser Asp Asn Gly Ile Arg Leu Ser Lys Glu Met 100 105 110 Arg Ala Leu Leu Gln Ser Ile Asn Asp Lys Gln Phe Asp Asp Gln Met 115 120 125 Arg Ile Pro Val Ser Ala Gly Ser Ala Phe Glu Leu Asp Gln Lys Lys 130 135 140 Met Arg Leu Leu Asn Leu Ser Gln Ser Asp Tyr Gly Val Asn Ile 145 150 155 Arg Leu Arg Glu Val Asp Ile Asp Ala Pro Glu Ser Asp Asp Leu Ser 165 170 175 Gly Thr Phe Ser Tyr Asn Leu Gly Ala Tyr His Thr Glu Ser Gly Tyr 180 185 190 Gly Asp Ser Trp Ser Ser Gly Tyr Leu Asn Ala Arg Asn Trp Ile Ser 195 200 Met Gly Val Asp His Val Leu Ile Asp Gly Ser Gly Tyr Val Asn Glu 210 215 220 Ser Ser Ser Asp Thr Gln Met Asn Ala Val Met Trp Glu Arg Asp Tyr 225 230 235 240 Gln Gly Met Arg Tyr Ala Ala Gly Met Leu Asn Gly Trp Ala Met Gln 245 250 255 Ser Leu Ala Ser Val Ser Gly Ile Ser Gly Gly Glu Val Tyr Gly Val 260 265 270 Ser Met Gly Asn Gln Ala Asn Ser Arg Lys Arg Asp Asn Thr Leu Ser 275 280 Leu Thr Pro Val Val Val Tyr Phe Pro Thr Ala Gly Glu Ala Arg Ile

```
Arg Arg Asp Gly Gln Leu Ile Gly Ile Gin Arg Phe Asp Val Gly Asn
          310
                      315
His Glu Ile Asp Thr Ser Ser Leu Pro Tyr Gly Ile Tyr Ser Ile Glu
          325
                330
Val Glu Val Val Ser Gly Ser Arg Thr Val Ser Arg Asn Met Tyr Thr
   340 345 350
Val Asn Lys Pro Phe Ser Ser Asn Val Ser Glu Thr Leu Arg Trp Gln
   355
        360 365
Met Trp Gly Gly Met Tyr Ser Arg Asp Lys Ser Val Val Asn Tyr Lys
  370 375 380
Lys Tyr Ala Lys Arg Lys Asn Glu Gln Asp Asn Thr Tyr Asn Tyr Asp
   390 395 400
Tyr Asp Thr Lys His Lys Asp Thr Met Ser Leu Val Gly Ala Ser Phe
     405 410 415
Ser Lys Arg Ser Gly Met Val Asp Trp Asn Ala Ser Thr Tyr Met Met
   420 425 430
Arg Glu His Ile Val Ser Glu Leu Trp Ala Ser Leu Asn Leu Thr Gly
435 440 445
Tyr Phe Ser Val Asn Thr Gln Tar Met Ala Ala Ser Asp Gly Thr Tyr
450 455 460
Arg Ala Asn Tyr Gly Ala Asn Leu Ser Leu Pro Trp Gln Ile Gly Ser
465 470 475 480
Val Trp Tyr Ser His Glu Gln Leu Ser Ser Gly Lys Phe Leu Asp Ile
     485 490 495
Tyr Glu Ser Lys Gly Asn Thr Trp Gly Ala Ser Phe Ser Leu Pro Ser
 500 505 510
Phe Gly Leu Pro Ser Ala Gly Asn Leu Ser Leu Met Arg Gln Glu Asp
515 520 525
Asp Leu Tyr Arg Tyr Lys Arg Tyr Gln Leu Asp Tyr Ser Gln Gly Leu
530 535 540
Tyr Ala Gly Arg Tyr Gly Thr Ala Arg Leu Arg Val Gly Met Ser Arg
545 550 555 560
Asn Lys Tyr Asp Gly Tyr Tyr Glu Glu Lys Asp Arg Tyr Val Met Leu
      565 570 575
Asp Phe Ala Ile Pro Leu Gly Asn Thr Val Ser Val Gly Val Ser His
580 585 590
Asn Arg Asp Thr Gly Thr Ala Leu Asn Val Ser Ala Ser Arg Gln Phe
595 600 605
Glu Gly Asp Tyr Leu Lys Ser Ala Thr Ala Asn Val Ser Lys Ala Phe
610 615 620
Asn Ser Arg Gln Asp Arg Ser Val Ser Gly Gly Gly Ser Val Asn Phe
625 630 635 640
Asp Thr Pro Trp Asn Ser Asn Ile Leu Ser Val Gln Ser Gly Met Ser
        645 650
Lys Gly Trp Asn Ser Thr Leu Thr Ser Asp Gly Ser Val Gly Trp Ser
                     665 670
Lys Glu Ala Ile Ala Ala Gly Lys Gly Thr Glu Ser Ala Gly Val Ile
675 680
Val Ser Thr Gly Leu Lys Ser Asp Glu Ala Leu Thr Leu Lys Leu Asn
690 695 700
Gly Arg Ala Glu Arg Ile Lys Gly Asp Lys Thr Trp Leu Ser Leu Pro
            710 715
Ala Tyr Gln Ala Tyr Asp Leu Glu Val Met Asn Ser Glu Thr Gly Thr
        725
                        730 735
Glu Ser Tyr Glu Ile Gly Ala Asn Ala Arg Arg His Ile Thr Val Tyr
       740 745 750
Pro Gly Asn Thr Val Val Met Lys Pro Gln Val Lys Lys Ile Val Thr
     755 760 765
Leu Phe Gly Arg Leu Val Asp Ala Asn Gly Ala Pro Ile Gly Ala Met
                775
```

```
Gln Ile Lys Asn His Val Gly Leu Thr Arg Thr Glu Asn Asp Gly Arg
       790
                    795
Phe Val Ile Asp Val Asp Lys Asn Asn Pro Val Leu Ser Ile Ala Thr
               810
           805
Pro Asp Asp Ser Val Cys Glu Val Arg Leu Asp Ile Glu Ser Asn Arg
        820
                       825
Gly Ala Leu Trp Leu Gly Asp Ile Ser Cys Asp Lys Gly Asp Phe Val
          840
Trp Gln Glu Ala Lys Gly Thr Gln Glu Arg Asp Asp Glu Lys Asp Ile
       855
Arg Ser
865
<210> 6495
<211> 276
<212> PRT
<213> Enterobacter cloacae
<400> 6495
Ala Met Arg Gly Ser Phe Ala Leu Val Val Lys Ile Thr Met Leu Tyr
                    1.0
Glu Val Asp Thr Gly Met Ile Met Ile Asn Gly Glu Glu Glu Ser Ser
 20
                     25
Ile Lys Leu Ser Asn Gln Ala Gly Arg Leu Leu Tyr Glu Leu Ile Ile
35 40 45
Asn Asn Gly Lys Thr Leu Asp Arg Asp Asp Leu Ile Lys Lys Val Trp
50 55 60
Glu Asp His Gly Phe Ser Gly Ser Ser Val Ser Leu Asn Val Ala Ile
    70
                             75
Ser Glu Ile Arg Lys Ala Phe Arg Thr Leu Gly Cys Asp Pro Leu Leu
          85 90
Ile Lys Thr Ile Arg Gly Lys Gly Phe Ser Leu Ala Ala His Ile Glu
 100 105 110
His His Thr Val Arg Pro Pro Val Val Ser Thr Leu Ser Glu Gln Ser
115 120
                                 125
Ala Ser Glu Ser Phe Asp Thr Leu Ala His Lys Lys Asp Ala Asp Pro
 130 135 140
Pro Lys Gln Leu Ile Ser Leu His Arg Leu Phe Ile Ser Leu Cys Thr
145 150 155
Leu Leu Leu Ile Thr Val Ile Gly Thr Ala Val Leu Leu His Gln
          165 170 175
Arg Asp Ser Tyr Ala Glu Ser Leu Lys Asp Ser Asp Met His Leu Leu
        180
                       185 190
Gly Lys Val Asp Arg Cys Thr Val Tyr Leu Ile Asp Lys Asn Met Tyr
    195 200
                                   205
Gln Pro Arg Gln His Tyr Phe Asn His Val Lys Glu Val Ile Ala Ser
 210 215 220
Gln His Ile Asp Cys Gln His Gln Val Ala Asp Ala Tyr Tyr Ser Arg
225 230 235
                                         240
Phe Lys Lys Ser Gln Ile Glu Asn Tyr Phe Leu Ala Ile Cys Tyr Gln
           245 250 255
Gln Asp Ser Ile Asp Asp Tyr Lys Asn Cys Ile Ser Tyr Arg Ser Leu
                       265
Thr Gly Ser
      275
<210> 6496
```

<211> 580

<212> PRT <213> Enterobacter cloacae

<400> 6496 Val Ser Pro Arg Arg Thr Thr Ala Ser Ala Lys Cys Ala Trp Thr Ser Ser Leu Thr Ala Val Arg Cys Gly Leu Gly Thr Ser Pro Ala Thr Lys 20 25 Ala Ile Ser Ser Gly Arg Lys Gln Lys Glu Arg Arg Asn Val Thr Met 40 Lys Lys Ile Phe Ala Leu Asn Leu Leu Leu Met Ser Ala Ala Ala Gln 55 Ala Gln Glu Leu Pro Tyr Phe Ala Ile Asn Asn Pro Asp Asn Asn Gly 70 7.5 Thr Gly Asn Ser Ala Gly Leu Phe Ser Leu Asn Ser Thr Ser Thr Ala 85 90 Phe Leu His Gly Ser Arg Glu Trp Pro Thr Leu Ser Ala Lys Thr Asn 100 105 110 Asn Gly Ile Ala Thr Tyr Ile Pro Asp Asn Ser Phe Asn Gly Pro Ala 115 120 125 Gly Ser Ala Leu Thr Ile Asp Phe Ser Val Thr Gly Ser Ser Ala Ser 130 135 140 Pro Phe Phe Lys Gly Thr Ala Cys Ser Ser Ser Cys Gly Asn Thr Gly 145 150 155 Tyr Thr Pro Thr Thr Ser Tyr Thr Asp Thr Ser Met Val Val Lys Pro 165 170 175 Pro Val Met Glu Pro Gly Thr Ser Tyr Gly Arg Trp Val Leu Gly Asp 180 185 190 Pro Phe Phe Asn Tyr Leu Leu Asn Ala Ala Pro Gly Asp Glu Val Thr 195 200 205 Ile Thr Ser Thr Pro Gln Ile Ser Ser Ile Asn Lys Val Thr Thr Thr 210 215 220 Asn Thr Leu His Lys Val Glv Thr Leu Thr Met Thr Asn Ser Arg Ala 225 230 235 Leu Asn Leu Gly Ile Asp Pro Ile Ser Gly Glu Val Thr Ile Val Asp 245 250 255 Gly Ser Thr Gly Ala Thr Cys Thr Lys Tyr Thr Arg Asn Thr Val Ser 260 265 270 Gly Val Leu Cys Asp Leu Leu Glu Tyr Thr Phe Val Gly Glu Asp Ile 275 280 285 Ser Gly Tyr Asn Gly Gly Leu Ala Leu Thr Ser Ser Arg Val Asn Ser 295 300 Val Leu Gln Ser His Met Ser Gly Gly Thr Gly Leu Ala Ala Glu Leu 305 310 315 Thr Phe Asp Glu Asn Thr Trp Tyr Ser Ile Ser Gly Gly Ile Leu Ser 325 330 Asp Thr Arg Val Leu Ala Asn Thr Phe Leu Ala Ala Pro Gln Lys Asn 340 345 Gly Gly Lys Ala Tyr Leu Lys Ile Phe Leu Pro Lys Ala Leu Ile Leu 355 360 365 Ser Val Ala Gln Ala Gly Asp Gly Ser Asn Ile Gly Asn Ile Val Ser 375 380 Leu Cys Leu Thr Pro Gly Asn Ser Ser Leu Ala Ala Asp Phe Cys Phe 390 395 Gln Pro Gly Gly Leu Val Ile Asn Pro Ile Glu Pro Gly Leu Glu 405 410 415 Ile Val Pro Asp Asn Pro Asp Tyr Thr Leu Asp Pro Asp Gly Leu Gly 425 430 Gly Ser Gly Lys Gly Ile Ile Gly Glu Ala Pro Ile Glu Ile Pro Tyr 435 440 445 Thr Ile Thr Tyr Ser Gly Ala Gln Lys Asp Ala Ala Ile Ala Val Thr 450 455 460 Val Lys Val Thr Gly Pro Thr Gln Ser Leu Asn Gly Val Asp Tyr Cys 475

```
Ala Phe Ser Gly Asn Gly Phe Thr Val Pro Ile Pro Gly Asn Val Leu
                   490 495
          485
Val Gly Lys Ser Gln Thr Leu Met Ala His Asn Cys Lys Gly Glu Val
         500
                        505
                                        510
Leu Ser Ile Pro Ala Pro Ala Thr His Ala Glu Glu Trp Asp Lys Met
      515 520
                                     525
Ser Ser Gly Val Thr Asp Met Trp Leu Trp Lys Thr Pro Leu Ile Leu
                        540
                 535
Gln Phe Val Met Asp Asn Pro Val Ser Lys Thr Thr Tyr Asp Gly Asn
   550
Ser Trp Phe Gly Glu Val Thr Ala Gln Gly Arg Ile Asp Val Ser Ala
            565
                   570
Ser Trp Asn
<210> 6497
<211> 220
<212> PRT
<213> Enterobacter cloacae
<400> 6497
Ser Thr Met Thr Gly Lys Phe Leu Ala Ile Phe Ala Ile Asn Cys Phe
1 5
                           10
Ile Ser Thr Gly Ala Asn Ala Leu Ile Ile Glu Ser Leu Asn Ile Asp
 20
                      25
                                      3.0
Phe Leu Pro Glu Arg Glu Val Val Phe Gln Pro Ile Lys Asn Asp Thr
35
               4 C
                                     4.5
Ser Glu Arg Gln Asn Tyr Thr Val Ser Leu Ile Gln Val Asp Val Pro
50 55
Lys Glu Lys Gly Lys Glu Thr Glu Ile Lys Asp Gly Glu Val Met Tyr
             70
                               75
Ser Pro Lys Gln Leu Thr Leu Gly Ser Gly Glu Arg Ala Gly Phe Lys
       85 90
Phe Tyr Tyr Thr Gly Pro His Asp Asn Lys Glu Arg Tyr Tyr Arg Val
       100 105
Lys Phe Thr Glu Thr Pro Leu Gln Ala Lys Val Ile Thr Arg Lys Gly
   115 120
                                     125
Gln Arg Ile Gln Ser Asp Val Val Val Ser Leu Glu Ala Ile Leu Ile
 130 135 140
Val Arg Pro Trp Thr Arg His Phe Asp Tyr Ala Phe Ser Asn Gly Val
145 150 155
Val Ser Asn Thr Gly Asn Thr Tyr Phe Lys Tyr Val Ser Ser Val Gly
           165 170 175
Cys Ser Thr Gln Tyr Asn Asn Ser Lys Tyr Ile Pro Pro Gly Gln Arg
        180 185 190
Leu Glu Ile Asp Asn Ala Gly Gln Ala Ala Arg Arg Met Ile Ile Tyr
 195 200
Gly Asn Lys Ile Ile Pro Leu Thr Thr Cys Pro
<210> 6498
<211> 357
<212> PRT
<213> Enterobacter cloacae
<400> 6498
Glu Glu Pro Met Met Lys Asn Thr Thr Tyr Leu Thr Asp Glu Asp Arg
                            10
```

Trp Gln Ala Val Leu Ala Arg Asp Pro Arg Ala Asp Asn Gln Phe Val 25 Phe Ala Val Gln Thr Thr Gly Ile Tyr Cys Arg Pro Ser Cys Arg Ala Arg His Ala Leu Arg Lys Asn Val Cys Phe Tyr Pro Asp Ala His Gln 55 60 Ala Ala Gln Ala Gly Phe Arg Pro Cys Lys Arg Cys Arg Pro Asp Gln 7.0 7.5 Gly Asp Pro Met Ala Gln Lys Lys Ala Asn Ile Ala Leu Ala Cys Arg 85 90 Leu Leu Glu Gln Asp Ala Ser Leu Asn Leu Glu Ala Leu Ala Gln Gln 100 105 110 Val Ala Met Ser Pro Phe His Phe His Arg Leu Phe Lys Ser Val Thr 115 120 125 Gly Met Thr Pro Lys Ala Trp Gln Gln Ala Ala Arg Glu Gln Arg Leu 130 135 140 Arg Ser Leu Leu Ala Gln Gly Gly Lys Ile Thr Asp Ala Val Leu Ala 150 155 145 Ala Gly Phe Pro Asp Gly Ser Ser Tyr Tyr Arg Lys Ala Asn Gly Ala 165 170 175 Leu Gly Met Thr Ala Lys Gln Tyr Arg Asn Gly Glu Ala Ala Val Arg 185 Tyr Ala Ile Ser Asp Cys Ser Leu Gly Arg Cys Leu Val Ala Glu Ser 195 200 205 Glu Arg Gly Ile Cys Ala Ile Leu Leu Gly Asp Asp Asp Ala Gly Leu 215 Thr Ala Glu Leu Leu Ser Leu Phe Pro Leu Ala Val Arg Glu Pro Met 225 230 235 Glu Gly Ala Phe Ala Gly Arg Val Arg Gln Val Ile Ala Ser Val Asp 245 250 Ser Arg Ala Thr Ser Leu Thr Leu Pro Leu Asp Ile Arg Gly Thr Ala 260 265 270 Phe Gln Gln Gln Val Trp Gln Ala Leu Arg Ala Ile Pro Cys Gly Glu 275 280 285 Thr Ala Ser Tyr Gln Gln Val Ala Lys Ala Ile Gly Lys Pro Asn Ala 290 295 300 Val Arg Ala Val Ala Gly Ala Cys Gly Ala Asn Lys Leu Ala Ile Val 305 310 315 Ile Pro Cys His Arg Val Val Arg Asn Asp Gly Ala Leu Ser Gly Tyr 325 330 Arg Trp Gly Ala Ala Arg Lys Val Leu Leu Leu Lys Arg Glu Ala Asn 340 345 Asn Pro Glu Glu

355 <210> 6499 <211> 556

<212> PRT <213> Enterobacter cloacae

<400> 6499

Phe Phe Leu Ser Gly Leu Leu Cys Met Gln Leu Leu Leu Leu Val Trp 1 5 10 15
Arg Gln Tyr Arg Trp Pro Phe Ile Ala Vai Met Ala Leu Ser Leu Ala 25 30
Ser Ala Ala Leu Gly Ile Gly Leu Ile Ala Phe Ile Asn Val Arg Leu 35
Gle Glu Met Val Asp Thr Ser Leu Ser Val Leu Pro Glu Phe Leu Gly 50 55 60
Leu Leu Leu Leu Met Ala Val Thr Leu Gly Ser Gln Leu Ala Leu 65 70 75 80
Thr Ala Leu Gly His His Phe Val Phe Arg Leu Arg Ser Glu Phe Ile 85 95
Lys Arg Ile Leu Asp Thr Gln Val Glu Arg Ile Glu Gln Leu Gly Ser

```
105
Ala Ser Leu Leu Ala Gly Leu Thr Ser Asp Val Arg Ala Ile Thr Ile
     115
              120
                         125
Ala Phe Val Arg Leu Pro Glu Leu Val Gln Gly Ile Ile Leu Thr Phe
        135
                    140
Gly Ser Ala Ala Tyr Leu Ala Trp Leu Ser Ser Lys Met Leu Ala Val
    150 155 160
Thr Ala Leu Trp Ile Val Ile Thr Ile Trp Gly Gly Phe Leu Leu Val
      165 170 175
Ser Arg Val Tyr Lys His Met Ala Val Leu Arg Glu Thr Glu Asp Lys
     180 185 190
Leu Tyr Asn Asp Tyr Gln Thr Val Leu Glu Gly Arg Lys Glu Leu Thr
 195 200 205
Leu Asn Arg Glu Arg Ala Glu His Ile Phe Asn His Leu Tyr Ile Pro
210 215 220
Asp Ala His Glu Tyr Arg His His Ile Ile Arg Ala Asp Thr Phe His
225 230 235 240
Leu Ser Ala Val Asn Trp Ser Asn Ile Met Met Leu Gly Ala Ile Gly
      245 250 255
Leu Val Phe Trp Met Ala Asn Ser Leu Gly Trp Ala Asp Thr Asn Val
  260 265 270
Ala Ala Thr Tyr Ser Leu Thr Leu Leu Phe Leu Arg Thr Pro Leu Leu
275 280 285
Ser Ala Val Gly Ala Leu Pro Thr Leu Leu Ser Ala Gln Val Ala Phe
290 295 300
Asn Lys Leu Lys Lys Phe Asp Leu Ala Pro Phe Lys Ala Glu Phe Pro
305 310 315 320
Arg Pro Gln Ala Phe Pro Asn Trp Gln Thr Leu Glu Leu Arg Asn Val
      325 330 335
Thr Phe Arg Tyr Gln Asp Asn Ala Phe Ser Val Gly Pro Ile Asn Leu
 340 345
                         350
Thr Ile His Arg Gly Glu Leu Leu Phe Leu Ile Gly Gly Asn Gly Ser
355 360 365
Gly Lys Ser Thr Leu Ala Met Leu Leu Thr Gly Leu Tyr Gln Pro Gln
370 375 380
Ser Gly Glu Ile Leu Leu Asp Gly Lys Ala Leu Ser Ala Glu Lys Pro
385 390 395 400
Glu Asp Tyr Arg Lys Leu Phe Ser Ala Val Phe Thr Asp Val Trp Leu
          405
              410 415
Phe Asp Arg Leu Leu Gly Pro Glu Gly Gln Gln Ala Asp Pro Ala Leu
       420 425 430
Val Glu Lys Trp Leu Ala His Leu Gln Met Ser His Lys Leu Glu Leu
    435 440
                              445
Gln Asp Gly Lys Ile Leu Asn Leu Lys Leu Ser Lys Gly Gln Lys Lys
 450
      455
                              460
Arg Val Ala Leu Leu Ala Leu Ala Glu Glu Arg Asp Ile Ile Leu
465 470 475
Leu Asp Glu Trp Ala Ala Asp Gln Asp Pro His Phe Arg Arg Glu Phe
          485 490 495
Tyr Gln Val Leu Leu Pro Leu Met Gln Ala Met Gly Lys Thr Ile Phe
                         510
      500
           505
Ala Ile Ser His Asp Asp His Tyr Phe Ile His Ala Asp Arg Leu Leu
 515 520 525
Glu Met Arg Asp Gly Lys Leu Ser Glu Leu Thr Gly Asp Glu Arg Asp
             535
Ala Ala Ser Arg Asp Ala Val Ala Arg Thr Ala
<210> 6500
```

<211> 650 <211> 345 <212> PRT <213> Enterobacter cloacae

```
<400> 6500
Leu Cys Pro Val Pro Gly Ser Leu Val Gly Glu Asp Asp Leu Tyr Gly
Lys Val Asp Gly Leu His Tyr Phe Ser Asp Asp Asp Ser Ala Asp Gly
                        25
Asp Gln Thr Tyr Met Arg Leu Gly Phe Lys Gly Glu Thr Gln Val Asn
   3.5
                   4.0
Asp Gln Leu Thr Gly Tyr Gly Gln Trp Glu Tyr Gln Ile Gln Gly Asn
                55
                                60
Ser Gly Glu Asn Glu Asn Asn Ser Trp Thr Arg Val Ala Phe Ala Gly
            70
                            75
Leu Lys Phe Ala Asp Ala Gly Ser Phe Asp Tyr Gly Arg Asn Tyr Gly
         85
                90
                                       9.5
Val Val Tyr Asp Val Thr Ser Trp Thr Asp Val Leu Pro Glu Phe Gly
        100 105 110
Gly Asp Thr Tyr Gly Ser Asp Asn Phe Met Gln Gln Arg Gly Asn Gly
     115 120 125
Phe Ala Thr Tyr Arg Asn Gln Asp Phe Phe Gly Leu Val Asp Gly Leu
130 135 140
Asn Phe Ala Leu Gin Tyr Gin Gly Lys Asn Gly Ser Ala Ser Gly Glu
145 150 155
Gly Gln Thr Asn Asn Gly Arg Glu Ala Leu Arg Gln Asn Gly Asp Gly
           165 170 175
Tyr Gly Gly Ser Leu Thr Tyr Asp Leu Gly Glu Gly Phe Ala Ile Gly
        180 185
Thr Ala Val Thr Ser Ser Lys Arg Thr Ala Asp Gln Asn Ala Ala Gly
     195 200 205
Tyr Tyr Gly Glu Gly Asp Arg Ala Glu Thr Tyr Thr Gly Gly Leu Lys
 210 215
Tyr Asp Ala Asn Asn Ile Tyr Leu Ala Ala Gln Tyr Thr Gln Thr Tyr
225 230 235 240
Asn Ala Thr Arg Ala Gly Asp Leu Gly Trp Ala Asn Lys Ala His Asn
           245
                          250 255
Phe Glu Val Val Ala Gln Tyr Gln Phe Asp Phe Gly Leu Arg Pro Ser
         260 265 270
Val Ala Tyr Leu Gln Ser Lys Gly Lys Asp Leu Glu Asn Gly Tyr Gly
     275 280
Asp Gln Asp Leu Leu Lys Tyr Val Asp Val Gly Ala Thr Tyr Tyr Phe
                 295 300
Asn Lys Asn Met Ser Thr Tyr Val Asp Tyr Lys Ile Asn Leu Val Asp
305 310
                              315
Glu Asn Asp Phe Thr Arg Ala Ala Gly Ile Gly Thr Asp Asp Ile Val
           325
Ala Leu Gly Leu Val Tyr Gln Phe
         340
```

<210> 6501 <211> 131 <212> PRT

<213> Enterobacter cloacae

```
55
Lys Ile Gln Ala Gln Leu Asp Ala Asp Asp Gln Leu Leu Ser Thr Tyr
                 7.0
                                   75
Lys Asn Asp Ser Ala Leu Met Arg Phe Asn Arg Ser Ser Gln His Leu
                               90
             8.5
Ala Val Ala Gly Glu Arg Ser Asn Gly Arg Tyr Arg His Gly Ser His
         100
                         105
                                             110
Ala Arg Gly Lys Gln Asn Gln Arg Arg Asn Gly Cys Asp Gly Gly Ala
              120
Arg Trp
  130
<210> 6502
<211> 206
<212> PRT
<213> Enterobacter cloacae
<400> 6502
Asn Leu Trp Gly Phe Gly Pro Asn Lys Gln Pro Val Thr Thr Pro Asp
                               1.0
Gln Ala Ala Ile Asp Asp Ala Arg Ala Arg Thr Gly Leu Gln His Leu
 20
                                             3.0
                            25
Ala Val Ile Ser Gin Tyr Gly Gin Gin Tyr Leu Gin Lys Asp Ile Pro
 35
                        4.0
                                         4.5
Asp Leu Phe Val Asp Leu Ser Thr Val Gly Glu Gly Tyr Ala Ala Asp
                  5.5
                                      60
His Leu Ala Ala Leu Met Ala Gln Glu Gly Ile Pro Arg Tyr Leu Val
                 70
                                  7.5
Ser Val Gly Gly Ala Leu Val Ser Arg Gly Met Asn Ala Ser Gly Arg
                               90
            85
                                    95
Pro Trp Arg Val Ala Ile Gln Lys Pro Thr Asp Gln Gln Asn Ala Val
                           105 110
         100
Gln Ala Ile Val Asp Ile Asn Gly His Gly Ile Ser Thr Ser Gly Ser
                       120
Tyr Arg Asn Tyr Tyr Glu Leu Asp Gly Lys Arg Ile Ser His Val Ile
 130 135
                          140
Asp Pro Gln Thr Gly Arg Pro Ile Thr His Asn Leu Val Ser Val Thr
                150 155
Val Ile Ala Pro Thr Ala Leu Glu Ala Asp Ala Trp Asp Thr Gly Leu
             165
                               170 175
Met Val Leu Gly Thr Glu Lys Ala Lys Glu Val Val Arg Gln Glu Gly
         180 185 190
Leu Ala Val Tyr Met Ile Thr Lys Glu Ala Asp Gly Phe
<210> 6503
<211> 224
<212> PRT
<213> Enterobacter cloacae
<400> 6503
Gly Glu Gln Pro Gly Gly Ile Met Leu Asp Leu Phe Ala Asp Ala Glu
                               10
Pro Trp Gln Glu Ser Leu Ala Pro Gly Ala Thr Ile Leu Arg Arg Phe
          20
                            25
                                             30
Ala Leu Ser Arg Ala Ala Ala Leu Phe Asp Gly Ile Lys Ala Val Thr
                        4.0
                                          45
Ala Arg Ser Pro Phe Arg His Met Val Thr Pro Gly Gly Tyr Thr Met
                    55
                                      60
Ser Val Ala Met Thr Asn Cys Gly Glu Leu Gly Trp Ala Thr Asn Glu
```

Arg Gly Tyr Val Tyr Ala Ala Tyr Asp Pro Leu Thr Asp Gln Pro Trp 90 Pro Pro Met Pro Glu Ala Phe Gln Ala Leu Cys His Asp Ala Ala Val 100 105 Ala Ala Gly Tyr Pro Asp Phe Arg Pro Asp Ala Cys Leu Ile Asn Arg 115 120 Tyr Ala Val Gly Ala Lys Leu Ser Leu His Gln Asp Lys Asp Glu Pro 130 135 140 Asp Leu Arg Ala Pro Ile Val Ser Val Ser Leu Gly Leu Pro Ala Val 145 150 155 Phe Gln Phe Gly Gly Leu Arg Arg Asn Asp Pro Leu Lys Arg Leu Met 165 170 175 Leu Glu His Gly Asp Val Val Val Trp Gly Gly Glu Ser Arg Leu Phe 180 185 190 Tyr His Gly Ile Gln Pro Leu Lys Pro Gly Asp His Pro Val Ala Gly 195 200 205 Ala Phe Arg Tyr Asn Leu Thr Phe Arg Gln Ala Ala Tyr Arg Glu 215 <210> 6504 <211> 480 <212> PRT <213> Enterobacter cloacae <400> 6504 Leu Met Ser Val Leu Lys Lys Asn Ser Ala Arg Gln Arg Asp Gln Glu 10 Arg Ala Arg Leu Ile Trp Leu Leu Thr Thr Asp Lys Ala Val Thr Ser 30 Thr Leu Leu Gly Lys Leu Thr Leu Ala Glu Gln Tyr Asp Val Gly Thr 4 0 4.5 Leu Ala Asp Asp Ile Ala Glu Val Gly Ala Leu Val Ala His Leu Pro 55 Pro Pro Asp Leu Ala Asp Tnr Leu Glu Ala Leu Pro Ser Glu Glu Arg 7.0 75 His Ala Leu Trp Arg Leu Val Gln Asp His Glu Arg Gly Gln Val Leu 90 Leu Glu Ala Ser Glu Asn Val Trp Asp Asp Leu Ile Asp Glu Met Ser 100 105 110 Asp Arg Asp Ile Leu Asp Ala Leu Gln Thr Leu Asp Ile Asp Glu Gln 115 120 125 Ile Tyr Leu Val Gln His Leu Pro Arg Asn Leu Thr Gly Arg Leu Leu 130 135 Ala Ser Leu Pro Ala Glu Glu Arg Ala Arg Val Arg Gln Val Met His 150 155 145 Tyr Glu Lys Asn Ser Val Gly Ala Ile Met Glu Phe Gly Val Ile Thr 165 170 Val Arg Pro Asp Val Thr Leu Gly Thr Val Gln Arg Tyr Leu Arg Arg 180 185 Leu Gly Ser Met Pro Asp Asn Thr Asp Lys Leu Phe Val Thr Ser Arg 200 205 195 Asp Lys Thr Leu Leu Gly Glu Leu Glu Leu Lys Thr Ile Leu Leu Asn 215 220 210 Ser Thr Gln Gln Arg Val Ser Glu Val Met Glu Thr Glu Pro Met Val 230 235 Phe Ser Pro Glu Asp Asp Ala Glu Lys Ala Ala Arg Thr Phe Glu Arg 245 250 Asp Asp Leu Val Ser Ala Ala Val Val Asp Ser Val Gly Lys Leu Met

265 270

Gly Arg Leu Thr Ile Asp Glu Ile Val Asp Val Val Tyr Glu Glu Thr 275 280 285

```
Asp Asn Asp Leu Arg Ala Leu Gly Gly Ile Ser Ala Glu Asp Asp Val
                     295
His Ala Ser Val Gly Lys Ala Val Lys Thr Arg Trp Ala Trp Leu Ala
305
                 310
                                    315
Ile Asn Leu Cys Thr Ala Phe Val Ala Ser Arg Val Ile Asp Gly Phe
                                330
            325
                                                  335
Glu His Thr Ile Ser Gln Leu Val Ala Leu Ala Ser Leu Met Pro Ile
          340
                            345
Val Ala Gly Ile Gly Gly Asn Thr Gly Asn Gln Thr Ile Thr Met Ile
              360
       355
                                           365
Val Arg Ala Leu Ala Leu Glu Asn Ile Gln Pro Gly Asn Phe Ser Trp
        375
                                        380
Leu Ile Phe Arg Glu Met Gly Val Ala Leu Ile Asn Gly Leu Val Trp
               390
                       395
Gly Gly Ile Met Gly Gly Ile Thr Trp Trp Leu Tyr Asp Asp Met Ala
              405
                                410 415
Leu Gly Gly Val Met Met Leu Ala Met Val Leu Asn Leu Leu Val Ala
                             425
          420
                                  430
Ala Met Met Gly Val Ile Ile Pro Leu Thr Met Thr Arg Leu Gly Arg
      435
                         440
                                           445
Asp Pro Ala Val Gly Ser Ser Val Met Ile Thr Ala Ile Thr Asp Thr
 450 455
                                       460
Gly Gly Phe Phe Ile Phe Leu Gly Leu Ala Thr Ile Phe Leu Leu
                 470
                                    475
<210> 6505
<211> 68
<212> PRT
<213> Enterobacter cloacae
<400> 6505
Ser Ala Ser Ala Ala Pro Tyr Pro Ala Arg Arg Thr Gly Ser Glu Ser
                                1.0
                                              1.5
Cys Leu Pro Ser Pro Pro Arg Ala Glu Cys Thr Val Arg Arg Val Asp
           20
                                                3.0
Gly Pro Ser Gly Gln Ser Pro Ala Arg Arg Asn Leu Pro Pro Pro Ser
    35
                       4.0
                                     4.5
Pro Trp Pro Asp Ala Arg Arg Ala Gly Lys Gly Arg Asn Arg Ala Pro
  50
                     5.5
                                        60
Arg Arg Arg
65
<210> 6506
<211> 326
<212> PRT
<213> Enterobacter cloacae
<400> 6506
Leu Pro Cys Ser Phe Leu Leu Ala Val Gly Leu Asn Ala Val Ser Leu
                                 10
Ala Ala Lys Ala Asp Ala Pro Lys Glu Gln Glu Thr Asp Val Leu Leu
                             25
Ile Gly Gly Gly Ile Met Ser Ala Thr Leu Gly Thr Tyr Leu Gln Glu
       3.5
                         4.0
Leu Glu Pro Asn Trp Ser Met Thr Met Val Glu Arg Leu Asp Gly Val
                     55
                                        60
Ala Gln Glu Ser Ser Asn Gly Trp Asn Asn Ala Gly Thr Gly His Ser
                  70
Ala Leu Met Glu Leu Asn Tyr Thr Pro Gln Lys Lys Asp Gly Ser Ile
             8.5
Ser Ile Glu Lys Ala Val Giu Ile Asn Glu Ala Phe Gln Ile Ser Arg
```

105 100 Gln Phe Trp Ser His Gln Val Asn Ser Gly Val Leu His Asn Pro His 120 125 115 Ser Phe Ile Asn Thr Val Pro His Met Ser Phe Val Trp Gly Asp Gln 140 135 Asn Val Asn Phe Leu Arg Ala Arg Tyr Ala Ala Leu Gln Gln Ser Thr 150 155 Leu Phe Arg Gly Met Lys Tyr Ser Glu Asp His Ala Gln Ile Lys Glu 165 170 175 Trp Ala Pro Leu Val Met Glu Gly Arg Asp Pro Asn Gln Lys Val Ala 180 185 190 Ala Thr Arg Thr Glu Ile Gly Thr Asp Val Asn Tyr Gly Glu Ile Thr 195 200 205 Arg Gln Leu Val Ala Ser Leu Lys Lys Lys Glu Asn Phe Asn Leu Gln 220 210 215 Leu Ser Ser Glu Val Arg Gly Phe Lys Arg Asn Ala Asp Asn Ser Trp 225 230 235 Ser Val Thr Val Ala Asp Leu Lys Asn Asn Glu Ala Glu His Val Ile 245 250 255 Lys Ala Lys Phe Val Phe Ile Gly Ala Gly Gly Ala Ala Leu Lys Leu 260 265 270 Leu Gln Glu Ser Gly Ile Pro Glu Ala Asp Asp Tyr Ala Gly Phe Pro 275 280 285 Val Gly Gly Gln Phe Leu Val Ser Glu Asn Pro Glu Val Val Asn Arg 290 295 300 His Leu Pro Lys Val Ser Gly Gln Tyr Ser Thr Thr Arg Arg Gln Asp 315 305 310 Arg Val Arg Leu Glu Ala

<210> 6507 <211> 467 <212> PRT

<213> Enterobacter cloacae

<400> 6507 Ile Leu Phe Lys Gly Tyr Glu Ile Ile Val Ile Val Lys Phe Asn Asp 10 Gly Leu Phe Val Gly Phe Trp Gln Thr Gly Trp His Pro Thr Ile Phe 20 25 30 Leu Ala Met Met Leu His Phe Val Ile Ala Arg Thr Glu Ala Cys Pro 40 4.5 35 Tyr Gln Arg Ile Val Met Ser Leu Pro His Ser Ser Leu Pro Gln Glu 5.5 Gly His Val Ala Thr Val Leu Arg Ser Pro His Arg Leu Met Arg Glu 7.0 Thr Leu Ala Gly Val Ile Tnr Ala Leu Ala Leu Ile Pro Glu Val Ile 8.5 90 Ser Phe Ser Val Val Ala Gly Val Asp Pro Lys Val Ser Leu Ile Ala 100 105 Ser Val Val Leu Cys Phe Ala Leu Ser Leu Leu Gly Gly Arg Pro Ala 120 125 Met Val Thr Ala Ala Ala Gly Ser Val Ala Leu Val Ile Gly Pro Met 135 140 130 Val His Gln His Gly Val Gln Tyr Ile Leu Pro Ala Val Val Met Ala 150 155 Gly Met Ile Gln Ile Leu Phe Gly Ala Leu Gly Met Ala Arg Leu Met 165 170 Arg Phe Ile Pro Gln Ser Val Met Thr Gly Phe Val Asn Ala Leu Gly 190 185 180 Ile Leu Ile Phe Phe Ala Gln Val Pro His Phe Trp Ser Arg Ser Pro

```
200
Leu Ile Val Gly Leu Phe Val Leu Thr Leu Leu Ile Val Leu Trp Val
            215
                           220
Pro Arg Tyr Ile Lys Ser Val Pro Ser Pro Leu Ile Ala Ile Val Leu
                             235
            230
Leu Thr Leu Phe Thr Val Thr Ser Gly Gln Ile Leu Pro Thr Val Gly
                  250
       245
Asp Glu Gly Ser Met Ser Gly Gly Leu Pro Gly Phe Thr Gln Leu Leu
       260
                       265
Val Pro Leu Asn Leu Glu Thr Leu Ser Ile Ile Trp Pro Cys Ala Leu
   275
                   280
                              285
Ser Ile Ala Phe Val Gly Leu Leu Glu Ser Leu Leu Thr Ala Lys Leu
      295
                                300
Val Asp Glu Leu Thr Ala Thr Pro Ser Ser Lys Arg Arg Glu Ser Ile
305 310 315
Gly Leu Gly Val Gly Asn Ile Met Ala Gly Phe Tyr Gly Gly Ile Ala
         325 330
Gly Cys Ala Met Ile Gly Gln Thr Ile Val Asn Val Glu Met Gly Lys
      340
             345
                              350
Gly Arg Ser Arg Ile Ser Thr Leu Ala Ala Gly Ile Val Leu Leu Val
   355 360 365
Leu Val Thr Ala Leu Ser Glu Val Met Ala Lys Ile Pro Met Ala Val
      375 380
Leu Ala Gly Ile Met Ala Ile Val Ala Val Lys Thr Phe Ser Trp His
385 390 395
Ser Val Gln Pro Gly Thr Leu Lys Asn Ala Pro Val Ala Glu Thr Val
        405 410 415
Val Met Leu Val Thr Val Val Ala Thr Val Tyr Thr Gly Asn Leu Ala
        420 425 430
Ile Gly Val Leu Gly Gly Ile Val Met Met Phe Ile Leu Pro Ala Arg
435 440 445
Leu Lys Gln Lys Ala Leu Ala Arg Glu Glu Lys Ser Ser Pro Val Gln
450 455
Glu Lys
```

<210> 6508 <211> 202 <212> PRT

<213> Enterobacter cloacae

<400> 6508 Ile Met Gly Ile Phe Ser Arg Phe Ala Asp Ile Val Asn Ala Asn Ile 10 Asn Ser Leu Leu Glu Lys Ala Glu Asp Pro Gln Lys Leu Val Arg Leu 25 Met Ile Gln Glu Met Glu Asp Thr Leu Val Glu Val Arg Ser Thr Ser 35 40 Ala Arg Ala Leu Ala Glu Lys Lys Gln Leu Thr Arg Arg Ile Glu Gln 5.5 60 Ala Thr Ala Gln Leu Asn Glu Trp Gln Glu Lys Ala Glu Leu Ala Leu 70 75 Arg Lys Asp Lys Glu Asp Leu Ala Arg Ala Ala Leu Ile Glu Lys Gln 90 85 Lys Leu Thr Asp Met Val Ala Thr Leu Glu His Glu Val Thr Leu Val 100 105 Asp Asp Thr Leu Thr Arg Met Lys Lys Glu Ile Gly Glu Leu Glu Asn 115 120 125 Lys Leu Ser Glu Thr Arg Ala Arg Gln Gln Gly Ala Gly Ala Ala Pro 135 130 140 Pro Gly Leu Gln Ala Arg Pro Ala Thr Cys Val Ala Asn Trp Thr Ala

```
145
                  150
                                  155
 Ala Asn Trp Met Lys Gln Trp Arg Val Ser Asn Arg Leu Asn Val Val
        165
                        170
                                        175
 Ser Thr Thr Trp Lys Arg Lys Pro Lys Ala Thr Ala Ser Val Ser Arg
                  185
        180
 Lys Pro Trp Ile Ser Ser Leu Leu Thr
      195
 <210> 6509
 <211> 85
 <212> PRT
 <213> Enterobacter cloacae
<400> 6509
Ala Cys Arg Ile Val Arg Gln Gly Val His Met Ser Ala Leu Phe Leu
                             10
Ala Ile Pro Leu Thr Ile Phe Val Leu Phe Val Leu Pro Ile Trp Leu
                     25
Trp Leu His Tyr Ser Asn Arg Ser Ser Arg Gly Glu Leu Ser Gln Ser
  35
                       4.0
Glu Gln Gln Arg Leu Ala Gln Leu Ser Ala Glu Ala Asn Lys Met Arg
        5.5
                          60
Glu Arg Ile Gln Ala Leu Glu Ala Ile Leu Asp Ala Glu His Pro Asn
                 70
Trp Arg Glu Arg
<210> 6510
<211> 205
<212> PRT
<213> Enterobacter cloacae
<400> 6510
Leu Pro Leu Asn Glu Gly Ser Pro Met Ala Thr Lys Arg Arg Ala Glu
                         10
Thr Ala Gln Glu Asn Arg Glu Lys Met Ile Gln Ala Ala Arg Lys Ala
         20
                          2.5
                                            3.0
Phe Ala Glu Lys Gly Tyr Ala Ala Ala Ser Met Asp Glu Leu Thr Ala
      35
                       4.0
Ser Val Gly Leu Thr Arg Gly Ala Leu Tyr His Asn Phe Asn Asp Lys
                 5.5
                                   60
Lys Gly Leu Leu Ala Ala Val Val Ala Gln Ile Asp Ser Glu Met Ala
          70
                               75
Ala Asn Ala Lys Ala Ile Ala Ala Ala Ala Asp Asp Asp Trp Glu Arg
            85
                              90
Leu Leu Ala Glu Gly Ile Ala Tyr Ile Lys Met Ala Leu Val Pro Glu
     100
                           105
                                110
Val Gln Arg Ile Val Leu Leu Asp Gly Pro Ala Val Leu Gly Asp Pro
    115 120
Ala Gln Trp Pro Ser Gln Asn Asn Cys Leu Glu Ser Thr Arg Gln Thr
  130 135
                                     140
Ile Glu Lys Met Met Glu Cys Asn Val Ile Lys Lys Met Asp Ala Arg
145 150
                                  155
Val Ala Ala His Leu Leu Asn Gly Ala Ala Leu Asn Ala Ala Leu Leu
           165 170
Ile Ala Ala Ser Asp Glu Pro Gln Lys Thr Leu Pro His Ala Ile Glu
      180 185
Val Phe Thr Leu Leu Ala Ser Gly Leu Arg Asn Gly
                       200
```

<210> 6511

```
2684
<211> 98
<212> PRT
<213> Enterobacter cloacae
<400> 6511
Lys Gln Thr Gln Arg Asn Pro Cys Thr Ser Thr Gly Arg Trp Arg Cys
Pro Thr Arg Ala Ala Ser Ser Ser Arg Asp Val Arg Arg Gln Leu Asp
                            25
Ser Gly Lys Leu Asp Glu Ala Met Ala Arg Phe Glu Ser Phe Glu Arg
Arg Ile Asp His Met Glu Ala Glu Ala Glu Ser His Ser Ile Gly Lys
                   5.5
Gln Lys Thr Leu Asp Gln Gln Phe Ala Asp Leu Lys Ala Asp Asp Glu
               70
                                   75
Ile Ser Glu Gln Leu Ala Ala Leu Lys Ala Lys Met Lys Gln Asp Asn
Gln
<210> 6512
<211> 143
<212> PRT
<213> Enterobacter cloacae
<400> 6512
Asn Ala Arg Thr Tyr Ser Gly Ala Gly Ser His Pro Gly Arg Gly Thr
                                10
Pro Lys Leu Glu Gly Thr Val Met Ala Gly Leu Asn Leu Asn Lys Lys
                            25
Leu Trp Arg Ile Pro Gln Gln Gly Met Val Arg Gly Val Cys Ala Gly
 35
                        4.0
Leu Ala His Tyr Leu Asp Val Pro Val Lys Leu Val Arg Val Val Thr
              5.5
Val Leu Ser Ile Phe Pne Gly Leu Ala Phe Ile Thr Leu Val Ala Tyr
65 70 75
Ile Ile Leu Ser Phe Val Leu Asp Pro Met Pro Glu Gly Glu Leu Asn
        85 90
Ala Glu Asn Thr Pro Thr Ser Arg Asp Leu Leu Asn Ala Val Asp Glu
        100
                            105
Gln Leu Ser Ala Gly Glu Lys Arg Leu Arg Glu Met Glu Arg Tyr Val
  115 120 125
Thr Ser Asp Thr Phe Thr Leu Arg Ser Arg Phe Arg Gln Leu
                    135
<210> 6513
<211> 79
<212> PRT
<213> Enterobacter cloacae
<400> 6513
Glu Arg Thr Tyr Met Lys Gln Asn Trp Gln Gln Ala Gly Gln Lys Val
                               10
Lys Pro Gly Leu Lys Ile Ala Gly Lys Leu Val Leu Met Thr Ala Leu
                            25
Arg Tyr Gly Pro Ala Gly Val Ala Gly Trp Ala Ile Lys Ser Val Ala
                  40
Arg Lys Pro Val Arg Met Met Leu Ala Val Ala Leu Glu Pro Leu Leu
                  55
Gln Lys Leu Ala Lys Arg Val Ser Arg Arg Tyr Leu Ser Arg
```

```
<210> 6514
<211> 332
<212> PRT
<213> Enterobacter cloacae
<400> 6514
Gly Val Val Asn Phe Ile Met Ala Glu Tyr Lys Asp Asn Leu Leu Gly
                            10
Glu Ala Asn Ser Phe Leu Glu Val Leu Glu Gln Val Ser Arg Leu Ala
       20
             25
Pro Leu Asn Lys Pro Val Leu Ile Ile Gly Glu Arg Gly Thr Gly Lys
    35
                   40
                               4.5
Glu Leu Ile Ala Asn Arg Leu His Phe Leu Ser Gly Arg Trp Asp Gly
                  55 60
Pro Phe Ile Ser Leu Asn Cys Ala Ala Leu Asn Glu Asn Leu Leu Asp
    70
                     7.5
Thr Glu Leu Phe Gly His Glu Ala Gly Ala Phe Thr Gly Ala Gln Lys
           8.5
                           90
Arg His Pro Gly Arg Phe Glu Arg Ala Asp Gly Gly Thr Leu Phe Leu
         100
                         105
                                          110
Asp Glu Leu Ala Thr Ala Pro Met Leu Val Gln Glu Lys Leu Leu Arg
                      120 125
Val Ile Glu Tyr Gly Glu Leu Glu Arg Val Gly Gly Ser Gin Pro Leu
                 135 140
Gln Val Asn Val Arg Leu Val Cys Ala Thr Asn Ala Asp Leu Pro Ala
             150
                             155
                                                160
Met Val Ala Glu Asp Lys Phe Arg Ala Asp Leu Leu Asp Arg Leu Ala
            165
                             170
Phe Asp Val Val Gln Leu Pro Pro Leu Arg Glu Arg Arg Ser Asp Ile
         180
                         185
                                          190
Met Leu Leu Ala Asp Gln Phe Ala Ile Gln Met Cys Arg Glu Leu Gly
                      200 205
Leu Pro Leu Phe Pro Gly Phe Ser Glu Arg Ala Thr Gly Thr Leu Leu
 210
                  215
                                  220
Gly Tyr His Trp Pro Gly Asn Ile Arg Glu Leu Lys Asn Val Val Glu
                                235
225 230
                                                 240
Arg Ser Val Tyr Arg His Gly Ser Ser Glu Thr Glu Leu Asp Asn Ile
            245
                            250
Ile Leu Asp Pro Phe Arg Arg Glu Asp Lys Gln Pro Pro Ala Pro Ala
         260
                         265 270
Thr Arg Gln Gln Asp Pro Ala Leu Pro Leu Asp Leu Arg Gln Phe Gln
      275
                      280
                          285
His Gln Glu Lys Asn Leu Leu Glu Gln Ser Leu Lys Glu Ala Lys
 290
                  295 300
Tyr Asn Gln Lys Arg Ala Ala Glu Leu Leu Gly Leu Thr Tyr His Gln
305
               310
                                315
Leu Arg Ala Leu Leu Lys Lys His Gln Met Arg
             325
<210> 6515
<211> 330
<212> PRT
<213> Enterobacter cloacae
<400> 6515
Glu Arg Thr Arg Gly Glu Glu Thr Met Ile Ile Phe Thr Leu Arg Arg
                          10
```

Leu Leu Leu Leu Val Thr Leu Phe Phe Leu Thr Phe Val Gly Phe 20 25 30 Ser Leu Ser Tyr Phe Thr Pro His Ala Pro Leu Gln Gly Ser Ser Leu

```
Trp Asp Ala Trp Leu Phe Trp Phe Asn Gly Leu Leu His Trp Asp Phe
Gly Val Ser Ser Ile Asn Gly Gln Leu Ile Ser Glu Gln Leu Lys Val
             7.0
                           7.5
Val Phe Pro Ala Thr Met Glu Leu Cys Val Leu Ala Phe Gly Phe Ala
                   90
Leu Met Val Gly Ile Pro Val Gly Met Leu Ala Gly Ile Tyr Arg Asn
      100 105 110
Lys Trp Gln Asp Lys Phe Ile Ser Ala Leu Ala Leu Ile Gly Phe Ser
    115 120 125
Ile Pro Val Phe Trp Leu Ala Leu Leu Leu Thr Leu Phe Phe Ser Leu
      135 140
Thr Leu Gly Trp Leu Pro Val Ser Gly Arg Phe Asp Leu Leu Tyr Asn
   150 155
Val Gln Thr Val Ser Gly Phe Ala Ile Val Asp Ala Trp Leu Ser Asp
      165 170 175
Ser Val Trp Arg Asp Glu Met Ile Val Ser Ala Leu Arg His Met Val
     180 185 190
Leu Pro Val Leu Thr Leu Ala Val Ala Pro Thr Thr Glu Val Ile Arg
195 200 205
Leu Met Arg Ile Ser Thr Ile Asp Val Phe Asp Gln Asn Tyr Val Lys
210 215 220
Ala Ala Ala Thr Arg Gly Leu Ser Arg Leu Thr Ile Leu Arg Arg His
225 230 235
Val Leu His Asn Ala Leu Pro Pro Val Ile Pro Arg Leu Gly Leu Gln
   245 250 255
Phe Ser Thr Met Leu Thr Leu Ala Met Ile Thr Glu Met Val Phe Ser
260 265 270
Trp Pro Gly Leu Gly Arg Trp Met Ile Asn Ala Ile Arg Gin Gln Asp
275 280 285
Tyr Ala Ala Ile Ser Ala Gly Val Met Val Ile Gly Ser Leu Val Ile
290 295 300
Ile Val Asn Val Val Ser Asp Ile Leu Gly Ala Met Ala Asn Pro Leu
305 310
                           315
Lys His Lys Glu Trp Tyr Ala Leu Arg
```

<210> 6516

<211> 347

<212> PRT

<213> Enterobacter cloacae

<400> 6516

Pro Ala Gly Arg Arg Asp Pro Pro Arg Asn Gln Cys Gly Gly Ala Ile Met Pro Leu Leu Asp Ile Arg Asn Leu Thr Ile Glu Ile Lys Thr Gly 25 Glu Gly Trp Val Lys Ala Val Asp Arg Ile Ser Ile Thr Leu Ala Glu 40 Gly Glu Ile Arg Gly Leu Val Gly Glu Ser Gly Ser Gly Lys Ser Leu 55 Ile Ala Lys Ala Ile Cys Gly Val Ala Lys Asp Asn Trp Arg Val Thr 75 7.0 Ala Asp Arg Met Arg Phe Asp Asp Ile Asp Leu Leu Arg Leu Ser Pro 85 90 Arg Glu Arg Arg Lys Leu Val Gly His Asn Val Ser Met Ile Phe Gln 100 105 110 Glu Pro Gln Ser Cys Leu Asp Pro Ser Glu Arg Val Gly Lys Gln Leu 120 Met Gln Asn Ile Pro Gly Trp Thr Tyr Lys Gly Arg Trp Trp Gln Arg

```
135
Phe Gly Trp Arg Lys Arg Arg Ala Ile Glu Leu Leu His Arg Val Gly
             150
                       155
Ile Lys Asp His Lys Asp Ala Met Arg Ser Phe Pro Tyr Glu Leu Thr
         165
               170 175
Asp Gly Glu Cys Gln Lys Val Met Ile Ala Ile Ala Leu Ala Asn Gln
      180
               185 190
Pro Arg Leu Leu Ile Ala Asp Glu Pro Thr Asn Ala Met Glu Pro Thr
    195
         200 205
Thr Gln Ala Gln Ile Phe Arg Leu Leu Thr Arg Leu Asn Gln Asn Asn
 210 215 220
Asn Thr Thr Ile Leu Leu Ile Ser His Asp Leu Gln Met Leu Ser Lys
   230 235 240
Trp Ala Asp Lys Ile Asp Val Met Tyr Cys Gly Gln Thr Val Glu Thr
        245 250 255
Ala Pro Ser Glu Asp Leu Val Thr Thr Pro His His Pro Tyr Thr Gln
    260 265 270
Ala Leu Ile Arg Ala Ile Pro Asp Phe Gly Ser Ala Met Pro His Lys
275 280 285
Ser Arg Leu Asn Thr Leu Pro Gly Ala Ile Pro Leu Leu Glu Ser Leu
290 295 300
Pro Ile Gly Cys Arg Leu Gly Pro Arg Cys Pro Tyr Ala Gln Arg Lys
305 310 315
Cys Ile Glu Thr Pro Arg Leu Thr Gly Pro Lys Asn His Leu Phe Ala
   325 330
Cys His Phe Pro Leu Asn Met Glu Arg Glu
       340
```

<210> 6517 <211> 587 <212> PRT

<213> Enterobacter cloacae

<400> 6517 Gly His Cys Ser Lys Asn Ile Lys Cys Ala Asp Ile Ile Ser Thr Tyr 10 Pro Gln Thr Phe Leu Arg Ser Arg Arg Lys Cys Asp Thr Leu Cys Arg 25 Ser Asn Leu Lys Thr Leu Lys Thr Met Arg Leu Val Leu Ser Ser Leu 4.5 40 Phe Ala Leu Gly Leu Phe Ser Asn Leu Ala Phe Ala Ala Pro Asp Arg Ala Val Pro Pro Asp Ile Arg Glu Ser Gly Phe Val Tyr Cys Val Ser 65 70 7.5 Gly Gln Val Asp Thr Phe Asn Pro Gln Lys Ala Gly Ser Gly Leu Ile 85 90 Val Asp Thr Leu Ala Ala Gln Leu Tyr Asp Arg Leu Leu Asp Val Asp 100 105 110 Pro Tyr Thr Tyr Arg Leu Val Pro Glu Leu Ala Glu Ser Trp Glu Val 115 120 125 Leu Asp Asn Gly Ala Thr Tyr Arg Phe Arg Leu Arg Asp Asp Val Ala 130 135 140 Phe Gln His Thr Pro Trp Phe Thr Pro Thr Arg Lys Leu Asn Ala Asp 145 150 155 Asp Val Val Phe Thr Phe Gln Arg Ile Phe Asn Arg Asn His Pro Trp 165 170 175 His Asn Val Asn Gly Gly Asn Phe Pro Tyr Phe Asp Ser Leu Gln Phe 180 185 190 Ala Asp Ser Val Lys Ser Val Arg Lys Leu Asp Asn Arg Thr Val Glu 205 200 Phe Arg Leu Thr Arg Pro Asp Ala Ser Phe Leu Trp His Leu Ala Thr

```
215
His Tyr Ala Ser Val Met Ser Ala Glu Tyr Ala Asp Gln Leu Thr Lys
       230
                            235
Lys Asp Arg Gln Glu Arg Leu Asp Arg Glu Pro Val Gly Thr Gly Pro
        245
                250
                               255
Phe Gln Leu Ala Glu Tyr Arg Ala Gly Gln Tyr Ile Arg Leu Gln Arg
             265 270
   260
His Asp Arg Phe Trp Arg Gly Lys Pro Leu Met Pro Gln Val Ile Val
 275
             280 285
Asp Leu Gly Ser Gly Gly Thr Gly Arg Leu Ser Lys Leu Leu Thr Gly
 290 295 300
Glu Cys Asp Val Leu Ala Trp Pro Ala Ala Ser Gln Leu Thr Ile Leu
    310 315 320
Arg Asp Asp Pro Arg Leu Arg Leu Thr Leu Arg Pro Gly Met Asn Ile
      325 330 335
Ala Tyr Leu Ala Phe Asn Thr Asp Lys Pro Pro Leu Asn Asn Pro Ala
      340 345 350
Val Arq His Ala Leu Ala Leu Ala Ile Asn Asn Gln Arg Leu Met Gln
 355 360 365
Ser Ile Tyr Tyr Gly Thr Ala Glu Thr Ala Ala Ser Ile Leu Pro Arg
370 375 380
Ala Ser Trp Ala Tyr Asp Gly Glu Ala Lys Ile Thr Glu Tyr Asn Pro
385 390 395 400
Ala Lys Ala Arg Glu Gln Leu Lys Ala Leu Gly Ala Glu Asn Leu Thr 405 \hspace{0.25cm} 410 \hspace{0.25cm} 410 \hspace{0.25cm} 415 \hspace{0.25cm}
Leu Gln Leu Trp Val Pro Thr Ser Ser Gln Ala Trp Asn Pro Ser Pro
420 425 430
Leu Lys Thr Ala Glu Leu Leu Gln Ala Asp Met Ala Gln Val Gly Val
435 440 445
Lys Val Ile Ile Val Pro Val Glu Gly Arg Phe Gln Glu Ala Arg Leu
450 455 460
Met Asp Met Asn His Asp Leu Thr Leu Ala Gly Trp Ser Thr Asp Ser
465 470 475 480
Asn Asp Pro Asp Ser Phe Phe Arg Pro Leu Leu Ser Cys Ala Ala Ile
485 490 495
Asn Ser Gln Thr Asn Tyr Ala His Trp Cys Asn Arg Glu Phe Asp Ala
 500 505 510
Val Leu Gln Lys Ala Leu Ala Ser Gln Gln Leu Ala Ser Arg Ile Glu
 515 520 525
Ala Tyr Asp Glu Ala Gln Asn Ile Leu Ala Arg Glu Leu Pro Val Leu
530 535 540
Pro Leu Ala Ser Ser Leu Arg Leu Gln Ala Tyr Arg Tyr Asp Ile Lys
545 550 555 560
Gly Leu Val Leu Ser Pro Phe Gly Asn Ala Ser Phe Ala Gly Val Thr
           565 570
Arg Glu Lys Glu Gln Glu Val Lys Lys Pro
<210> 6518
<211> 302
<212> PRT
<213> Enterobacter cloacae
<400> 6518
Ser Ile Arg Asn Gly Met Pro Tyr Asp Asn Val Tyr Ser Glu Lys Arg
                          1.0
Thr Pro Gly Ala Leu Arg Thr Val Trp Arg Asn Phe Tyr Gly Asp Thr
                     25
                                      30
Thr Ala Met Ile Gly Phe Tyr Gly Cys Ile Gly Leu Val Leu Leu Cys
                   4.0
```

Val Leu Gly Ser Trp Phe Ala Pro Tyr Gly Ile Asp Gln Gln Phe Leu

```
Gly Tyr Gln Leu Leu Pro Pro Ser Trp Ser Arg Tyr Gly Glu Val Ser
              70
                           75
Phe Phe Leu Gly Thr Asp Asp Leu Gly Arg Asp Val Leu Ser Arg Leu
           85
                          90
Leu Ser Gly Ala Ala Pro Thr Val Gly Gly Ala Phe Val Val Thr Leu
        100
                     105
                                     110
Ala Ala Ala Ile Cys Gly Leu Ala Leu Gly Ile Phe Ala Gly Ser Thr
                 120
                               125
His Gly Leu Arg Ser Ala Val Leu Asn His Ile Leu Asp Thr Leu Leu
      135
                             140
Ser Ile Pro Ser Leu Leu Leu Ala Ile Ile Val Val Ala Phe Ala Gly
    150 155
Pro His Leu Thr His Ala Met Phe Ala Val Trp Leu Ala Ile Leu Pro
         165 170
                             175
Arg Met Val Arg Ser Val Tyr Ser Leu Val His Asp Glu Leu Glu Lys
      180 185 190
Glu Tyr Val Val Ala Ala Arg Leu Asp Gly Ala Thr Thr Phe Asn Ile
 195
         200 205
Leu Trp Phe Ala Val Leu Pro Asn Ile Ala Ala Gly Leu Val Thr Glu
210 215 220
Ile Thr Arg Ala Leu Ser Met Ala Ile Leu Asp Ile Ala Ala Leu Gly
225 230 235
Phe Leu Asp Leu Gly Ala Gln Leu Pro Ser Pro Glu Trp Gly Ala Met
     245 250 255
Leu Gly Asp Ala Leu Glu Leu Ile Tyr Val Ala Pro Trp Thr Val Met
 260 265 270
Leu Pro Gly Ala Ala Ile Met Val Ser Val Leu Leu Val Asn Leu Leu
275 280 285
Gly Asp Gly Ile Arg Arg Ala Ile Asn Ala Gly Val Gln
  290
                 295
```

<211> 275 <212> PRT <213> Enterobacter cloacae

<210> 6519

<400> 6519 Thr Trp Arg Glu Ser Glu Met Val Glu Thr Leu Leu Glu Val Arg Asn 10 Leu Ser Lys Thr Phe Arg Tyr Arg Thr Gly Leu Phe His Arg Gln Thr 25 Val Glu Ala Val Lys Pro Leu Ser Phe Thr Leu Arg Glu Lys Gln Thr 4 0 Leu Ala Ile Ile Gly Glu Asn Gly Ser Gly Lys Ser Thr Leu Ala Lys 5.5 60 Met Leu Ala Gly Met Val Glu Pro Ser Gly Gly Glu Ile Leu Ile Asp 70 75 Asp His Pro Leu Glu Phe Gly Asp Tyr Ser Phe Arg Ser Gln Arg Ile 85 90 Arg Met Ile Phe Gln Asp Pro Ser Thr Ser Leu Asn Pro Arg Gln Arg 100 105 110 Ile Ser Gln Ile Leu Asp Phe Pro Leu Arg Leu Asn Thr Asp Leu Glu 115 120 125 Pro Glu Ala Arg Arg Lys Arg Ile Val Glu Thr Leu Arg Leu Val Gly 135 140 Leu Leu Pro Asp His Val Ser Tyr Tyr Pro His Met Leu Ala Pro Gly 150 155 160 Gln Lys Gln Arg Leu Gly Leu Ala Arg Ala Leu Ile Leu Arg Pro Lys 1.65 170 Val Ile Ile Ala Asp Glu Ala Leu Ala Ser Leu Asp Met Ser Met Arg

```
180
                              185
                                               190
Ser Gln Leu Ile Asn Leu Met Leu Glu Leu Gln Glu Lys Gln Gly Ile
                         200
                                   205
Ser Tyr Ile Tyr Val Thr Gln His Leu Gly Met Met Lys His Ile Ser
  210
                   215
                               220
Asp Gln Val Leu Val Met His Gln Gly Glu Val Val Glu Arg Gly Ser
        230 235
Thr Ala Asp Val Leu Ala Ser Pro Leu His Asp Leu Thr Lys Arg Leu
            245 250 255
Ile Ala Gly His Phe Gly Glu Ala Leu Thr Ala Asp Ala Trp Arg Lys
Asp Arg
       275
<210> 6520
<211> 145
<212> PRT
<213> Enterobacter cloacae
<400> 6520
Ala Arg Leu Ser Ser Pro Phe Asn Pro Ala Arg Leu Asn Pro Val Ser
                                 10
Gly Lys Val Ser Pro His Asn Gly Ile Asp Tyr Ser Met Pro Met Asn
          20
                             25
Thr Lys Ile Val Ser Val Ile Asp Gly Lys Ile Thr Arg Ala Glu Tyr
                         40
Asn Ser Thr Met Gly Tyr Phe Val Glu Val Thr Gly Lys Ala Gly Val
                      55
                                        60
Lys Thr Arg Tyr Leu His Leu Asn Lys Ile Leu Val Thr Lys Gly Ala
65
               7.0
                                     75
                                                       80
Arg Val Thr Arg Gly Gly Ala Ile Ala Leu Ser Gly Asn Ser Gly Arg
              85
                                                   95
Ser Ser Gly Pro His Leu His Tyr Glu Leu Val Ile Asn Asn Asn Pro
          100
                                                110
Val Asn Ser Leu Ala Phe Arg Ala Ala Ala Pro Ala Asp Asn Lys Leu
    115
Glu Gln His Ala Pne Ala His Ala Arg Asp Tyr Glu Arg Tyr Leu Asp
                     135
145
<210> 6521
<211> 447
<212> PRT
<213> Enterobacter cloacae
<400> 6521
Pro Ser Gly Ala Tyr Ala Arg Cys Phe Asp Phe Leu Ala Glu Asn Cys
                             10
Met Ala Ser Leu Lys Ile Lys Tyr Ala Ala Ile Ile Ile Ser Ser Leu
           20
                             25
                                                30
Ile Ala Gly Gly Leu Ile Ser Val Thr Ala Trp Gln Tyr Val Asn Ser
       35
                         40
Ala Gln Lys Thr Glu Lys Thr Glu Gln Lys Ala Pro Glu Arg Lys Val
Leu Phe Trp Tyr Asp Pro Met Lys Pro Asp Thr Lys Phe Asp Lys Pro
                  70
                                    75
Gly Lys Ser Pro Phe Met Asp Met Asp Leu Val Pro Lys Tyr Ala Asp
                                90
Asp Ser Gly Asp Lys Ser Ser Gly Glu Ile Arg Ile Asp Pro Thr Gln
           100
                             105
```

```
Val Gln Asn Leu Gly Leu Lys Thr Gln Lys Val Thr Arg Gly Met Leu
           120
Asn Tyr Ser Gln Thr Ile Pro Ala Asn Val Ser Tyr Asn Glu Tyr Gln
                  135
  130
                                   140
Phe Val Ile Val Gln Ala Arg Ser Asp Gly Phe Val Glu Lys Val Tyr
             150
                               155
Pro Met Thr Ile Gly Asp His Val Lys Lys Gly Thr Pro Leu Ile Asp
            165
                           170
Ile Thr Ile Pro Asp Trp Val Glu Ala Gln Ser Glu Phe Leu Leu Leu
         180
                        185
                                        190
Ser Ser Thr Gly Gly Thr Ser Thr Gln Ile Lys Gly Val Leu Glu Arg
      195
                     200
                           205
Leu Arg Leu Ala Cly Met Pro Glu Glu Asp Ile Gln Arg Leu Arg Ser
 210
                  215
                                  220
Thr Arg Ser Ile Gln Thr Arg Phe Thr Ile Lys Ala Pro Ile Asp Gly
              230
                             235
Val Ile Thr Ala Phe Asp Leu Arg Thr Gly Met Asn Ile Ser Lys Asp
            245 250 255
Lys Val Val Ala Gln Ile Gln Gly Met Asp Pro Val Trp Ile Ser Ala
       260 265 270
Ala Val Pro Glu Ser Ile Ala Tyr Leu Leu Lys Asp Thr Ser Gln Phe
 275 280 285
Glu Ile Ser Val Pro Ala Tyr Pro Asp Lys Thr Phe His Val Glu Lys
290 295 300
Trp Asn Ile Leu Pro Ser Val Asp Gln Thr Thr Arg Thr Leu Gln Val
305 310 315
Arg Leu Gln Val Ser Asn Lys Asp Glu Phe Leu Lys Pro Gly Met Asn
      325 330 335
Ala Tyr Leu Lys Leu Asn Thr Arg Ser Gln Glu Met Leu Leu Ile Pro
      340
                        345
Ser Gln Ala Val Ile Asp Thr Gly Lys Glu Gln Arg Val Ile Thr Val
355 360
Asp Asp Glu Gly Lys Phe Val Pro Lys Gln Ile His Val Leu His Glu
370 375
                                 380
Ser Gln Gln Gin Ser Gly Ile Gly Ser Gly Leu Asn Glu Gly Asp Thr
385 390 395
Val Val Val Ser Gly Leu Phe Leu Ile Asp Ser Glu Ala Asn Ile Thr
       405 410 415
Gly Ala Leu Glu Arg Met Arg His Pro Glu Lys Thr Glu Ser Ser Met
    420 425 430
Pro Ala Met Ser Asp Gln Pro Val Asn Met His Ser Gly His
                     440
<210> 6522
<211> 832
<212> PRT
<213> Enterobacter cloacae
<400> 6522
His Thr Leu Lys Thr Glu Asp Ala Ser Val Cys Ile Arg Arg Val Thr
                        10
Val Lys Asn Asp Asn Ala Val Gln His Asn Asn Gln Thr Ala Ser Glu
                        25
                                        30
Gln Thr Leu Ser Pro Asp Glu Gly His Val Leu His Lys Val Arg Asp
                    40 45
Pro Val Cys Gly Met Ala Ile Leu Pro Asp Arg Ala His Ser Ser Ile
                 5.5
                                 60
Arg Tyr Gln Asp His Gln Leu Tyr Phe Cys Ser Ala Ser Cys Glu Ser
            70
                            75
Lys Phe Lys Ala His Pro Asp Arg Asn Leu Thr Glu Asp Ala Ser Glu
```

```
His Ser His His His His His Asp His His Glu Val Ser Pro Asp Gln
        100 105
Ile Lys Gln Pro His His Gln Ala Glu Lys Glu Asn Ser Glu Gly Val
     115
Trp Thr Cys Pro Met His Pro Glu Ile Arg Arg Ser Gly Pro Gly Ser
        135
   130
                               140
Cys Pro Val Cys Gly Met Ala Leu Glu Pro Leu Val Ala Thr Ala Ser
         150
                            155
Thr Gly Pro Ser Asp Glu Leu His Asp Met Thr Arg Arg Phe Trp Leu
           165 170
                                       175
Gly Leu Leu Ala Phe Pro Val Leu Val Leu Glu Met Gly Ser His
        180
             185 190
Leu Phe Pro Glu Leu Arg Asn Thr Val Pro Pro Gln Tyr Asn Thr Trp
     195 200 205
Leu Gln Leu Leu Ala Ser Pro Val Val Leu Trp Cys Gly Trp Pro
 210 215 220
Phe Phe Ala Arg Ala Gly Met Ser Leu Arg Asn Arg Ser Leu Asn Met
    230 235 240
Phe Thr Leu Val Ala Met Gly Thr Gly Val Ala Trp Val Tyr Ser Val
      245 250 255
Ile Ala Thr Val Phe Pro Ser Trp Phe Pro Ala Ser Phe Arg Asn Met
 260 265 270
Asp Gly Leu Val Ala Val Tyr Phe Glu Ala Ala Ala Val Ile Thr Val
275 280 285
Leu Val Leu Leu Gly Gln Val Leu Glu Leu Arg Ala Arg Glu Gln Thr
290 295 300
Ser Gly Ala Ile Thr Ala Leu Leu Asn Leu Ala Pro Lys Thr Ala Arg
305 310 315
Arg Leu Asp His Asp Gly His Glu Thr Asp Ile Asn Ala Glu Asp Val
      325 330
Leu Pro Gly Asp Lys Leu Arg Ile Arg Pro Gly Glu Ser Ile Pro Val
       340 345 350
Asp Gly Ile Val Ile Glu Gly Lys Thr Thr Val Asp Glu Ser Met Val
355 360 365
Thr Gly Glu Ser Met Pro Val Thr Lys Thr Glu Gly Asp Pro Val Ile
 370 375 380
Gly Gly Thr Ile Asn Gln Thr Gly Ser Leu Ile Ile Arg Ala Glu Lys
385 390
                            395
Val Gly Asp Glu Thr Met Leu Ser Arg Ile Val Gln Met Val Ala Asp
      405
                         410 415
Ala Gln Arg Ser Arg Ala Pro Ile Gln Arg Met Ala Asp Ser Val Ser
       420 425 430
Gly Trp Phe Val Pro Leu Val Ile Leu Ile Ala Val Val Ala Phe Val
   435 440 445
Ile Trp Ser Val Trp Gly Pro Glu Pro Arg Met Ala His Gly Leu Ile
 450 455
                               460
Ala Ala Val Ser Val Leu Ile Ile Ala Cys Pro Cys Ala Leu Gly Leu
465 470 475 480
Ala Thr Pro Met Ser Ile Met Val Gly Val Gly Lys Gly Ala Gln Ala
           485
                         490
Gly Val Leu Ile Arg Asn Ala Glu Ala Leu Glu Arg Leu Glu Lys Val
        500 505
                                     510
Asp Thr Leu Val Val Asp Lys Thr Gly Thr Leu Thr Glu Gly Ser Pro
     515
                    520
                                   525
Thr Val Thr Gly Ile Ile Ser Leu Asn Pro Gly Gly Glu Thr Ser Leu
                 535
                               540
Leu Arg Val Thr Ala Ala Val Glu Lys Gly Ser Gln His Pro Leu Gly
             550
                            555
Met Ala Val Val Lys Ala Ala Gln Glu Lys Gly Ile Ala Ile Pro Ala
           565
                         570
Val Thr His Phe Asp Ala Pro Ser Gly Lys Gly Val Ser Gly Asp Val
```

```
580
                        585
Glu Gly Gln Arg Val Val Ile Gly Asn Glu Leu Ala Met Gln Glu Asn
                     600
                              605
Ser Ile Val Ile Asp Asn Gln Lys Ala Val Ala Asp Thr Leu Arg Met
                  615
                                 620
Glu Gly Ala Thr Val Ile Tyr Val Ala Thr Asp Gly Asp Leu Ala Gly
               630
                               635
Leu Ile Ala Ile Ser Asp Pro Val Lys Thr Thr Thr Pro Asp Ala Leu
          645
                  650
Lys Ala Leu Arg Gin Ala Gly Ile Arg Ile Val Met Leu Thr Gly Asp
        660
                       665
                             670
Asn Gln Leu Thr Ala Glu Ala Val Ala Arg Lys Leu Gly Ile Asp Glu
             680
                          685
Val Glu Ala Gly Ile Leu Pro Asp Gly Lys Lys Ala Val Ile Thr Arg
                  695
                       700
Leu Lys Glu Ser Gly His Val Val Ala Met Ala Gly Asp Gly Val Asn
      710 715
Asp Ala Pro Ala Leu Ala Ala Ala Asp Val Gly Ile Ala Met Gly Thr
            725 730
Gly Thr Asp Val Ala Ile Glu Ser Ala Gly Val Thr Leu Leu Lys Gly
      740 745 750
Asp Leu Met Ile Leu Asn Arg Ala Arg His Leu Ser Glu Ile Thr Met
 755 760 765
Lys Asn Ile Arg Gln Asn Leu Phe Phe Ala Phe Ile Tyr Asn Ala Leu
 770 775 780
Gly Val Pro Val Ala Ala Gly Leu Leu Tyr Pro Val Tyr Gly Ile Leu
785 790 795
Leu Ser Pro Val Ile Ala Ala Ala Ala Met Ala Leu Ser Ser Val Ser
      805 810 815
Val Ile Val Asn Ala Leu Arg Leu Lys Ser Val Arg Leu Gly Lys
        820
                       825
<210> 6523
<211> 191
<212> PRT
<213> Enterobacter cloacae
<400> 6523
                           10
```

Gly Ser Val Phe Gly Ser Gly Pro Phe His Pro Val Val Lys Arg Arg Gly Ser Gln Leu Lys Ala Ala Asp Ala Asn Ile Gly Ala Pro Arg Ala 20 25 Ala Phe Phe Pro Ser Ile Thr Leu Thr Ser Gly Leu Ser Ala Ser Ser 35 40 Thr Glu Leu Ser Ser Leu Phe Thr Ser Gly Ser Gly Met Trp Asn Phe 55 60 Ile Pro Lys Ile Glu Ile Pro Ile Phe Asn Ala Gly Arg Asn Lys Ala 70 75 Asn Leu Lys Leu Ala Glu Ile Arg Gln Gln Gln Ser Val Val Asn Tyr 90 Glu Gln Lys Ile Gln Ser Ala Phe Lys Asp Val Ser Asp Thr Leu Ala 100 105 110 Leu Arg Asp Ser Leu Ser Gln Gln Leu Glu Ser Gln Gln Arg Tyr Leu 115 120 Asp Ser Leu Gln Ile Thr Leu Gln Arg Ala Arg Gly Leu Tyr Ala Ser 135 140 Gly Ala Val Ser Tyr Ile Glu Val Leu Asp Ala Glu Arg Ser Leu Phe 150 155 Ala Thr Gln Gln Thr Ile Leu Asp Leu Thr Tyr Ser Arg Gln Val Asn 165 170 175 Glu Ile Asn Leu Phe Thr Ala Leu Gly Gly Gly Trp Val Glu

<210> 6524 <211> 127 <212> PRT

<213> Enterobacter cloacae

<400> 6524

Ile Tyr Leu Ile Asn Gln Glu Ile Lys Met Arg Asn Ser Leu Lys Ala 1 5 10 15

Val Leu Phe Gly Ala Phe Ser Val Met Phe Ser Ala Gly Leu His Ala 20 25 30 Glu Thr His Gln His Gly Asp Met Asn Thr Ala Ser Asp Ala Ser Val 35 40 45

Gln Gln Val Ile Lys Gly Thr Gly Val Val Lys Asp Ile Asp Met Asn 50

The Lys Lys Ile Thr Ile Ser His Glu Ala Ile Pro Ala Val Gly Trp  $65 \\ 75 \\ 76$  Pro Ala Met Thr Met Arg Phe Thr Phe Val Asn Ala Asp Asp Ala Ile

85 90 95 Asn Ala Leu Lys Thr Gly Asn His Val Asp Phe Ser Phe Ile Gln Gln

100 105 110 Gly Asn Ile Ser Leu Leu Lys Ser Ile Asn Val Thr Gln Ser 115 120 125

<210> 6525

<211> 1059 <212> PRT

<213> Enterobacter cloacae

<400> 6525

Ile Cys Ile Gln Gly Thr Glu Glu Thr Thr Met Ile Glu Trp Ile Ile I 5 10 10 Arq Arq Ser Val Ala Asn Arg Phe Leu Val Met Met Gly Ala Leu Phe

20 25 30
Leu Ser Ile Trp Gly Thr Trp Thr Ile Ile Asn Thr Pro Val Asp Ala

Leu Ser Ile Trp Gly Thr Trp Thr Ile Ile Asn Thr Pro Val Asp Ala 35 40 45

Leu Pro Asp Leu Ser Asp Val Gln Val Ile Ile Lys Thr Ser Tyr Pro 50 60

Gly Gln Ala Pro Gln Ile Val Glu Asn Gln Val Thr Tyr Pro Leu Thr 65 70 75 80

Thr Thr Met Leu Ser Val Pro Gly Ala Lys Thr Val Arg Gly Phe Ser 85 90 95

Gln Phe Gly Asp Ser Tyr Val Tyr Val Ile Phe Glu Asp Gly Thr Asp 100 105 110

Leu Tyr Trp Ala Arg Ser Arg Val Leu Glu Tyr Leu Asn Gln Val Gln 115 120 125 Gly Lys Leu Pro Ala Gly Val Ser Ser Glu Ile Gly Pro Asp Ala Thr

Gly Lys Leu Pro Ala Gly Val Ser Ser Glu Ile Gly Pro Asp Ala Thr 130 Gly Val Gly Trp Ile Phe Glu Tyr Ala Leu Val Asp Arg Ser Gly Lys

145 150 155 160 His Asp Leu Ser Glu Leu Arg Ser Leu Gln Asp Trp Phe Leu Lys Phe

180

Val Val Lys Gln Tyr Gln Ile Gln Val Asn Pro Val Lys Leu Ser Gln
195

200

205

Tyr Gly Ile Ser Leu Pro Glu Val Lys Gln Ala Leu Glu Ser Ser Asn 210 220

Gln Glu Ala Gly Gly Ser Ser Val Glu Met Ala Glu Ala Glu Tyr Met 225 230 235 240

Val Arg Ala Ser Gly Tyr Leu Gln Ser Ile Asp Asp Phe Asn Asn Ile 245 250 Val Leu Lys Thr Gly Glu Asn Gly Val Pro Val Tyr Leu Arg Asp Val 265 260 Ala Arg Val Gln Thr Gly Pro Glu Met Arg Arg Gly Ile Ala Glu Leu 280 285 Asn Gly Gln Gly Glu Val Ala Gly Gly Val Val Ile Leu Arg Ser Gly 295 300 Lys Asn Ala Arg Asp Val Ile Thr Ala Val Arg Asp Lys Leu Glu Thr 305 310 315 Leu Lys Ala Ser Leu Pro Glu Gly Val Glu Ile Val Thr Thr Tyr Asp 325 330 Arg Ser Gln Leu Ile Asp Arg Ala Ile Asp Asn Leu Ser Ser Lys Leu 345 350 Leu Glu Glu Phe Ile Val Val Ala Ile Val Cys Ala Leu Phe Leu Trp 360 355 365 His Val Arg Ser Ala Leu Val Ala Ile Ile Ser Leu Pro Leu Gly Leu 375 380 Cys Ile Ala Phe Ile Val Met His Phe Gln Gly Leu Asn Ala Asn Ile 390 395 400 Met Ser Leu Gly Gly Ile Ala Ile Ala Val Gly Ala Met Val Asp Ala 405 410 415 Ala Ile Val Met Ile Glu Asn Ala His Lys Arg Leu Glu Glu Trp Asp 420 425 430 His Gln His Pro Gly Glu Gln Ile Asp Asn Ala Thr Arg Trp Lys Val 435 440 445 Ile Thr Asp Ala Ser Val Glu Val Gly Pro Ala Leu Phe Ile Ser Leu 450 455 460 Leu Ile Ile Thr Leu Ser Phe Ile Pro Ile Phe Thr Leu Glu Gly Gln 470 475 Glu Gly Arg Leu Phe Gly Pro Leu Ala Phe Thr Lys Thr Tyr Ser Met 495 490 Ala Gly Ala Ala Ala Leu Ala Ile 1le Val Ile Pro Ile Leu Met Gly 500 505 510 Phe Trp Ile Arg Gly Lys Ile Pro Ala Glu Thr Ser Asn Pro Leu Asn 515 520 525 Arg Val Leu Ile Lys Ala Tyr His Pro Leu Leu Leu Arg Val Leu His 530 535 540 Trp Pro Lys Thr Thr Leu Leu Val Ala Ala Leu Ser Ile Phe Thr Val 550 545 555 Ile Trp Pro Leu Ser Gln Val Gly Gly Glu Phe Leu Pro Lys Ile Asn 565 570 Glu Gly Asp Leu Leu Tyr Met Pro Ser Thr Leu Pro Gly Val Ser Pro 580 585 590 Ala Glu Ala Ala Ala Leu Leu Gln Thr Thr Asp Lys Leu Ile Lys Ser 595 600 605 Val Pro Glu Val Ala Ser Val Phe Gly Lys Thr Gly Lys Ala Glu Thr 615 620 Ala Thr Asp Ser Ala Pro Leu Glu Met Val Glu Thr Thr Ile Gln Leu 630 635 Lys Pro Glu Asp Gln Trp Arg Pro Gly Met Thr Ile Asp Lys Ile Ile 645 650 Glu Glu Leu Asp Arg Thr Val Arg Leu Pro Gly Leu Ala Asn Leu Trp 665 Val Pro Pro Ile Arg Asn Arg Ile Asp Met Leu Ser Thr Gly Ile Lys 675 680 685 Ser Pro Ile Gly Ile Lys Val Ser Gly Thr Val Leu Ser Asp Ile Asp 695 700 Ala Thr Ala Gln Ser Ile Glu Ala Val Ala Lys Thr Val Pro Gly Val 710 715 Val Ser Ala Leu Ala Glu Arg Leu Glu Gly Gly Arg Tyr Ile Asp Val

```
730
Asp Ile Asn Arg Glu Lys Ala Ser Arg Tyr Gly Met Thr Val Gly Asp
      740
                      745
                                    750
Val Gln Leu Phe Ile Ser Ser Ala Ile Gly Gly Ala Thr Val Gly Glu
                   760
                         765
Thr Val Glu Gly Val Ala Arg Tyr Pro Ile Asn Ile Arg Tyr Pro Gln
   770
               775
                     780
Asp Tyr Arg Asn Ser Pro Gln Ala Leu Lys Gln Met Pro Ile Leu Thr
      790 795 800
Pro Met Lys Gln Gln Ile Thr Leu Gly Asp Val Ala Asp Ile Lys Val
          805 810 815
Val Ser Gly Pro Thr Met Leu Lys Thr Glu Asn Ala Arg Pro Ala Ser
      820 825 830
Trp Ile Tyr Ile Asp Ala Arg Gly Arg Asp Met Val Ser Val Val Asn
   835 840 845
Asp Ile Lys Thr Ala Ile Ser Gln Lys Val Lys Leu Arg Pro Gly Thr
 850 855 860
Ser Val Ser Phe Ser Gly Gln Phe Glu Leu Leu Glu His Ala Asn Lys
   870 875 880
Lys Leu Lys Leu Met Val Pro Met Thr Val Met Ile Ile Phe Ile Leu
    885 890 895
Leu Tyr Leu Ala Phe Arg Arg Val Asp Glu Ala Leu Leu Ile Leu Met
   900 905
                          910
Ser Leu Pro Phe Ala Leu Val Gly Gly Ile Trp Phe Leu Tyr Trp Gln
915 920 925
Gly Phe His Met Ser Val Ala Thr Gly Thr Gly Phe Ile Ala Leu Ala
                935
                               940
Gly Val Ala Ala Glu Phe Gly Val Val Met Leu Met Tyr Leu Arg His
945 950
                            955
                                          960
Ala Ile Glu Ala His Pro Glu Leu Ser Arg Lys Glu Thr Phe Thr Pro
          965 970
                            975
Glu Gly Leu Asp Glu Ala Leu Tyr His Gly Ala Val Leu Arg Val Arg
 980 985
                                    990
Pro Lys Ala Met Thr Val Ala Val Ile Ile Ala Gly Leu Leu Pro Ile
995 1000 1005
Leu Trp Gly Thr Gly Ala Gly Ser Glu Val Met Ser Arg Ile Ala Ala
1010 1015 1020
Pro Met Ile Gly Gly Met Ile Thr Ala Pro Leu Leu Ser Leu Phe Ile
1025 1030 1035 1040
Ile Pro Ala Ala Tyr Lys Leu Ile Trp Leu Arg Arg His Lys Lys Ser
           1045
                         1050
Val Ser
```

```
<210> 6526
<211> 134
<212> PRT
```

<sup>&</sup>lt;213> Enterobacter cloacae

Arg Ile Arg Ser Ile Pro Thr Ile Met Ile Phe Lys Asn Gly Glu Val 100 105 110 Ile Asp Met Leu Asn Gly Ala Val Pro Lys Ala Pro Phe Asp Ser Trp 115 120 Leu Asn Glu Ser Leu 130 <210> 6527 <211> 905 <212> PRT <213> Enterobacter cloacae <400> 6527 Gly Arg Lys Arg Leu Lys Ser Ser Gly Arg Leu His Ser Gln Glu Ala Cys Met Ser Gln Arg Gly Leu Glu Ala Leu Leu Arg Pro Lys Ser Ile 20 25 Ala Val Ile Gly Ala Ser Met Lys Pro Asp Arg Ala Gly Tyr Leu Met 35 40 4.5 Met Arg Asn Leu Leu Ala Gly Gly Phe Asn Gly Pro Val Met Pro Val 50 55 60 Thr Pro Ala Tyr Lys Ala Val Gln Gly Val Leu Ala Trp Pro Asp Val 65 70 75 Gln Ser Leu Pro Phe Val Pro Asp Leu Ala Val Leu Cys Thr His Ala 85 90 Lys Arg Asn Leu Glu Leu Clu Ser Leu Gly Gln Lys Gly Cys Lys 100 105 110 Thr Cys Ile Ile Leu Ser Ser Pro Pro Glu Gln Gln Pro Glu Leu Leu 115 120 125 Ala Cys Ala Ser Arg Tyr Gln Met Arg Ile Leu Gly Pro Asn Ser Leu 130 135 Gly Leu Leu Ala Pro Trp Gln Gly Leu Asn Ala Ser Phe Ser Pro Val 145 150 155 160 Pro Ile Arg Lys Gly Lys Leu Ala Phe Ile Ser Gln Ser Ala Ala Val 165 170 Ser Asn Thr Ile Leu Asp Trp Ala Gln Gln Arg Glu Met Gly Phe Ser 180 185 190 Tyr Phe Ile Ala Leu Gly Asp Ser Leu Asp Ile Asp Val Asp Glu Leu 195 200 205 Leu Asp Phe Leu Ala Arg Asp Ser Lys Thr Ser Ala Ile Leu Leu Tyr 210 215 220 Leu Glu His Leu Ser Asp Ala Arg Arg Phe Val Ser Ala Ser Arg Ser 225 230 235 Ala Ser Arg Asn Lys Pro Ile Leu Val Ile Lys Ser Gly Arg Ser Pro 245 250 Ala Ala Gln Arg Leu Leu His Ser Arg Ser Gly Met Asp Pro Ala Trp 265 Asp Ala Ala Ile Gln Arg Ala Gly Leu Leu Arg Val Gln Asp Thr His 280 285 Glu Leu Phe Ser Ala Val Glu Thr Leu Ser His Met Arg Pro Leu Arg 295 300 Gly Glu Lys Leu Met Ile Val Ser Asn Gly Ala Ala Pro Ala Ala Leu 310 315 Ala Leu Asp Glu Leu Trp Leu Arg Asn Gly Lys Leu Ala Thr Leu Gly 325 330 Glu Glu Thr Leu Gln Arg Leu Arg Asp Ala Leu Pro Gly Ser Val Val 345 Pro Asp Asn Pro Leu Asp Leu Arg Asp Asp Ala Ser Ser Asp Arg Tyr 360

Ile Lys Ala Ile Thr Ile Leu Leu Asp Ser Gln Asp Phe Asp Ala Leu

```
375
Met Ile Ile His Ser Pro Ser Ala Val Ala Pro Gly Ser Glu Ser Ala
        390
                     395
Arg Ala Leu Ile Glu Ala Val Arg Asn His Pro Arg Gly Lys Tyr Val
      405
                     410
Thr Leu Leu Thr Asn Trp Cys Gly Glu Phe Ser Ser Gln Glu Ala Arg
   420
              425
Arg Leu Phe Ser Glu Ala Gly Leu Pro Thr Tyr Arg Thr Pro Glu Gly
  435 440
                         445
Thr Ile Thr Ala Phe Met His Met Val Glu Tyr Arg Arg Asn Gln Lys
 450 455 460
Gln Leu Arg Glu Thr Pro Ala Leu Pro Gly Asn Leu Thr Ala Asn Ser
   470 475 480
Val Asp Val His Arg Leu Leu Gln Gln Ala Ile Glu Glu Gly Ala Thr
      485 490 495
Ser Leu Asp Thr His Glu Val Gln Pro Ile Leu Gly Ser Tyr Gly Met
      500 505 510
Gln Thr Leu Pro Thr Trp Ile Ala Gly Asp Ser Ala Glu Ala Val His
  515 520 525
Ile Ala Glu Gln Ile Gly Tyr Pro Val Ala Leu Lys Leu Arg Ser Pro
 530 535 540
Asp Ile Pro His Lys Ser Asp Val Gln Gly Val Met Leu Tyr Leu Arg
545 550 555 560
Thr Ala Thr Glu Val Gln Gln Ala Ala Asp Ala Ile Ile Asp Arg Val
 565 570 575
Lys Met Thr Trp Pro Gln Ala Arg Ile His Gly Leu Leu Val Gln Ser
 580 585 590
Met Ala Asn Arg Ala Gly Ala Gln Glu Leu Arg Val Val Val Glu His
595 600 605
Asp Pro Val Phe Gly Pro Leu Ile Met Leu Gly Glu Gly Gly Val Glu 610 620
Trp Arg Pro Glu Glu Gln Ala Val Vai Ala Leu Pro Pro Leu Asn Met
625 630 635 640
Asn Leu Ala Arg Tyr Leu Ile Ile Gln Ala Ile Lys Ser Lys Lys Ile
   645 650 655
Arg Gly Arg Ser Ala Leu Arg Pro Leu Asp Ile Ala Gly Leu Ser Gln
 660 665 670
Phe Leu Val Lys Val Ser Asn Leu Ile Val Asp Cys Ala Glu Ile Gln
675 680 685
Arg Leu Asp Ile His Pro Leu Leu Ala Ser Gly Asn Glu Phe Thr Ala
690 695 700
Leu Asp Val Thr Leu Asp Ile Ala Pro Tyr Ile Gly Asp Pro Glu Ser
705 710 715 720
Arg Leu Ala Ile Arg Pro Tyr Pro Leu His Leu Glu Glu Trp Val Glu
        725 730
Met Lys Asn Gly Glu Arg Ala Leu Phe Arg Pro Ile Leu Pro Glu Asp
    740 745 750
Glu Pro Leu Leu Arg Ala Pne Ile Ser Gln Val Thr Lys Glu Asp Leu
755 760 765
Tyr Tyr Arg Tyr Phe Ser Glu Ile Asn Glu Phe Thr His Asp Asp Leu
               775 780
Ala Asn Met Thr Gln Ile Asp Tyr Asp Arg Glu Met Ala Ile Val Ala
785 790 795
Val Arg Arg Ser Gly Ala Gly Glu Glu Ile Leu Gly Val Thr Arg Ala
         805 810
                                      815
Ile Ser Asp Pro Asp Asn Val Asp Ala Glu Phe Ala Val Leu Val Arg
      820 825 830
Ser Asp Leu Lys Gly Leu Gly Leu Gly Arg Arg Leu Leu Glu Lys Leu
   835 840
Ile Gly Tyr Thr Arg Asp His Gly Leu Ser Arg Leu Asn Gly Ile Thr
```

```
Met Pro Asn Asn Arg Gly Met Val Thr Leu Ala Arg Lys Leu Gly Phe
      870
Asp Val Asp Ile Gln Leu Asp Glu Gly Ile Val Ser Leu Ser Leu Ser
           885
                              890
Leu Thr Ser Thr Asp Lys Gln Glu
          900
<210> 6528
<211> 261
<212> PRT
<213> Enterobacter cloacae
<400> 6528
Thr Asn Pro Cys Asn Ile Arg Gly Ala Tyr Leu Val Pro Arg Ser Leu
Leu Cys Glu Asn Gly Val Phe Pro Ala Phe Ser Pro Met Thr Asp Asn
        20
                          2.5
Ala Val Leu Gln Leu Arg Ala Glu Arg Leu Ala Arg Ala Thr Arg Pro
     35
                     40
Phe Leu Ala Arg Gly Asn Arg Ile Arg Arg Cys Gln Arg Cys Leu Leu
                 55
Pro Leu Lys Val Cys Leu Cys Glu Thr Leu Ala Pro Ser Glu Ala Lys
               70
                     75
Ser Arg Phe Cys Leu Val Met Phe Asp Thr Glu Pro Met Lys Pro Ser
            85 90
Asn Thr Gly Arg Leu Ile Ala Asp Ile Leu Pro Asn Thr Ala Ala Phe
         100 105 110
Gln Trp Ser Arg Thr Glu Pro Pro Gln Ala Leu Leu Asp Leu Val Ala
     115 120 125
Ser Pro Asp Tyr Gln Pro Met Val Val Phe Pro Ala Ser Tyr Ala Gly
130 135 140
Glu Gln Arg Gln Val Leu Thr Ala Pro Pro Ser Gly Lys Pro Pro Leu
145 150 155
Phe Ile Met Leu Asp Gly Thr Trp Thr Glu Ala Arg Lys Met Phe Arg
          165 170
                                              175
Lys Ser Pro Tyr Leu Asp Ala Leu Pro Val Ile Ser Val Asp Leu Ser
        180 185 190
Arg Val Ser Ala Tyr Arg Leu Arg Glu Ala His Ala Asp Gly Gln Tyr
     195 200
                                      205
Cys Thr Ala Glu Val Ala Ile Ala Leu Leu Asp Leu Ala Gly Asp Thr
                   215
                                    220
Gln Ala Ala Gly Ala Leu Gly Ser His Phe Ser Cys Phe Arg Glu Arg
               230 235
Tyr Leu Ala Gly Lys Thr Val His Lys Gly Ser Val Thr Ala Thr Glu
                             250
Ala Glu Ser Val
         260
<210> 6529
<211> 459
<212> PRT
<213> Enterobacter cloacae
<400> 6529
Thr Glu Lys Lys Arg Thr Val Met Leu Ser Lys Phe Lys Arg Asn Lys
His Gln Gln His Leu Ala Gln Leu Pro Lys Ile Ser Gln Ser Val Asp
                          25
Asp Val Glu Phe Phe Tyr Ala Pro Ala His Phe Arg Glu Thr Leu Leu
                       4.0
```

Glu Lys Ile Ala Ser Ala Thr Arg Arg Ile Cys Ile Val Ala Leu Tyr

```
Leu Glu Gln Asp Glu Gly Gly Arg Ala Ile Leu Asn Ala Leu Tyr Glu
            7.0
                           7.5
Ala Lys Arg Gln Arg Pro Glu Leu Asp Val Arg Val Leu Val Asp Trp
           8.5
                90
His Arg Ala Gln Arg Gly Arg Ile Gly Ala Ala Ala Ser Asn Thr Asn
     100 105 110
Ala Asp Trp Tyr Cys Arg Thr Ala Gln Glu Asn Pro Gly Ile Asp Ile
   115 120 125
Pro Val Tyr Gly Val Pro Val Asn Thr Arg Glu Ala Leu Gly Val Leu
 130 135 140
His Phe Lys Gly Phe Ile Ile Asp Asp Ser Val Leu Tyr Ser Gly Ala
    150 155
Ser Leu Asn Asp Val Tyr Leu His Gln Leu Asp Lys Tyr Arg Tyr Asp
       165 170
Arg Tyr His Leu Ile Arg Asn Pro Gln Met Ala Asp Ile Met Phe Asn
       180 185 190
Trp Val Asp Lys Asn Leu Val His Gly Arg Gly Val His Arg Leu Asp
 195 200 205
Asp Pro His Arg Pro Lys Ser Pro Glu Ile Lys Asn Asp Val Arg Ser
210 215 220
Phe Arg Gln Glu Leu Arg Asp Ala Val Tyr Arg Phe Gln Gly Asp Ala
225 230
                            235
                                            240
Ser Asn Glu Glu Leu Ser Val Thr Pro Leu Val Gly Leu Gly Lys Ser
         245 250
Ser Leu Leu Asn Lys Thr Ile Phe His Leu Met Pro Cys Ala Glu His
 260
            265
                                      270
Lys Leu Thr Ile Cys Thr Pro Tyr Phe Asn Leu Pro Ala Val Leu Val
275 280 285
Arg Asn Ile Ile Gln Leu Leu Arg Asp Gly Lys Lys Val Glu Ile Ile
                 295
                               300
Val Gly Asp Lys Thr Ala Asn Asp Phe Phe Ile Pro Glu Asp Gln Pro
305
              310
Phe Lys Ile Ile Gly Ala Leu Pro Tyr Leu Tyr Glu Ile Asn Leu Arg
           325
                         330 335
Arg Phe Leu Ser Arg Leu Gln Tyr Tyr Val Asn Thr Asp Gln Leu Val
        340
                      345 350
Val Arg Leu Trp Lys Asp Glu Asp Asn Ser Tyr His Leu Lys Gly Ile
     355
                    360
                                   365
Trp Val Asp Asp Glu Trp Met Leu Leu Thr Gly Asn Asn Leu Asn Pro
                 375
 370
                                380
Arg Ala Trp Arg Leu Asp Leu Glu Asn Ala Ile Leu Ile His Asp Pro
              390
                  395
385
Gln His Ala Leu Ala Ala Lys Arg Asp Arg Glu Leu Glu Leu Ile Arg
           405
               410
Thr His Thr Thr Val Val Arg His Tyr Arg Asp Leu Gln Ser Ile Ala
                 425 430
Asp Tyr Pro Val Lys Val Arg Lys Leu Ile Arg Arg Leu Arg Arg Ile
                    440
Arg Ile Asp Arg Leu Ile Ser Arg Ile Leu
  450
```

<210> 6530

<211> 141

<212> PRT

<213> Enterobacter cloacae

<400> 6530

Phe Ala Val Tyr Val Gly Ser Val Ser Thr Ala Ser Ser Ala Ala Phe 1 5 10 15

Cys Asn Thr Arg Ala Leu Ser Ser Thr Gly Leu Phe Leu Trp Ser Leu

Leu Met Arg Thr Pro Phe Leu Ile Ile Pro Leu Phe Leu Thr Gly Cys 35 4.0 Ser His Met Ala Asn Asp Asn Trp Ser Gly Gln Asp Lys Ala Gln His 55 Phe Leu Ala Ser Ala Met Leu Ser Ala Ala Gly Asn Glu Tyr Ala Leu 7.0 75 His Gln Gly Tyr Ser Arg Asp Arg Ser Ala Thr Met Gly Leu Met Phe 8.5 90 Ser Ile Ser Leu Gly Ala Ser Lys Glu Leu Trp Asp Ser Arg Pro Ser 100 105 110 Gly Ser Gly Trp Ser Trp Lys Asp Phe Ala Trp Asp Val Ala Gly Ala 120 115 Thr Thr Gly Tyr Ala Val Trp Gln Met Ala His Tyr <210> 6531 <211> 459 <212> PRT <213> Enterobacter cloacae <400> 6531 Arg Phe Val Leu Asn Pro Val Leu Leu Phe Val Gly Asn Gly Pro Gln 1.0 Cys Glu Thr Gly Asp Phe Lys Met Thr Glu Thr Val Ala Ser Ala Asp 20 25 Thr Asp Asn Thr Ser Leu Ala Gly Lys Asp Thr Arg Arg Arg Val Trp 35 40 Ala Ile Val Gly Ala Ser Ser Gly Asn Leu Val Glu Trp Phe Asp Phe 50 5.5 60 Tyr Val Tyr Ser Phe Cys Ser Leu Tyr Phe Ala His Ile Phe Phe Pro 70 7.5 Ser Gly Asn Thr Thr Thr Gln Leu Leu Gln Thr Ala Gly Val Phe Ala 85 90 Ala Gly Phe Leu Met Arg Pro Ile Gly Gly Trp Leu Phe Gly Arg Ile 100 105 110 Ala Asp Arg Lys Gly Arg Lys Thr Ser Met Leu Ile Ser Val Cys Met 115 120 125 Met Cys Val Gly Ser Leu Val Ile Ala Cys Leu Pro Gly Tyr Asp Thr 130 135 140 Ile Gly Thr Trp Ala Pro Ala Leu Leu Leu Ala Arg Leu Phe Gln 150 155 Gly Leu Ser Val Gly Gly Glu Tyr Gly Thr Ser Ala Thr Tyr Met Ser 165 170 Glu Val Ala Val Glu Gly Arg Lys Gly Phe Tyr Ala Ser Phe Gln Tyr 180 185 190 Val Thr Leu Ile Gly Gly Gln Leu Leu Ala Leu Leu Val Val Val Ile 195 200 205 Leu Gln Gln Ile Leu Ser Asp Glu Asp Leu Arg Ala Trp Gly Trp Arg 215 220 Ile Pro Phe Ala Leu Gly Ala Ala Leu Ala Val Val Ala Leu Trp Leu 225 230 235 Arg Arg Gln Leu Asp Glu Thr Ser Gln Gln Glu Val Arg Ala Leu Lys 245 250 255 Glu Ala Gly Ser Met Lys Gly Leu Trp Arg Asn Arg Lys Ala Phe Leu 265 270 Met Val Leu Gly Phe Thr Ala Ala Gly Ser Leu Ser Phe Tyr Thr Phe 280 285 Thr Thr Tyr Met Gln Lys Tyr Leu Val Asn Thr Thr Gly Met His Ala 295 300

Asn Val Ala Ser Val Val Met Thr Val Ala Leu Leu Val Phe Met Leu

```
310
                                 315
Ile Gln Pro Ile Val Gly Ala Leu Ser Asp Lys Ile Gly Arg Arg Thr
            325
                              330
Ser Met Leu Ile Phe Gly Gly Met Leu Thr Leu Gly Thr Val Pro Leu
         340
                           345
Leu Thr Ala Leu Gln His Thr Thr Ser Pro Tyr Ala Ala Phe Ala Leu
                       360
                                     365
Ile Met Val Ala Leu Ile Ile Ile Ser Phe Tyr Thr Ala Ile Ser Gly
                 375
                          380
Ile Leu Lys Ala Glu Met Phe Pro Ala Gln Val Arg Ala Leu Gly Val
                390 395
Gly Leu Ser Tyr Ala Val Ala Asn Ala Leu Phe Gly Gly Ser Ala Glu
            405 410 415
Tyr Val Ala Leu Ser Leu Lys Ser Trp Gly Ser Glu Thr Thr Phe Phe
         420 425 430
Trp Tyr Val Thr Ile Met Gly Ala Leu Ala Phe Ile Val Ser Leu Met
    435 440
Leu His Arg Lys Gly Lys Gly Ile Arg Leu
  450
<210> 6532
<211> 147
<212> PRT
<213> Enterobacter cloacae
<400> 6532
Gly Gly Leu Val Arg Ser Cys Gln Ser Arg Gly Glu Asp Leu Glu Leu
His Leu Glu Gln Leu Phe Leu Glu His Gly Leu Thr Gln Phe Ala Thr
 20
                          25
Gln Ser Val Thr Glu Gly Asn Lys Lys Pro Asp Phe Leu Phe Pro Ser
35
                      4.0
Ser Asp Ala Tyr His Asp Lys Ala Phe Pro Asp Glu Lys Leu His Met
50 55
Leu Ala Val Lys Thr Thr Cys Lys Asp Arg Trp Arg Gln Val Leu Asn
65 70
                                 75
Glu Ala Asp Arg Ile Gln Asn Ile His Leu Phe Thr Leu Gln Glu Gly
            85
                             90
Val Ser Leu Ala Gln Phe Lys Glu Met Gln Gln Glu Arg Val Thr Leu
       100
                          105
                                          110
Val Val Pro Ser Ser Leu His Lys Lys Tyr Pro Glu Ala Val Arg Pro
 115 120
Glu Leu Met Thr Leu Gly His Phe Ile Ala Arg Leu Ile Gly Ile Tyr
                   135
Ala Ala
145
<210> 6533
<211> 519
<212> PRT
<213> Enterobacter cloacae
<400> 6533
Ser Arg Val Ser Gly Phe Leu Ser Gln Leu Thr Pro Pro Ala Ala Ser
                           10
Leu Thr Ser Tyr Thr Gln Leu Pro Glu Ser Pro Met Thr Trp Lys Asn
         2.0
                   25
                                           30
Thr Ala Glu Gln Asn Ala Ile Ile Glu Trp Lys Gly Thr His Leu Val
```

40

Val Asn Ala Phe Ala Gly Thr Gly Lys Thr Thr Thr Leu Val Ser Tyr

Ala Glu Ala Asn Pro Glu Ser Arg Met Leu Tyr Leu Ala Tyr Asn Arg 70 Ala Val Arg Asp Glu Ala Glu Arg Arg Phe Pro Tyr Asn Val Glu Cys 85 90 Lys Thr Ser His Gln Leu Ala Trp Ala Arg Phe Gly Lys His Phe Arg 100 105 110 Asp Arg Leu Thr Ala Ser Leu Arg lle Thr Asp Val Ala Arg Lys Leu 115 120 125 Asn Thr Arg His Trp Pro Leu Ala Arg Leu Ala Leu Ser Gly Leu Asn 135 140 Met Phe Leu Cys Ser Ala Asp Pro Glu Pro Gly Leu Ile His Leu Pro 150 155 160 145 Ser Glu Asp Asp Arg His Gly Leu Asp Ala Gly Lys Ile Leu Gly Ala 165 170 175 Ile Gln Ile Leu Trp Tyr Glu Met Ser Arg Thr Asp Ser Val Phe Pro 180 185 190 Val Thr His Asp Thr Tyr Leu Lys Met Phe Gln Leu Ser Gln Pro Asp 195 200 205 Leu Ser Lys Arg Trp Asp Thr Ile Leu Phe Asp Glu Ala Gln Asp Ala 210 215 220 Asn Pro Val Thr Ser Ala Phe Val Leu Asn Gln Pro Cys Arg Val Ile 230 235 240 Leu Val Gly Asp Arg Tyr Gln Gln Ile Tyr Arg Phe Arg Gly Ala Asp 245 250 255 Asn Ala Leu Asn Ala Arg Gln Leu Ala Gln Ala Asp Arg Leu Trp Leu 260 265 270 Thr Ala Ser Phe Arg Phe Gly Pro Glu Val Ala Arg Val Ala Asn Ile 275 280 285 Leu Leu Glu Arg Ala Gly Glu Glu Lys Arg Val Ala Gly Asn Gly Gly 290 295 300 Gln Asp Ala Val Val Ser Asp Leu Pro Ala Gly Ala Glu His Ile Thr 305 310 315 Val Leu Ser Arg Thr Val Ser Gly Val Ile Gly Ser Ala Leu Thr Ala 325 330 Ser Leu Met Glu Lys Lys Val Phe Trp Val Gly Gly Ile Glu Gly Tyr 340 345 350 Lys Thr Glu Glu Leu Glu Asp Leu Tyr Trp Phe Ser Ala Asp Met Pro 355 360 365 Glu Lys Met Gln Ser Pro Arg Leu Ser Arg Asp Tyr Arg Asp Phe Asp 370 375 380 Glu Tyr Cys Ser Ile Ala Lys Ala Thr Gln Asp Val Glu Met Asn Gln 385 \$390\$Ala Ile Arg Leu Leu Asp Asp Phe Phe Pro Leu Pro Gln Lys Leu Ala 405 410 lle Met Arg Arg Gln Val Val Ser His Glu Lys Glu Ala Gln Val Thr 420 425 430 Val Ser Thr Ala His Arg Ser Lys Gly Leu Glu Trp Ser Val Val Met 435 440 445 Leu Ser Glu Asp Phe Thr Asp Ile Thr Asp Pro Leu Leu Ser Gln Glu 450 455 460 Glu Arg Gln Asp Glu Thr Asn Leu Leu Tyr Val Ala Val Thr Arg Ala 470 475 Arg Lys Thr Leu Val Leu Asn Glu Leu Met Arg Trp Leu Ser Glu Ala 485 490 495 Gly Glu Gly Asp Asp Glu Asn Asp Ala Val Met Pro Asp Asp Thr Gly 500 505 510 Glu Ile Ser Gly Thr Glu

<210> 6534 <211> 548

<212> PRT <213> Enterobacter cloacae <220> <221>UNSURE <222>(85) <220> <221>UNSURE <222>(88) <400> 6534 Ala Ala Leu Tyr Gln Glu Asn Ile Met Leu Ser Arg Ile Arg Thr Leu 10 Arg Ser Leu Phe Ser Lys Gly Glu Pro Glu Ala Val His His Ile Ser 20 25 30 Thr Val Thr Pro Val Gly Tyr His Ala Pro Arg Gly Ala Gly Met Leu 35 40 45 Cys Ala Ser Pro Leu Arg Lys Thr Cys Leu Gln Gln Ile Trp Glu Asn 55 50 Cys Ser Leu Pro Ala Asp Ile Tyr Gln Arg Leu Tyr Leu Ala Pro Leu 65 70 75 Asn Gly Leu Leu Xaa Arg Val Xaa Asn Val Pro Ala Thr Gln Lys Gly 85 90 Arg Trp Ser Gln Ser Ala Gly Phe Gly Asp Leu Thr Leu Gln Phe Thr 100 105 110 Thr Cys Ala Val Arg Leu Ala Lys Gly Tyr Met Phe Pro Pro Gly Ala 115 120 125 Ala Pro Glu Glu Gln Ala Glu Gln Asn Val Met Trp Asn Ala Val Ile 130 135 140 Ile Trp Ser Ala Leu Phe Trp His Leu Leu Phe Leu Ala Thr Leu Glu 145 150 155 Gly Glu Leu Leu Asp Gly Lys Ser Trp Leu Pro Gly Met Thr Ile Pro 165 170 175 Asp Ser Pro Tyr Arg Phe Arg Phe Arg Glu Ala Glu Asn Ala Ser Ala 180 185 Phe Ala Ala Leu Ala Ala Gly Gln Leu Met Pro Thr Glu Ala Thr Gly 195 200 205 Trp Leu Ala Glu Asn Pro Glu Ala Leu Cys Asn Leu Ala Gly Ala Leu 215 220 Trp Asn Gln His Pro Gly Met Pro Leu Ile Arg Gly Leu Met Lys Gln 225 230 235 Ala Ala Glu Lys Val Glu Ser Pro Ser Leu Gly Ile Ser Gly Ala Asn 245 250 Glu Lys Val Asp Thr Leu Ala Glu Pro Ala Leu Ser Val Ser Arg Thr 260 265 270 Ser Ser Asp Arg Glu Thr Glu Leu Gln Pro Ser Ser Glu Ala Lys Leu 275 280 285 Lys Thr Ala Leu Pro Glu Ile Ala Asp Leu Gln Gly Thr Leu Leu Ala 290 295 300 Ser Ser Ile Ala Pro Val Pro Met Ala Asp Asp Gly Asn Leu Val Ser 310 315 Asn Glu Lys Ala Gly Glu Ile Thr Glu Cys Asp Pro Asn Glu Thr Glu 325 330 Met Ala Asp Thr Glu Met Leu Leu Ser Leu Phe Ser Ala Ile Ser Val 345 340 350 Pro Asp Met Thr Gly Thr Glu Ala Cys Asp Glu Asp Ser Ser Val Asn

360

Ala Arg Ala Glu Asn Glu Pro Glu Phe Ser Pro Leu Asn Glu Ile Ser

Pro Glu Ala Asp Lys His Glu Ile Asn Gln Thr Ala Ala Glu Asn Ser

375

365

```
390
                                395
Phe Pro Glu Pro Asp Thr Glu Asp Asn Ile Pro Leu His Ser Val Asn
            405
                       410
                                   415
Ile Asp Met Gln Lys Thr Val Lys Lys Glu Gln Ala Gly Thr Glu Phe
         420
                       425
                                430
Leu Arg Trp Leu Ser Glu Gly Ile Lys Ser Lys Arg Ile Asp Ile Asn
           440
                            445
Gln Pro Asp Ser Arg Ala His Ala Val Ala Gly Phe Ile Phe Leu Arg
       455 460
Val Pro Asp Ile Phe Tyr Leu Tyr Ile Arg Glu Ser Gly Ser Glu Leu
465 470 475 480
Ser Arg Asp Ser Leu Gln Gln Glu Phe Glu Lys Leu His Ile His Arg
      485 490 495
Val Arg Arg Gly Glu Arg Phe Ile Lys Ala Lys Leu Tyr His Ser Pro
        500 505 510
Gly Lys Glu Gly Thr Phe Arg Pro Val Ser Gly Tyr Leu Val Lys Thr
    515 520 525
Thr His Leu Phe Arg Gly Ala Ser Ser Pro Glu Asp Ser Gly Leu Leu
 530
                  535
Ser Phe Leu
545
<210> 6535
<211> 468
<212> PRT
<213> Enterobacter cloacae
<400> 6535
Leu Gly His Leu Asn Pro Met Met Ile Asn Glu Ala Gln Ala Gln Ala
                           1.0
Thr Ala Ala Ser Gly Ser Gly Asp Gly Arg Tyr Pro Ser Gly Leu Cys
                                         30
Ala Gly Ala Glu Ile Ile Pro Ala Ala Asp Glu Gln Thr Lys Ala Glu
                    4.0
Pro Leu Thr Met Glu Ala Val Ile Thr Arg Glu Asn Leu Met Leu Ala
                5.5
                                 60
Tyr Gln Arg Val Val Glu Asn Lys Gly Ala Ala Gly Val Asp Asn Leu
                             75
               7.0
Ser Val Ala Glu Leu Lys Pro Trp Leu Lys Arg His Trp Pro Gly Ile
           85
                          90
Arg Gln Ala Leu Ile Asp Gly Asn Tyr Gln Pro Arg Ala Ile Arg Arg
         100 105
Met Asp Ile Pro Lys Pro Asp Gly Gly Val Arg Thr Leu Gly Ile Pro
      115
                      120
Thr Val Val Asp Arg Leu Ile Gln Gln Ala Ile Ala Gln Arg Leu Ser
  130 135
                                   140
Ala Ile Val Asp Lys Asp Phe Ser Asp Ser Ser Tyr Gly Phe Arg Pro
               150
                                155
Gly Arg Ser Ala Trp Gln Ala Val Gln Gln Ala Gln Arg Tyr Val Arg
            165
                            170
Ser Gly Lys Arg Trp Val Val Asp Met Asp Leu Glu Lys Phe Phe Asp
         180
                        185
                                        190
Arq Val Asp His Arg Leu Leu Leu Ala Arg Leu Ala Arg Lys Ile Arg
 195 200
                             205
Asp Arg Arg Leu Leu Arg Leu Ile Arg Arg Tyr Leu Lys Ala Glu Met
   210
                  215
                       220
Val Lys Gly Gly Glu Arg Glu Lys Arg Arg Glu Gly Met Pro Gln Gly
                               235
               230
Gly Pro Leu Ser Pro Leu Leu Ser Asn Ile Leu Leu Asp Glu Leu Asp
                250
            245
Lys Glu Leu Glu Arg Arg Gly His Ser Phe Cys Arg Tyr Ala Asp Asp
```

```
260
                          265
Cys Asn Ile Tyr Val Ser Ser Arg Lys Ala Gly Glu Gln Ile Leu Glu
                    280
Ala Val Arg Glu Phe Val Glu Ser Lys Leu Lys Leu Lys Val Asn Glu
                   295
                                    300
Gln Lys Ser Ala Val Ala Arg Pro Trp Glu Arg Lys Phe Leu Gly Tyr
                310
                        315
Ser Val Thr Trp His Lys Gln Thr Arg Leu Lys Ile Ala Ala Ala Ser
            325 330 335
Val Gly Arg Leu Lys Asp Lys Ile Arg Ser Leu Thr Thr Gly Asn Arg
         340
              345
Ser Arg Ser Val Lys Ala Thr Ile Asp Glu Leu Thr Pro Leu Leu Arg
             360 365
Gly Trp Ile Ser Tyr Phe Arg Leu Thr Glu Val Arg Gly Ile Leu Glu
       375 380
Glu Leu Asp Gly Trp Ile Asn Arg Lys Leu Arg Cys Gln Met Trp Arg
    390 395
Gln Trp Lys Arg Pro Arg Ser Arg Ala Arg Met Leu Gln Lys Ala Gly
        405 410 415
Leu Gly Arg Asp Arg Ala Met Leu Ser Ala Tyr Asn Gly His Gly Ala
    420 425 430
Trp Trp Asn Ser Gly Ala Ser His Met Asn Gln Ala Ile Lys Arg Ser
 435 440 445
Trp Phe Arg Gly Leu Gly Leu Ile Ser Leu Leu Glu His His Arg Gln
 450
                   455
Phe Gln Arg
465
<210> 6536
<211> 68
<212> PRT
<213> Enterobacter cloacae
<400> 6536
Thr Gln Thr Asn Arg Pro Ala Ala Glu Ile Leu Pro Glu Leu Gly Gln
                          10
Leu Ser Arg Arg Gln Ile Ala Ala Leu Val Glu Val Ala Pro Tyr Asp
20
                         25
Arg Asp Ser Gly Arg Met Lys Gly Arg Arg Val Ile Trp Gly Gly Lys
                     4.0
                                       4.5
Ser Trp Pro Ser Ile His Phe Val Tyr Gly Cys Ala Phe Cys Cys Thr
50
Val Gln Ser
65
<210> 6537
<211> 532
<212> PRT
<213> Enterobacter cloacae
<400> 6537
Thr Ala Asp Pro Arg Cys Cys Lys Thr Asp Val Cys Leu Trp Phe Asp
                             10
                                             15
Gly Glu Pro Lys Lys Arg Thr Asn Leu Asn His Trp Leu Asn Ile Gln
                       25
Ile Asn Leu Phe Tyr Leu Gly Glr. Met Ser Asp Met Val Ser Pro Met
    3.5
                 4.0
Arg Pro Thr Gly Gly Ala Met Ser Glu Phe Glu Leu Leu Ala Gln Asp
                  55
Leu Leu Gln Lys Ser Glu Glu Giu Glu Lys Leu Gln Gln Glu Lys Asp
```

Lys Glu Leu Ile Ala Lys Val Leu Glu Ile Tyr Asp Gln Lys Tyr Val Ala Glu Leu Leu Arg Lys Val Gly Asn Asn Asp Trp Ser Arg Glu Thr 100 105 110 Ile Asn Arg Trp Ile Asn Gly Lys Cys Gly Pro Lys Ser Leu Thr Ser 115 120 125 Ala Glu Glu Ile Leu Leu Arg Lys Met Leu Pro Glu Pro Pro Lys His 130 135 140 His Pro Asp Tyr Ala Phe Arg Phe Ile Asp Leu Phe Ala Gly Ile Gly 150 155 160 Gly Ile Arg Lys Gly Phe Glu Glu Ile Gly Arg His Cys Val Phe Thr 165 170 175 Ser Glu Trp Asn Lys Glu Ala Val Arg Thr Tyr Lys Ala Asn Trp Phe 180 185 190 Asn Asp Glu Leu Glu His Lys Phe Asn Leu Asp Ile Arg Glu Val Thr 195 200 205 Leu Ser Asp Arg Glu Asp Leu Ser Glu Thr Ala Ala Tyr Lys His Ile 210 215 220 Asp Lys Glu Ile Pro Asp His Asp Val Leu Leu Ala Gly Phe Pro Cys 225 230 235 240Gln Pro Phe Ser Leu Ala Gly Val Ser Lys Lys Asn Ser Leu Gly Arg 245 250 255Ala His Gly Phe Glu Cys Glu Ala Gln Gly Thr Leu Phe Phe Asp Val 260 265 270 Ala Arg Ile Ile Lys Ala Lys Lys Pro Ala Ile Phe Val Leu Glu Asn 275 280 285 Val Lys Asn Leu Lys Ser His Asp Lys Gly Lys Thr Phe Lys Val Ile 290 295 300 Met Glu Thr Leu Asp Glu Leu Gly Tyr Glu Val Ala Asp Ala Gly Val 305 310 315 Ser Gly Ser Asp Asp Pro Lys Ile Ile Asp Gly Lys Asn Phe Leu Pro  $325 \\ 89.0 \\ 330 \\ 89.0 \\ 335$ Gln His Arg Glu Arg Ile Val Leu Val Gly Phe Arg Arg Asp Leu Lys 340 345 350 Ile His Asp Gly Phe Thr Leu Arg Asn Ile His Lys Phe Tyr Pro Gln 355 360 365 Asn Arg Pro Thr Phe Gly Glu Leu Leu Asp Pro Ala Val Asp Ser Lys 370 375 380 Tyr Ile Leu Thr Pro Lys Leu Trp Glu Tyr Leu Tyr Asn Tyr Ala Lys 385 390 395 400 Lys His Ala Ala Lys Gly Asn Gly Phe Gly Phe Gly Leu Val Asp Pro  $405 \ \ \, 410 \ \ \, 415$ Thr Asn Val Asn Ser Val Ala Arg Thr Leu Ser Ala Arg Tyr His Lys 420 425 430 Asp Gly Ser Glu Ile Leu Ile Asp Arg Gly Trp Asp Lys Ala Lys Gly 440 445 Glu Leu Asp Phe Arg Asp Glu Glu Asn Gln Ser Arg Arg Pro Arg Arg 455 460 Leu Thr Pro His Glu Cys Ala Arg Leu Met Gly Phe Glu Lys Val Gly 465 470 475 Gly Lys Pro Phe Arg Ile Pro Val Ser Asp Thr Gln Ser Tyr Arg Gln 485 490 495 Phe Gly Asn Ser Val Val Val Pro Val Phe Glu Ala Val Ala Arg Leu 500 505 510 Leu Glu Pro Tyr Ile Gly Lys Ala Val Ala Val Arg Thr Asn Lys Ala 515 520 525 Lys Thr Lys 530

<210> 6538 <211> 102 <212> PRT <213> Enterobacter cloacae

<400> 6538 Lys Ala Val Gly Leu Ser Gly Val Gly Arg Ala Gly Leu Arg Ser Ile 1.0 Leu Phe Met Ala Val Leu Ser Val Val Arg Phe Asn Pro Lys Met Lys 20 25 His Tyr Tyr Gln Gly Leu Leu Glu Arg Gly Lys Val Lys Lys Val Ala 4.0 Leu Thr Ala Cys Ile Arg Lys Phe Ile Thr Ile Leu Asn Ala Met Val 5.5 60 Arg Asp Trp Lys Met Trp Ser Ala Glu Leu Gln Thr Pro Gly Val Ala 70 75 Lys Gln Met Phe Val Tyr Gly Ser Met Gly Ser Gln Lys Ser Glu Gln 8.5 90 Ile Ser Thr Thr Gly 100

<210> 6539 <211> 461 <212> PRT

<213> Enterobacter cloacae

<400> 6539 Ala Thr Ile Asp Thr His Met Lys Ala Lys Ala Ile Leu Leu Ala Ser 10 Val Leu Leu Val Gly Cys Gln Ser Gln Asn Gly Ser Asn Val Gln Gln 2.0 25 His Ala Gln Ser Leu Ser Ala Ala Gly Gln Gly Glu Ala Gly Lys Phe 35 40 Thr Ser Gln Ala Arg Trp Leu Asp Asp Gly Thr Ser Phe Ala Gln Glu 55 Gln Asp Leu Trp Ala Ser Ile Gly Asp Glu Leu Lys Met Gly Ile Pro 70 75 Glu Asn Ser Arg Ile Arg Glu Gln Lys Gln Lys Tyr Leu Arg Asn Lys Ser Tyr Leu His Asp Val Thr Leu Arg Ala Glu Pro Tyr Met Tyr Trp 100 105 Ile Ala Gly Gln Val Lys Lys Arg Asn Met Pro Met Glu Leu Val Leu 115 120 125 Leu Pro Ile Val Glu Ser Ala Phe Asp Pro His Ala Thr Ser Gly Ala 135 140 Asn Ala Ala Gly Ile Trp Gln Ile Ile Pro Ser Thr Gly Arg Asn Tyr 150 155 Gly Leu Lys Gln Thr Arg Asn Tyr Asp Ala Arg Arg Asp Val Val Ala 165 170 175 Ser Thr Thr Ala Ala Leu Asp Met Met Gln Arg Leu Asn Lys Met Phe 180 185 190 Asp Gly Asp Trp Leu Leu Thr Val Ala Ala Tyr Asn Ser Gly Glu Gly 195 200 205 Arg Val Leu Lys Ala Met Lys Ala Asn Lys Ala Arg Gly Lys Ser Thr 215 Asp Phe Trp Ser Leu Ser Leu Pro Gln Glu Thr Lys Ile Tyr Val Pro 230 235 240 Lys Met Leu Ala Leu Ser Asp Ile Leu Lys Asn Ser Lys Arg Tyr Gly 250 245 Val Gln Leu Pro Thr Pro Asp Glu Ser Arg Ala Leu Ala Arg Val Arg 260 265 270 Leu Ser Ser Pro Val Asp Ile Gln Gln Val Ala Asp Met Thr Gly Met 280

```
Ser Val Ser Lys Leu Lys Thr Phe Asn Ala Gly Val Lys Gly Ser Thr
 290
                    295
                                     300
Leu Gly Ala Ser Gly Pro Arg Tyr Val Met Val Pro Gln Lys His Ala
                 310
                                 315
Glu Gln Leu Arg Glu Ser Leu Ala Ser Gly Glu Ile Ala Ala Val Gln
             325
                              330
                                   335
Ser Thr Leu Ile Ala Asp Thr Ser Pro Val Ser Ser Arg Ser Tyr Lys
              345
          340
Val Arg Ser Gly Asp Thr Leu Ser Gly Ile Ala Ser Arg Leu Gly Val
      355
                       360 365
Asn Ala Lys Asp Leu Gln Gln Trp Asn Asn Leu Arg Gly Ser Gly Leu
 370
       375
                           380
Lys Val Gly Gln Thr Leu Asn Val Gly Ala Gly Ser Ser Ala Gln Arg
385
       390
                                 395
Leu Ala Lys Asn Ser Asp Ser Ile Thr Tyr Arg Val Arg Lys Gly Asp
        405 410
Ser Leu Ser Ser Ile Ala Lys Arg His Gly Val Asn Ile Lys Asp Val
        420 425 430
Met Arg Trp Asn Asn Asp Thr Asp Asn Leu Gln Pro Gly Asp Gln Leu
 435 440 445
Thr Leu Phe Val Lys Asn Ser Ala Thr Pro Asp Ser
          455
<210> 6540
<211> 102
<212> PRT
<213> Enterobacter cloacae
<400> 6540
Ser Leu Arg Leu Ala Leu Ala Arg Pro Gly Ile Leu Glu Gly Thr Ser
                            10
Ser Arg Leu Ala Thr Ile Ala Ile Thr Pro Asn Ser Asp Thr Ala Arg
                         25
                                           3.0
Lys Val Ser Arg Gln Pro Lys Cys Cys Pro Ile Asn Val Pro Asn Gly
35
                     40
                              45
Thr Pro Val Thr Ser Ala Thr Val Lys Pro Pro Asn Ile Ile Ala Met
                   55
Ala Asp Ala Ala Phe Ser Phe Gly Thr Arg Leu Val Ala Ile Val Glu
          70
                                 75
Pro Met Glu Lys Lys Thr Pro Cys Ala Arg Pro Val Ser Lys Arg Ala
Met Thr Ser Val Val
         100
<210> 6541
<211> 309
<212> PRT
<213> Enterobacter cloacae
<400> 6541
Asn Phe Ala Asp Asp Ala Ile Met Lys Ala Thr Ser Glu Glu Leu Thr
                              10
Ile Phe Val Ala Val Val Glu Ser Gly Ser Phe Ser Arg Ala Ala Glu
         2.0
                          25
Gln Leu Gly Gln Ala Asn Ser Ala Ile Ser Arg Ser Val Lys Lys Leu
                       40
Glu Met Lys Leu Gly Val Ser Leu Leu Asn Arg Thr Thr Arg Gln Leu
                   5.5
                                    60
Ser Leu Thr Glu Glu Gly Glu Arg Tyr Phe Arg Arg Val Gln Ser Val
                7.0
                                 75
Leu Gln Glu Met Ala Ala Ala Glu Thr Glu Ile Met Glu Ser Arg Ser
```

```
90
Thr Pro Arg Gly Leu Leu Arg Ile Asp Ala Ala Thr Pro Val Val Leu
       100
                105 110
His Phe Leu Met Pro Leu Ile Lys Pro Phe Arg Glu Arg Tyr Pro Glu
    115 120 125
Met Thr Leu Ser Leu Val Ser Ser Glu Thr Phe Ile Asn Leu Ile Glu
 130 135 140
Arg Lys Val Asp Val Ala Ile Arg Ala Gly Thr Leu Thr Asp Ser Ser
145 150 155
Leu Arg Ala Arg Pro Leu Phe Thr Ser Tyr Arg Lys Met Ile Ala Ser
       165 170
Pro Gln Tyr Ile Ala Glu His Gly Lys Pro Glu Thr Val Glu Glu Leu
       180 185
Lys Gln His Leu Cys Leu Gly Phe Thr Glu Pro Val Ser Leu Asn Thr
 195 200 205
Trp Pro Val Ala Cys His Asp Gly Gln Leu His Glu Ile Thr Cys Gly
 210 215
                                   220
Leu Ser Ser Asn Ser Gly Glu Thr Leu Lys Gln Leu Cys Leu Glu Gly
225 230 235
Asn Gly Ile Ala Cys Leu Ser Asp Tyr Met Ile Asp Lys Glu Ile Ala
            245
                            250
                                255
Ala Gly Gln Leu Val Glu Leu Met Ala Asp Lys Arg Leu Pro Val Glu
       260
                265
                             270
Met Pro Phe Ser Ala Val Tyr Tyr Ser Asp Arg Ala Val Ser Thr Arg
275
                      280
                                      285
Ile Arg Ala Phe Ile Asp Phe Leu Ser Glu His Ile Lys Thr Ala Pro
 290
                   295
                                   300
Gly Gly Ala Val
305
<210> 6542
<211> 64
<212> PRT
<213> Enterobacter cloacae
<400> 6542
Ile Leu Ile Ala Asp Pro Ala Ser Leu Val Val Lys Thr Leu Pro Val
                            10
Ile Leu Lys Asn Glu Arg Gln Ile Asn Leu Phe Leu Arg Thr Asp Asp
                         25
Val Asp Leu Ile Asn Lys Ile Asn Gln Glu Thr Asn Leu Leu Gln Pro
 3.5
                 40
                                   4.5
Glu Ala Arg Phe Ala Trp Leu Arg Ser Lys Lys Asp Asn Phe Arg
  50
<210> 6543
<211> 273
<212> PRT
<213> Enterobacter cloacae
<400> 6543
Arg Leu Arg Asn His Met Thr Ile Pro Ala Leu Gly Leu Gly Thr Phe
                            10
Arg Leu Lys Asp Asp Val Val Ile Ala Ser Val Lys Thr Ala Leu Glu
         20
                         2.5
Leu Gly Tyr Arg Ala Ile Asp Thr Ala Gin Ile Tyr Asp Asn Glu Ala
                     4.0
Ala Val Gly Gln Ala Ile Glu Glu Ser Gly Val Pro Arg Asp Glu Leu
                  5.5
                                  60
Phe Val Thr Thr Lys Ile Trp Ile Glu Asn Leu Ser Lys His Lys Leu
```

Ile Pro Ser Leu Lys Glu Ser Leu Lys Lys Leu Arg Thr Asp Tyr Val 90 Asp Leu Thr Leu Ile His Trp Pro Ser Pro Asp Asp Ala Val Ser Val 100 105 Glu Glu Phe Met Gln Ala Leu Leu Glu Ala Lys Glu Gln Gly Leu Thr 120 Arg Glu Ile Gly Ile Ser Asn Phe Thr Ile Pro Leu Met Glu Arg Ala 130 135 140 Ile Ala Ala Val Gly Lys Glu Asn Ile Ala Thr Asn Gln Ile Glu Leu 150 155 Ser Pro Tyr Leu Gln Asn Arg Lys Val Val Asp Trp Ala Lys Gln His 165 170 175 Ser Ile His Ile Thr Ser Tyr Met Thr Leu Ala Tyr Gly Lys Ala Leu 180 185 190 Lys Asp Glu Val Ile Ala Arg Ile Ala Glu Lys His Asn Ala Thr Ala 200 205 Ala Gln Val Ile Leu Ala Trp Ala Met Gly Glu Gly Tyr Ala Val Ile 215 220 210 Pro Ser Ser Thr Lys Arg Glu Asn Leu Ala Ser Asn Leu Leu Ala Arg 225 230 235 240 Asp Leu Gln Leu Asp Asp Glu Asp Lys Asn Ala Ile Ala Ala Leu Glu 245 250 255 Cys Asn Asp Arg Leu Val Ser Pro Glu Gly Leu Ala Pro Asp Trp Asp 260 265

<210> 6544 <211> 291 <212> PRT

<213> Enterobacter cloacae

<400> 6544 Pro Lys Ile Pro Ile Thr Leu Glu Pro Val Arg Phe Pro Gly Trp Phe 5 15 Met Leu Gln Arg Ser Phe Pro Lys Val Arg Lys Asn Thr Tyr Ala Met 20 25 Arg Tyr Val Ala Gly Met Pro Ala Glu Arg Ile Leu Pro Pro Gly Ser 35 40 45 Phe Ala Ser Leu Gly Gln Ala Leu Pro Ala Gly Thr Pro Leu Ser Ser 50 55 60 Asp Glu Lys Ile Arg Val Leu Val Trp Asn Ile Phe Lys Gln Gln Arg 70 75 Ala Glu Trp Leu Ser Val Leu Gln Asn Phe Gly Lys Asp Ala His Leu 85 90 Val Leu Leu Gln Glu Ala Gln Tor Thr Pro Glu Leu Val Arg Phe Ala 100 105 110 Thr Thr Asn Tyr Leu Ala Ala Asp Gln Val Pro Ala Phe Val Leu Pro 120 125 Gln His Pro Ser Gly Val Met Thr Leu Ser Ala Ala His Pro Val Tyr 135 140 Cys Cys Pro Leu Arg Glu Arg Glu Pro Ile Leu Arg Leu Ala Lys Ser 150 155 Ala Leu Val Thr Val Tyr Pro Leu Pro Asp Thr Arg Leu Leu Met Val 165 170 175 Val Asn Ile His Ala Val Asn Phe Ser Leu Gly Val Asp Val Tyr Ser 180 185 190 Lys Gln Leu Leu Pro Ile Gly Asp Gln Ile Ala His His Ser Gly Pro 195 200 205 Ile Ile Met Ala Gly Asp Phe Asn Ala Trp Ser Arg Pro Arg Met Asn 210 215 220

```
Ala Leu Tyr Arg Phe Ala Arg Glu Met Ser Leu Arg Glu Val Arg Phe
225
                                    235
Asn Asp Asp Gln Arg Lys Lys Ala Phe Gly Arg Pro Leu Asp Phe Val
                              250
              245
                                                   255
Phe Tyr Arg Gly Leu Ser Val His Asp Ala Ser Val Leu Val Thr Arg
        260 265 270
Ala Ser Asp His Asn Pro Leu Leu Val Glu Phe Ser Pro Gly Lys Pro
              280
       275
Asp Lys
   290
<210> 6545
<211> 397
<212> PRT
<213> Enterobacter cloacae
<400> 6545
Arg Asp Gly Val Phe Met Pro Leu Ala Leu Leu Ala Leu Thr Ile Ser
                                 10
Ala Phe Ala Ile Gly Thr Thr Glu Phe Val Ile Val Gly Leu Val Pro
       20
                             25
Thr Ile Ala Glu Gln Leu Ala Ile Ser Leu Pro Ser Ala Gly Leu Leu
                         4.0
Val Ser Ile Tyr Ala Leu Gly Val Ala Val Gly Ala Pro Val Leu Thr
                    55
Ala Leu Thr Gly Arg Phe Ala Arg Lys Lys Leu Leu Val Ala Leu Met
               70
                                     75
Val Leu Phe Thr Ala Gly Asn Ile Leu Ala Trp Gln Ala Pro Asp Tyr
                                 90
Thr Thr Leu Val Ile Ala Arg Leu Leu Thr Gly Leu Ala His Gly Val
        100
                             105
Phe Phe Ser Ile Gly Ser Thr Ile Ala Thr Ser Leu Val Pro Lys Glu
 115
                         120
Lys Ala Ala Ser Ala Ile Ala Ile Met Phe Gly Gly Leu Thr Val Ala
 130
                     135
                                         140
Leu Val Thr Gly Val Pro Leu Gly Thr Pne Ile Gly Gln His Phe Gly
                  150
                                     155
                                                       160
Trp Arg Glu Thr Phe Leu Ala Val Ser Leu Leu Gly Val Ile Ala Met
              165
                                 170
                                                    175
Val Ala Ser Leu Leu Val Pro Ser Ser Ile Pro Gly Arg Ala Ser
         180
                             185
                                                190
Ala Ser Leu Ser Asp Gln Val Lys Val Leu Thr His Pro Arg Leu Leu
       195
                         200
Leu Ile Tyr Ala Val Thr Ala Leu Gly Tyr Gly Gly Val Phe Thr Ala
   210
                      215
Phe Thr Phe Leu Ala Pro Met Met Gln Glu Leu Ala Gly Phe Ser Pro
225
                  230
                                     235
Gly Ala Val Ser Trp Ile Leu Leu Gly Tyr Gly Ile Ser Val Ala Ile
              245
                                 250
Gly Asn Ile Trp Gly Gly Lys Leu Ala Asp Lys His Gly Ala Val Pro
           260
                            265
                                                270
Ala Leu Lys Phe Ile Phe Ala Ala Leu Val Val Leu Leu Met Ile Phe
       275
                          280
                                            285
Gln Phe Thr Ala Ser Ile Gln Tyr Ala Ala Leu Val Thr Val Leu Val
   290
                      295
Met Gly Ile Phe Ala Phe Gly Asn Val Pro Gly Leu Gln Val Tyr Val
305
                  310
                                    315
Val Gln Lys Ala Glu Arg Tyr Thr Pro Asn Ala Val Asp Val Ala Ser
              325
                                 330
Gly Leu Asn Ile Ala Ala Phe Asn Ile Gly Ile Ala Leu Gly Ser Val
```

```
Ile Gly Gly Gln Thr Val Glu His Val Gly Leu Thr Gln Thr Pro Trp
   355
              360
Ile Gly Ala Val Ile Val Leu Val Ala Phe Leu Leu Ile Gly Leu Ser
                    375
Gly Arg Leu Asp Lys Pro Ala Arg Val Ala Leu Gly
               390
<210> 6546
<211> 262
<212> PRT
<213> Enterobacter cloacae
<400> 6546
Lys Asp Ser Asn Met Thr Thr His Ser His His Asp Asn Val Asp
                           1.0
Lys Gln Phe Gly Ser Gln Ala Ser Ala Tyr Leu Ser Ser Ala Val His
        20
                         25
Ala Ser Gly Arg Asp Leu Val Arg Leu Gly Glu Arg Leu Ala Ala Phe
 35
                 40
                                       45
Pro Asp Ala His Val Leu Asp Leu Gly Cys Gly Ala Gly His Ala Ser
                 55
Phe Thr Ala Ala Glu Gln Val Ala Gln Val Thr Ala Tyr Asp Leu Ser
          70
                          75
Ser Gln Met Leu Asp Val Val Ala Glu Ala Ala Lys Ala Lys Gly Leu
          85 90
Asn Asn Val Thr Thr Arg Gln Gly Tyr Ala Glu Ser Leu Pro Phe Glu
      100
                         105
Asp Ala Ser Phe Glu Val Val Ile Ser Arg Tyr Ser Ala His His Trp
115
                      120
                                       125
His Asp Val Gly Gln Ala Leu Arg Glu Val Lys Arg Val Leu Lys Pro
130 135
                                  140
Gly Gly Ile Phe Ile Ile Met Asp Val Met Ser Pro Gly His Pro Val
145 150 155
                                                 160
Arg Asn Ile Trp Leu Gln Thr Val Glu Ala Leu Arg Asp Thr Ser His
            165
                             170
Val Gln Asn Tyr Ser Ser Gly Glu Trp Leu Thr Phe Ile Thr Glu Ala
         180 185 190
Gly Leu Ile Ser Arg Ser Leu Ile Thr Asp Arg Leu Pro Leu Glu Phe
    195 200 205
Ala Ser Trp Ile Ala Arg Met Arg Thr Pro Glu Ala Leu Thr Gln Ala
                   215 220
Ile Arg Leu Tyr Gln Glu Ser Ala Ser Ala Asp Val Lys Ala Tyr Phe
             230 235
Glu Leu His Asp Asp Gly Ser Phe Thr Ser Asp Thr Ile Met Ala Glu
             245
                             250
Ala Gln Lys Ala Gly
          260
<210> 6547
<211> 337
<212> PRT
<213> Enterobacter cloacae
<400> 6547
Pro Gly Cys Arg Leu Ser Lys Glu Ser Met Met Ser Ser Val Thr Thr
                              10
Ser Gly Ala Pro Lys Ser Ala Phe Ser Phe Gly Arg Ile Trp Asp Gln
                          25
Tyr Gly Met Leu Val Val Phe Ala Ala Leu Phe Val Ala Cys Ala Ile
                      40
Phe Val Pro Asn Phe Ala Thr Phe Ile Asn Met Lys Gly Leu Gly Leu
```

Ala Ile Ser Met Ser Gly Met Val Ala Cys Gly Met Leu Phe Cys Leu 70 75 Ala Ser Gly Asp Phe Asp Leu Ser Val Ala Ser Val Ile Ala Cys Ala 85 90 Gly Val Thr Thr Ala Val Val Ile Asn Met Thr Glu Ser Leu Trp Ile 100 105 Gly Val Leu Ala Gly Leu Leu Leu Gly Val Leu Ser Gly Leu Val Asn 120 125 Gly Phe Val Ile Ala Arg Leu Lys Ile Asn Ala Leu Ile Thr Thr Leu 130 135 140 Ala Thr Met Gln Ile Val Arg Gly Leu Ala Tyr Ile Ile Ser Asp Gly 145 150 155 Lys Ala Val Gly Ile Glu Asp Glu Arg Phe Phe Thr Leu Gly Tyr Ala 165 170 175 Asn Trp Leu Gly Leu Pro Ala Pro Ile Trp Leu Thr Val Gly Cys Leu 180 185 190 Ile Leu Phe Gly Phe Leu Leu Asn Arg Thr Thr Phe Gly Arg Asn Thr 195 200 205 Leu Ala Ile Gly Gly Asn Glu Glu Ala Ala Arg Leu Ala Gly Val Pro 210 215 220 Val Val Arg Thr Lys Ile Ile Ile Pne Val Leu Ser Gly Leu Val Ser 225 230 235 Met Thr Ser Ile Gly Tyr Glu Leu Ile Val Ile Ser Ala Cys Val Leu 260 265 270 Gly Gly Val Ser Leu Lys Gly Gly Ile Gly Lys Ile Ser Tyr Val Val 275 280 285 Ala Gly Ile Leu Ile Leu Gly Thr Val Glu Asn Ala Met Asn Leu Leu 290 295 300 Asn Ile Ser Pro Phe Ser Gln Tyr Val Val Arg Gly Leu Ile Leu Leu 305 \$310\$ \$310 \$315Ala Ala Val Ile Phe Asp Arg Tyr Lys Gln Lys Ala Lys Arg Thr Val

<210> 6548 <211> 305 <212> PRT <213> Enterobacter cloacae

<220> <221>UNSURE <222>(305)

<400> 6548

Pro Ala Gln Leu Leu Thr Ile Val Asp Pro Leu Thr Gly Pro Pro Val Leu Leu Thr Gly Arg Leu Leu Asn Gly Glu His Arg His Thr Val Tyr 20 25 Thr Tyr Met Ala Val Leu Phe Thr Val Arg Arg Ile Arg Val Ala Asp 40 35 4.5 Leu Leu Thr Ala Pro Pro Val Leu Pro Gly Lys Phe Ala Phe Phe Phe 5.5 60 Asp Leu Asp Gly Thr Leu Ala Gly Ile Glu Pro His Pro Asp Asp Val 70 75 Val Val Pro Asp Thr Val Leu Glu Asn Leu Gln Gln Leu Ser Arg Gln 85 90 Asn Glu Gly Ala Leu Ala Leu Ile Ser Gly Arg Ser Met Ala Glu Leu

```
105
Asp Val Leu Ala Ser Pro Tyr His Phe Pro Leu Ala Gly Val His Gly
     115
                      120
Ala Glu Arg Arg Asp Ile His Asp Gln Leu His Ile Val Ser Leu Pro
                  135
                            140
Asp Thr Leu Ile Gln Thr Leu His Ala Gln Leu Ser Ser Ala Leu Glu
                    155 160
       150
Met Leu Pro Gly Thr Glu Leu Glu Ala Lys Gly Met Ala Phe Ala Leu
            165 170 175
His Tyr Arg Gln Ala Pro His His Glu Ala Ala Ile Phe Ser Ile Ala
        180
             185 190
Arg Ser Val Ala Glu Ala His Pro Glu Leu Ala Leu Gln Pro Gly Lys
      195
          200
                          205
Cys Val Val Glu Ile Lys Pro Ala Gly Ile Asn Lys Gly Ala Ala Ile
 210 215 220
Ala Ala Phe Met Ala Glu Ala Pro Phe Lys Gly Arg Thr Pro Val Phe
225 230 235 240
Phe Gly Asp Asp Leu Thr Asp Glu Ala Gly Phe Arg Val Val Asn Gln
         245 250
Ala Gln Gly Met Ser Val Lys Val Gly Ser Gly Glu Thr Ile Ala Gly
        260 265 270
Trp Arg Leu Glu Asn Val Ala Ser Val Trp Gln Trp Ile Ser Asp Val
275 280 285
Ala Asn Gln Gln Leu Phe Thr Thr Asp Cys Arg Pro Ala His Met
290 295
Xaa
305
<210> 6549
<211> 140
<212> PRT
<213> Enterobacter cloacae
<400> 6549
Lys Ala Cys Gly Gln Thr Thr Ala Gln Arg Leu Lys Thr Ser His Arg
                            1.0
Val Arg Cys Ser Asp Lys Lys Thr Cys Phe Gly Arg Phe Phe Tyr Val
                         25
Cys Gly Arg Arg Glu Gly Asp Gly Arg Ala Ser Val Leu Leu Trp
                     40
Arg Pro Leu Asn Lys Glu Asn Pro Met Ser Gln Asn Leu Ser Ala Asp
                5.5
Gln Glu Leu Val Ser Asp Val Val Ala Cys Gln Leu Val Ile Lys Gln
               70
                               75
Ile Leu Asp Val Ile Asp Val Ile Ala Pro Val Glu Val Arg Glu Lys
            85
                            90
Met Ser Thr Gln Leu Lys Asn Ile Asp Phe Thr Asn His Pro Ala Ala
         100
                         105
                                        110
Ala Asp Pro Val Thr Leu Arg Ala Ile Gln Lys Ala Ile Ala Leu Ile
 115 120
Glu Leu Arg Phe Thr Pro Gln Gly Glu Ser His
  130
                 135
<210> 6550
<211> 203
<212> PRT
<213> Enterobacter cloacae
<400> 6550
Arg Glu Lys Met Lys Arg Cys Phe Thr Leu Phe His Ser Leu Arg Phe
```

```
Met Met Ala Asn Val Ala Val Leu Leu Ala Pro Gly Phe Glu Glu Ala
         20
Glu Ala Ile Ile Thr Ile Asp Ile Leu Arg Arg Leu Gln Ile Glu Val
                     40
                                     4.5
Glu Thr Leu Ala Cys Ala Glu Ser Arg Ala Val Val Ser Tyr His Asn
                  5.5
                                  60
Ile Pro Met Val Ala Asp Ser Thr Leu Thr Glu Arg Ile Asn Arg Leu
               70
                              7.5
Tyr Asp Ala Val Val Leu Pro Gly Gly Pro Gln Gly Ser Val Asn Leu
          85 90
Ala Ala Asn Gln Glu Val Ile Arg Phe Val Ser Ala His Asp Glu His
      100
                        105 110
Gly Lys Leu Ile Cys Pro Ile Cys Ser Ala Ala Arg Val Leu Gly
    115 120 125
Gly Asn Gly Leu Leu Lys Gly Arg Arg Tyr Val Cys Ser Gly Asp Leu
 130 135
                       140
Trp Gln Ser Val Asp Asp Gly Val Tyr Val Asp Ala Pro Val Val Glu
145 150 155 160
Asp Asn Asn Leu Ile Ser Gly Lys Gly Leu Gly His Ala Phe Asp Phe
   165 170
Ala Leu Thr Leu Ser Ala Arg Leu Leu Gly Val Asp Ser Pro Val Arg
180 185
Asp His Ala Glu His Ile Tyr Tyr Arg Trp
                     200
```

<210> 6551 <211> 518 <212> PRT

<213> Enterobacter cloacae

<400> 6551 Gly Ala Arg Arg Thr His Tyr Arg Asn His Gly Val Val Met Gln Gln 1.0 Ser Asp Pro Tyr Leu Ser Phe Arg Gly Ile Gly Lys Thr Phe Pro Gly 20 25 Val Asn Ala Leu Thr Asp Ile Ser Phe Asp Cys Tyr Ala Gly Gln Val 40 His Ala Leu Met Gly Glu Asn Gly Ala Gly Lys Ser Thr Leu Leu Lys 50 55 Ile Leu Ser Gly Asn Tyr Thr Pro Thr Thr Gly Thr Leu Ala Ile Arg 75 70 Gly Glu Glu Val Ala Phe Ala Asp Thr Thr Ala Ala Leu Asn Ala Gly 85 90 Val Ala Ile Ile Tyr Gln Glu Leu His Leu Ile Pro Glu Met Thr Val 100 105 Ala Glu Asn Ile Tyr Leu Gly Gln Leu Pro His Lys Ser Gly Val Val 115 120 Asn Arg Ser Leu Leu Asn Tyr Glu Ala Gly Leu Gln Leu Lys His Leu 130 135 140 Gly Leu Asp Val Asp Pro Gln Thr Pro Leu Lys Tyr Leu Ser Ile Gly 155 145 150 Gln Trp Gln Met Val Glu Ile Ala Lys Ala Leu Ala Arg Asn Ala Lys 165 170 Ile Ile Ala Phe Asp Glu Pro Thr Ser Ser Leu Ser Ala Arg Glu Ile 180 185 Glu Asn Leu Phe Arg Val Ile Arg Glu Leu Arg Lys Glu Gly Arg Ile 195 200 Ile Leu Tyr Val Ser His Arg Met Glu Glu Ile Phe Ala Leu Ser Asp 215 220 Ala Ile Thr Val Phe Lys Asp Gly Arg Tyr Val Arg Thr Phe Thr Asp 230

```
Met Gln Gln Val Asn His Asp Gln Leu Val Gln Ala Met Val Gly Arg
           245
               250
                                       255
Asp Leu Gly Asp Ile Tyr His Trp Lys Pro Arg Glu Tyr Gly Pro Glu
        260
                       265 270
Arg Leu Arg Leu Asp Asn Val Lys Ala Pro Gly Val Arg Thr Pro Ile
  275
         280 285
Ser Leu Ser Val Arg Ser Gly Glu Ile Val Gly Leu Phe Gly Leu Val
  290
      295
                                300
Gly Ala Gly Arg Ser Glu Leu Met Lys Gly Leu Phe Gly Gly Thr Arg
   310 315
Ile Thr Gln Gly Gln Val Phe Val Asp Gly Lys Lys Val Asp Ile Gln
           325 330
Lys Pro Ala Gln Ala Ile Asn Ala Gly Ile Met Leu Cys Pro Glu Asp
        340 345
Arg Lys Ala Glu Gly Ile Ile Pro Val His Ser Val Arg Asp Asn Ile
     355
                   360
                                   365
Asn Ile Ser Ala Arg Arg Lys Phe Ile Arg Ala Gly Cys Leu Ile Asn
                 375
                                380
Asp Gly Trp Glu Ala Ser Asm Ala Asp His His Ile Arg Ser Leu Asm
              390
                             395
Ile Lys Thr Pro Gly Ala Glu Gln Leu Ile Met Asn Leu Ser Gly Gly
           405 410 415
Asn Gln Gln Lys Ala Ile Leu Gly Arg Trp Leu Ser Glu Asp Met Lys
        420 425
                                      430
Val Ile Leu Leu Asp Glu Pro Thr Arg Gly Ile Asp Val Gly Ala Lys
435
                    440
                                   445
His Glu Ile Tyr Asn Val Ile Tyr Glu Leu Ala Lys Arg Gly Val Ala
                 455
 450
                                460
Val Leu Phe Ala Ser Ser Asp Leu Pro Glu Val Leu Gly Val Ala Asp
465 470
                             475
Arg Ile Val Val Met Arg Glu Gly Glu Ile Ala Gly Glu Leu Leu His
         485
                490 495
Glu Gln Ala Asn Glu Gln Gln Ala Leu Ser Leu Ala Met Pro Lys Val
        500
                      505
```

Ser Gln Ala Val Ala 515

<210> 6552 <211> 347 <212> PRT

<213> Enterobacter cloacae

<400> 6552

Val Val Arg His Tyr Ser Leu Gln Ile Arg Met Leu Lys Leu Glu Phe 10 Thr Met His Lys Phe Thr Lys Ala Leu Ala Ala Ile Gly Leu Ala Ala 20 25 Val Met Ser Gln Ser Ala Ile Ala Glu Asn Leu Lys Leu Gly Phe Leu 35 4.0 Val Lys Gln Pro Glu Glu Pro Trp Phe Gln Thr Glu Trp Lys Phe Ala 55 Asp Lys Ala Gly Lys Asp Leu Gly Phe Glu Val Ile Lys Ile Ala Val 70 65 Pro Asp Gly Glu Lys Thr Leu Asn Ala Ile Asp Ser Leu Ala Ala Ser 85 90 Gly Ala Lys Gly Phe Val Ile Cys Thr Pro Asp Pro Lys Leu Gly Ser

Gly Ala Lys Gly Phe Val Ile Cys Thr Pro Asp Pro Lys Leu Gly Ser 100 105 Ala Ile Ala Ala Lys Ala Arg Gly Tyr Asp Met Lys Val Ile Ala Val

115 120 125 Asp Asp Gln Phe Val Asn Ala Lys Gly Lys Pro Met Asp Thr Val Pro 130 135 140

```
Leu Val Met Met Ala Ala Thr Lys Ile Gly Glu Arg Gln Gly Gln Glu
145
                     155
Leu Tyr Lys Glu Met Gln Lys Arg Gly Trp Asp Val Lys Glu Thr Ala
        165 170 175
Val Met Ala Ile Thr Ala Asp Glu Leu Asp Thr Ala Arg Arg Thr
      180
            185 190
Thr Gly Ser Met Asp Ala Leu Lys Ala Ala Gly Phe Pro Glu Lys Gln
   195 200 205
Ile Tyr Lys Val Pro Thr Lys Ser Asn Asp Ile Pro Gly Ala Phe Asp 210 215
Ala Ala Asn Ser Met Leu Val Gln His Pro Glu Val Lys His Trp Leu
225 230 235 240
Val Val Gly Met Asn Asp Asn Thr Val Leu Gly Gly Val Arg Ala Thr
      245 250 255
Glu Gly Gln Gly Phe Lys Ala Pro Asp Val Ile Gly Ile Gly Ile Asn 260 \hspace{1.5cm} 265 \hspace{1.5cm} 270 \hspace{1.5cm}
Gly Val Asp Ala Val Ser Glu Leu Ser Lys Ala Gln Ala Thr Gly Phe
 275 280 285
Tyr Gly Ser Leu Leu Pro Ser Pro Asp Val His Gly Tyr Lys Ser Ser
290 295 300
Glu Met Leu Tyr Asn Trp Val Thr Lys Gly Ala Glu Pro Pro Lys Phe 305 310 315
Thr Glu Val Thr His Val Val Leu Ile Thr Arg Asp Asn Phe Lys Glu
325 330 335
Glu Leu Ala Lys Lys Gly Leu Gly Gly Lys
        340
<210> 6553
<211> 180
<212> PRT
<213> Enterobacter cloacae
<400> 6553
Arg Thr Ser Ser Pro Thr Val Asn Lys Asp Met Arg Met Thr Thr His
1 5 10
Thr Met Met Gln Lys Leu Asn Ala Gln Met Asn Leu Glu Phe Tyr Ala
Ser Asn Leu His Leu His Leu Ser Ala Trp Cys Ser Arg Lys Ser Leu
35 40 45
Asn Gly Thr Ala Thr Phe Phe Arg Thr Gln Ala Gln Ser Asn Val Thr
50 55 60
His Met Met Arg Val Phe Asn Phe Leu Lys Ala Val Gly Ala Asn Pro
65 70 75
Thr Val Lys Glu Leu Glu Thr Ile Glu Asp Asn Tyr Thr Ser Leu Glu
                         90
           85
Glu Leu Phe Gln Lys Thr Leu Glu Glu Tyr Glu Gln Arg Cys Ala Lys
   100 105 110
Leu Ser Lys Leu Ala Asp Glu Ala Lys Ala Gln Gln Asp Ile Ile Thr
                         125
115 120
Leu Thr Phe Leu Arg Asp Met Asp Arg Glu Gln Gln Asp Gly Met
                        140
130 135
Leu Leu Lys Thr Leu Ala Asp Glu Ile Arg Asn Ala Lys Arg Ala Gly
145 150 155 160
Ile Cys Leu Glu Gln Thr Asp Arg His Leu Leu Asp Ile Ala Thr Val
           165
               170
Gln His His
```

<210> 6554 <211> 452 <212> PRT

## <213> Enterobacter cloacae

<400> 6554 Arg Gly Ser Ile Met Ile Thr Ile Glu Phe Ile Val Ile Ile Leu Cys Leu Leu Ile Gly Thr Arg Phe Gly Gly Met Gly Leu Gly Leu Ile Ser 20 25 Gly Ile Gly Leu Phe Ile Leu Ser Phe Val Phe Gly Leu Gln Pro Gly 35 4.5 4.0 Lys Pro Pro Val Asp Val Met Leu Thr Ile Leu Ala Val Ile Gly Cys 55 60 Ala Ala Thr Leu Gln Thr Ala Gly Gly Leu Asn Val Met Met Gln Phe 70 75 Ala Glu Arg Leu Leu Arg Lys His Pro Gln His Ile Thr Leu Leu Ala 8.5 90 Pro Phe Thr Trp Met Leu Thr Phe Leu Cys Gly Thr Gly His Val 100 105 110 Val Tyr Thr Met Phe Pro Ile Ile Ala Asp Ile Ala Leu Lys Lys Gly 115 120 125 Ile Arg Pro Glu Arg Pro Met Ala Val Ala Ser Val Ala Ser Gln Met 130 135 140 Ala Ile Thr Ala Ser Pro Val Ser Val Ala Val Val Ser Leu Val Ser 145 150 155 Ile Leu Gly Ala Gln His Gly Ile Gly His Ala Trp Gly Ile Leu Glu 165 170 Ile Leu Ala Val Ser Val Pro Ala Ser Leu Ser Gly Val Ala Ile Ala 180 185 190 Ala Leu Trp Ser Leu Arg Arg Gly Lys Asn Leu Ala Asp Asp Thr Glu 195 200 205 Phe Gln Glu Lys Leu Lys Asp Pro Lys Gln Arg Glu Phe Ile Tyr Gly 220 215 Gly Thr Glu Tar Leu Met Asp Gla Arg Phe Pro Lys Gla Ala Tyr Trp 225 230 235 240 Ser Thr Trp Ile Phe Phe Ala Gly Ile Ala Val Val Leu Leu Gly 245 250 Ala Leu Pro Glu Leu Arg Pro Ala Phe Glu Ile Lys Gly Lys Met Thr 260 265 Ala Leu Ser Met Asn Leu Val Ile Gln Met Met Met Leu Ile Ala Gly 275 280 285 Ala Ile Met Leu Met Thr Cys Lys Val Asn Ala Ser Ala Ile Ser Asn 290 295 300 Gly Ala Val Phe Lys Ala Gly Met Val Ala Ile Phe Ser Val Phe Gly 310 315 Val Ala Trp Met Ser Asp Thr Phe Phe Gln Ala His Leu Asp Glu Leu 325 330 Lys Met Ala Leu Glu Gly Val Val Lys Ser His Pro Trp Thr Tyr Ala 340 345 350 Ile Val Leu Phe Leu Val Ser Lys Leu Val Asn Ser Gln Ala Ala Ala 355 360 365 Leu Thr Ala Val Ala Pro Met Gly Leu Met Leu Gly Ile Asp Pro Lys 375 380 Met Leu Val Ala Phe Phe Pro Ala Ser Tyr Gly Tyr Phe Val Leu Pro 390 395 Thr Tyr Pro Ser Asp Leu Ala Cys Ile Gly Phe Asp Arg Ser Gly Thr 405 410 Thr Arg Ile Gly Lys Phe Ile Ile Asn His Ser Phe Ile Leu Pro Gly 420 425 Leu Ile Gly Val Ser Cys Ala Cys Val Val Ser Tyr Leu Leu Val Gln 435 440 445 Thr Phe Phe 450

```
<210> 6555
<211> 422
<212> PRT
<213> Enterobacter cloacae
<400> 6555
Ala Gly Arg Lys Arg Met Ser Glu Asn Val Ser Gly Lys Glu Ser Arg
                        10
Gly Leu Ser Pro Ala Ala Leu Leu Val Ala Gly Ala Phe Phe Met Glu
   20
                  25
                               30
Phe Leu Asp Gly Thr Val Ile Ala Thr Ala Leu Pro Asp Met Ala Lys
 35
                  40 45
Ser Phe Gly Val Gln Ala Val Asp Leu Asn Ile Gly Ile Ser Ala Tyr
              55 60
Leu Ile Thr Leu Ala Val Leu Ile Pro Ala Ser Gly Trp Ile Ala Asp
65 70 75
Arg Phe Gly Ala Arg Lys Val Phe Ala Leu Ala Leu Ala Ile Phe Thr
        85
                90
Leu Ala Ser Val Phe Cys Gly Leu Ser Thr Thr Leu Asp Gln Phe Val
 100 105 110
Ala Met Arg Val Leu Gln Gly Met Gly Gly Ala Leu Met Val Pro Val
115 120 125
Gly Arg Leu Ala Val Leu Arg Thr Thr Pro Lys His Gln Leu Ile Thr
130 135 140
Ala Ile Ala Thr Leu Thr Trp Pro Ala Leu Val Ala Pro Ile Ile Gly
145 150 155 160
Pro Pro Leu Gly Gly Phe Ile Thr Ser Tyr Ala Asp Trp Arg Trp Ile
          165 170 175
Phe Phe Ile Asn Val Pro Leu Gly Ile Ile Ala Ile Leu Leu Ala Leu
      180 185
Arg Ile Ile Pro Asp Leu His Glu Asp Thr Arg Arg Pro Phe Asp Leu
195 200 205
Pro Gly Phe Val Val Thr Thr Leu Ala Met Val Ser Leu Val Tyr Ala
210 215 220
Met Glu Leu Met Gly Ala Glu Pro Leu Arg Thr Gly Leu Thr Ala Thr 225 230 235 240
Leu Phe Ile Val Gly Ile Val Ala Leu Ser Leu Ala Leu Arg His Phe
           245 250
Lys Arg Thr Trp Pro Met Ile Arg Leu Asp Ala Met Gln Val Pro
     260 265 270
Thr Phe Arg Val Thr Leu Tyr Gly Gly Ser Leu Phe Arg Ala Ser Ile
 275 280
                                   285
Ser Ala Val Pro Phe Leu Leu Pro Leu Met Phe Gln Val Gly Phe Gly
               295
                                300
Met Asp Ala Phe His Ser Gly Leu Leu Val Leu Ala Val Phe Val Gly
              310
                             315
Asn Leu Thr Ile Lys Pro Ala Thr Thr Pro Leu Ile Arg Ser Leu Gly
           325
                         330
Phe Lys Arg Leu Leu Leu Ile Asn Gly Ala Leu Asn Val Leu Ala Leu
                           350
        340
                       345
Leu Ala Cys Ala Phe Leu Thr Pro Gln Thr Pro Ala Trp Leu Val Met
     355
                   360 365
Leu Ile Leu Tyr Leu Gly Gly Val Phe Arg Ser Ile Gln Phe Thr Ala
 370
                375 380
Ile Ser Thr Leu Ala Phe Ala Asp Val Pro Ser Val Gln Met Cys Tyr
385 390 395
Ala Asn Ile Leu Phe Ser Thr Ala Thr Gln Arg Leu Asp His Gly Ala
         405 410
Gly Ala Ser Ala Cys Gly
```

```
<210> 6556
<211> 80
<212> PRT
<213> Enterobacter cloacae
<400> 6556
Leu Thr Leu Arg Cys Glu Ala Glu Phe Asn Gln Arg Asn Arg Phe Leu
                                10
Asp Arg Ala Glu Arg Asn Arg Val Arg Arg Ser Arg Met Val Gly Glu
                          25
        20
Ile Asp Val Phe Gln Leu Gly Arg His Leu Phe Ala Tyr Leu Asn Arg
      35
                         40
                                    4.5
Arg Asp Asn Val Asn His Ile Lys Asp Leu Phe Asp Asn Gln Leu Ala
  50 55 60
Gly Asp Asp Val Arg Tyr Gln Phe Leu Ile Gly Ala Gln Val Leu
                  70
<210> 6557
<211> 212
<212> PRT
<213> Enterobacter cloacae
<400> 6557
Ser Pro Ser Arg Gly Glu Lys Pro Leu Asp Ile Ser Ser Thr His Tyr
                                 1.0
Leu Asp Ile Asn His Ala Asp Ile Val Ala Arg Ile Asp Leu Thr Glu
         20
                             25
Trp Glu Thr Asn Pro Glu Ser Thr Arg Tyr Leu Thr Phe Leu Lys Gly
 3.5
                         4.0
Arg Val Gly Arg Lys Val Ala Asp Phe Phe Met Asp Phe Leu Gly Ala
                      55
Ser Glu Gly Leu Asn Ala Lys Ala Gln Asn Lys Gly Leu Leu Gln Ala
                                    7.5
                 7.0
                                                      80
Val Asp Asp Phe Thr Ala Glu Ala Gln Leu Asp Lys Ser Glu Arg Gln
              85
                                 90
Asn Val Arg Gln Gln Val Tyr Ser Tyr Cys Asn Glu Gln Leu Gln Ala
          100
                             105
Gly Glu Glu Ile Glu Leu Glu Ser Leu Ser Lys Glu Leu Ala Gly Val
       115
                          120
                                            125
Ser Glu Val Ser Phe Gln Glu Phe Thr Ala Glu Lys Gly Tyr Glu Leu
   130
                     135
                                        140
Glu Glu Ser Phe Pro Ala Asp Arg Ser Thr Leu Arg Gln Leu Thr Lys
                  150
                                     155
Phe Ala Gly Ser Gly Gly Leu Thr Ile Asn Phe Asp Ala Met Leu
              165
                                 170 175
Leu Gly Glu Arg Ile Phe Trp Asp Pro Ala Thr Asp Thr Leu Thr Ile
                        185
          180
                                              190
Lys Gly Thr Pro Pro Asn Leu Arg Asp Gln Leu Gln Arg Arg Thr Ser
       195
                         200
Gly Gly Lys
   210
<210> 6558
<211> 239
<212> PRT
<213> Enterobacter cloacae
<400> 6558
Lys Asp Phe Met Arg Leu Asp Lys Phe Ile Ala Gln Gln Leu Gly Val
```

Ser Arg Ala Ile Ala Gly Arg Glu Ile Arg Ala Ser Arg Val Thr Val 20 Asp Gly Asp Ile Val Lys Asp Ser Ala Phe Lys Leu Gln Pro Glu His 4.0 4.5 Gln Val Glu Tyr Asp Gly Asn Pro Leu Thr Gln Gln Asn Gly Pro Arg 55 60 Tyr Phe Met Leu Asn Lys Pro Glu Gly Tyr Val Cys Ser Thr Asp Asp 70 7.5 Pro Asp His Pro Thr Val Leu Tyr Phe Leu Asp Glu Pro Val Ala His 85 90 Lys Leu His Ala Ala Gly Arg Leu Asp Ile Asp Thr Thr Gly Leu Val 100 105 110 Leu Met Thr Asp Asp Gly Gln Trp Ser His Arg Ile Thr Ser Pro Arg 120 125 His His Cys Glu Lys Thr Tyr Arg Val Thr Leu Glu Ser Pro Val Ser 135 140 Asp Asp Thr Ala Glu Gln Phe Ala Lys Gly Val Gln Leu His Asn Glu 145 150 155 Lys Asp Leu Thr Lys Pro Ala Val Leu Glu Ile Ile Thr Pro Thr Asp 165 170 Val Arg Leu Thr Ile Ser Glu Gly Arg Tyr His Gln Val Lys Arg Met 180 185 190 Phe Ala Ala Val Gly Asn His Val Val Gly Leu His Arg Glu Arg Ile 200 205 Gly Ala Ile Glu Leu Asp Pro Asp Leu Ala Pro Gly Glu Tyr Arg Pro 210 215 220 Leu Thr Glu Glu Glu Ile Ala Ser Val Gly Leu Pro Ser Arg 230 235

<212> PRT <213> Enterobacter cloacae

<210> 6559

<211> 405

<400> 6559 Ile Gln Glu Asn Ser Val Thr Thr Arg Pro His Ser Ser Phe Lys Ile 10 Val Phe Ile Leu Gly Leu Leu Ala Met Leu Met Pro Leu Ser Ile Asp 20 25 30 Met Tyr Leu Pro Ala Leu Pro Val Ile Ser Ala Gln Phe Gly Val Pro 40 35 Ala Gly Ser Ala Gln Met Thr Leu Ser Thr Tyr Ile Leu Gly Phe Ala 5.5 Leu Gly Gln Leu Phe Tyr Gly Pro Met Ala Asp Ser Leu Gly Arg Lys 70 7.5 80 Pro Val Ile Leu Gly Gly Thr Leu Ile Phe Ala Ala Ala Ala Val Ala 85 90 Cys Ala Leu Ala Gln Ser Ile Asp Gln Leu Ile Val Met Arg Phe Phe 100 105 His Gly Leu Ala Ala Ala Ala Ser Val Val Ile Asn Ala Leu Met 115 120 125 Arg Asp Val Tyr Pro Lys Glu Glu Phe Ser Arg Met Met Ser Phe Val 135 130 140 Met Leu Val Thr Thr Ile Ala Pro Leu Val Ala Pro Met Val Glv Glv 150 155 Ala Val Leu Val Trp Phe Ser Trp His Ala Ile Phe Trp Ile Leu Ala 165 170 175 Ile Ala Ala Leu Leu Ala Ser Val Met Ile Phe Val Phe Ile Asp Glu 180 185 Thr Leu Pro Val Glu Arg Arg Gln Lys Phe His Val Arg Thr Thr Leu 200

```
Gly Asn Phe Ala Ser Leu Phe Arg His Lys Arg Val Leu Ser Tyr Met
          215
Leu Ala Ser Gly Phe Ser Phe Ala Gly Met Phe Ser Phe Leu Ser Ala
             230
225
                    235
                                    240
Gly Pro Phe Val Tyr Ile Glu Leu Asn His Val Ser Pro Gln His Phe
           245 250 255
Gly Tyr Tyr Phe Ala Leu Asn Ile Val Phe Leu Phe Val Met Thr Ile
        260 265 270
Ile Asn Ser Arg Phe Val Arg Arg Val Gly Ala Leu Asn Met Phe Arg
   275 280
Ala Gly Leu Trp Ile Gln Phe Val Met Ala Ile Trp Leu Val Leu Ser
 290 295 300
Ala Leu Leu Gly Val Gly Phe Trp Ala Leu Val Val Gly Val Ala Ala
305 310 315 320
Phe Val Gly Cys Val Ser Met Val Ser Ser Asn Ala Met Ala Val Ile
            325 330 335
Leu Asp Glu Phe Pro His Met Ala Gly Thr Ala Ser Ser Leu Ala Gly
 340
                         345 350
Thr Phe Arg Phe Gly Ile Gly Ala Ile Val Gly Ala Leu Leu Ser Thr
 355 360 365
Ala Thr Phe Asn Thr Ala Trp Pro Met Leu Trp Ala Ile Ala Leu Cys
370 375 380
Ala Thr Cys Ser Ile Leu Phe Tyr Leu Tyr Ala Ser Arg Pro Arg Lys
               390
Thr Ala His Lys
<210> 6560
<211> 124
<212> PRT
<213> Enterobacter cloacae
<400> 6560
Ser Lys Phe Ala Ser Gly Asp Leu Asn Val Asn Thr Leu Gln Leu Ser
                          10
Ile Val His Arg Leu Pro Gln Ser Tyr Arg Trp Ser Thr Gly Phe Ala
                         25
                                         30
Gly Ser Lys Val Glu Pro Ile Pro Gln Ser Val Ala Gly Glu Asp Asn
          4.0
                          45
Cys Leu Val Ala Leu Lys Leu Leu Ser Pro Ser Asp Glu Asn Ala Trp
                 55
                             60
Pro Val Met Glu Arg Leu Ser Gln Ala Leu Thr Asp Ile Glu Val Asp
              70
Ser Ser Val Leu Glu Cys Glu Gly Glu Pro Cys Leu Phe Val Asn Ser
                           90
Gln Asp Glu Phe Ala Ala Thr Cys Arg Leu Lys Asn Phe Gly Val Ala
       100
                      105
                                       110
Ile Ala Glu Pro Phe Ser Gly Gln Tyr Pro Phe
      115
<210> 6561
<211> 133
<212> PRT
<213> Enterobacter cloacae
<400> 6561
Lys Arg Met Glu Gln Val Ala Gln Arg Ala Ile Ala His Ser Ile Gly
                            10
Gln Ala Val Leu Asn Val Ala Val Glu Ser Ser Ala Pro Thr Ile Ala
       20
                        25
Pro Ile Pro Lys Arg Asn Val Pro Ala Ser Asp Glu Ala Val Pro Ala
```

Ile Cys Gly Asn Ser Ser Arg Ile Thr Ala Ile Ala Leu Asp Glu Thr 55 Ile Asp Thr Gln Pro Thr Asn Ala Ala Thr Pro Thr Thr Ser Ala Gln 7.0 75 Lys Pro Thr Pro Ser Asn Ala Leu Asn Thr Ser Gln Ile Ala Ile Thr 85 90 Asn Trp Ile His Ser Pro Ala Arg Asn Ile Phe Ser Ala Pro Thr Arg 100 105 110 Arg Thr Lys Arg Leu Leu Ile Met Val Ile Thr Asn Arg Asn Thr Ile 115 120 Phe Ser Ala Lys 130 <210> 6562 <211> 592 <212> PRT <213> Enterobacter cloacae <400> 6562 Leu Asn Arg Glu Ala Met Thr Phe Thr Leu Arg Pro Tyr Gln Glu Glu 10 Ala Val Asp Ala Thr Leu Ala Trp Phe Arg Lys His Arg Glu Pro Ala 25 Ala Ile Val Leu Pro Thr Gly Ala Gly Lys Ser Leu Val Ile Ala Glu 4.0 Leu Ala Arg Leu Ala Arg Gly Arg Val Leu Val Leu Ala His Val Lys 60 Glu Leu Val Ala Gln Asn His Ala Lys Tyr Cys Ala Leu Gly Leu Glu 70 7.5 Ala Asp Ile Phe Ala Ala Gly Leu Lys Arg Lys Glu Ser His Gly Lys 90 Val Val Phe Gly Ser Val Gln Ser Val Ala Arg Asn Leu Glu Leu Phe 100 105 110 Arg Ser Glu Phe Ser Leu Leu Ile Val Asp Glu Cys His Arg Ile Ser 120 125 Asp Asp Asp Ser Gln Tyr Gln Gln Ile Leu Thr His Leu Lys Lys 130 135 140 Val Asn Pro His Leu Arg Leu Leu Gly Leu Thr Ala Thr Pro Phe Arg 150 155 Leu Gly Lys Gly Trp Ile Tyr Gln Phe His Tyr His Gly Met Val Arg 165 170 Gly Asp Glu Lys Ala Leu Phe Arg Asp Cys Ile Tyr Glu Leu Pro Leu 180 185 1.90 Arg Tyr Met Ile Lys His Gly Tyr Leu Thr Pro Pro Glu Arg Leu Asp 200 Met Pro Val Val Gln Tyr Asp Phe Ser Arg Leu Gln Ala Gln Ser Asn 210 215 220 Gly Leu Phe Ser Glu Ala Asp Leu Asn His Glu Leu Lys Lys Gln Lys 230 235 Arg Ile Thr Pro His Ile Ile Ser Gln Ile Glu Glu Phe Ala Gln Thr 245 250 Arg Lys Gly Val Met Ile Phe Ala Ala Thr Val Glu His Ala Arg Glu 265 Ile Thr Gly Leu Leu Pro Ala Asp Asp Ala Ala Leu Ile Thr Gly Glu 280 Thr Pro Gly Pro Glu Arg Asp Ser Leu Ile Glu Asp Phe Lys Ala Gln 295 300 Arg Phe Arg Tyr Leu Val Asn Val Ser Val Leu Thr Thr Gly Phe Asp 310 315

Ala Pro His Val Asp Leu Ile Ala Ile Leu Arg Pro Thr Glu Ser Val

```
330
Ser Leu Tyr Gln Gln Ile Val Gly Arg Gly Leu Arg Leu Ala Pro Gly
        340
                    345
Lys Thr Asp Cys Leu Ile Leu Asp Tyr Ala Gly Asn Pro His Asp Leu
     355
               360
                                  365
Tyr Ser Pro Glu Val Gly Thr Pro Lys Gly Lys Ser Asp Asn Val Pro
      375 380
Val Gln Val Phe Cys Pro Ala Cys Gly Phe Ala Asn Thr Phe Trp Gly
385 390 395 400
Lys Thr Thr Ala Asp Gly Thr Leu Ile Glu His Phe Gly Arg Arg Cys
      405 410 415
Gln Gly Trp Phe Glu Asp Asp Glu Gly His Arg Glu Gln Cys Asp Phe
     420 425 430
Arg Phe Arg Phe Lys Asn Cys Pro Gln Cys Asn Ala Glu Asn Asp Ile
 435 440 445
Ala Ala Arg Arg Cys Arg Glu Cys Asp Thr Val Leu Val Asp Pro Asp
 450 455 460
Asp Met Leu Lys Ala Ala Leu Lys Leu Lys Asp Ala Leu Val Leu Arg 465 470 475 480
Cys Ser Gly Met Ala Leu Gln Pro Gly Ala Asp Glu Lys Gly Glu Trp
      485 490 495
Leu Lys Ile Thr Tyr Tyr Asp Glu Asp Gly Ala Asp Val Ser Glu Arg
 500 505 510
Phe Arg Val Gln Thr Ser Ala Gln Arg Thr Ala Phe Glu Gln Leu Phe
515 520 525
Ile Arg Pro His Thr Arg Thr Pro Gly Val Pro Leu Arg Trp Leu Thr
530 535 540
Val Ala Asp Ile Val Arg Gln Gln Ala Leu Leu Arg His Pro Asp Phe
545 550 555
Val Val Ala Arg Lys Lys Gly Gln Phe Trp Gln Val Arg Glu Lys Val
          565 570 575
Phe Asp Tyr Glu Gly Arg Phe Arg Arg Ala Asn Glu Leu Arg Gly
```

<210> 6563

<211> 345 <212> PRT

<213> Enterobacter cloacae

<400> 6563 Gly Pro Leu Met Ser Arg Leu Ser Pro Val Asn Gln Ala Arg Trp Ala 10 Arg Phe Arg His Asn Arg Arg Gly Tyr Trp Ser Leu Trp Ile Phe Ala 25 3.0 Val Leu Phe Ala Leu Ser Met Cys Ser Glu Leu Ile Ala Asn Asp Lys 40 4.5 Pro Leu Leu Val His Phe Lys Asp Arg Trp Tyr Val Pro Val Leu Thr 55 60 Thr Tyr Ser Glu Ser Asp Phe Gly Gly Pro Phe Ala Thr Pro Ala Glu 70 75 Tyr Gln Asp Pro Trp Leu Arg Glu Gln Ile Ala Gln His Gly Trp Ala 85 90 Ile Trp Ala Pro Ile Arg Phe Gly Ala Asn Ser Ile Asn Phe Ala Thr 105 110 100 Ser Thr Pro Phe Pro Ser Pro Pro Ser Ala Gln Asn Trp Leu Gly Thr 115 120 125 Asp Ala Asn Gly Gly Asp Val Leu Ala Arg Ile Leu Tyr Gly Thr Arg 130 135 140 Ile Ser Leu Leu Phe Gly Leu Met Leu Thr Leu Phe Ser Ser Val Met 145 150 Gly Val Val Ala Gly Ala Val Gln Gly Tyr Tyr Gly Gly Lys Ile Asp

```
165
                            170
Leu Trp Gly Gln Arg Val Ile Glu Val Trp Ser Gly Met Pro Thr Leu
       180
                    185
                             190
Phe Leu Ile Ile Leu Leu Ser Ser Val Val Gln Pro Gly Phe Trp Trp
   195 200 205
Leu Leu Gly Ile Thr Val Leu Phe Gly Trp Met Ala Leu Val Gly Val
 210 215 220
Val Arg Ala Glu Phe Leu Arg Thr Arg Asn Tyr Asp Tyr Ile Arg Ala
225 230 235
Ala Gln Ala Leu Gly Val Ser Asp Arg Ala Ile Ile Phe Arg His Met 245 \hspace{1cm} 250 \hspace{1cm} 255
Leu Pro Asn Ala Val Val Ala Thr Leu Thr Phe Leu Pro Phe Ile Leu
    260 265 270
Cys Ser Ser Ile Thr Thr Leu Thr Ser Leu Asp Phe Leu Gly Phe Gly
 275 280 285
Leu Pro Leu Gly Ser Pro Ser Leu Gly Glu Leu Leu Gln Gly Lys
 290 295 300
Asn Asn Leu Gln Ala Pro Trp Leu Gly Ile Thr Ala Phe Leu Ser Val
305 310 315
Ala Val Leu Leu Ser Leu Leu Ile Phe Ile Gly Glu Ala Val Arg Asp
       325
Ala Phe Asp Pro Asn Lys Ala Val
         340
<210> 6564
<211> 302
<212> PRT
<213> Enterobacter cloacae
<400> 6564
Gly Pro Gly Leu Ala Thr Phe Ser Glu Asn His Thr Arg Ala Val Arg
                            1.0
Gly Leu Asn Pro Glu Val Ile Ala Glu Ile Thr His Arg Tyr Gly Leu
20
                         25
                                        30
Asn Lys Pro Leu His Glu Arg Tyr Cys Arg Met Leu Trp Asp Tyr Val
35
                      40
Arg Phe Asp Phe Gly Asp Ser Leu Phe Arg Ser Ala Ser Val Leu Thr
                  55
Leu Ile Lys Gln Ser Leu Pro Val Ser Ile Thr Leu Gly Leu Trp Gly
            70
                             75
                                               8.0
Thr Leu Ile Ile Tyr Leu Val Ser Ile Pro Leu Gly Ile Arg Lys Ala
            85
                            90
Val Tyr Asn Gly Ser Arg Phe Asp Ile Trp Ser Ser Thr Phe Ile Ile
        100
                        105
Ile Gly Tyr Ala Ile Pro Ala Phe Leu Phe Ala Val Leu Leu Ile Val
                     120
     115
Phe Phe Ala Gly Gly Ser Tyr Phe Asp Leu Phe Pro Leu Arg Gly Leu
                   135
                                  140
Val Ser Ala Asp Phe Ser Thr Leu Pro Trp Tyr Gln Lys Ile Thr Asp
              150
                               155
Tyr Phe Trp His Ile Thr Leu Pro Val Leu Ala Thr Val Ile Gly Gly
            165 170
Phe Ala Ala Leu Thr Met Leu Thr Lys Asn Ala Phe Leu Asp Glu Ile
             185
         180
                                         190
Arg Lys Gln Tyr Val Val Thr Ala Arg Ala Lys Gly Val Gly Glu Lys
      195
                      200 205
Gln Ile Met Trp Lys His Val Phe Arg Asn Ala Met Leu Leu Val Ile
                  215 220
Ala Gly Phe Pro Ala Thr Phe Ile Ser Met Phe Phe Thr Gly Ser Leu
```

Leu Ile Glu Val Met Phe Ser Leu Asn Gly Leu Gly Leu Leu Gly Tyr

245 250 Glu Ala Thr Val Ser Arg Asp Tyr Pro Val Met Phe Gly Thr Leu Tyr 260 265 270 Ile Phe Thr Leu Ile Gly Leu Leu Leu Asn Ile Ile Ser Asp Ile Ser 275 280 285 Tyr Thr Leu Val Asp Pro Arg Ile Asp Phe Glu Gly Arg 290 <210> 6565

<211> 548 <212> PRT

<213> Enterobacter cloacae

<400> 6565

Phe Leu Leu Ala Lys Pro Cys Ala Met Pro Ser Ile Pro Thr Arg Arg 10 Tyr Asp Met Thr Arg Pro Leu Leu Ser Ile Glu Asn Leu Ser Ile Ala Phe Ser Lys Gln Gly Glu Ser Arg Thr Val Val Thr Asp Leu Ser Leu 40 35 Gln Ile Gln Arg Gly Glu Thr Leu Ala Leu Val Gly Glu Ser Gly Ser 50 55 60 Gly Lys Ser Val Ser Ala Leu Ser Val Leu Arg Leu Leu Pro Ser Pro 7.5 7.0 Pro Val Ser Tyr Pro Gln Gly Asp Ile Leu Phe His Gly Gln Ser Leu 8.5 90 Leu Asn Ala Asp Glu Gln Thr Leu Arg Gly Ile Arg Gly Asn Asn Ile 100 105 110 Ala Met Ile Phe Gln Glu Pro Met Val Ser Leu Asn Pro Leu His Thr 115 120 Leu Glu Lys Gln Leu Tyr Glu Val Leu Ser Leu His Arg Gly Met Arg 130 135 140 Lys Glu Ala Ala Arg Gly Glu Ile Leu Asp Cys Leu Glu Arg Thr Gly 150 155 145 Ile Arg His Ala Ala Lys Arg Leu Asn Asp Phe Pro His Gln Leu Ser 165 170 Gly Glu Arg Gln Arg Val Met Ile Ala Met Ala Leu Leu Thr Arg 180 185 190 Pro Glu Leu Leu Ile Ala Asp Glu Pro Thr Thr Ala Leu Asp Val Thr 195 200 205 Val Gln Ala Gln Ile Leu Gln Leu Leu Arg Glu Leu Arg Asp Glu Leu 210 215 220 Asn Met Ser Leu Leu Phe Ile Thr His Asn Leu Ser Ile Val Lys Lys 225 230 235 Leu Ala Asp Ala Val Ala Val Met Gln Asn Gly Arg Cys Val Glu Gln 245 250 Asn Arg Ala Ser Ala Leu Leu Ser Ala Pro Gln His Pro Tyr Thr Gln 260 265 270 Arg Leu Leu Asp Ser Glu Pro Ala Gly Asp Pro Val Pro Leu Asn Ala 275 280 285 Asp Cys Ala Pro Leu Leu Ser Val Glu Gly Leu Ser Val Ser Phe Pro 290 295 300 Ile Arg Lys Gly Ile Leu Arg Arg Val Val Asp His Asn His Val Leu 305 310 315 Lys Asp Met Ser Phe Ala Leu Arg Pro Gly Glu Ser Leu Gly Leu Val 325 330 335 Gly Glu Ser Gly Ser Gly Lys Ser Thr Thr Gly Leu Ala Leu Leu Arg 340 345 350 Leu Ile Ala Ser Gln Gly Ser Ile Val Phe Asp Gly Met Pro Leu Gln 360 Asn Leu Asn Arg Arg Met Met Leu Pro Val Arg Pro Arg Met Gln Val

```
375
                                   380
Val Phe Gln Asp Pro Asn Ser Ser Leu Asn Pro Arg Leu Ser Val Leu
          390
                     395 400
Gln Ile Ile Glu Glu Gly Leu Arg Val His Gln Pro Thr Met Thr Ala
           405 410 415
Gln Gln Arg Glu Ile Asp Val Lys Arg Val Met Glu Glu Val Gly Leu
       420 425 430
Asp Pro Glu Thr Arg His Arg Tyr Pro Ala Glu Phe Ser Gly Gly Gln
 435 440 445
Arg Gln Arg Ile Ala Ile Ala Arg Ala Leu Ile Leu Lys Pro Glu Leu
 450 455 460
Ile Val Leu Asp Glu Pro Thr Ser Ser Leu Asp Arg Thr Val Gln Ala
465 470 475
Gln Ile Leu Ala Leu Leu Lys Gly Leu Gln Glu Lys His Arg Leu Ala
         485 490
Tyr Ile Phe Ile Ser His Asp Leu Gln Val Val Arg Ala Leu Cys His
       500 505 510
Glm Val Val Leu Arg Glm Gly Glu Val Val Glu Glm Gly Glu Cys
 515 520 525
Gln Arg Val Phe Thr Ala Pro Thr Gln Asp Tyr Thr Arg Gln Leu Leu
530
                   535
Ser Ala Asp
545
<210> 6566
<211> 160
<212> PRT
<213> Enterobacter cloacae
<400> 6566
Arg Gln Pro Asp Ala GIy Asn Leu Phe Phe Arg Gln Arg Ala Ile Phe
                             10
Pro Trp Arg Gln Val Trp Ile Glu Phe Asn Arg Ala Asp Thr Phe Thr
                                          3.0
Met Gln Pro His Asn Val Val Ala His Gly Gly Lys His Pro Phe His
3.5
                      40
                                       45
Leu Val Ile Ala Ala Phe Thr Asp Gly Gln Ala His Val Ser Trp Ser
                   5.5
                                   60
Asp Asp Phe Gln His Arg Arg Phe Gly Gln Ile Phe Phe Ile Met Gln
                70
                                7.5
Leu Asn Ala Phe Cys Glu Leu Leu Cys Arg Val Ile Arg Asp Arg Arg
            8.5
                            90
Leu Lys Arg His Pro Ile Gly Phe Leu Thr Val Met Ala Arg Gly Gly
         100
                         105
                                          110
Asp Ala Met Arg Pro Leu Ala Val Ile Gly His Gln His Gln Ala Gly
      115
                      120
Gly Ile Asn Ile Gln Ser Pro Cys Arg Met Gln Leu Val Arg His Arg
                   135
                        140
Phe Val Glu Val Glu His Arg Arg Val Ile Arg Ile Val Arg
                150
                                 155
<210> 6567
<211> 121
<212> PRT
<213> Enterobacter cloacae
<400> 6567
Thr Asp Val Thr Phe Arg Phe Val Glu His Glu Val Ala Arg Ala Ile
                             10
Leu Leu Gly Gln Arg Val Ala Val Ile Leu His Leu Val Leu Arg Leu
         20
                          25
```

```
Glu Phe Lys Ser Ala Val Phe His Asn Val Ala Val His Gly Tyr Ala
                           40
Ala Gly Ala Asn Phe Thr Pro Gly Asn Ser Ala Ala Tyr Ala Glu Leu
                        55
                                           60
Leu Ser Asp Lys Leu Ile Lys Ser His Glu Ile Phe Leu Ala Leu Met
                    70
                                       7.5
Val Leu Glu Val Gly Leu Arg Val Arg Lys Arg Ser Ser Gln Lys Gln
               8.5
                                   90
Phe Ser Ile Met Val Trp Leu Arg His Ser Arg Glu Lys Val Ser Trp
                   105
          100
His Thr Ile Cys Glu Leu Thr Glu
      115
<210> 6568
<211> 103
<212> PRT
<213> Enterobacter cloacae
<400> 6568
Gly Phe Lys Tyr Arg Glu Lys Ser Met Phe Thr Ile Glu Ala Glu Val
                                   10
Arg Asn Val Gln Gly Lys Gly Ala Ser Arg Arg Leu Arg Thr Ala Asn
                               25
Lys Phe Pro Ala Ile Val Tyr Gly Gly Glu Ala Ala Pro Val Ala Ile
                           4.0
                                               4.5
Glu Leu Asp His Asp Lys Val Trp Asn Met Gln Thr Lys Ala Glu Phe
                       55
Tyr Ser Glu Val Leu Thr Ile Val Val Gly Gly Lys Glu Glu Lys Val
65
                   70
                                       7.5
Lys Val Gln Ala Val Gln Arg His Ala Phe Lys Pro Lys Leu Thr His
               85
Ile Asp Phe Val Arg Ala
           100
<210> 6569
<211> 496
<212> PRT
<213> Enterobacter cloacae
<400> 6569
Glu Ile Thr Met Leu Leu Ser Ser Thr Arg Lys Asp Trp Leu Gly Asn
Val Arg Gly Asp Val Leu Ala Gly Ile Val Val Ala Leu Ala Leu Ile
           20
                               25
                                                   30
Pro Glu Ala Ile Ala Phe Ser Ile Ile Ala Gly Val Asp Pro Gln Val
       35
                           4.0
                                               45
Gly Leu Tyr Ser Ala Phe Cys Ile Pro Leu Val Met Ala Phe Phe Gly
                       5.5
Gly Arg Pro Ala Met Ile Ser Ser Ser Thr Gly Ala Met Ala Leu Leu
                    70
                                       75
Met Val Thr Leu Val Lys Asp His Gly Leu Gln Tyr Leu Leu Ala Ala
               85
Ser Ile Leu Thr Gly Val Phe Gln Leu Ile Ala Gly Tyr Leu Lys Leu
           100
                               105
Gly Gly Leu Met Arg Phe Val Ser Arg Ser Val Val Thr Gly Phe Val
                            120
Asn Ala Leu Ala Ile Leu Ile Phe Met Ala Gln Leu Pro Glu Leu Thr
  130
                       135
                                           140
Asn Val Thr Trp His Val Tyr Ala Met Thr Ala Ala Gly Leu Gly Ile
                   150
                                       155
Ile Tyr Leu Phe Pro Tyr Ile Asn Lys Thr Ile Pro Ser Pro Leu Val
```

```
165
                          170
Cys Ile Val Val Leu Thr Gly Ile Ala Met Trp Leu His Leu Asp Val
        180
                  185
                          190
Arg Thr Val Gly Asp Met Gly Lys Leu Pro Asp Ser Leu Pro Val Phe
     195
            200
Leu Leu Pro Asp Val Pro Leu Asn Leu Gln Thr Leu Leu Ile Ile Leu
 210
      215 220
Pro Tyr Ser Ala Gly Leu Ala Val Val Gly Leu Leu Glu Ser Met Met
225 230 235 240
Thr Ala Thr Ile Val Asp Asp Met Thr Asp Thr Pro Ser Asp Lys Asn
        245 250 255
Arg Glu Cys Lys Ala Gln Gly Ile Ala Asn Ile Cys Thr Ser Phe Ile
      260 265 270
Gly Gly Met Ala Gly Cys Ala Met Ile Gly Gln Ser Val Ile Asn Val
 275 280 285
Lys Ser Gly Gly Arg Gly Arg Leu Ser Thr Leu Thr Ala Gly Val Val
 290 295 300
Leu Leu Cys Leu Ile Val Phe Leu Arg Asn Trp Val Ser Gln Ile Pro
      310 315
Met Ala Ala Leu Val Ala Val Met Ile Met Val Ser Ile Gly Thr Phe
          325 330
Ser Trp Arg Ser Ile Ala Asn Let Arg Thr His Pro Leu Ser Thr Ser
      340 345
                          350
Val Val Met Leu Ala Thr Val Ala Val Val Ala Thr His Asn Leu
355
                   360
                                  365
Ala Phe Gly Val Leu Thr Gly Val Leu Ile Ala Ser Leu Asn Phe Ala
      375
                               380
Thr Lys Val Ser Arg Phe Met Arg Val Thr Ser Val Leu Glu Gly Thr
   390
                            395
Ser Arg Thr Tyr Thr Val Thr Gly Gln Val Phe Phe Ala Ser Ala Asp
           405 410
Arg Phe Thr Ser His Phe Asp Phe Arg Glu Ala Ile Glu Asn Val Val
 420 425
                                     430
Ile Asp Val Ser His Ala His Phe Trp Asp Ile Thr Ser Val Ser Ala
435
                   440
Leu Asp Lys Val Val Ile Lys Phe Arg Arg Glu Gly Ala Gly Val Glu
450
                               460
                455
Ile Arg Gly Met Asn Glu Ala Thr Arg Thr Ile Val Asp Arg Phe Gly
465 470
                            475
Val His Asp Lys Pro Glu Glu Val Glu Lys Leu Met Gly Gly His
           485
                         490
```

<210> 6570 <211> 282 <212> PRT

<213> Enterobacter cloacae

<400> 6570

Ghn Thr Gly Gly Lys Thr Met Asn Asn Thr Val Thr Ala Cys Val Asp 1 Solution 1 S

```
105
Gly Thr Pro Asp Glu Val Leu Ala Glu Leu Ser Asp Leu Arg Leu Met
    115
            120
                                    125
Val Leu Gly Arg Arg Gly Ser Gln His Pro Val Gly Ser His Leu Glu
       135
                      140
Ser Val Ile Arg Leu Gln Lys Lys Pro Leu Leu Val Val Pro Glu Asn
      150 155
Tyr Ser Val Pro Ser Arg Val Met Leu Ala Tyr Asp Gly Ser Glu Glu
       165 170 175
Ser Arg Ser Asn Leu Glu Arg Leu Thr Met Ser Pro Leu Leu Arg Gly
      180 185 190
Leu Glu Cys His Leu Val Met Val Asn Gly Lys Lys Glu Glu Leu Leu
 195 200 205
Thr Ala Gln Gln Ile Leu Arg Asp Ala Asp Ile Glu Asn Ser Thr Thr
 210 215 220
His Leu Thr Gly Gln Ser Val Gly Asp Ala Leu Ile Arg Tyr Ala Glu
225 230 235
Glu Asn Ala Val Asp Leu Ile Val Met Gly Ala Tyr Gly His Ser Arg
       245 250 255
Leu Arg Gln Phe Phe Ile Gly Ser His Thr Ser Glu Met Leu Gln Lys
       260 265
Thr Gln Gln Pro Leu Leu Ile Leu Arg
<210> 6571
<211> 242
<212> PRT
<213> Enterobacter cloacae
<400> 6571
Leu Met Lys Trp Arg Phe Phe Met Thr Asp Leu Pro Ala Ile Glu Pro
Ala Tyr Phe Asp Asp Ala Leu Ala Ser Lys Leu Thr Gly Asn Asn Glu
20
                        25
Thr Met Pro Arg Ile Leu Ile Leu Tyr Gly Ser Val Arg Glu Arg Ser
35
                     40
                                    4.5
Tyr Ser Arg Phe Ala Ala Glu Glu Ala Gly Arg Leu Leu Ala Lys Met
 50
                5.5
                                 60
Gly Ala Glu Val Lys Ile Phe Asn Pro Ser Gly Leu Pro Leu Pro Asp
             70
                            75
Asp Ala Pro Glu Ser His Pro Lys Val Leu Glu Leu Arg Glu Leu Val
           85 90
Arg Trp Cys Asp Gly Met Val Trp Ser Ser Pro Glu Arg His Gly Ala
         100
                        105
                                        110
Met Ser Ser Val Met Lys Ala Gln Ile Asp Trp Ile Pro Leu Ser Glu
                     120
Gly Ala Val Arg Pro Ser Gln Gly Lys Thr Leu Ala Val Met Gln Val
   130
                  135
                               140
Cys Gly Gly Ser Gln Ser Phe Asn Thr Val Asn Gln Met Arg Ile Leu
145
               150
                   155
Gly Arg Trp Met Arg Met Phe Tar Ile Pro Asn Gln Ser Ser Val Pro
            165
                           170 175
Lys Ala Trp Gln Glu Phe Asp Asp Glu Gly Arg Met Lys Pro Ser Pro
         180 185 190
Trp Tyr Asp Arg Ile Val Asp Val Thr Glu Glu Leu Phe Lys Met Thr
      195
                     200
                                    205
Leu Leu Leu Lys Gly His Thr Ala Tyr Leu Ser Asp Arg Tyr Ser Glu
 210
               215 220
Arg Lys Glu Ser His Gln Glu Leu Ala Ala Arg Val Asn Gln Ala Lys
225
              230
                               235
Ile
```

<210> 6572 <211> 512 <212> PRT <213> Enterobacter cloacae <400> 6572 Phe Met His Ser Tyr Glu Asp Arg Ile Arg Ala Val Glu Leu Tyr Tyr 10 Arg Tyr Gly Lys Lys Ala Ser Val Val Val Met Glu Leu Gly Tyr Pro 20 25 Ser Thr Lys Gln Leu Gly Arg Trp Val Arg Ile Tyr Glu Glu Lys Gly 40 Asp Leu Pro Arg Glu Leu Lys Pro Arg Glu Arg Tyr Ser Arg Thr Gln 55 Lys Ile Ala Ala Val Glu His Tyr Leu Thr His Gly Gly Cys Leu Ser 7.5 Tyr Thr Arg Arg Ala Ile Gly Tyr Pro Ser Asn Glu Ile Leu Lys Arg 90 Trp Ile Glu Glu Phe Tyr Pro Asn Ala Arg Pro Leu Val Ile Arg Ser 100 105 110 Gly Thr Asn Lys Cys Phe Ser Pro Glu Glu Arg Ser Gln Ala Val Arg 115 120 125 Glu Leu Cys Asn Arg Arg Gly Thr Ala Arg Lys Val Ala Gln Ser Ile 135 140 Gly Val Ser Val Pro Val Leu Tyr Lys Trp Lys Lys Asp Leu Ile Ser 145 150 155 Asp Glu Ala Tyr Gln Ser Met Arg Lys Arg Lys Ala Ala Pro Gln Asp 165 170 175 Lys Asn Gln Asp Ala Leu Leu Gly Glu Ile Gln Arg Leu Arg Gln Gln 185 180 190 Val His Gln Leu Gln Leu Glu Arg Asp Ile Leu Thr Lys Ala Asn Glu 195 200 205 Leu Ile Lys Lys Asp Leu Gly Ile Ser Phe Leu Thr Leu Lys Asn Arg 210 215 220 Glu Lys Thr Leu Ile Val Asp Ala Leu Lys Lys Lys Tyr Pro Val Ala 230 235 Glu Leu Leu Ser Val Leu Gln Leu Ala Arg Ser Cys Tyr Phe Tyr His 250 245 Lys Ala Ser Lys Arg Leu Cys Asp Lys Tyr Ala Glu Ile Arg Val Ile 260 265 270 Met Ala Asp Ile Phe Glu Glu Asn Tyr Arg Cys Tyr Gly Tyr Arg Arg 275 280 285 Leu His Ala Met Leu Arg Gly Asn Asn Arg Val Ile Ser Glu Lys Val 290 295 300 Val Arg Arg Leu Met Ala Glu Glu Gln Leu Val Val Lys Arg Thr Arg 305 310 315 Arg Arg Arg Tyr Asn Ser Tyr Cys Gly Glu Ile Gly Pro Ala Pro Glu 325 330 Asn Leu Leu Ala Arg Asp Phe Ser Ser Cys Arg Pro Asn Glu Lys Trp 340 345

Leu Thr Asp Ile Thr Glu Phe Gln Leu Pro Ala Gly Lys Val Tyr Leu

Ser Pro Val Ile Asp Cys Phe Asp Gly Gln Val Val Ser Trp Ser Ile 375

Gly Thr Arg Pro Asp Ala Thr Leu Val Asn Thr Met Leu Asp Glu Ala 390

Leu Asp Thr Leu Asn Glu His Asp Lys Pro Val Ile His Ser Asp Arg 405 410 Gly Gly His Tyr Arg Trp Pro Gly Trp Leu Asp Arg Ile Asn Thr Ser

365

380

395

360

355

420 425 Gly Leu Ile Arg Ser Met Ser Arg Lys Gly Cys Ser Ser Asp Asn Ala 435 440 445 Ala Cys Glu Gly Phe Phe Gly Arg Ile Lys Asn Glu Met Phe Tyr Gly 455 460 Arg Asn Trp Thr Gly Ile Thr Leu Glu Lys Phe Ile Cys Phe Leu Asp 470 475 480 Arg Tyr Ile Arg Trp Tyr Asn Glu Lys Arg Ile Lys Leu Ser Leu Gly 485 490 495 Ala Met Ser Pro Val Lys Tyr Arg Gln His Leu Gly Ile Thr Thr <210> 6573 <211> 481 <212> PRT <213> Enterobacter cloacae <400> 6573 Val Lys Met Ser Gly Val Tyr Asn Gln Val Arg Ile Thr Met Thr Ala 10 Leu Ala Ala Glu Phe Phe Thr Leu Asp Glu Val Asn Arg Leu Lys Ile 20 2.5 3.0 Ile Gln Asp Val Ile Asp Arg Arg Leu Thr Thr Gln Met Ala Ala Gln 35 40 Arg Leu Gly Ile Ser Asp Arg Gln Cys Arg Arg Leu Leu Ala Arg Tyr 55 Arg Glu Asp Gly Pro Ile Gly Met Thr Ser Arg Arg Arg Gly Lys Ser 7.0 7.5 Ser Asn Asn Gln Leu Pro Gln Gly Leu Ala Ala Tyr Ala Leu Asn Ile 85 90 95 Ile Arg Glu Arg Tyr Asn Asp Phe Gly Pro Thr Leu Ala Cys Glu Lys 100 105 110 Leu Ser Glu Val His Gly Val His Leu Ser Lys Glu Thr Val Arg Lys 120 Leu Met Thr Gln Ala Ser Leu Trp Val Pro Arg Lys Gln Arg Ala Pro 130 135 1.40 Lys Ile Gln Gln Pro Arg Tyr Arg Arg Ala Cys Ala Gly Glu Leu Ile 150 155 160 Gln Ile Asp Gly Cys Asp His His Trp Phe Glu Asn Arg Gly Pro Lys 165 170 Cys Thr Ala Leu Val Tyr Val Asp Asp Ala Thr Ser Arg Leu Met Gln 180 185 190 Leu Leu Phe Val Lys Ser Glu Ser Thr Phe Thr Tyr Phe Glu Ala Thr 200 205 Arg Gly Tyr Ile Glu Lys His Gly Lys Pro Leu Ala Leu Tyr Ser Asp 215 220 Lys Ala Ser Val Phe Arg Ile Asn Asn Lys Asn Ala Thr Gly Gly Asp 230 235 Gly Asp Thr Gln Phe Gly Arg Ala Met His Glu Leu Asn Ile Gln Thr 245 250 Ile Cys Ala Glu Thr Ser Ala Ala Lys Gly Arg Val Glu Arg Ala His 260 265 Leu Thr Leu Gln Asp Arg Leu Val Lys Glu Leu Arg Leu Gln Gly Ile 275 280 Ser Ser Met Glu Ala Ala Asn Ala Phe Ala Glu Glu Phe Met Asn Asp 295 300 Tyr Asn Arg Arg Phe Ala Lys Ala Pro Arg Gln Glu Phe Asp Val His 310 315 Arg Glu Leu Asp Val Asp Asp Asp Leu Asp Met Val Phe Asn Trp Arg 325

325 330 335 Glu Ala Arg Lys Val Ser Lys Ser Leu Thr Val Gln Tyr Asp Lys Val

```
2734
          340
                            345
Leu Tyr Leu Ile Glu Asp Ser Glu Phe Ser Arg Arg Ala Ile Gly Lys
      355
                        360
                                         365
Tyr Ile Asp Val Trp His Tyr Pro Asp Gly His Lys Glu Leu Arg Leu
  370
                                      380
Asn Gly Val Ser Leu Pro Tyr Ser Thr Tyr Asp Lys Leu Ser Glu Ile
          390
                                395
Asp Gln Gly Ala Ile Val Asp Asn Lys Arg Leu Gly Arg Ala Leu Glu
          405 410 415
Met Ala Gln Leu Val Gln Ala Glu Arg Asp Asn Asn Arg Ser Gln Ser
        420 425 430
Val Pro Ser Gly Asp Gly Pro Ser Arg Arg Arg Lys Ala Pro Thr Thr
 435 440 445
Lys Lys Ser Gln Arg Ser Leu Asp Gln Asp Asp Met Phe Asn Ala Leu
                           460
 450 455
Val Lys Leu Gln Ser Arg Ser Glu Glu Ile Phe Gly Lys Lys Pro Ile
                 470
<210> 6574
<211> 155
<212> PRT
<213> Enterobacter cloacae
<400> 6574
Leu Asp Thr Phe Leu Val Ile Pro Ala Tyr Val Pro Val Gln Glu Ala
Asp Lys Phe Phe Gln Arg Asp Thr Ser Pro Val Ser Ala Ile Glu His
                           2.5
                                             3.0
Phe Val Phe Asp Thr Pro Glu Glu Ala Phe Thr Arg Ser Ile Ile Arg
                        40
Arg Ala Ser Phe Ala Arg His Gly Pro Tyr Lys Ser Gly Cys Val Asp
                    5.5
                                      60
Thr Ile Glu Pro Ala Arg Pro Pro Val Met Ala Thr Thr Ile Ala Val
                 70
                                7.5
Tyr Tyr Arg Phe Ile Met Phe Val Glu Arg Ile Glu Cys Phe Ile Glu
                              90 95
His Arg Ile His Gln Arg Arg Val Arg Ala Cys Ser Tyr Arg Pro Ala
         100
                           105
                                            110
Tyr Asn Leu Ala Ile Lys Ala Val Asp Asn Arg Arg Gln Ile Asp Phe
                        120
                                         125
Ser Ser Arg Lys Leu Glu Leu Arg Asn Ile Gly Gln Pro Leu Leu Ile
                    135
 130
Trp Pro Ala Gly Thr Lys Ile Pro Gly Glu
                 150
<210> 6575
<211> 125
<212> PRT
<213> Enterobacter cloacae
<400> 6575
Lys Leu Ser His Met Lys Tyr His Met Tyr Cys Tyr Phe Phe Thr Arg
Leu Ser Met Leu Gln Pro Val Gln Leu Phe Lys Leu Leu Ala Asp Glu
    20
                           25
Thr Arg Ser Thr Ile Val Met Leu Leu Arg Glu Ser Gly Glu Met Cys
    35
                     40
                                       4.5
Val Cys Asp Ile Cys Ala Ala Thr Ala Glu Ser Gln Pro Lys Ile Ser
```

```
Arg His Met Ala Leu Leu Arg Glu Ala Glu Leu Val Ile Asp Arg Arg
Glu Gly Lys Trp Val His Tyr Arg Leu Ser Pro His Met Pro Ala Trp
                                90
              8.5
Ala Ala Gly Ile Ile Asp Thr Ala Trp Asn Cys Glu Arg Glu Asn Ile
          100
               105
Arg Asn Lys Leu Ser Ser Val Ala Ser Val Ser Cys
    115 120
<210> 6576
<211> 434
<212> PRT
<213> Enterobacter cloacae
<400> 6576
Met Glu Phe Leu Met Leu Leu Ala Gly Ala Ile Phe Leu Phe Thr Leu
Val Leu Val Ile Trp Gln Pro Arg Gly Leu Gly Ile Gly Trp Ser Ala
                             25
                                               30
Ser Leu Gly Ala Ile Leu Ala Leu Leu Thr Gly Val Val His Leu Gly
                        40
Asp Ile Pro Val Val Trp Gln Ile Val Trp Asn Ala Thr Ala Thr Phe
                     55
50
Ile Ala Val Ile Ile Ile Ser Leu Leu Leu Asp Glu Ser Gly Phe Phe
                 70
                                    75
Glu Trp Ala Ala Leu His Val Ala Arg Trp Gly Asn Gly Arg Gly Arg
             85
                                 90
Leu Leu Phe Thr Trp Ile Val Leu Leu Gly Ala Met Val Ala Ala Leu
                             105
    100
                                                110
Phe Ala Asn Asp Gly Ala Ala Leu Ile Leu Thr Pro Ile Val Ile Ala
                         120
       115
                                            125
Met Leu Leu Ala Leu Gly Phe Ser Arg Gly Ala Thr Leu Ala Phe Ile
130
                                         140
Met Ala Ala Gly Phe Ile Ala Asp Thr Ala Ser Leu Pro Leu Ile Val
                  150
                                    155
                                                       160
Ser Asn Leu Val Asn Ile Val Ser Ala Asp Phe Phe Lys Leu Gly Phe
                                 170
              165
Ser Glu Tyr Ala Ala Val Met Val Pro Val Asn Leu Ala Ala Ile Ala
          180
                             185
                                                190
Ala Thr Leu Val Met Leu His Leu Phe Phe Arg Lys Asp Ile Pro Ala
                         200
       195
                                           205
Val Tyr Asp Val Ser Leu Leu Lys Glu Pro Lys Asp Ala Ile Arg Asp
                  215
 210
                                        220
Val Asn Thr Phe Lys Thr Gly Trp Leu Val Leu Val Leu Leu Leu Val
                  230
                                     235
Gly Phe Phe Gly Leu Glu Pro Leu Gly Val Pro Val Ser Leu Val Ala
              245
                                 250
Ala Ala Gly Ala Leu Leu Phe Ala Val Ala Lys Lys Gly His Ala
                             265
                                                270
Ile Asn Thr Gly Lys Val Leu Arg Gly Ala Pro Trp Gln Ile Val Ile
                         280
                                            285
Phe Ser Leu Gly Met Tyr Leu Val Val Tyr Gly Leu Arg Asn Ala Gly
                     295
                                         300
Leu Thr His Tyr Leu Ser Ser Leu Leu Asn Gln Leu Ala Glu Gln Gly
305
                 310
                                  315
Leu Trp Ala Ala Thr Leu Gly Thr Gly Phe Leu Thr Ala Phe Leu Ser
                                 330 335
              325
Ser Val Met Asn Asn Met Pro Thr Val Leu Val Gly Ala Leu Ser Ile
          340
                             345
Asp Gly Ser Thr Ala Thr Gly Val Ile Lys Glu Ala Met Ile Tyr Ala
```

```
Asn Val Ile Gly Ser Asp Leu Gly Pro Lys Ile Thr Pro Ile Gly Ser
                     375
                                       380
Leu Ala Thr Leu Leu Trp Leu His Val Leu Ser Gln Lys Asn Ile Lys
                 390
                                   395
Ile Thr Trp Gly Tyr Tyr Phe Arg Val Gly Ile Val Met Thr Ile Pro
             405
                   410
Val Leu Phe Val Thr Leu Ala Ala Leu Ala Leu Arg Leu Ser Phe Thr
                  425
T.611
```

<210> 6577 <211> 145 <212> PRT

<213> Enterobacter cloacae

<400> 6577

Asp Thr Asp Met Ser Asn Ile Thr Ile Tyr His Asn Pro Ala Cys Gly 10 Thr Ser Arg Asn Thr Leu Glu Met Ile Arg Asn Ser Gly Thr Glu Pro 3.0 Thr Val Ile His Tyr Leu Glu Thr Pro Pro Ser Arg Ala Glu Leu Val 35 4.0 45 Lys Leu Ile Ala Asp Met Gly Ile Thr Val Arg Ala Leu Leu Arg Lys 5.0 Asn Val Glu Pro Phe Glu Ala Leu Gly Leu Ala Glu Asp Arg Phe Thr 70 7.5 Asp Glu Gln Leu Ile Asp Phe Met Leu Gln His Pro Val Leu Ile Asn 90 85 95 Arg Pro Ile Val Val Thr Pro Leu Gly Thr Arg Leu Cys Arg Pro Ser 105 100 Glu Val Val Leu Asp Ile Leu Pro Asp Ala Gln Lys Ser Ala Phe Thr 120 115

Lys Glu Asp Gly Glu Lys Val Val Asp Glu Lys Gly Asn Arg Leu Asn

140

135

145

<210> 6578 <211> 208

130

<212> PRT

<213> Enterobacter cloacae

<400> 6578

Pro Pro Leu Cys Gly Phe Phe Ile Gly Asp Ser Leu Val Ala Glu Glu Val Lys Phe Val Val Val Gly His His Thr Arg Thr Gly Gln Ala Gln 20 25 Arg Leu Ala Ala Leu Leu Asp Ala His Leu Leu Ile Asp Asp Gly Lys 35 40 His Gly Ala Asn Trp Asn His Arg Arg Ala Leu Glu Trp Ala Ala Glu 55 Gln Thr Cys Arg Val Val Val Glu Asp Asp Ala Leu Pro Val His 70 75 8.0 Gly Phe Thr Glu Lys Val Thr Asp Trp Leu Ala Arg Phe Pro Asp Asp 85 90 95 Met Leu Ser Phe Tyr Leu Gly Thr Gly Arg Pro Pro Gln Tyr Gln Met 100 105 110 Gln Ile Ala Glu Arg Leu Thr Val Ala Asp Lys Thr Arg Ala Asp Tyr 115 120 125 Ile Thr Leu Ser Arg Leu Ile His Gly Val Cys Tyr Ser Val Pro Pro

130 135 140 Glu His Val His Arg Val Leu Ser Arg Trp Asp Asn Ser Lys Pro Ala 150 155 Asp Tyr Ala Val Gly Asp Ala Trp Gly Gly Ser Val Ile Tyr Pro Cys 165 170 175 Tyr Ser Leu Val Asp His Ala Asp Gly Glu Pro Val Glu Arg His Pro 180 185 190 Asp Ser Ala Pro Arg Thr Glu Arg Arg Arg Ala Trp Arg Leu Ala 200 <210> 6579 <211> 162 <212> PRT <213> Enterobacter cloacae <400> 6579 Glu Phe Ser Ile Met Ser Gly Pro Pro Lys Thr Pro Thr His Leu Arg 10 Leu Val Arg Gly Asn Pro Ser Lys Arg Pro Ile Asn Glu Asn Glu Pro 20 25 30 Lys Pro Pro Ser Gly Val Pro Pro Thr Pro Lys His Phe Asp Lys Gln 35 40 Gly Lys Tyr Trp Phe Lys Arg Met Ala Asp Glu Leu Asp Ala Ile Gly 55 5.0 60 Val Met Ser Gln Leu Asp Ala Arq Ala Leu Glu Leu Leu Val Glu Ala 75 7.0 80 Tyr Thr Glu Tyr Arg His His Cys Asp Thr Leu Glu Val Glu Gly Tyr 85 90 Thr Tyr Arg Thr Glu Thr Gln Ser Gly Asp Val Leu Ile Lys Ala His 100 105 110 Pro Ala Ala Ile Met Lys Ala Asp Ala Trp Lys Arg Leu Arg Ala Met 115 120 125 Leu Gly Glu Phe Gly Met Thr Pro Ala Ser Arg Ser Lys Val Asn Ala 130 135 140 Lys Gly Pro Glu Ala Val Asp Pro Leu Ala Glu Phe Met Lys Ala Arg 145 150 155 Asp <210> 6580 <211> 442 <212> PRT <213> Enterobacter cloacae <400> 6580 Ser His His Glv Arg Phe Leu Met Lvs Lvs Asn Lvs Arg Pro Glv Arg Val Lys Ser Ala Leu Leu Asn Trp Leu Gly Val Pro Ile Ser Leu Thr 20 Thr Gly Thr Phe Trp Glu Glu Trp Phe Gly Thr Ser Ser Ser Gly Lys 35 4.0 Val Val Thr Ala Asp Lys Ala Ile Gln Leu Ser Ala Val Trp Ala Cys Val Arg Leu Leu Ser Glu Ser Ile Ser Thr Leu Pro Leu Lys Ile Tyr 70 75 Val Arg Gln Pro Asp Gly Ser Arg Lys Ala Ala Thr Asp His Pro Ala 8.5 90 Tyr Ser Ile Leu Cys Arg Arg Pro Asn Ser Glu Met Thr Pro Ser Arg 100 105 110

Phe Met Leu Met Val Val Ala Ser Ile Cys Leu Arg Gly Asn Ala Phe

```
Ile Glu Lys Lys Phe Ile Ala Asn Arg Leu Val Ser Leu Val Pro Leu
                                140
                 135
Leu Pro Gln Asn Met Val Val Lys Arg Leu Val Thr Gly Ala Leu Glu
   150 155
Tyr Lys Tyr Thr Glu Asn Gly Asn Glu Arg Val Ile Pro Val Lys Asn
         165 170 175
Ile Met His Ile Arg Gly Phe Gly Leu Asp Gly Val Cys Gly Met Met
        180 185 190
Pro Met Lys Thr Gly Arg Asp Val Ile Gly Ser Ala Met Ala Val Glu
     195 200 205
Glu Ser Ala Ala Lys Ile Phe Glu Gln Gly Leu Gln Ser Ser Gly Phe
 210 215 220
Leu Ser Ala Glu Asn Ala Leu Ser Asp Glu Gln Arg Glu Arg Leu Arg
              230 235
Ser Tyr Met Ala Ala Phe Thr Gly Ser Lys Asn Ala Gly Lys Ile Met
           245
                          250
Val Leu Glu Gly Gly Leu Lys Tyr Gln Gly Val Thr Met Asn Pro Glu
            265
        260
Asp Ala Gln Met Leu Glu Ser Arg Ser Phe Ser Ile Glu Glu Ile Cys
     275 280
                                   285
Arg Trp Phe Arg Val Pro Pro Phe Met Val Gly His Thr Thr Lys Gln
290 295 300
Ser Ser Trp Ala Ser Ser Leu Glu Gly Met Asn Leu Gln Phe Leu Thr
              310
                           315
305
His Thr Leu Arg Pro Leu Leu Val Asn Ile Glu Gln Glu Ile Gly Arg
           325
                          330 335
Cys Leu Leu Asp Ser Asp Asp Glu Val Phe Ala Glu Phe Ser Val Glu
        340
                       345
                                      350
Gly Leu Leu Arg Ala Asp Ser Ala Gly Arg Ala Ala Tyr Tyr Thr Ser
                    360
                          365
355
Ala Leu Gln Asn Gly Trp Met Ser Arg Asn Asp Val Arg Arg Leu Glu
370
                 375
                                380
Asn Met Pro Pro Ile Glu Gly Gly Asp Ile Tyr Thr Val Gln Leu Asn
              390
                             395
Leu Thr Gln Leu Lys Asn Leu Glu Ser Ser Asn Pro Ala Val Gln Ala
         405 410 415
Leu Ala Leu Arg Glu Leu His Asn His Ile Phe Pro Asp Ile Ser Phe
   420 425
Glu Gln Ser Pro Leu Lys Gln Ala Ala
    435
                   440
<210> 6581
<211> 136
<212> PRT
<213> Enterobacter cloacae
```

<400> 6581 Ala Ser Pro Arg Leu Ser Ala Thr His Arg Thr Pro Pro Gly Val Glu 10 Val Ser Leu Met Pro Ala Leu Ile Pro Arg Ala Cys Arg Lys Arg Gly 20 30 25 Cys Pro Gly Thr Thr Thr Asp Arg Ser Gly Tyr Cys Pro Lys His Leu 35 40 Asn Glu Gly Trp Gln Gln His Gln Arg Gly Gln Ser Arg His Gln Arg Gly Tyr Gly Ser Lys Trp Asp Arg Leu Arg Pro Ile Val Leu Gly Arg 70 75 Asp Lys His Leu Cys Gln Glu Cys Leu Arg Asn Gly Arg Tyr Thr Pro 85 90 Ala Glu Thr Val Asp His Ile Thr Ala Lys Ala Asn Gly Gly Thr Asp 100 105

1.3

2739 Asp Leu Ser Asn Leu Glu Ser Leu Cys Lys Pro Cys His Arg Ala Lys 115 120 Thr Ala Val Glu Arg Leu Lys 130 <210> 6582 <211> 590 <212> PRT <213> Enterobacter cloacae <400> 6582 Ser Ala Gly Arg Val Tyr Glu Ser Glu Gly Leu Met Ala Lys Val Ala 5 10 Glu Gly Ile Arg Tyr Ala Glu Arg Val Val Ala Gly Glu Ile Ile Ala 20 25 Cys Glu Tyr Val Arg Leu Ala Cys Gln Arg Phe Leu Asp Asp Leu Ala 35 40 45 His Gly Glu Glu Arg Gly Ile Phe Phe Ser Glu Pro Arg Ala Gln His 50 55 60 Ile Leu Asn Phe Tyr Asn Phe Val Pro His Val Lys Gly Ala Leu Ala 70 75 Gly Gln Pro Ile Glu Leu Met Asp Trp His Val Phe Ile Leu Ile Asn 85 90 Ile Phe Gly Phe Val Ile Pro Leu Val Asn Glu Glu Thr Gly Glu Thr 100 105 110 Val Leu Arg Asn Asp Gly Ser Gly Arg Pro Val Met Val Arg Arg Phe 115 120 125 Arg Thr Ala Asp Val Glu Val Ala Arg Lys Asn Ala Lys Ser Thr Leu 130 135 140 Cys Ser Gly Val Gly Leu Tyr Met Ala Gly Ala Asp Gly Glu Gly Gly 145 150 155 Ala Glu Val Tyr Ser Ala Ala Thr Thr Arg Asp Gln Ala Arg Ile Val 165 170 175 Phe Glu Asp Ala Lys Asn Met Val Lys Lys Ala Lys Ala Thr Leu Gly 180 185 190 Arg Ile Phe Glu Phe Asn Lys Leu Ala Ile Tyr Gln Glu Gln Thr Ala 195 200 205 Ser Lys Phe Glu Pro Leu Ser Ser Asp Ala Asn Asn Leu Asp Gly Leu 210 215 220 Asn Ile His Cys Ala Ile Val Asp Glu Leu His Ala His Lys Thr Arg 225 230 235 Asp Val Trp Asp Val Leu Glu Thr Ala Thr Gly Ala Arg Leu Gln Ser 245 250 Leu Leu Phe Gly Ile Thr Thr Ala Gly Phe Asn Lys Glu Gly Ile Cys 260 265 Tyr Glu Leu Arg Asp Tyr Ala Ile Lys Val Leu Arg Gly Leu Val Lys 275 280 285 Asp Asp Thr Phe Phe Ala Ile Ile Tyr Thr Leu Asp Glu Gly Asp Asp 290 295 300 Pro Phe Asp Glu Lys Val Trp Gln Lys Ala Asn Pro Gly Leu Gly Ile 310 315 320 Cys Lys Arg Trp Asp Asp Leu Arg Arg Leu Ala Lys Lys Ala Lys Glu 325 330 335 Gln Val Ser Ala Arg Ile Asn Phe Phe Thr Lys His Met Asn Ile Trp 345 340 350 Val Thr Ala Glu Ser Ala Trp Met Asp Met Met Lys Trp Glu Lys Cys 355 360 Glu Phe Ile Ala Pro Gln His Glu Leu Lys Thr Tyr Pro Ser Trp Val 375 380

Gly Val Asp Leu Ser Asn Lys Ile Asp Ile Cys Ala Ala Ala Lys Val

395

```
Trp Arg Ala Pro Asp Gly His Val His Ala Asp Phe Lys Phe Trp Leu
           405
                   410 415
Pro Glu Gly Arg Leu Glu Lys Cys Ser Arg Gln Met Ala Glu Leu Tyr
         420 425 430
Arg Lys Trp Ala Gly Met Asp Lys Leu Ile Leu Thr Asp Gly Asp Val
  435 440 445
Ile Asp His Ala Glm Ile Lys Glu Glu Leu Glm Leu Trp Val Ala Gly
 450 455 460
Glu Ser Leu Lys Glu Ile Gly Phe Asp Pro Trp Ser Ala Thr Gln Phe
465 470 475
Ser Leu Ala Leu Ala Glu Glu Gly Leu Pro Leu Val Glu Val Pro Gln
         485 490 495
Thr Val Arg Asn Phe Ser Glu Ala Met Lys Glu Val Glu Ala Leu Val
         500 505 510
Tyr Gly Gly Arg Phe His His Ser Asp His Pro Val Met Asn Trp Met
      515
                      520
                                       525
Met Ser Asn Val Thr Val Lys Pro Asp Arg Asn Glu Asn Ile Phe Pro
                   535 540
 530
Asn Lys Ser Thr Pro Glu Ala Lys Ile Asp Gly Pro Ala Ala Leu Phe
                550 555
Thr Ala Met Ser Arg Val Leu Val Asn Gly Gly Asn Asp Gln Gln Asp
  565 570
Leu Ser Gly Phe Phe Asn Asn Pro Ile Met Val Gly Phe
          580
                          585
<210> 6583
<211> 292
<212> PRT
<213> Enterobacter cloacae
<400> 6583
Asn Arg Pro Leu Arg Ser Thr Phe Leu Met Ser Lys Lys Gln Leu Pro
Ala Ala Pro Ala Gly Arg Pro Cys Ala Arg Val Thr Cys Glu Thr Leu
          20
                                           3.0
Pro Ser Ala Leu Asp Arg Trp Asp Gly Gly Ile Lys Ala Ala Ala Thr
      35
                       40
Asp Asp Asn Ser Ile Ser Val Phe Asp Val Ile Gly Gln Asp Tyr Trp
                   55
                                    60
Gly Glu Gly Val Thr Ala Lys Arg Ile Ala Gly Ala Leu Arg Ala Met
                           75
                70
                                                 8.0
Asn Gly Ala Asp Val Thr Val Asn Ile Asn Ser Pro Gly Gly Asp Met
                             90
                                              95
             8.5
Phe Glu Gly Leu Ala Ile Tyr Asn Leu Leu Arg Glu Tyr Glu Gly Arg
          100
                          105
                                          110
Val Thr Val Lvs Val Leu Gly Ile Ala Ala Ser Ala Ala Ser Val Ile
                           125
Ala Met Ala Gly Asp Asp Ile Leu Ile Gly Arg Gly Ala Phe Leu Met
                                    140
Ile His Asn Cys Trp Val Tyr Ala Met Gly Asn Arg His Asp Phe Ala
                150
Glu Leu Ala Gln Ser Leu Glu Pro Phe Asp Asn Ala Met Ala Asp Ile
             165
                             170
                                              175
Tyr Ala Ala Arg Ser Gly Leu Asp Met Ala Ala Val Gln Lys Leu Met
         180
                          185
                                        190
Asp Ala Glu Ser Tyr Ile Gly Gly Ser Asp Ala Val Ala Lys Gly Leu
   1.95
                       200
                                      205
Ala Asp Ser Leu Leu Ser Ala Asp Ala Val Ser Asp Gly Asp Glu Ser
 210
                   215
                                    220
Pro Ala Ala Ala Leu Arg Lys Leu Asp Ala Leu Leu Ala Lys Thr Asn
                230
                                 235
```

```
Thr Pro Arg Ser Glu Arg Arg Lys Leu Ile Lys Ala Leu Ser Gly Gly
              245
                           250
Met Pro Gly Ala Val Thr Thr Asn Asp Gly Thr Pro Gly Ala Ala Glu
                       265
          260
                                               270
Asp Ile Lys Pro Glu Thr Leu Asn Ser Leu Glu Ser Ala Leu Ala Ala
      275
               280
Leu Val Lys
 290
<210> 6584
<211> 417
<212> PRT
<213> Enterobacter cloacae
<400> 6584
Ala Gly Arg Ile Asn Met Gly Leu Lys His Leu Phe Glu Lys Ile Glu
                               10
Pro His Phe Thr Glu Gly Lys Leu Lys Lys Tyr Tyr Pro Leu Tyr Glu
          20
                             25
Ala Thr Thr Thr Ile Phe Tyr Thr Pro Gly Leu Val Thr Lys Gly Ala
                         40
Ala His Val Arg Asp Ala Ile Asp Leu Lys Arg Met Met Ile Leu Val
                     55
Trp Phe Ala Val Phe Pro Ala Met Phe Trp Gly Met Tyr Asn Val Gly
                 7.0
                                  7.5
Leu Gln Thr Ile Pro Ala Leu His His Met Tyr Asp Ala Glu Gln Leu
              85
                                 90
Ala Gln Val Ile Gln Ser Asp Trp His Tyr Arg Leu Ala Gln Ser Leu
          1.00
                             105
                                                110
Gly Val Ser Phe Ala Ala Asp Ala Gly Trp Ile Ser Met Met Thr Leu
       115
                         120
Gly Ala Val Phe Phe Leu Pro Ile Tyr Met Thr Val Phe Ile Val Gly
   130
                                        140
Gly Phe Trp Glu Val Leu Phe Ala Ile Ile Arg Lys His Glu Ile Asn
145
                  150
                                    155
Glu Gly Phe Phe Val Thr Ser Ile Leu Phe Ala Leu Ile Val Pro Pro
              165
                                 170
Thr Leu Pro Leu Trp Gln Ala Ala Met Gly Ile Ser Phe Gly Val Val
                             185 190
          180
Ile Ala Lys Glu Ile Phe Gly Gly Thr Gly Arg Asn Phe Leu Asn Pro
       195
                          200
                              205
Ala Leu Ala Gly Arg Ala Phe Leu Phe Phe Ala Tyr Pro Ala Gln Ile
   210
                      215
Ser Gly Asp Leu Val Trp Thr Ala Ala Asp Gly Phe Ser Gly Ala Thr
                  230
                                    235
Pro Leu Ser Gln Trp Ala Ala Gly Gly Gly Glu Thr Leu Val Asn Asn
                                 250
              245
Ala Thr Gly Gln Pro Val Thr Trp Phe Asp Ala Phe Ile Gly Asn Ile
           260
                             265
Pro Gly Ser Ile Gly Glu Val Ser Thr Leu Met Ile Leu Ile Gly Gly
       275
                          280
                                            285
Ala Ile Ile Leu Phe Gly Arg Val Ala Ser Trp Arg Ile Val Ala Gly
                      295
                                         300
Val Met Leu Gly Met Val Leu Thr Ala Thr Leu Phe Asn Phe Ile Gly
                  310
                                    315
Ser Asp Thr Asn Pro Met Phe Ser Met Pro Trp Tyr Trp His Leu Val
                                 330
                                                    335
Leu Gly Gly Phe Ala Phe Gly Met Met Phe Met Ala Thr Asp Pro Val
                             345
                                                350
```

Ser Ala Ser Phe Thr Asp Arg Gly Lys Trp Cys Tyr Gly Ala Leu Ile 360

<210> 6585 <211> 409 <212> PRT <213> Enterobacter cloacae

<400> 6585 Gln Met Glu Ile Ile Leu Gly Val Val Met Phe Thr Leu Ile Val Leu 10 Val Leu Ser Gly Leu Ile Leu Ala Ala Arg Ala Lys Leu Val Asn Ser 25 Gly Asp Val Ile Ile Asp Ile Asn Asp Asp Pro Gln Asn Gln Ile Arg 40 Thr Pro Ala Gly Asp Lys Leu Leu Asn Thr Leu Ser Gly Asn Gly Ile 5.5 Phe Val Ser Ser Ala Cys Gly Gly Gly Gly Ser Cys Gly Gln Cys Arg 75 80 Val Thr Val Lys Glu Gly Gly Gly Asp Ile Leu Pro Thr Glu Leu Ser 85 90 His Ile Thr Lys Arg Glu Ala Lys Glu Gly Cys Arg Leu Ala Cys Gln 100 105 Val Ala Val Arg Gln Asn Met Lys Ile Glu Leu Pro Glu Glu Ile Phe 115 120 125 Gly Val Lys Lys Trp Glu Cys Glu Val Ile Ser Asn Asp Asn Lys Ala 135 130 140 Thr Phe Ile Lys Glu Leu Lys Leu Arg Val Pro Glu Gly Glu Ser Val 150 155 Pro Phe Arg Ala Gly Gly Tyr Ile Gln Ile Glu Cys Pro Ala His Thr 170 165 Val Ala Tyr Ala Asp Phe Asp Val Pro Glu Glu Tyr Arg Ala Asp Trp 180 185 190 Asp Lys Phe Asn Leu Phe Arg Phe Val Ser Glu Val Lys Glu Pro Ala 200 195 205 Leu Arg Ala Tyr Ser Met Ala Asn Tyr Pro Glu Glu Lys Gly Ile Ile 210 215 Met Leu Asn Val Arg Ile Ala Thr Pro Pro Pro Asn Val Pro Asp Ala 230 235 240 Pro Pro Gly Val Met Ser Ser Tyr Ile Trp Ser Leu Lys Pro Gly Asp 245 250 Lys Val Thr Ile Ser Gly Pro Phe Gly Glu Phe Phe Ala Lys Asp Thr 265 270 Asp Ala Glu Met Val Phe Ile Gly Gly Gly Ala Gly Met Ala Pro Met 275 280 Arg Ser His Ile Phe Asp Gln Leu Lys Arg Leu Gly Ser Lys Arg Lys 290 295 300 Ile Ser Phe Trp Tyr Gly Ala Arg Ser Leu Arg Glu Met Phe Tyr Asp 310 315 Asp Glu Phe Glu Gln Leu Ala Arg Asp Asn Pro Asn Phe Thr Phe His 325 330 Val Ala Leu Ser Asp Pro Gln Pro Glu Asp Asn Trp Thr Gly Tyr Thr 345 350 Gly Phe Ile His Asn Val Leu Tyr Glu Asn Tyr Leu Lys Gln His Pro 360

```
Ala Pro Glu Asp Cys Glu Phe Tyr Met Cys Gly Pro Pro Met Met Asn
370
                      375
Ala Ala Val Ile Lys Met Leu Lys Asp Leu Gly Val Glu Asp Glu Asn
385
                390
                                     395
Ile Met Leu Asp Asp Phe Gly Gly
              405
<210> 6586
```

<211> 163 <212> PRT

<213> Enterobacter cloacae

Gly Arg

<400> 6586 Ala Val Tyr Lys Gln Ala Gly Thr Leu His Met Ser Glu Lys Tyr Val 10 Val Thr Trp Asp Met Leu Gln Ile His Ala Arg Lys Leu Ala Ala Arg 20 25 Leu Met Pro Ser Glu Gln Trp Lys Gly Ile Ile Ala Val Ser Arq Gly 35 40 4.5 Gly Leu Val Pro Gly Ala Leu Leu Ala Arg Glu Leu Gly Ile Arg His 5.5 60 Val Asp Thr Val Cys Ile Ser Ser Tyr Asp His Asp Asn Gln Arg Glu 70 75 Leu Lys Val Leu Lys Arg Ala Glu Gly Asp Gly Glu Gly Phe Ile Val 85 90 Ile Asp Asp Leu Val Asp Thr Gly Gly Thr Ala Val Ala Ile Arg Glu 100 105 110 Met Tyr Pro Lys Ala His Phe Val Thr Ile Phe Ala Lys Pro Ala Gly 115 120 125 Arg Pro Leu Val Asp Asp Tyr Val Ile Asp Ile Pro Gln Asp Thr Trp 130 135 140 Ile Glu Gln Pro Trp Asp Met Gly Val Val Phe Val Pro Pro Ile Ser

155

<210> 6587 <211> 483 <212> PRT

<213> Enterobacter cloacae <400> 6587

Leu Ala Phe Arg Arg Ala Arg Arg Ile Cys Cys Pro Trp Gln Gly 10 1.5 Leu Lys Trp Tyr Thr Pro Val Ser Leu Asp Cys Cys Ser Trp Ile Pro 25 3.0 Ala Asn His Met Phe Arg Ile Arg Lys Gly Leu Asp Leu Pro Ile Ser 35 40 Gly Val Pro Glu Gln His Val Thr Thr Gly Ala Ser Ile His His Val 55 60 Ala Ile Val Gly Asp Asp Tyr Val Gly Met Arg Pro Ala Met Leu Val 70 Gln Glu Gly Asp Arg Val Ile Lys Gly Gln Ala Leu Phe Glu Asp Lys 90 85 Lys Asn Pro Gly Val Met Phe Thr Ala Pro Ala Ser Gly Thr Val Val 100 105 Ala Ile His Arg Gly Glu Arg Arg Val Leu Gln Ser Val Val Ile Gln 120 115 125 Ile Glu Gly Asp Glu Lys Arg Glu Phe Ala Arg Phe Asp Ala Ala Asp 135 130 140 Leu Ala Thr Leu Ser His Asp Val Val Gln Thr Gln Leu Leu Glu Ser

```
150
Gly Leu Trp Thr Ala Leu Arg Thr Arg Pro Tyr Ser Lys Thr Pro Val
           165
                         170
                                        175
Pro Gly Thr Val Pro Ala Ala Ile Phe Val Thr Ala Ile Asp Thr Asn
        180
                     185
                                     190
Pro Leu Ser Ala Asp Pro Gln Pro Leu Ile Leu Ala Glu Arg Lys Ala
   195
         200
                          205
Phe Asp Ala Gly Leu Ala Val Leu Thr Arg Leu Thr Pro Gly Lys Val
 210 215 220
His Val Cys Gln Ala Cys Gly Gly Lys Leu Gly Gly His Pro Gln Gly
     230 235
Gln Val Ala Phe Asn Glu Phe Ala Gly Pro His Pro Ala Gly Leu Val
      245 250 255
Gly Thr His Ile His Phe Leu Glu Pro Val Ser Leu Thr Lys Gln Val
       260 265 270
Trp His Leu Asn Tyr Gln Asp Val Ile Ala Ile Gly Lys Leu Phe Thr
   275 280 285
Thr Gly Glu Leu Cys Ala Glu Arg Ile Ile Ala Ile Gly Gly Pro Gln
290 295 300
Ala Thr Gln Pro Arg Leu Val Arg Thr Leu Leu Gly Ala Asp Leu Thr
305 310 315
Ala Leu Leu Ala Gly Glu Thr Lys Glu Gly Glu Asn Arg Ile Ile Ser
          325 330 335
Gly Ser Val Leu Ser Gly Arg His Ala Thr Gly Pro Met Ala Trp Leu
      340 345
Gly Arg Phe His Leu Gln Val Ser Val Val Leu Glu Gly Arg Asp Lys
355 360
                                  365
Glu Leu Phe Gly Trp Val Leu Pro Gly Ala Glu Lys Tyr Ser Val Thr
              375 380
Arg Thr Thr Leu Gly His Phe Leu Arg His Lys Leu Phe Asn Phe Ser
385 390 395 400
Thr Ser Thr Asn Gly Gly Glu Arg Ala Met Val Pro Ile Gly Asn Tyr
          405 410
Glu Arg Val Met Pro Leu Asp Ile Leu Pro Thr Val Leu Leu Arg Asp
      420 425
Leu Leu Ala Gly Asp Thr Asp Gly Ala Gln Ala Leu Gly Cys Leu Glu
         440 445
435
Leu Asp Glu Glu Asp Leu Ala Leu Cys Thr Tyr Val Cys Pro Gly Lys
450 455
Tyr Glu Tyr Gly Pro Val Leu Arg Glu Val Leu Thr Arg Ile Glu Gln
             470
                            475
```

```
<210> 6588
<211> 293
<212> PRT
```

Glu Gly

<sup>&</sup>lt;213> Enterobacter cloacae

8.5 Ala Val Phe Ala Glu Arg Ile Thr Ala Arg Leu Val Asp Leu Lys Thr 100 105 110 Gly Glu Leu Met Asp Lys Asp Pro Ala Lys Tyr Asn Gln Ala Leu Ala 115 120 125 Leu Lys Asp Pro Gln Met Ser Thr Thr Leu Asp Ala Ser Gln Asp Pro 135 140 Ala Gly Ile Lys Arg Arg Ser Asn Val Ala Glu Ile Tyr Leu Val Arg 150 155 160 Asp Glu Gln Lys Arg Ile Gln Lys Ile Val Leu Pro Ile Tyr Gly Asn 165 170 175 Gly Leu Trp Ser Met Met Tyr Ala Phe Val Ala Leu Asp Thr Asp Gly 180 185 190 Arg Thr Val Lys Gly Ile Thr Tyr Tyr Asp Gln Gly Glu Thr Pro Gly 200 195 Leu Gly Gly Glu Val Glu Asn Pro Asn Trp Arg Ala Gln Phe Val Gly 210 215 220 Lys Lys Val Leu Asp Asp Asn Gly Gln Pro Ala Leu Lys Val Val Lys 225 230 235 Gly Gly Ala Arg Pro Gly Asp Glu Phe Ala Val Asp Gly Leu Ser Gly 245 250 255 Ala Thr Leu Thr Ser Asn Gly Val Gln His Ser Phe Asp Phe Trp Met 260 265 270 Gly Glu Leu Gly Phe Gly Pro Phe Leu Lys Asn Val Arg Glu Gly Ala 285 280

Leu Asn Asn Gly 290

<210> 6589 <211> 356 <212> PRT

<213> Enterobacter cloacae

<400> 6589 Gly Leu Thr Met Arg Lys Ile Ile His Val Asp Met Asp Cys Phe Phe Ala Ala Val Glu Met Arg Asp Asn Pro Ala Leu Arg Asp Ile Pro Ile 20 25 Ala Ile Gly Gly Ser Arg Val Gln Arg Gly Val Ile Ser Thr Ala Asn 4.5 Tyr Pro Ala Arg Lys Tyr Gly Val Arg Ser Ala Met Pro Thr Ala Met 55 Ala Leu Lys Leu Cys Pro His Leu Thr Leu Leu Pro Gly Arg Phe Asp 70 75 Ala Tyr Lys Glu Ala Ser Ser His Ile Arg Glu Ile Phe Ser Arg Tyr 8.5 90 Thr Ser Leu Ile Glu Pro Leu Ser Leu Asp Glu Ala Tyr Leu Asp Val 100 105 110 Thr His Ser Val His Cys His Gly Ser Ala Thr Leu Met Ala Gln Glu 115 120 125 Ile Arg Gln Thr Ile Phe Asn Glu Leu Asn Leu Thr Ala Ser Ala Gly 130 135 140 Val Ala Pro Val Lys Phe Leu Ala Lys Ile Ala Ser Asp Leu Asn Lys 145 150 155 160 Pro Asn Gly Gln Tyr Val Ile Thr Pro Glu Glu Val Ser Ala Phe Leu 165 170 Lys Thr Leu Pro Leu Ser Lys Ile Pro Gly Val Gly Lys Val Ser Ala 185 190 180 Ala Lys Leu Glu Ser Met Gly Leu Arg Thr Cys Glu Asp Val Gin Arg 205 200 195 Ser Asp Leu Ala Leu Leu Leu Lys Arg Phe Gly Lys Phe Gly Arg Val

<400> 6591

```
215
                                   220
Leu Trp Glu Arg Ser Gln Gly Ile Asp Asp Arg Asp Val Asn Asn Glu
                         235 240
         230
Arg Leu Arg Lys Ser Val Gly Val Glu Arg Thr Leu Ser Glu Asp Ile
          245 250 255
His Asp Trp Thr Glu Cys Glu Thr Ile Ile Thr Glu Gln Leu Tyr Pro
      260 265 270
Glu Leu Glu Arg Arg Leu Leu Lys Val Lys Pro Asp Leu Leu Ile Ala
   275 280 285
Arg Gln Gly Ile Lys Leu Lys Phe Asn Asp Phe Gln Gln Thr Thr Gln
   290 295 300
Glu His Val Trp Pro Arg Leu Asn Lys Glu Asp Leu Ile Ala Thr Ala
    310 315
Lys Lys Ala Trp Glu Glu Arg Arg Gly Gly Arg Gly Val Arg Leu Val
            325 330 335
Gly Leu His Val Thr Leu Leu Asp Pro Gln Leu Glu Arg Gln Leu Val
                         345
Leu Gly Leu
     355
<210> 6590
<211> 214
<212> PRT
<213> Enterobacter cloacae
<400> 6590
Ile Met Ala Asp Thr Gly Glu Leu Lys Glu Val Lys Lys Val Leu Ile
                             10
Gly Pro Leu Leu Ala Asn Asn Pro Ile Thr Leu Gln Val Leu Gly Val
20
                         25
Cys Ser Ala Leu Ala Val Thr Thr Lys Leu Glu Thr Ala Val Val Met
3.5
                      40
                             45
Thr Leu Ala Val Thr Leu Val Thr Ala Phe Ser Ser Met Phe Ile Ser
50
                   55
                          60
Met Ile Arg His His Ile Pro Asn Ser Val Arg Ile Ile Val Gln Met
                70
                                75
Ala Ile Ile Ala Ser Leu Val Ile Val Val Asp Gln Leu Leu Arg Ala
            8.5
                             90
Phe Ala Tyr Glu Thr Ser Lys Gln Leu Ser Val Phe Val Gly Leu Ile
         100
                         105 110
Ile Thr Asn Cys Ile Val Met Gly Arg Ala Glu Ala Tyr Ala Met Lys
     115
                      120
                                       125
Met Pro Pro Leu Ala Ser Phe Met Asp Gly Ile Gly Asn Gly Leu Gly
 130
                   135
                                   140
Tyr Gly Val Ile Leu Leu Thr Val Gly Phe Leu Arg Glu Leu Ile Gly
145
                150
                      155
Ser Gly Lys Leu Phe Gly Ile Pro Val Leu Asp Thr Val Gln Asn Gly
             165
                             170
Gly Trp Tyr Leu Pro Asn Gly Leu Phe Leu Leu Ala Pro Ser Ala Phe
                                190
         180
                         185
Phe Ile Ile Gly Leu Leu Ile Trp Leu Ile Arg Thr Leu Lys Pro Glu
   195
                      200
                                       205
Gln Gln Glu Lys Glu
  210
<210> 6591
<211> 201
<212> PRT
<213> Enterobacter cloacae
```

```
Pro Thr Met Ala His Tyr Leu Ser Leu Phe Val Arg Ala Val Phe Val
                                  10
     5
Glu Asn Met Ala Leu Ala Phe Phe Leu Gly Met Cys Thr Phe Leu Ala
          20
                               25
                                                  30
Val Ser Lys Lys Val Ser Thr Ala Phe Gly Leu Gly Val Ala Val Thr
    35
                       40
                                              4.5
Val Val Leu Gly Leu Ser Val Pro Ile Asn Asn Leu Val Phe Asn Phe
                       55
Val Leu Arg Asp Gly Ala Leu Val Glu Gly Val Asp Leu Ser Phe Leu
                   7.0
                                       75
Asn Phe Ile Thr Phe Ile Gly Val Ile Ala Ala Leu Val Gln Ile Leu
               85
                                   90
Glu Met Ile Leu Asp Lys Tyr Phe Pro Ser Leu Tyr Asn Ala Leu Gly
           100
                               105
                                     110
Ile Phe Leu Pro Leu Ile Ala Val Asn Cys Ala Ile Phe Gly Gly Val
                           120
                                               125
       115
Ser Phe Met Val Gln Arg Asp Tyr Asn Phe Ser Glu Ser Val Val Tyr
                       135
                                           140
   130
Gly Phe Gly Ser Gly Ile Gly Trp Met Leu Ala Ile Val Thr Met Ala
                   150
145
                                      155
                                                           160
Gly Ile Arg Glu Lys Met Lys Tyr Ala Asn Val Pro Ala Gly Leu Arg
               165
                                   170
                                                      175
Gly Leu Gly Ile Thr Phe Ile Thr Thr Gly Leu Met Ala Leu Gly Phe
           180
                               185
                                                  190
Met Ser Phe Ser Gly Val Gln Leu
       195
<210> 6592
<211> 72
<212> PRT
<213> Enterobacter cloacae
<400> 6592
Phe Arg Arg Leu Ile Met Leu Thr Phe Leu Ala Thr Phe Ala Val Phe
                                   10
Val Leu Val Ile Phe Gly Met Ser Leu Gly Trp Ile Ile Lys Arg Lys
           20
                               25
Ser Ile Gln Gly Ser Cys Gly Gly Ile Ser Ser Ile Gly Met Glu Lys
                           40
Val Cys Asp Cys Pro Glu Pro Cys Asp Ala Arg Lys Lys Arg Met Ala
Arg Glu Gln Gln Arg Ile Ile
<210> 6593
<211> 186
<212> PRT
<213> Enterobacter cloacae
<400> 6593
Pro Ala Thr Leu Phe Cys Ser Ala Ser Thr Arg Arg Pro Ile Val Ser
Glu Leu Ser Gln Leu Ser Pro Gln Pro Leu Trp Asp Ile Phe Ala Lys
           20
                               25
                                                   30
Ile Cys Ser Ile Pro His Pro Ser Tyr His Glu Glu Gln Leu Ala Glu
       35
                           40
                                              4.5
His Ile Met Gly Trp Ala Lys Glu Lys Gly Leu His Ala Glu Arg Asp
                       55
Gln Val Gly Asn Ile Leu Ile Arg Lys Pro Ala Thr Ala Gly Met Glu
                   7.0
                                       7.5
Asn Arg Lys Pro Val Val Leu Gln Ala His Leu Asp Met Val Pro Gln
```

```
8.5
                            90
Lys Asn Asn Asp Thr Val His Asp Phe Thr Lys Asp Pro Ile Gln Pro
   100
                  105 110
Tyr Ile Asp Gly Glu Trp Val Lys Ala Arg Gly Thr Thr Leu Gly Ala
 115 120 125
Asp Asn Gly Ile Gly Met Ala Ser Ala Leu Ala Val Leu Ala Asp Asp
130 135 140
Ser Val Glu His Gly Pro Leu Glu Val Leu Leu Thr Met Thr Glu Glu
145 150 155 160
Ala Gly Met Asp Gly Ala Phe Gly Leu His Ala Asn Trp Leu Gln Ala 165 \\ 170 \\ 175
Asp Ile Leu Ile Asn Thr Asp Ser Glu
<210> 6594
<211> 314
<212> PRT
<213> Enterobacter cloacae
<400> 6594
Gln Gly Glu Ile Tyr Met Gly Cys Ala Gly Gly Ile Asp Phe Ile Ser
Thr Leu Pro Leu Ser Arg Glu Ala Ile Pro Ala Gly Phe Glu Thr Phe
20
Lys Leu Thr Leu Lys Gly Leu Lys Gly Gly His Ser Gly Gly Asp Ile
35
                     4.0
His Leu Gly Leu Gly Asn Ala Asn Lys Leu Leu Ala Arg Phe Leu Ala
               55
50
                          60
Gly His Ala Ala Glu Leu Asp Leu Arg Leu Val Asp Phe Asn Gly Gly
      70
                             75
Thr Leu Arg Asn Ala Ile Pro Arg Glu Ala Phe Ala Thr Leu Ala Val
          8.5
                           90
Pro Ala Ser Lys Ala Asp Glu Leu Lys Asn Leu Ser Ser Val Tyr Leu
100 105 110
Glu Ile Leu Lys Asn Glu Leu Ser Ala Lys Glu Lys Asn Leu Thr Val
      115
                     120
                                    125
Val Leu Glu Ser Val Thr Thr Asp Lys Ala Ala Leu Thr Ala Gln Ser
 130
                  135
                                  140
Arg Asp Thr Phe Val Gln Leu Leu Asn Ala Thr Pro Asn Gly Val Ile
               150
145
                               155
Arg Asn Ser Asp Val Ala Lys Gly Val Val Glu Thr Ser Leu Asn Val
            165 170 175
Gly Val Val Thr Met Gly Asp Asp Ser Ala Glu Ile Ile Cys Leu Ile
         180
                         185 190
Arg Ser Leu Ile Asp Ser Gly Lys Glu Tyr Val Val Ser Met Leu Glu
 195
                     200
                                     205
Ser Leu Gly Thr Leu Ala Gly Ala Lys Thr Ser Ala Lys Gly Ser Tyr
                215 220
   210
Pro Gly Trp Gln Pro Asp Ala Ser Ser Pro Val Met Ala Leu Val Arg
                              235
               230
                                               240
Glu Thr Tyr Gln Arg Leu Phe Asn Ser Thr Pro Asn Ile Gln Val Ile
            245
                            250 255
His Ala Gly Leu Glu Cys Gly Leu Phe Lys Lys Pro Tyr Pro Asp Met
                            270
         260
                     265
Asp Met Val Ser Ile Gly Pro Thr Ile Thr Gly Pro His Ser Pro Asp
                   280
                             285
Glu Gln Val His Ile Glu Ser Val Gly His Tyr Trp Thr Leu Leu Thr
290 295
Glu Leu Leu Lys Ala Ile Pro Ala Lys
```

```
<210> 6595
<211> 567
<212> PRT
<213> Enterobacter cloacae
<400> 6595
Tyr Cys Leu Arg Gly Cys Pro Ala Pro Val Val Lys Thr Ile Glu Gln
                           10
Met Arg Leu Ser Ala Thr Lys Ala Leu Leu Glu Arg Arg Asp Val Val
   20
                       25
Val Val Ala Ser Val Ser Ala Ile Tyr Gly Leu Gly Asp Pro Asp Leu
35
                    40
                              4.5
Tyr Leu Lys Met Met Leu His Leu Thr Gln Gly Met Ile Ile Asp Gln
50 55
                                60
Arg Ala Ile Leu Arg Arg Leu Ala Glu Leu Gln Tyr Thr Arg Asn Asp
              70 75
Gln Ala Phe Gln Arg Gly Thr Phe Arg Val Arg Gly Glu Val Ile Asp
         85
               90
Ile Phe Pro Ala Glu Ser Asp Asp Met Ala Leu Arg Val Glu Leu Phe
  100 105 110
Asp Glu Glu Val Glu Arg Leu Ser Leu Phe Asp Pro Leu Thr Gly His
 115 120 125
Val Glu Ser Val Ile Gln Arg Phe Thr Ile Tyr Pro Lys Thr His Tyr
130 135
                               140
Val Thr Pro Arg Glu Arg Ile Val Gln Ala Met Glu Glu Ile Lys Ile
145 150 155
Glu Leu Ala Asp Arg Arg Lys Val Leu Leu Ala Asn Asn Lys Leu Leu
       165 170 175
Glu Glu Gln Arg Leu Ser Gln Arg Thr Gln Phe Asp Leu Glu Met Met
 180
                       185 190
Asn Glu Leu Gly Tyr Cys Ser Gly Ile Glu Asn Tyr Ser Arg Tyr Leu
                    200 205
195
Ser Gly Arg Gly Pro Gly Glu Ala Pro Pro Thr Leu Phe Asp Tyr Leu
                 215 220
 210
Pro Ala Asp Gly Leu Leu Val Ile Asp Glu Ser His Val Thr Ile Pro
              230 235
Glm Ile Gly Gly Met Tyr Arg Gly Asp Arg Ala Arg Lys Glu Thr Leu
           245 250 255
Val Glu Tyr Gly Phe Arg Leu Pro Ser Ala Leu Asp Asn Arg Pro Met
         260
                       265 270
Lys Phe Glu Glu Phe Glu Ala Leu Ala Pro Gln Thr Ile Tyr Val Ser
                    280 285
     275
Ala Thr Pro Gly Asn Tyr Glu Leu Glu Lys Ser Gly Asp Asp Val Val
                  295 300
Asp Gln Val Val Arg Pro Thr Gly Leu Leu Asp Pro Ile Ile Glu Val
305
              310 315
Arg Pro Val Ala Thr Gln Val Asp Asp Leu Leu Ser Glu Ile Arg Ala
            325
                          330
Arq Ser Ala Ile Asn Glu Arg Val Leu Val Thr Thr Leu Thr Lys Arg
         340
                        345
                                       350
Met Ala Glu Asp Leu Thr Glu Tyr Leu Glu Glu His Gly Glu Lys Val
     355
                    360
                                    365
Arg Tyr Leu His Ser Asp Ile Asp Thr Val Glu Arg Met Glu Ile Ile
                  375
                                380
  370
Arg Asp Leu Arg Leu Gly Glu Phe Asp Val Leu Val Gly Ile Asn Leu
               390
                              395
Leu Arg Glu Gly Leu Asp Met Pro Glu Val Ser Leu Val Ala Ile Leu
```

405 410 415

430

Asp Ala Asp Lys Glu Gly Phe Leu Arg Ser Glu Arg Ser Leu Ile Gln

Thr Ile Gly Arg Ala Ala Arg Asn Val Asn Gly Lys Ala Ile Leu Tyr

435 440 Gly Asp Lys Ile Thr Pro Ser Met Ala Lys Ala Ile Gly Glu Thr Glu 450 455 460 Arg Arg Arg Glu Lys Gln Gln Arg Tyr Asn Glu Glu His Gly Ile Thr 470 475 Pro Gln Gly Leu Asn Lys Lys Val Val Asp Ile Leu Ala Leu Gly Gln 485 490 495 Asn Ile Ala Lys Thr Lys Ala Lys Gly Arg Gly Lys Ala Arg Ser Val 500 505 510 Val Glu Glu Asp Thr Val Ala Leu Thr Pro Lys Ala Leu Gln Gln Lys 515 520 525 Ile His Glu Leu Glu Gly Gln Met Met Gln His Ala Gln Asn Leu Glu 530 535 540 Phe Glu Glu Ala Ala Gln Ile Arg Asp Gln Leu His Gln Leu Arg Asp 545 550 555 Leu Phe Ile Ala Ala Ser 565

<212> PRT <213> Enterobacter cloacae

<210> 6596

Thr Gly Gly

<211> 84

<400> 6596

Leu Ala Met Ile Lys Val Leu Phe Phe Ala Gln Val Arg Glu Leu Val 1 5 10 15
Asn Thr Asp Ser Leu Thr Leu Asp Gly Ser Phe Glu Asn Val Ala Ala Ala 20 20 30
Leu Arg Ala His Leu Ala Ala Gln Gly Asp Arg Trp Ala Leu Ala Leu 45
Asp Glu Gly Lys Leu Leu Ala Ala Val Asn Gln Thr Leu Val Glu Leu 50 55 6 60
Thr His Pro Leu Ala Asp Gly Asp Glu Val Ala Phe Phe Pro Pro Val 65 70 78

<210> 6597 <211> 148 <212> PRT <213> Enterobacter cloacae

<400> 6597 Ile Ser Arg Glu Lys Ser Phe Arg Arg Glu Ala Met Lys Trp Gln Gln 1.0 1.5 Arg Val Arg Val Ala Thr Gly Leu Ser Cys Trp Gln Ile Met Leu His 25 Leu Leu Val Val Ala Val Leu Val Met Gly Trp Met Ser Gly Thr Leu 40 Val Arg Val Gly Leu Gly Leu Cys Val Val Tyr Gly Val Thr Val Leu 55 Ser Met Leu Phe Leu Gln Arg His His Asp Ala Arg Trp Arg Glu Val 70 Gly Asp Val Leu Glu Glu Leu Thr Thr Thr Trp Tyr Phe Gly Ala Ala 8.5 90 Met Ile Val Leu Trp Leu Leu Ser Arg Val Leu Gln Asn Asn Leu Leu 100 105 Leu Ala Leu Ala Gly Leu Ala Ile Leu Ala Gly Pro Ala Val Val Ser 115 120 125 Leu Leu Thr Lys Glu Lys Lys Leu Arg Asp Val Ser Ser Lys His Arg 135 140

```
Ile Glv His
145
<210> 6598
<211> 171
<212> PRT
<213> Enterobacter cloacae
<400> 6598
Pro Thr Arg Trp Pro Met Gly Thr Lys Trp Pro Ser Ser Arg Arg Ser
                               1.0
Gln Gly Val Lys Met Thr Glu Thr Arg Ile Leu Val Gly Pro Glu Arg
           20
                      25
Phe Ser Val Gly Thr Glu Tyr Ser Trp Leu Ala Glu Arg Asp Glu Asp
                       40
                                     4.5
Gly Ala Val Val Thr Phe Thr Gly Lys Val Arg Asn His Asn Leu Gly
                  55
Asp Ser Val Lys Ala Leu Thr Leu Glu His Tyr Pro Gly Met Thr Glu
              70
                                    75
Lys Ser Leu Ala Ala Ile Val Glu Glu Ala Arg Gly Arg Trp Pro Leu
              85
                                90
Gly Arg Val Thr Val Ile His Arg Ile Gly Glu Met Trp Pro Gly Glu
          100
                             105
Glu Ile Val Phe Val Gly Val Thr Ser Ala His Arg Gly Ser Ala Phe
    115
                       120 125
Ala Ala Gly Glu Phe Ile Met Asp Tyr Leu Lys Thr Lys Ala Pro Phe
130
                     135
Trp Lys Arg Glu Ala Thr Pro Glu Gly Glu Arg Trp Val Glu Ser Arg
    150
                      155
145
Asp Ser Asp Lys His Ala Ala Ser Arg Trp
              165
<210> 6599
<211> 404
<212> PRT
<213> Enterobacter cloacae
<400> 6599
Lys Cys Thr Ile Thr Ser Leu Cys Ile Asn Leu Tyr Ser Glu Lys Arg
                                 10
Gln Trp Arg Ser Gly Asp Phe His Ala Thr Ile Ala Ile Thr Thr Phe
                             25
                                                30
Ser Lys Leu Lys Thr Tyr Thr Leu Ala Leu Ala Pro Val Ser Arg Asp
       35
                         40
                                            45
Met Ala Pro Trp Pro Trp Arg Ile Cys His Gln Gly Thr Glu Arg Asn
                      55
Asp Cys Ala Ser Arg Ser Gly Lys Val Tyr Met Ala Ser Gln Leu Thr
65
                  70
                                    75
Asp Ala Phe Ala Arg Lys Phe Tyr Tyr Leu Arg Leu Ser Ile Thr Asp
              8.5
                                 90
Val Cys Asn Phe Arg Cys Thr Tyr Cys Leu Pro Asp Gly Tyr Lys Pro
           100
                             105
                                               110
Gly Ser Val Thr Asn Asn Gly Phe Leu Ser Val Asp Glu Val Arg Arg
       115
                         120
                                            125
Val Thr Arg Ala Phe Ser Glu Leu Gly Thr Glu Lys Val Arg Leu Thr
                      135
                                        140
Gly Gly Glu Pro Ser Leu Arg Arg Asp Phe Pro Asp Ile Ile Ala Ala
                  150
                                    155
```

Val Arg Glu Asn Glu Arg Ile Arg Gln Ile Ala Val Thr Thr Asn Gly

Tyr Arg Met Ala Arg Asp Val Ala Asn Trp Arg Asp Ala Gly Leu Thr

170

180 185 190 Ala Ile Asn Val Ser Val Asp Ser Leu Asp Ala Arg Gln Phe His Ala 195 200 205 Ile Thr Gly Gln Asp Lys Phe Arg Gln Val Met Asp Gly Ile Asp Ala 210 215 220 Ala Phe Thr Ala Gly Phe Glu Lys Val Lys Val Asn Thr Val Leu Met 225 230 235 Arg Asp Val Asn His His Gln Leu Asp Thr Phe Leu Ala Trp Ile Lys 245 250 255 Ser Arg Pro Ile Gln Leu Arg Phe Ile Glu Leu Met Glu Thr Gly Glu 260 265 270 Gly Ser Glu Leu Phe Arg Arg His His Ile Ser Gly Met Val Leu Arg 275 280 285 Asp Glu Leu Leu Lys Arg Gly Trp Ile His Gln Ile Arg Gln Arg Ser 295 300 Asp Gly Pro Ala Gln Val Phe Cys His Pro Asp Tyr Glu Gly Glu Ile 310 315 Gly Leu Ile Met Pro Tyr Glu Lys Asp Phe Cys Ala Ser Cys Asn Arg 325 330 335 Leu Arg Val Ser Ser Val Gly Lys Leu His Leu Cys Leu Phe Gly Asp 340 345 Gly Gly Val Asp Leu Arg Asp Leu Leu Glu Asp Asp Ala Gln Gln Asp 360 355 365 Ala Leu Glu Ala Arg Ile Ser Glu Ala Leu Thr His Lys Lys Gln Thr 375 380 His Phe Leu His Gln Gly Asn Thr Gly Ile Thr Gln Asn Leu Ser Tyr 385 390 395 Ile Gly Gly

<210> 6600 <211> 179 <212> PRT

Lys Lys

<213> Enterobacter cloacae

<400> 6600 Ser Gly Phe Arg Arg Asn Gln Lys Met Ser Gln Val Ser Ala Glu Phe 10 Ile Pro Thr Arg Ile Ala Ile Leu Thr Val Ser Glu Arg Arg Gly Glu 20 25 3.0 Glu Asp Asp Thr Ser Gly His Trp Leu Arg Glu Ala Ala His Glu Ala 35 40 Gly His Gln Ile Val Asp Lys Ala Ile Val Lys Glu Asn Arg Tyr Ala 55 Ile Arg Ala Gln Val Ser Gln Trp Ile Ala Asn Asp Asp Val Gln Val 70 7.5 Val Leu Ile Thr Gly Gly Thr Gly Phe Thr Ala Gly Asp Gln Ala Pro 8.5 90 Glu Ala Leu Leu Pro Leu Pne Asp Arg Glu Val Glu Gly Phe Gly Glu 100 105 110 Val Phe Arg Met Leu Ser Phe Glu Glu Ile Gly Thr Ser Thr Leu Gln 115 120 125 Ser Arg Ala Val Ala Gly Val Ala Asn Lys Thr Leu Ile Phe Ala Met 130 135 140 Pro Gly Ser Thr Lys Ala Cys Arg Thr Ala Trp Glu Asn Ile Ile Ala 150 155 Pro Gln Leu Asp Ala Arg Thr Arg Pro Cys Asn Phe His Pro His Leu 165 170

```
<210> 6601
<211> 163
<212> PRT
<213> Enterobacter cloacae
<400> 6601
Ala Met Ser Gln Leu Thr His Ile Asn Ala Ala Gly Glu Ala His Met
       5
                         10
Val Asp Val Ser Ala Lys Ala Glu Thr Val Arg Glu Ala Arg Ala Glu
    20
                           25
                                            3.0
Ala Phe Ile Thr Met Leu Pro Glu Thr Leu Ala Met Ile Ile Asp Gly
 35 40
                            4.5
Ser His His Lys Gly Asp Val Phe Ala Thr Ala Arg Ile Ala Gly Ile
                   55
Gln Ala Ala Lys Arg Thr Trp Asp Leu Ile Pro Leu Cys His Pro Leu
                70
                                  75
Met Leu Ser Lys Val Glu Val Asn Leu Gln Ala Gln Pro Ala His Asn
             8.5
                              90
Arg Val Arg Ile Glu Ser Leu Cys Arg Leu Thr Gly Lys Thr Gly Val
         100
                           105
                                            110
Glu Met Glu Ala Leu Thr Ala Ala Ser Val Ala Ala Leu Thr Ile Tyr
115
                        120
                                         125
Asp Met Cys Lys Ala Val Gln Lys Asp Met Val Ile Gly Pro Val Arg
130
                    135
                                      140
Leu Leu Ala Lys Ser Gly Gly Lys Ser Gly Asp Phe Lys Val Glu Ser
                150
                                  155
145
His Asp
<210> 6602
<211> 237
<212> PRT
<213> Enterobacter cloacae
<400> 6602
                               10
1
          20
                           25
                                             30
      35
                        40
```

Ile Met Asp Arg Phe Pro Arg Ser Asp Ser Ile Val Gln Gln Thr Arg Ser Gly Leu Gln Thr Tyr Met Ala Gln Val Tyr Gly Trp Met Thr Val Gly Leu Leu Thr Ala Phe Ile Ala Trp Tyr Ala Ala Asn Thr Pro Glu Leu Met Met Phe Ile Phe Ser Ser Lys Ile Thr Phe Phe Gly Leu 55 Ile Ile Ala Gln Leu Ala Leu Val Phe Val Leu Ser Gly Leu Val His 70 65 75 80 Lys Leu Ser Ser Gly Met Ala Thr Thr Leu Phe Met Leu Tyr Ser Ala 85 90 Leu Thr Gly Leu Thr Leu Ser Ser Ile Phe Ile Val Tyr Thr Tyr Ser 105 Ser Ile Ala Ser Thr Phe Val Val Thr Gly Gly Met Phe Gly Val Met 115 120 Ser Leu Tyr Gly Tyr Thr Thr Lys Arg Asp Leu Ser Gly Phe Gly Asn 130 135 Met Leu Phe Met Gly Leu Ile Gly Ile Val Leu Ala Ser Leu Val Asn 150 155 Leu Trp Leu Lys Ser Asp Ala Leu Met Trp Ala Val Thr Tyr Ile Gly 165 170 Val Val Ile Phe Val Gly Leu Thr Ala Tyr Asp Thr Gln Lys Leu Lys 180 185 190 Asn Ile Gly Glu Gln Ile Asp Val Arg Asp Ser Ser Asn Leu Arg Lys 195 200

2754 Tyr Ser Ile Leu Gly Ala Leu Thr Leu Tyr Leu Asp Phe Ile Asn Leu 215 220 Phe Leu Met Leu Leu Arg Ile Phe Gly Asn Arg Arg 225 230 <210> 6603 <211> 432 <212> PRT <213> Enterobacter cloacae <400> 6603 Lys Ala Arg Gly Pro Asn Phe Pro Arg Gly Glu Asn Phe Gly Gly Gln 10 Val Ala Asn Pro Phe Ser Gly Gly Gly Glu Phe Pro Gly Gly Ala Asp 20 25 Phe Gln Thr Arg Cys Phe Lys Gly Val Gly Arg Gly Ser Leu Phe Gly 3.5 4.0 4.5 Trp Glu Gly Gly Glu Thr His Thr Gly Gly Trp Ile Arg Gly Arg Ala 50 55 60 Phe Phe Arg Gly Tyr Gly Pro Leu Ile Ala Lys Gly Arg Gln Ser Met 70 75 Val Arg Glu Arg Arg Thr Arg Ala Ile Met Gly Leu Pro Val Leu Val 85 90 Pro Val Val Leu Phe Arg Phe Ala Pro Thr Val Glu Val Thr Thr Ala 100 105 110 Thr Phe Ala Ile Tyr Asn Glu Asp Asn Gly Lys His Ser Val Glu Leu 115 120 125 Thr Gln Arg Phe Ala Arg Ala Lys Ala Phe Thr His Val Leu Leu Leu 130 135 140 Gln Ser Pro Gln Ala Ile Gln Pro Thr Ile Asp Thr Gln Lys Ala Leu 145 150 155 Leu Leu Val Arg Phe Pro Ala Asp Phe Ser Arg Asn Leu Asp Thr Phe 165 170 175 Gln Thr Ala Pro Met Gln Leu Ile Leu Asp Gly Arg Asn Ser Asn Ser 180 185 190 Ala Gln Ile Ala Ala Asn Tyr Leu Gln Gln Val Val Lys Asp Tyr Gln 195 200 205 Gln Glu Leu Met Asp Gly Lys Pro Lys Pro Asn Asn Ser Glu Leu Val 210 215 220 Val Arg Asn Trp Tyr Asn Pro Asn Leu Asp Tyr Lys Trp Phe Val Val 230 235 Pro Ser Leu Ile Ala Met Ile Thr Thr Ile Gly Val Met Ile Val Thr 245 250 255 Ser Leu Ser Val Ala Arg Glu Arg Glu Gln Gly Thr Leu Asp Gln Leu 260 265 Leu Val Ser Pro Leu Ala Thr Trp Gln Ile Phe Val Gly Lys Ala Val 275 280 285 Pro Ala Leu Ile Val Ala Thr Phe Gln Ala Thr Ile Val Leu Gly Val 295 300 Gly Ile Trp Ala Tyr Gln Ile Pro Phe Ala Gly Ser Leu Ala Leu Phe 310 315 Tyr Phe Thr Met Val Ile Tyr Gly Leu Ser Leu Val Gly Phe Gly Leu 325 330 Leu Ile Ser Ala Leu Cys Ser Thr Gln Gln Gln Ala Phe Ile Gly Val 340 345 Phe Val Phe Met Met Pro Ala Ile Leu Leu Ser Gly Tyr Val Ser Pro 355 360 365 Val Glu Asn Met Pro Val Trp Leu Gln Asp Leu Thr Trp Ile Asn Pro 370 375 380 Ile Arg His Phe Thr Asp Ile Thr Lys Gln Ile Tyr Leu Lys Asp Ala

390

 Ser Leu Asp Ile Val Trp Gly Ser Leu Trp Pro Leu Leu Val Ile Ala

 405
 410

 Ala Thr Thr Gly Ser Val Ala Tyr Ala Met Phe Arg Arg Asn Ile Ala

 420
 425

 430
 425

<210> 6604 <211> 385

<212> PRT <213> Enterobacter cloacae

<400> 6604

Val His Gly Ala Glu Thr Glu Leu Val Glu Arg Gly His Arg Arg Gly

1 5 10 15

Gly Val Pro Leu Pro Ala Pro Leu Pro Gly His Gly Gly Leu Ala Ala 25 Arg Ala Tyr Ala Gly Gly Ser Ala Cys Ala Thr Arg

35 40 45 Asn Gly Asn Pro Gly Pro Arg Arg Gly Gly Arg Trp Arg Glu Asn Leu

50 55 60 Met Ser Lys Ser His Pro Arg Trp Arg Leu Ala Lys Lys Ile Leu Thr

65 70 75 80 Trp Leu Phe Phe Ile Ala Val Ala Val Leu Leu Val Val Tyr Ala Gln 85 90 95

Lys Val Asp Trp Glu Glu Val Trp Lys Val Ile Arg Asn Tyr Asn Arg

Thr Val Leu Leu Gly Ala Val Gly Leu Val Ile Val Ser Tyr Leu Met 115 120 125

Tyr Gly Cys Tyr Asp Leu Leu Gly Arg Ala Tyr Cys Gly His Lys Leu 130 135 140

130 135 140

Ala Lys Arg Gln Val Met Leu Val Ser Phe Ile Cys Tyr Ala Phe Asn
145 150 160

Leu Thr Leu Ser Thr Trp Val Gly Gly Ile Gly Met Arg Tyr Arg Leu 165 170 175

Tyr Ser Arg Leu Gly Leu Pro Gly Gly Thr Ile Thr Arg Ile Phe Ser 180 185 190

Leu Ser Ile Thr Thr Asn Trp Leu Gly Tyr Ile Leu Leu Gly Gly Val 200 200 Ile Phe Thr Ile Gly Val Val Glr Leu Pro Ala His Trp Tyr Ile Asp

210 215 220 Glu Ala Thr Leu Arg Ile Leu Gly Ile Val Leu Leu Leu Ile Ile Ala

225 230 235 240 Ala Tyr Leu Trp Ala Cys Ala Phe Ala Lys Arg Arg His Met Thr Ile

245 250 255 Lys Gly Gln Lys Leu Val Leu Pro Ser Trp Lys Phe Ala Val Leu Gln 260 265 270

Met Val Val Ser Ser Ala Asn Trp Met Ala Met Gly Ala Ile Ile Trp 275 Leu Leu Ile Gly Glu Asp Val Asn Tyr Phe Phe Val Leu Gly Val Leu

290 295 300
Leu Val Ser Ser Ile Ala Gly Val Ile Val His Ile Pro Ala Gly Ile

305 310 315 320 Gly Val Leu Glu Ala Val Phe Ile Ala Leu Leu Ala Gly Glu His Val

325 330 335 Ser His Gly Thr Ile Ile Ala Ala Leu Leu Ala Tyr Arg Met Ile Tyr

340 345 350 Tyr Phe Leu Pro Leu Ala Leu Ala Thr Val Cys Tyr Leu Val Leu Glu 355 360 365

Ser Arg Ala Lys Lys Leu Arg Ala Lys Asn Glu Lys Ala Met Ala Lys 370 375 380

```
<210> 6605
<211> 306
<212> PRT
<213> Enterobacter cloacae
<400> 6605
Gly Ile Gly Met Arg Asn Arg Thr Phe Ala Asp Leu Asp Arg Val Val
                                 10
Ala Leu Gly Gly Gly His Gly Leu Gly Arg Val Met Ser Ser Leu Ser
           20
                           25
Ser Leu Gly Ser Arg Leu Thr Gly Ile Val Thr Thr Thr Asp Asn Gly
                         4.0
Gly Ser Thr Gly Arg Ile Arg Arg Ala Glu Gly Gly Ile Ala Trp Gly
                     55
Asp Met Arg Asn Cys Leu Asn Gln Leu Ile Thr Glu Pro Ser Val Ala
                 70
                                      75
Ser Ala Met Phe Glu Tyr Arg Phe Gly Gly Asn Gly Glu Leu Ser Gly
                                90
His Asn Leu Gly Asn Leu Met Leu Lys Ala Leu Asp His Leu Ser Val
                             105
          100
Arg Pro Leu Glu Ala Ile Asn Leu Ile Arg Asn Leu Leu Lys Val Asp
    115
                      120
                                          125
Ala Phe Leu Ile Pro Met Ser Glu Gln Pro Val Asp Leu Met Ala Ile
   130
                      135
                                        140
Asp Ala Asp Asp His Glu Val Tyr Gly Glu Val Asn Ile Asp Gln Leu
                                     155
145
               150
Leu Leu Pro Pro Lys Glu Leu Met Thr Tyr Pro Ser Val Pro Ala Thr
              165
                                 170
Arg Glu Ala Val Glu Ala Ile Gly Glu Ala Asp Leu Ile Leu Ile Gly
           180
                              185
                                                 190
Pro Gly Ser Phe Tyr Thr Ser Leu Met Pro Ile Leu Leu Val Lys Glu
                          200
                                         205
       195
Leu Ala Gln Ala Leu Arg Arg Thr Pro Ala Pro Met Val Tyr Ile Gly
                      215
                                         220
Asn Leu Gly Arg Glu Leu Ser Pro Ala Ala Ala Ser Leu Ser Leu Ala
225
                   230
                                      235
Asp Lys Leu Asp Leu Met Glu Gln Tyr Val Gly Lys Lys Ile Ile Asp
               245
                                  250
                                                     255
Gly Val Val Val Gly Pro Lys Val Asp Val Ser Gly Ile Gly Asp Arg
           260
                              265
                                                 270
Val Val Val Gln Glu Pro Leu Glu Ala Ser Asp Ile Lys Tyr Arg His
                          280
                                  285
Asp Arg His Leu Leu Arg Glu Ala Leu Glu Lys Ala Ile Gln Ala Leu
                      295
                                          300
   290
Gly
305
<210> 6606
<212> PRT
<213> Enterobacter cloacae
<400> 6606
Ser Pro Arg Lys Val Phe Met Ser Lys Lys Thr Gln His Phe Ser Leu
Lys Val Leu Thr Ile Asn Ile His Lys Gly Phe Thr Ala Phe Asn Arg
Arg Phe Ile Leu Pro Glu Leu Arg Asp Ala Val Arg Thr Val Ser Ala
                         40
Asp Ile Val Cys Leu Gln Glu Val Met Gly Ala His Glu Val His Pro
```

<210> 6607 <211> 448 <212> PRT <213> Enterobacter cloacae

<400> 6607 Pro His Leu Arg Lys Lys Cys Pro Arg Gln Gln Pro Asp Gly Ala Gly 1.0 Phe Thr Gln Leu Ala Thr Ser Leu Arg Pro Cys Pro Thr Gln Arg Gly 25 30 Asp Pro Leu Met Lys Cys Thr Trp Gln Glu Gly Asn Arg Ile Thr Leu 4.0 45 35 Leu Glu Asn Gly Asp Asn Tyr Tyr Pro Ala Val Phe Glu Ala Ile Ser 60 50 55 His Ala Gln Gln Lys Val Phe Leu Glu Thr Phe Ile Trp Phe Glu Asp 75 70 Asp Val Gly Arg Gln Leu His Ser Ala Leu Leu His Ala Ala Arg Arg 85 90 Gly Ile Lys Ile Glu Val Leu Leu Asp Gly Tyr Gly Ser Pro Asp Leu 100 105 110 Ser Asp Glu Phe Val Asn Glu Leu Thr Ala Ala Gly Val Val Phe Arg 120 125 115 Tyr Tyr Asp Pro Gly Pro Arg Leu Phe Gly Met Arg Thr Asn Leu Phe 135 140 130 Arg Arg Met His Arg Lys Ile Val Val Val Asp Glu Thr Val Ala Phe 150 155 145 Val Gly Gly Ile Asn Tyr Ser Ala Glu His Met Ser Asp Tyr Gly Pro 165 170 Glu Ala Lys Gln Asp Tyr Ala Ile Arg Ile Glu Gly Pro Val Val Gln 185 190 180 Asp Ile Gln Leu Phe Val Leu Glu Asn Leu Pro Gly Lys Glu Ala Ala 200 205 195 Arg Arg Trp Trp Arg Arg Arg His Arg Pro Glu Glu Asn Arg Lys Pro 215 220 210 Gly Glu Ala Gln Ala Leu Phe Val Trp Arg Asp Asn Glu Glu His Arg 230 235 Asp Asp Ile Glu Arg His Tyr Leu Lys Met Leu Ala Asn Ala Lys Arg 250 255 245 Glu Val Ile Ile Ala Asn Ala Tyr Phe Phe Pro Gly Tyr Arg Ile Leu 265 260 His Ala Met Arg Asn Ala Ala Arg Arg Gly Val Ser Val Lys Leu Ile 280 285 275 Val Gln Gly Glu Pro Asp Met Pro Ile Val Lys Val Gly Ala Arg Leu 295 300 Leu Tyr Arg Tyr Leu Val Lys Ser Gly Val Gln Ile Tyr Glu Tyr Arg 315 310 Arg Arg Pro Leu His Gly Lys Val Ala Val Met Asp Asp His Trp Ala 330 335 325 Thr Val Gly Ser Ser Asn Leu Asp Pro Leu Ser Leu Ser Leu Asn Leu 345 340 Glu Ala Asn Leu Ile Ile His Asp Arg Gln Phe Asn His Thr Leu Arg 365 360 Asp Asn Leu Gln Gly Leu Ile Asn Lys Asp Cys Val Arg Val Asp Glu

```
375
Ser Met Val Pro Lys Arg Ser Trp Trp Asn Val Gly Ile Gly Val Val
           390
                                  395
Val Phe His Phe Leu Arg His Phe Pro Ala Met Val Gly Trp Leu Pro
            405
                               410
Ala His Thr Pro Lys Leu Ala Leu Val Asp Pro Pro Val Gln Pro Glu
       420 425
Met Glu Thr Gln Asp Arg Val Glu Ala Glu Asp Gly Gly Lys Thr
<210> 6608
<211> 239
<212> PRT
<213> Enterobacter cloacae
<400> 6608
Thr Phe Ile Arg Ala Ser Gln His Leu Thr Ala Ala Ser Phe Tyr Arg
                         10
Ser Cys Ala Thr Arg Tyr Ala Pro Ser Ala Pro Ile Leu Ser Ala Ser
          20
                           25
                                          30
Arg Arg Ser Trp Ala Arg Met Lys Cys Thr Arg Cys Ile Ser Lys Thr
3.5
                        4.0
Gly Pro Thr Arg Pro Thr Thr Ser Phe Trp Arg Ile Pro Cys Gly Ala
              5.5
Ile Thr Pro Thr Gly Ala Met Arg Ser Thr Arg Arg Gly His His Gly
                                   75
                 70
Asn Ala Val Leu Ser Arg Phe Pro Ile Glu His Tyr Glu Asn Arg Asp
                               90
             85
Val Ser Val Gly Glu Ser Glu Lys Arg Gly Leu Leu Tyr Cys Arg Ile
          100
                           105
Thr Pro Pro Glu Leu Asp Phe Pro Ile His Val Gly Cys Val His Leu
                 120 125
      115
Gly Leu Arg Glu Ala His Arg Gln Ala Gln Leu Gln Met Leu Ala Asp
                   135 140
Trp Thr Asn Ala Leu Pro Glu Gly Glu Pro Val Val Val Ala Gly Asp
145
                                  155
                 150
Phe Asn Asp Trp Arg Gln Arg Ala Asn His Pro Leu Lys Val Asn Ala
              165
                               170 175
Gly Leu Glu Glu Ile Phe Thr Arg Ala Arg Gly Arg Pro Ala Arg Thr
          180
                           185
Phe Pro Val Arg Phe Pro Leu Leu Arg Leu Asp Arg Ile Tyr Val Lys
 195
                        200
Asn Ala His Ala Ser Ser Pro Thr Ala Leu Ala Leu Leu Asn Trp Arg
 210
                  215 220
His Leu Ser Asp His Ala Pro Leu Ser Ala Glu Ile His Leu
                 230
<210> 6609
<211> 239
<212> PRT
<213> Enterobacter cloacae
<400> 6609
Lys Ser Pro Val Thr Glu Thr Ser Ile Met Asn Ser Lys Arg Tyr Glu
                               10
Arg Ile Cys Glu Met Leu Ala Arg Arg Gln Pro Asp Leu Thr Val Cys
                                             3.0
Met Glu Gln Val His Lys Pro His Asn Val Ser Ala Ile Val Arg Thr
                      40
Ala Asp Ala Val Gly Val His Glu Val His Ala Val Trp Pro Gly Ala
   5.0
                     55
```

```
Arg Met Arg Thr Met Ala Ser Thr Ala Ala Gly Ser Asn Ser Trp Val
Ser Val Lys Thr His Gln Thr Ile Gly Glu Ala Val Ser His Leu Lys
                           90
            85
Gly Arg Gly Met Gln Val Leu Ala Thr Asn Leu Ser Ala Lys Ala Val
       100
                        105
Asp Phe Arg Glu Ile Asp Tyr Thr Arg Pro Thr Cys Ile Leu Met Gly
115 120 125
Gln Glu Lys Thr Gly Ile Thr Gln Glu Ala Leu Asp Leu Ala Asp Arg
 130 135 140
Asp Ile Ile Ile Pro Met Ile Gly Met Val Gln Ser Leu Asn Val Ser
145 150 155 160
Val Ala Ser Ala Leu Ile Leu Tyr Glu Ala Gln Arg Gln Arg Gln Asn
      165 170 175
Ala Gly Met Tyr Glu Arg Ser Asn Ser Met Leu Pro Glu Glu Glu Gln
        180 185 190
Gln Arg Leu Leu Phe Glu Gly Gly Tyr Pro Val Leu Ala Arg Val Ala
     195 200 205
Lys Gln Lys Lys Leu Pro Tyr Pro His Val Asn Ala Gln Gly Glu Ile
 210 215 220
Glu Ala Asp Ala Glu Trp Trp Ser Thr Met Gln Tyr Ala Gly
       230
<210> 6610
<211> 695
<212> PRT
<213> Enterobacter cloacae
<400> 6610
Ile Met Lys Gly Arg Leu Leu Asp Ala Ile Pro Leu Asn Ser Leu Thr
                         10 15
Gly Val Gly Ala Ala Gln Ser Ser Lys Leu Ala Lys Ile Gly Leu His
        2.0
Thr Val Gln Asp Leu Leu His Leu Pro Leu Arg Tyr Glu Asp Arg
                   40 45
Thr Gln Leu Tyr Lys Ile Gly Asp Leu Leu Pro Ala Ile Tyr Ala Thr
                 55
Val Glu Gly Glu Val Leu Asn Cys Asn Ile Thr Phe Gly Gly Arg Arg
                              75
             7.0
Met Met Thr Cys Gln Ile Ser Asp Gly Thr Gly Ile Leu Thr Leu Arg
            85
Phe Phe Asn Phe Asn Ala Ala Met Lys Asn Ser Leu Ala Thr Gly Arg
        100 105 110
Arg Val Leu Ala Tyr Gly Glu Ala Lys Arg Gly Lys Tyr Gly Ala Glu
 115 120
Met Ile His Pro Glu Tyr Arg Val Gln Gly Asp Leu Ser Ser Pro Glu
   130 135 140
Leu Gln Glu Thr Leu Thr Pro Val Tyr Pro Thr Thr Glu Gly Ile Lys
            150 155
Gin Ala Thr Leu Arg Lys Leu Thr Asp Gin Ala Leu Glu Leu Leu Asp
                           170
           165
Thr Cys Ala Ile Asn Glu Leu Leu Pro Pro Glu Leu Ala Gln Gly Met
        180 185 190
Met Ser Leu Pro Glu Ala Leu Arg Thr Leu His Arg Pro Pro Pro Thr
      195 200
                                    205
Leu Gln Leu Val Asp Leu Glu Ser Gly Lys His Pro Ala Gln Arg Arg
      215
                                  220
Leu Ile Leu Glu Glu Leu Leu Ala His Asn Leu Ser Met Leu Ala Leu
225 230
                             235
Arg Ala Gly Ala Gln Arg Phe His Ala Gln Pro Leu Ser Gln Arg Asp
```

Glu Leu Lys Asp Lys Leu Leu Ala Ser Leu Pro Phe Lys Pro Thr Gly 260 265 Ala Gln Ala Arg Val Thr Ala Glu Ile Glu Arg Asp Met Ala Leu Asp 275 280 285 Val Pro Met Met Arg Leu Val Gln Gly Asp Val Gly Ser Gly Lys Thr 290 295 300 Leu Val Ala Ala Leu Ala Ala Leu Arg Ala Ile Ala His Gly Lys Gln 305 310 315 320 Val Ala Leu Met Ala Pro Thr Glu Leu Leu Ala Glu Gln His Ala Asn 325 330 335 Asn Phe Arg Asn Trp Phe Ala Pro Leu Gly Ile Glu Val Gly Trp Leu 340 345 Ala Gly Lys Gln Lys Gly Lys Ala Arg Leu Ala Gln Gln Glu Ala Ile 355 360 365 Ala Ser Gly Gln Val Gln Met Ile Val Gly Thr His Ala Ile Phe Gln 375 380 Glu Gln Val Gln Phe Asn Gly Leu Ala Leu Val Ile Ile Asp Glu Gln 390 395 400 His Arg Phe Gly Val His Gln Arg Leu Ala Leu Trp Glu Lys Gly Leu 405 410 415 Gln Gln Gly Phe His Pro His Gln Leu Ile Met Thr Ala Thr Pro Ile 425 430 420 Pro Arg Thr Leu Ala Met Thr Ala Tyr Ala Asp Leu Asp Thr Ser Thr 435 440 445 Ile Asp Glu Leu Pro Pro Gly Arg Thr Pro Val Thr Thr Val Ala Ile 460 455 Pro Asp Thr Arg Arg Ser Asp Ile Ile Asp Arg Val Arg Asn Ala Cys 465 470 475 480 Thr His Glu Gly Arg Gln Ala Tyr Trp Val Cys Thr Leu Ile Glu Glu 495 485 490 Ser Glu Leu Leu Glu Ala Gln Ala Ala Glu Ala Thr Trp Glu Glu Leu 505 510 Lys Leu Ala Leu Pro Glu Leu Asn Val Gly Leu Val His Gly Arg Met 515 520 Lys Pro Ala Glu Lys Gln Ala Val Met Gln Ser Phe Lys Gln Gly Glu 535 540 Leu His Leu Leu Val Ala Thr Thr Val Ile Glu Val Gly Val Asp Val 550 Pro Asn Ser Ser Leu Met Ile Ile Glu Asn Pro Glu Arg Leu Gly Leu 565 570 575 Ala Gln Leu His Gln Leu Arg Gly Arg Val Gly Arg Gly Ala Ile Ala 580 585 Ser His Cys Val Leu Leu Tyr Lys Ala Pro Leu Ser Lys Thr Ala Gln 595 600 605 Met Arg Leu Gln Val Leu Arg Asp Ser Asn Asp Gly Phe Val Ile Ala 610 615 620 Gln Lys Asp Leu Glu Ile Arg Gly Pro Gly Glu Leu Leu Gly Thr Arg 625 630 635 Gln Thr Gly Asn Ala Glu Phe Lys Val Ala Asp Leu Leu Arg Asp Gln 650 645 Ala Met Ile Pro Glu Val Gln Arg Leu Ala Arg His Ile His Glu Arg 660 665 670 Tyr Pro Glu Gln Ala Ala Ala Leu Ile Glu Arg Trp Met Pro Glu Thr 675 680 Glu Arg Tyr Ser Asn Ala

<210> 6611 <211> 475

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 6611
Asn Ala Arg Phe Ser Thr Val Gly Leu Pro Pro Met Ser Val Asn Thr
                         10
         5
Leu Glu Ser Ala Asp Ala Gln Pro Ile Ala Gln Lys Gln Asn Ser Glu
   20
                       25
Leu Ile Tyr Arg Leu Glu Asp Arg Pro Pro Leu Pro Gln Thr Leu Phe
 3.5
                    40
Ala Ala Cys Gln His Leu Leu Ala Met Phe Val Ala Val Ile Thr Pro
5.0
      5.5
                      60
Ala Leu Leu Ile Cys Gln Ala Leu Gly Leu Pro Ala Gln Asp Thr Gln
     70 75 80
His Ile Ile Ser Met Ser Leu Phe Ala Ser Gly Val Ala Ser Ile Ile
        85 90 95
Gln Ile Lys Ala Trp Gly Pro Val Gly Ser Gly Leu Leu Ser Ile Gln 100 \ 105 \ 110
Gly Thr Ser Phe Asn Phe Val Ala Pro Leu Ile Met Gly Gly Thr Ala
     115 120 125
Leu Lys Thr Gly Gly Ala Asp Val Pro Thr Met Met Ala Ala Leu Phe
 130 135 140
Gly Thr Leu Met Leu Ala Ser Cys Thr Glu Met Ile Ile Ser Arg Val
145 150 155
Leu His Leu Ala Arg Arg Val 11e Thr Pro Leu Val Ser Gly Val Val 165 $170$
Val Met Ile Ile Gly Leu Ser Leu Ile Gln Val Gly Leu Thr Ser Ile
        180 185 190
Gly Gly Gly Tyr Ala Ala Met Ser Asp His Thr Phe Gly Ala Pro Lys
195 200 205
Asn Leu Leu Ala Gly Val Val Leu Ala Ile Ile Ile Leu Leu Asn
210 215 220
Arg Gln Arg Asn Pro Tyr Leu Arg Val Ala Ser Leu Val Ile Ala Met
225 230 235 240
Ala Ala Gly Tyr Leu Leu Ala Trp Ala Leu Gly Met Leu Pro Glu Asn
         245 250 255
Thr Thr Pro Thr Asn Ser Ala Leu Ile Thr Val Pro Thr Pro Leu Tyr
        260 265
                                       270
Tyr Gly Leu Gly 11e Asp Trp Ser Leu Leu Leu Pro Leu Met Leu Val
 275
                    280 285
Phe Met Ile Thr Ser Leu Glu Thr Ile Gly Asp Ile Thr Ala Thr Ser
 290 295
                                 300
Asp Val Ser Glu Gln Pro Val Ser Gly Pro Leu Tyr Met Lys Arg Leu
              310 315
305
Lys Gly Gly Val Leu Ala Asn Gly Leu Asn Ser Phe Val Ser Ala Val
            325 330 335
Phe Asn Thr Phe Pro Asn Ser Cys Phe Gly Gln Asn Asn Gly Val Ile
                       345 350
         340
Gln Leu Thr Gly Val Ala Ser Arg Tyr Val Gly Phe Val Val Ala Leu
      355
                     360
                                    365
Met Leu Val Val Leu Gly Leu Phe Pro Ala Val Ser Gly Phe Val Gln
 370
                  375
                                 380
His Ile Pro Glu Pro Val Leu Gly Gly Ala Thr Leu Val Met Phe Gly
     390
                              395
385
Thr Ile Ala Ala Ser Gly Val Arg Ile Val Ser Arg Glu Pro Leu Asn
            405
                           410
Arg Arg Ala Ile Met Ile Ile Ala Leu Ser Leu Ala Val Gly Leu Gly
                        425
      420
                                       430
Val Ser Gln Gln Pro Met Ile Leu Gln Phe Ala Pro Asp Trp Val Lys
                     440 445
Asn Leu Leu Ser Ser Gly Ile Ala Ala Gly Gly Ile Thr Ala Ile Val
                  455
                                 460
Leu Asn Leu Ile Phe Pro Pro Glu Lys Asn
```

```
<210> 6612
<211> 110
<212> PRT
```

<213> Enterobacter cloacae

<400> 6612 Thr His Phe Gln Tyr His Ala Gln Ser Phe Leu His Leu Trp Ser Ile 10 Leu Ser Met Ala Arg Val Thr Val Gln Asp Ala Val Lys Lys Ile Gly 25 30 Asn Arg Phe Asp Leu Val Leu Val Ala Ala Arg Arg Ala Arg Gln Met 4.0 Gln Val Gly Gly Lys Asp Pro Leu Val Pro Glu Glu Asn Asp Lys Thr 55 60 Thr Val Ile Ala Leu Arg Glu Ile Glu Glu Gly Leu Ile Asn Asn Gln 70 75 Ile Leu Asp Val Arg Glu Arg Gln Glu Gln Glu Gln Glu Ala Ala 85 90

105

Glu Leu Gln Ala Val Thr Ala Ile Ala Glu Gly Arg Arg

100

<211> 576 <212> PRT

Pl3

The same

In.

<213> Enterobacter cloacae

<400> 6613 His Pro Tyr Val Arg Phe Ala Gly Arg Lys Thr Met Lys Phe Ile Gly Lys Leu Leu Ile Tyr Leu Leu Val Ala Leu Leu Ile Val Val Leu Ala 25 20 3.0 Phe Tyr Phe Leu Leu Gln Thr Arg Trp Gly Ala Ser Gln Val Ser Ser 40 45 35 Trp Ile Thr Val Asn Thr Asp Tyr Glu Leu Asn Phe Asp Leu Met Asp 55 50 His Arg Phe Ser Ser Pro Ser His Ile Leu Leu Glu Asn Val Thr Phe 70 7.5 Gly Arg Asp Gly Lys Pro Ala Thr Leu Val Ala Lys Lys Val Asp Ile 90 85 Gly Leu Ser Ser Arg Gln Ile Thr Asp Pro Leu His Met Asp Ala Ile 100 105 110 Thr Leu Phe Asp Gly Thr Leu Asn Leu Ser Pro Gln Thr Ala Pro Leu 120 115 125 Pro Phe Gln Ala Asp Arg Leu Gln Leu Asn Asn Met Ala Phe Asn Ser 135 140 Pro Asn Thr Glu Trp Asp Leu Ser Ala Gln Lys Val Thr Gly Gly Val 150 155 160 Ser Pro Trp Gln Pro Glu Ala Gly Asn Val Leu Gly Lys Asn Ala Gln 165 170 Ile Gln Met Ser Ala Gly Ser Leu Thr Leu Asn Gly Ile Pro Ala Asn 185 180 190 Asn Val Leu Ile Gln Gly Gln Leu Asn Gly Lys Glu Val Ala Leu Asn 200 205 Thr Ile Gly Ala Asp Met Ala Arg Gly Ser Leu Thr Gly Ser Ala Leu 215 220 Arg Asn Ala Asp Gly Gly Trp Val Ile Asn Thr Leu Arg Leu Asn Glu 225 230 235 240

Ile Arg Leu Gln Ser Asp Lys Ser Leu Leu Asp Phe Phe Ala Pro Leu

```
Ser Thr Leu Pro Ser Leu Gln Ile Gly Arg Leu Glu Val Thr Asp Ala
                      265
      260
Arg Leu Gln Gly Pro Asp Trp Ala Val Thr Asp Leu Asp Leu Ser Leu
 275
                 280
Arg Asn Leu Thr Leu Ser Lys Gly Asp Trp Gln Ser Gln Glu Gly Arg
 290 295
                               300
Leu Ser Met Asn Ala Ser Glu Phe Ile Tyr Gly Ser Leu His Leu Phe
305 310 315
Asp Pro Ile Leu Asn Ala Glu Phe Ser Pro Gln Gly Ile Ala Leu Arg
      325
                         330 335
Gln Phe Thr Ser Arg Trp Glu Gly Gly Met Val Arg Thr Ser Gly Asn
       340 345 350
Trp Leu Arg Glu Gly Gln Ala Leu Val Leu Asp Asp Val Ala Ile Ala
   355 360 365
Gly Leu Glu Tyr Thr Leu Pro Glu Asn Trp Lys Thr Leu Trp Met Asp
 370 375
                               380
Pro Leu Pro Ala Trp Leu Asn Ser Val Thr Leu Lys Lys Phe Gly Leu
             390
                            395
Ser Arg Asn Leu Val Ile Asp Ile Asp Pro Ala Phe Pro Trp Gln Ile $405$
Thr Ser Leu Asp Gly Tyr Gly Ala Asn Leu Arg Leu Ala Gln Asp His
        420 425 430
Lys Trp Gly Val Trp Gly Gly Asn Ala Thr Leu Asn Gly Ala Ala Ala
         440 445
     435
Thr Phe Asn Arg Val Asp Val Arg Arg Pro Ser Leu Ala Leu Asn Ala
 450 455 460
Asn Ala Ala Thr Val Asn Ile Thr Asp Leu Ser Ala Phe Thr Glu Lys
465 470
                           475
Gly Ile Leu Glu Ala Thr Ala Thr Val Ser Gln Leu Pro Gln Arg Gln
                         490 495
          485
Thr Thr Val Ser Leu Asn Gly Arg Gly Val Pro Leu Asn Val Leu Gln
        500
                      505 510
Gln Trp Gly Trp Pro Ala Leu Pro Ile Ala Gly Asp Gly Asn Ile Gln
                    520 525
515
Leu Thr Ala Ser Gly Ser Val Gln Ala Asn Ala Pro Leu Lys Pro Thr
530 535
                               540
Val Asn Gly Lys Leu Ser Ala Val Asn Met Asp Lys Gln Gln Val Gln
545 550 555 560
Gln Thr Met Thr Gly Gly Val Val Ser Thr Val Ala Pro Ala Gln
           565
```

<210> 6614 <211> 710

<212> PRT <213> Enterobacter cloacae

<400> 6614

Thr Cys Gly Ser Pro Leu Tyr Leu Phe Glu Ser Leu Asn Gln Leu Ile 10 Gln Thr Tyr Leu Pro Glu Asp Gln Ile Lys Arg Leu Gln Gln Ala Tyr 20 Leu Val Ala Arg Asp Ala His Glu Gly Gln Thr Arg Ser Ser Gly Glu 4.0 Pro Tyr Ile Thr His Pro Val Ala Val Ala Cys Ile Leu Ala Glu Met 55 Lys Leu Asp Tyr Glu Thr Leu Met Ala Ala Leu Leu His Asp Val Ile 70 65 Glu Asp Thr Pro Ala Thr Tyr Gln Asp Met Glu Gln Leu Phe Gly Lys 90 Ser Val Ala Glu Leu Val Glu Gly Val Ser Lys Leu Asp Lys Leu Lys 100 105 110

Phe Arg Asp Lys Lys Glu Ala Gln Ala Glu Asn Phe Arg Lys Met Ile 120 115 Met Ala Met Val Gln Asp Ile Arg Val Ile Leu Ile Lys Leu Ala Asp 140 135 Arg Thr His Asn Met Arg Thr Leu Gly Ser Leu Arg Pro Asp Lys Arg 145 150 155 Arg Arg Ile Ala Arg Glu Thr Leu Glu Ile Tyr Ser Pro Leu Ala His 170 165 Arg Leu Gly Ile His His Ile Lys Thr Glu Leu Glu Glu Leu Gly Phe 180 185 Glu Ala Leu Tyr Pro Asn Arg Tyr Arg Val Ile Lys Glu Val Val Lys 195 200 205 Ala Ala Arg Gly Asn Arg Lys Glu Met Ile Gln Lys Ile Leu Ser Glu 210 215 220 Ile Glu Gly Arg Leu Gln Glu Ala Gly Ile Pro Cys Arg Val Ser Gly 225 230 235 Arg Glu Lys His Leu Tyr Ser Ile Tyr Cys Lys Met Val Leu Lys Glu 245 250 255Gln Arg Phe His Ser Ile Met Asp Ile Tyr Ala Phe Arg Val Ile Val 260 265 270 His Asp Ser Asp Thr Cys Tyr Arg Val Leu Gly Gln Met His Ser Leu 275 280 285 Tyr Lys Pro Arg Pro Gly Arg Val Lys Asp Tyr Ile Ala Ile Pro Lys 290 295 300 Ala Asn Gly Tyr Gln Ser Leu His Thr Ser Met Ile Gly Pro His Gly 305 310 315 Val Pro Val Glu Val Gln Ile Arg Thr Glu Asp Met Asp Gln Met Ala 325 330 335 Glu Met Gly Val Ala Ala His Trp Ala Tyr Lys Glu His Gly Gly Glu 340 345 350 Ser Ser Thr Thr Ala Gln Ile Arg Ala Gln Arg Trp Met Gln Ser Leu 355 360 365 Leu Glu Leu Gln Gln Ser Ala Gly Ser Ser Phe Glu Phe Ile Glu Ser 370 375 380 Val Lys Ser Asp Leu Phe Pro Asp Glu Ile Tyr Val Phe Thr Pro Glu 390 395 400 Gly Arg Ile Val Glu Leu Pro Ala Gly Ala Thr Pro Val Asp Phe Ala 405 410 415 Tyr Ala Val His Thr Asp Ile Gly His Ala Cys Val Gly Ala Arg Val 425 430 420 Asp Arg Gln Pro Tyr Pro Leu Ser Gln Pro Leu Phe Ser Gly Gln Thr 440 445 435 Val Glu Ile Ile Thr Ala Pro Gly Ala Arg Pro Asn Ala Ala Trp Leu 450 455 4.60 Asn Phe Val Val Ser Ser Lys Ala Arg Ala Lys Ile Arg Gln Leu Leu 470 475 480 Lys Asn Leu Lys Arg Asp Asp Ser Val Ser Leu Gly Arg Arg Leu Leu 485 490 495 Asn His Ala Leu Gly Gly Ser Arg Lys Leu Ala Glu Ile Pro Pro Glu 500 505 510 Asn Ile Gln His Glu Leu Glu Arg Met Lys Leu Ala Ser Leu Asp Asp 520 525 Leu Leu Ala Glu Ile Gly Leu Gly Asn Ala Met Ser Val Val Val Ala 535 540 530 Lys Asn Leu Gln Gln Gly Glu Thr Thr Ala Val Pro Ala Thr Thr Gln 550 555 Asn His Gly His Leu Pro Ile Lys Gly Ala Asp Gly Val Leu Ile Thr 565 570 Phe Ala Lys Cys Cys Arg Pro Ile Pro Gly Asp Pro Ile Ile Ala His 585 580 Val Ser Pro Gly Lys Gly Leu Val Ile His His Glu Ser Cys Arg Asn

```
595
                        600
Ile Arg Gly Tyr Gln Lys Glu Pro Glu Lys Phe Met Ala Val Glu Trp
             615
                             620
Asp Lys Glu Thr Ala Gln Glu Phe Ile Thr Glu Ile Lys Val Asp Met
      630
                      635
Phe Asn His Gln Gly Ala Leu Ala Asn Leu Thr Ala Ala Ile Asn Thr
         645 650 655
Ala Ser Ser Asn Ile Gln Ser Leu Asn Thr Glu Glu Lys Asp Gly Arg
  660 665 670
Val Tyr Ser Ala Phe Ile Arg Leu Thr Ala Arg Asp Arg Val His Leu
   675 680 685
Ala Asn Ile Met Arg Lys Ile Arg Val Met Pro Asp Val Ile Lys Val
Thr Arg Asn Arg Asn
<210> 6615
<211> 405
<212> PRT
<213> Enterobacter cloacae
<400> 6615
Gln Glu Pro Phe Met Ile His Leu Asp Thr Leu Ser Thr Leu Val Ala
                               10
Ala Thr Leu Val Leu Leu Gly Arg Lys Leu Val His Ser Val Ser
       20
                            2.5
Phe Leu Lys Lys Tyr Thr Ile Pro Glu Pro Val Ala Gly Gly Leu Leu
                        4.0
Val Ala Leu Ala Leu Leu Ile Leu Lys Lys Ser Met Gly Trp Glu Ile
                    55
                                      60
Asp Phe Asp Met Ser Leu Lys Asp Pro Leu Met Leu Ala Phe Phe Ala
                 7.0
                                  75
Thr Ile Gly Leu Asn Ala Asn Leu Ala Ser Leu Arg Ser Gly Gly Lys
                               90
             8.5
Val Leu Gly Val Phe Leu Ile Val Val Val Gly Leu Leu Met Gln
                                             110
          100
                           105
Asn Ala Ile Gly Ile Gly Met Ala Ser Leu Leu Gly Leu Asp Pro Leu
      115
                        120
Met Gly Leu Leu Ala Gly Ser Ile Thr Leu Ser Gly Gly His Gly Thr
                     135
                                      140
Gly Ala Ala Trp Ser Lys Leu Phe Ile Glu Arg Tyr Gly Phe Glu Asn
                 150
                                                    1.60
Ala Thr Glu Val Ala Met Ala Cys Ala Thr Phe Gly Leu Val Leu Gly
             165
                               170
Gly Leu Ile Gly Gly Pro Val Ala Arg Tyr Leu Val Lys His Ser Thr
          180
                           185
                                             1.90
Thr Pro Glu Gly Arg Pro Asp Asp Glu Met Val Pro Thr Ala Phe Glu
       195
                        200
Lys Pro Asp Val Gly Arg Ser Ile Thr Ser Leu Val Met Ile Glu Thr
                    215
                                      220
Ile Ala Met Ile Ala Ile Cys Leu Thr Val Gly Lys Ile Val Ala Gln
              230
                                   235
Trp Leu Ala Gly Thr Ala Phe Glu Leu Pro Thr Phe Val Cys Val Leu
              245 250
Phe Ile Gly Val Ile Leu Ser Asn Gly Leu Ala Gln Met Gly Phe Tyr
                        265
                                270
          260
Arg Val Phe Glu Arg Ala Val Ser Val Leu Gly Asn Val Ser Leu Ser
                       280
                                285
Leu Phe Leu Ala Met Ala Leu Met Ser Leu Lys Leu Trp Glu Leu Ala
          295
                            300
```

Ser Leu Ala Leu Pro Met Val Ala Ile Leu Ala Val Gln Ala Val Phe

```
310
                                  315
Met Ala Leu Tyr Ala Ile Phe Val Thr Trp Arg Met Met Gly Lys Asn
             325
                             330
                                               335
Tyr Asp Ala Ala Val Leu Ala Ala Gly His Cys Gly Phe Gly Leu Gly
         340
                 345
Ala Thr Pro Thr Ala Ile Ala Asn Met Gln Ala Ile Thr Glu Arg Phe
    355
           360
                               365
Gly Pro Ser His Met Ala Phe Leu Val Val Pro Met Val Gly Ala Phe
 370 375 380
Phe Ile Asp Ile Val Asn Ala Leu Val Ile Lys Leu Tyr Leu Met Leu
385
              390 395
Pro Met Phe Gly
             405
<210> 6616
<211> 195
<212> PRT
<213> Enterobacter cloacae
<400> 6616
Ala His Asp Lys Val Gln Pro Gly Gly Val Arg Thr Cys Pro Arg Arg
                             1.0
Gly Asn Asp Leu His Arg Leu Ser Ala Glu Lys Arg Leu Arg Gln Arg
                           25
                                            30
Ile Arg Leu Pro Val Asp Ala Gly Thr Tyr Ala Gly Val Ala Asp Ile
                      40
                                        45
Gly Met His Gly Val Ser Glu Val Asp Arg Cys Arg Ala Arg Arg Gln
                    5.5
                                     60
Phe Asp Asn Ala Pro Phe Arg Arg Glu Asn Val Asn Leu Ile Arg Glu
65
             7.0
                     7.5
Glu Ile Gly Phe Asn Ala Leu Asp Lys Phe Lys Arg Ala Thr Cys Ala
             85
                              90
Leu Leu Gln Leu Gln Gln Ala Leu His Pro Ala Leu Gly Ala Asp Leu
          100
                        105
Arg Gly Gly Ala Ala Phe Ala Ala Val Leu Phe Val Ser Pro Val Arg
115
                       120
                                         125
Arg Asp Thr His Leu Arg His Leu Ile His Ile Phe Gly Thr Asn Leu
 130 135
                                     140
His Leu Asn Arg Asp Thr Val Arg Ala Asn His Gly Gly Val Gln Arg
                150
                                  155
Leu Ile Ser Val Arg Phe Trp Asn Gly Asp Val Ile Phe Asp Ala Pro
             165 170 175
Arg Thr Arg Leu Val Gln Ala Val His Leu Pro Gln His Ala Ile Thr
         180
                        185
Gly Val
     195
<210> 6617
<211> 85
<212> PRT
<213> Enterobacter cloacae
<400> 6617
Val Met Ala Asn Ile Glu Ile Tyr Thr Lys Ala Thr Cys Pro Phe Cys
                            10
His Arg Ala Lys Ala Leu Leu Ser Ser Lys Gly Val Thr Phe Lys Glu
                           25
Leu Pro Ile Asp Gly Asp Ala Ile Lys Arg Glu Glu Met Ile Gln Arg
Ser Gly Arg Thr Thr Val Pro Gln Ile Phe Ile Asp Ala Gln His Ile
```

```
Gly Gly Cys Asp Asp Leu Tyr Ala Leu Asp Ala Arg Gly Gly Leu Asp
Pro Leu Leu Ser
<210> 6618
<211> 362
<212> PRT
<213> Enterobacter cloacae
<400> 6618
Cys Ala Val His Glu Leu Ser Thr Ala Ala Gly Trp Arg Arg Cys Arg
        5
                         10
Thr Thr Ser Gly Cys Leu Met Ser Thr Val Asn Ala Ser Met Thr Val
       20
             25
Ile Gly Ala Gly Ser Tyr Gly Thr Ala Leu Ala Ile Thr Leu Ala Arg
35
                40 45
Asn Gly His Asp Val Val Leu Trp Gly His Asp Pro Lys His Ile Ala
50 55
Thr Leu Gln His Asp Arg Cys Asn Val Ala Phe Leu Pro Asp Val Pro
                  75
    7.0
Phe Pro Asp Ser Leu Tyr Leu Glu Ser Asp Leu Ala Thr Ala Leu Ala
        85 90
Val Ser Arg Asn Ile Leu Ile Val Val Pro Ser His Val Phe Gly Glu
      100 105 110
Val Leu Arg Gln Ile Lys Pro Leu Met Arg Ala Asp Ala Arg Ile Val
     115 120 125
Trp Ala Thr Lys Gly Leu Glu Ala Glu Thr Gly Arg Leu Leu Gln Asp
               135
                                 140
Val Ala Arg Glu Ala Leu Gly Thr Ala Ile Pro Leu Ala Val Ile Ser
145 150 155 160
Gly Pro Thr Phe Ala Lys Glu Leu Ala Ala Gly Leu Pro Thr Ala Ile
         165 170
                                          175
Ser Leu Ala Ser Thr Asp Gln Ala Phe Ser Asp Asp Leu Gln Gln Leu
       180 185 190
Leu His Cys Gly Lys Ser Phe Arg Val Tyr Ser Asn Pro Asp Phe Ile
195 200
                                    205
Gly Val Gln Leu Gly Gly Ala Val Lys Asn Val Ile Ala Ile Gly Ala
 210 215
                                220
Gly Met Ser Asp Gly Ile Gly Phe Gly Ala Asn Ala Arg Thr Ala Leu
225 230 235
Ile Thr Arg Gly Leu Thr Glu Met Ser Arg Leu Gly Glu Ala Leu Gly
           245
               250
Ala Asp Pro Ala Thr Phe Met Gly Met Ala Gly Leu Gly Asp Leu Val
                       265
        260
                                       270
Leu Thr Cys Thr Asp Asn Gln Ser Arg Asn Arg Arg Phe Gly Met Met
      275 280
                                    285
Leu Gly Gln Gly Ser Asp Val Lys Ser Ala Gln Glu Lys Ile Gly Gln
                 295
                                 300
Val Val Glu Gly Tyr Arg Asn Thr Lys Glu Val Arg Glu Leu Ala His
              310
                              315
Arg Phe Gly Val Glu Met Pro Ile Thr Glu Glu Ile Tyr Gln Val Leu
            325
                           330
Tyr Cys Gly Lys Asn Ala Arg Glu Ala Ala Leu Thr Leu Leu Gly Arg
         340
                       345
Ala Arg Lys Asp Glu Arg Ser Ser Asn
      355
<210> 6619
<211> 292
<212> PRT
```

## <213> Enterobacter cloacae

```
<400> 6619
Met Thr Gln Pro Ala Gln Asn Trp Leu Val Ile Asn Tyr Arg Leu Glu
Gln Ala Met Pro Cys Glu Glu Leu Asp Ile Val Trp Asn Asn Ile Lys
         20
                         25
Ala Glu Ala Arg Ala Leu Ala Asp Cys Glu Pro Met Leu Ala Ser Phe
                   4.0
     3.5
Tyr His Ala Thr Leu Leu Lys His Glu Asn Leu Gly Ser Ala Leu Ser
                55
Tyr Met Leu Ala Asn Lys Leu Ala Ser Pro Ile Met Pro Ala Ile Ala
65 70 75
Ile Arg Glu Val Val Glu Glu Ala Tyr Ala Ala Asp Pro Glu Met Ile
          8.5
                          90
Ala Ser Ala Ala Cys Asp Ile Gln Ala Val Arg Thr Arg Asp Pro Ala
             105 110
        100
Val Asp Lys Tyr Ser Thr Pro Leu Leu Tyr Leu Lys Gly Phe His Ala
      115 120
                              125
Leu Gln Ala Tyr Arg Ile Gly His Trp Leu Trp Asn Glu Gly Arg Arg
                 135
Ala Leu Ala Ile Phe Leu Gln Asn Gln Val Ser Val Thr Phe Gln Val
145 150 155
Asp Ile His Pro Ala Ala Lys Ile Gly Arg Gly Ile Met Leu Asp His
                 170
          165
Ala Thr Gly Ile Val Val Gly Glu Thr Ala Val Ile Glu Asp Asp Val
        180
             185
                                190
Ser Ile Leu Gln Ser Val Thr Leu Gly Gly Thr Gly Lys Thr Ser Gly
     195 200
Asp Arg His Pro Lys Ile Arg Glu Gly Val Met Ile Gly Ala Gly Ala
 210 215
Lys Ile Leu Gly Asn Ile Glu Val Gly Arg Gly Ala Lys Ile Gly Ala
225 230
                                235
Gly Ser Val Val Leu Gln Pro Val Pro Pro His Thr Thr Ala Ala Gly
            245
                             250
Val Pro Ala Arg Ile Val Gly Lys Pro Asp Ser Asp Lys Pro Ser Met
                         265
Asp Met Asp Gln His Phe Asn Gly Ile His His Thr Phe Glu Tyr Gly
                      280
Asp Gly Ile
  290
<210> 6620
<211> 153
<212> PRT
<213> Enterobacter cloacae
<400> 6620
Ser Leu Ser Arg Glu Leu Leu Pro Pro Met Gln Glu Ile Met Gln Phe
                             10
```

 Ser Leu Ser Arg Glu Leu Leu Pro Pro Met Gln Glu Ile Met Gln Phe
 5
 10
 15
 12
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18
 18<

2769 1.00 105 Gly Met Gln Ala Gln Glu Ser Ala Asn Ala Leu His Lys Ala Gly Phe 125 115 120 Glu Asn Val Thr Val Leu Lys Glu Gly Ile Ser Gly Trp Ser Gly Glu 135 130 Asn Leu Pro Leu Val Arg Gly Lys 150 <210> 6621 <211> 168 <212> PRT <213> Enterobacter cloacae <400> 6621 Ala Arg Asp Phe Arg Thr Ile Lys Lys Gly Phe Ser Met Ser Glu Gln 1.0 Asn Asn Thr Glu Met Thr Phe Gln Ile Gln Arg Ile Tyr Thr Lys Asp 20 25 30 Val Ser Phe Glu Ala Pro Asn Ala Pro His Val Phe Gln Lys Asp Trp 35 4.0 45 Gln Pro Glu Val Lys Leu Asp Leu Asp Thr Ala Ser Thr Gln Leu Ala 5.0 5.5 60 Asp Asp Val Tyr Glu Val Val Leu Arg Val Thr Val Thr Ala Ser Leu 70 7.5 Gly Glu Glu Thr Ala Phe Leu Cys Glu Val Gln Gln Gly Gly Ile Phe 85 90 Ser Ile Gly Gly Ile Glu Gly Asn Gln Met Ala His Cys Leu Gly Ala 100 105 Tyr Cys Pro Asn Ile Leu Phe Pro Tyr Ala Arg Glu Cys Ile Thr Ser 115 120 125 Leu Val Ser Arg Gly Thr Phe Pro Gln Leu Asn Leu Ala Pro Val Asn 140 130 135 Phe Asp Ala Leu Phe Met Asn Tyr Leu Gln Gln Gln Ala Gly Glu Gly 145 150 Ala Glu Gln His Gln Asp Ala 165 <210> 6622 <211> 173 <212> PRT <213> Enterobacter cloacae <400> 6622 Ser Lys Ala Arg Cys Ile Asp Ser Pro Gly Phe Phe Ile Trp Leu Phe 10 Arg Arg Ser Asp Ala Val Ala Val Phe Glu Gly Val Val Asn Thr Val 20 25 30 Glu Val Leu Ile His Ile His Arg Arg Leu Ile Ala Val Trp Leu Thr 35 4.0 4.5 Asp Asp Ala Arg Arg Asp Ala Ser Gly Gly Gly Val Arg Arg Tyr Arg 60 Leu Glu His Asn Arg Pro Arg Ala Asn Leu Arg Ala Ala Ser Asp Phe 75 80 Asn Ile Ala Glu Asp Phe Ser Thr Arg Ala Asn His His Pro Phe Thr 85 90 Asn Phe Arg Met Ala Ile Ala Ala Gly Phe Thr Gly Thr Ala Gln Arg 100 Asn Gly Leu Gln Asp Arg His Val Ile Phe Asp His Arg Arg Phe Thr 115 120 125 Asp Asn Asn Ala Gly Gly Val Val Glu His Asp Pro Thr Ala Asn Phe

135

Arg Arg Met Asn Ile Asp Leu Glu Gly His Gly Asn Leu Val Leu 145 150 155 160 Lys Lys Asp Gly Gln Arg Ala Ala Ser Leu Ile Pro 165 170

<210> 6623 <211> 529 <212> PRT

<213> Enterobacter cloacae

<400> 6623

Asn Tyr Ala Lys Phe Leu Ser Leu Glu His Glu Val Val Ala Met Ser 1 5 10 15 Val Ser Lys Lys Pro Met Val Leu Val Ile Leu Asp Gly Tyr Gly Tyr

20 25 arg Glu Asp Glo Glo Asp Asp Ala Ile Phe Asp

Arg Glu Asp Gln Gln Asp Asn Ala Ile Phe Asn Ala Lys Thr Pro Val 35 40 Met Asp Ala Leu Trp Ala Lys Arg Pro His Thr Leu Ile Asp Ala Ser

50 Gly Leu Glu Val Gly Leu Pro Asp Arg Gln Met Gly Asn Ser Glu Val 65 70 75 80

Gly His Val Asn Leu Gly Ala Gly Arg Ile Val Tyr Gln Asp Leu Thr 85 90 95

Arg Leu Asp Val Glu Ile Lys Glu Arg Thr Phe Phe Ala Asn Pro Thr 100 Leu Thr Gly Ala Val Asp Lys Ala Val Ala Ala Gly Lys Ala Val His

Leu Thir Gly Ala val Asp Lys Ala val Ala Ala Gly Lys Ala val Als

115

120

125

Ile Met Gly Leu Leu Ser Ala Gly Gly Val His Ser His Glu Asp His

130 135 140

Ile Met Ala Met Val Glu Leu Ala Ala Glu Arg Gly Ala Glu Lys Ile 145 150 155 160

Tyr Leu His Ala Phe Leu Asp Gly Arg Asp Thr Pro Pro Arg Ser Ala 165 170 175 Lys Gly Ser Leu Glu Ala Phe Glu Asp Lys Phe Ala Ala Leu Gly Lys

180 185 190 Gly Arg Val Ala Ser Ile Ile Gly Arg Tyr Tyr Ala Met Asp Arg Asp

195 200 205
Asn Arg Trp Asp Arg Val Glu Glu Ala Tyr Asp Leu Leu Thr Leu Ala

210 \$215\$ \$220\$ Lys Gly Glu Phe Gln Phe Pro Thr Ala Val Glu Gly Leu Glu Ala Ala

225 230 235 240
Tyr Ala Arg Asp Glu Asn Asp Glu Phe Val Lys Ala Thr Val Ile Arg

245 255 Ala Glu Gly Gln Ala Asp Ala Ala Met Glu Asp Gly Asp Ala Leu Ile 260 265 270

Phe Met Asn Phe Arg Ala Asp Arg Ala Arg Glu Ile Thr Arg Ala Phe 275 280 285 Val Asn Ser Asp Phe Asp Gly Phe Ala Arg Lys Lys Val Ala Lys Ile

Val Asn Ser Asp Phe Asp Gly Phe Ala Arg Lys Lys Val Ala Lys Ile 290 300 Asp Phe Ile Gln Leu Thr Glu Tyr Ala Ala Asp Ile Lys Ala Pro Cys

305 310 315 320 Ala Tyr Pro Pro Ala Ser Leu Ala Asn Thr Phe Gly Glu Trp Met Ala 325 330 335

Lys Asn Asp Lys Thr Gln Leu Arg Ile Ser Glu Thr Glu Lys Tyr Ala 340 345

His Val Thr Phe Phe Phe Asn Gly Gly Val Glu Glu Pro Phe Lys Gly 355 360 365

Glu Asp Arg Ile Leu Ile Asn Ser Pro Lys Val Ala Thr Tyr Asp Leu 370 375 380

Gln Pro Glu Met Ser Ser Ala Glu Leu Thr Glu Lys Leu Val Ala Ala 385 390 395 400 Ile Glu Ser Gly Lys Tyr Asp Thr Ile Ile Cys Asn Tyr Pro Asn Gly 405 410 Asp Met Val Gly His Thr Gly Val Met Glu Ala Ala Val Lys Ala Val 420 425 Glu Ala Leu Asp His Cys Val Glu Gln Val Ala Lys Ala Val Glu Ser 435 440 445 Val Gly Gly Gln Leu Leu Ile Thr Ala Asp His Gly Asn Ala Glu Gln 450 455 460 Met Arg Asp Pro Ala Thr Gly Gln Ala His Thr Ala His Thr Asn Leu 470 475 480 Pro Val Pro Leu Ile Tyr Val Gly Asp Lys Ser Val Lys Ala Val Glu 485 490 495 Gly Gly Lys Leu Ser Asp Ile Ala Pro Thr Met Leu Ser Leu Met Gly 500 505 510 Met Glu Ile Pro Glu Glu Met Thr Gly Lys Pro Leu Phe Ile Val Glu 520

<210> 6624 <211> 431 <212> PRT <213> Enterobacter cloacae

<400> 6624 Ser Leu Pro Met Arg Gly Lys Ala Ile Phe Ser Ile Thr Trp Val Met 10 15 Lys Pro Leu Arg Leu Ser Val Arg Pro Leu Leu Cys Ala Ser Ala Leu 25 Ser Ala Gly Val Leu Leu Cys Ala Ala Ser Ala His Ala Asp Asp Arg 35 4.0 Asp Gln Leu Lys Ser Ile Gln Ala Asp Ile Ala Ala Lys Glu Arg Ala 5.5 Val Arg Gln Gln Gln Gln Arg Ala Thr Leu Leu Ala Gln Leu Lys 65 70 7.5 Lys Gln Glu Glu Ala Ile Ser Ala Ala Ala Arg Lys Leu Arg Glu Thr 85 Gln Asn Thr Leu Ala Gln Leu Asn Lys Gln Ile Asp Glu Met Asn Ala 100 105 110 Ser Ile Ala Lys Leu Glu Arg Gln Arg Asp Ala Gln Glu Arg Asn Leu 115 120 125 Ala Ala Gin Leu Asp Ala Ala Phe Arg Gin Gly Glu His Thr Gly Leu 135 140 Gln Leu Ile Leu Ser Gly Glu Glu Ser Gln Arg Gly Gln Arg Leu Gln 150 155 145 Ala Tyr Phe Gly Tyr Leu Asn Gln Ala Arg Gln Glu Thr Ile Ala Gln 165 170 Leu Lys Gln Thr Arg Glu Glu Val Thr Thr Gln Lys Ala Glu Leu Glu 180 185 Glu Lys Gln Ser Gln Gln Gln Thr Leu Leu Tyr Asp Gln Gln Ala Gln 200 195 205 Gln Glu Lys Leu Glu Gln Ala Arg Asn Glu Arg Lys Lys Thr Leu Ala 210 215 220 Gly Leu Glu Ser Ser Ile Gln Ala Gly Gln Ser Gln Leu Ser Glu Met 225 230 235 Arg Ala Asn Glu Ser Arg Leu Arg Asn Ser Ile Ala Arg Ala Glu Ala 245 250 Ala Ala Lys Ala Arg Ala Glu Lys Glu Ala Arg Glu Ala Gln Ala Val 260 265

Arg Asn Lys Gln Gln Glu Ala Ser Arg Lys Gly Thr Thr Tyr Lys Pro 275 280 285

```
Thr Glu Asn Glu Arg Ser Leu Met Ser Arg Thr Gly Gly Leu Gly Ser
                  295
  290
                                  300
Pro Arg Gly Gln Ala Tyr Trp Pro Val Arg Gly Thr Ile Leu His Arg
            310 315
Tyr Gly Glu Gln Leu Gln Gly Glu Leu Arg Trp Lys Gly Ile Val Ile
         325 330 335
Gly Ala Ser Glu Gly Ser Glu Val Lys Ala Ile Ala Asp Gly Arg Val
        340 345 350
Ile Leu Ala Asp Trp Leu Gln Gly Tyr Gly Leu Val Val Val Val Glu
355 360 365
His Gly Lys Gly Asp Met Ser Leu Tyr Gly Tyr Asn Gln Ser Ala Leu
 370 375 380
Val Ser Val Gly Thr Gln Val Arg Ala Gly Gln Pro Ile Ala Leu Val
385 390 395 400
Gly Ser Ser Gly Gly Gln Gly Arg Pro Ser Leu Tyr Phe Glu Ile Arg
      405 410 415
Arg Gln Gly Gln Ala Val Asn Pro Gln Pro Trp Leu Gly Arg
                425
<210> 6625
<211> 322
<212> PRT
<213> Enterobacter cloacae
<400> 6625
Val Leu Leu Gln Phe Arg Arg Ile Val Phe Ser Val Val Ser Ala Leu
                          10
Ala Leu Ala Ala Pro Val Tyr Ala Gly Lys Leu Ala Ile Val Ile Asp
                         25
                                         3.0
Asp Phe Gly Tyr Arg Pro His Tyr Glu Asn Gln Val Leu Ala Met Pro
                   40
Ser Ala Ile Ser Val Ala Val Leu Pro Asn Ala Pro His Ala His Glu
                55
                                   60
Met Ala Thr Lys Ala His Asn Gly Gly His Gln Val Leu Ile His Leu
             70
                                75
Pro Met Ala Pro Leu Ser Lys Gln Pro Leu Glu Lys Asp Thr Leu Arg
         85
                            90
Pro Asp Met Ser Ser Asp Glu Ile Asp Arg Ile Ile Arg Asp Ala Tyr
      100
                       105 110
Asn Lys Val Pro Tyr Ala Val Gly Leu Asn Asn His Met Gly Ser Ala
115
                      120
                                    125
Met Thr Ser Ser Leu Tyr Gly Met Leu Lys Val Met Gln Ala Leu Glu
                   135
                                   140
Arg Tyr Asn Leu Tyr Phe Leu Asp Ser Met Thr Ile Gly Asn Ser Gln
145 150
                                155
                                    160
Ala Met Arg Ala Ala Gln Gly Thr Gly Val Lys Val Ile Lys Arg Lys
            165
                            170
                                             175
Val Phe Leu Asp Asp Ser Gln Asn Glu Ala Asp Ile Arg Val Gln Phe
        180
             185
                                         190
Asn Arg Ala Val Gln Leu Ala Arg Arg Asn Gly Ser Ala Ile Ala Ile
      195
                     200
                                      205
Gly His Pro His Pro Ser Thr Val Arg Val Leu Gln Gln Met Leu Pro
  210
                                   220
Gly Leu Pro Ala Asp Ile Thr Leu Val Arg Pro Ser Asp Leu Leu Asn
              230
                                235
Glu Pro Gln Val Asp Thr Ser Arg Pro Gly Ser Ala Gln Pro Pro Ala
           245
                            250
                                             255
Thr Arg Pro Arg Asn Pro Phe Arg Gly Val Lys Asn Cys Thr Leu Lys
      260
                         265
Gln Pro Pro Glu Pro Val Tyr Ala Thr Arg Phe Phe Thr Val Ile Gly
```

```
Glu Ser Ile Asn Ser Ser Thr Leu Val Lys Ile Arg Pro Ala Thr Val
 290
                  295
Ala Gly Leu Gly Lys Lys Asn Pro Asp Arg Val Asn Pro Ile Pro Ala
                310
                                    315
Arg
<210> 6626
<211> 139
<212> PRT
<213> Enterobacter cloacae
<400> 6626
Ile Val His Glu Gln Arg Ile Lys Val Tyr Trp Arg Glu Val Gln Leu
           5
                                1.0
Arg Glu Cys Thr Ala Arg Asn Gln Ala Gly Asp Ala Phe Thr Arg Ile
        20
                            25
                                             30
Arg Glu Gln Asp Val Arg Ala Val Cys Thr Gln Ala Met Arg His Leu
 35
                        40
                                     4.5
Val Thr Phe Asp Ala Ala Asp Gly Glu Asp Thr Ala Leu Leu Asn Phe
                    55
50
Ala Gln Glu Arg Ser Phe Phe Ala Gln Arg Gly Gly His Gly Asp Thr
                 70
                                   75
Gln Tyr Asp Phe Ile His Ile Ile Arg Gln Leu Gly Gly Cys Gly Ile
                               90
          85
Gln Ile Lys Phe Asn Leu Trp Leu Pro Val Phe Leu Glu Asn Val Arg
        100 105 110
Arg Ile Trp Arg Phe Glu Arg Asp Ile Leu Gly Val Asp Ala Leu Asp
    115 120
Leu Glu Ser His Leu Gly Val Ile Leu Phe
<210> 6627
<211> 202
<212> PRT
<213> Enterobacter cloacae
<400> 6627
Arg Arg His Ser Lys Gly Asp Asp Val Tyr Val Met Asp Ile Asn Gly
                                10
Leu Ile Glu Gln Tyr Gly Tyr Ala Ala Leu Val Ile Gly Ser Val Ala
                            25
Glu Gly Glu Thr Ile Thr Leu Leu Gly Gly Val Ala Ala His Gln Gly
                         40
Leu Leu Lys Phe Ser Leu Val Val Ala Ala Val Ala Leu Gly Gly Met
 5.0
                     5.5
                                       60
Ile Gly Asp Gln Leu Leu Tyr Phe Leu Gly Leu Arg Phe Gly Pro Thr
                  70
                                    75
                                                      80
Leu Leu Gln Arg Phe Ala Arg His Gln Lys Lys Ile Arg Arg Ala Gln
                                90
Arg Leu Ile Gln Arg His Pro Tyr Leu Phe Val Ile Gly Thr Arg Phe
          100
                             105
                                               110
Met Tyr Gly Phe Arg Ile Ile Gly Pro Ile Leu Ile Gly Ala Ser Arg
                         120
       115
Leu Pro Pro Lys Ile Phe Leu Pro Leu Asn Ile Leu Gly Ala Ile Ala
  130
                     135
                                        140
Trp Ala Leu Ile Phe Thr Thr Leu Gly Tyr Ala Gly Gly Glu Val Ile
                 150
                                    155
                                                      160
Gly Pro Trp Leu His Asn Leu Asp Gln His Leu Lys His Trp Ala Trp
             165
                                170
                                                   175
```

Leu Ile Leu Val Val Ala Val Val Ile Gly Val Arg Leu Trp Leu Lys

```
190
          180
His Arg Glu Lys Arg Arg Asp Glu Glu
      195
<210> 6628
<211> 144
<212> PRT
<213> Enterobacter cloacae
<400> 6628
Leu Tyr Asp Glu Tyr Val Ser Ala Arg Thr Phe Thr Met Ser Lys Ser
                                10
Leu Asn Thr Ile Trp Gln Tyr Leu Arg Ala Phe Val Leu Ile Tyr Ala
       20
                            25
                                                30
Cys Leu Tyr Ala Gly Ile Phe Ile Ala Ser Leu Leu Pro Ile Thr Ile
   35
                        4.0
                                           4.5
Pro Gly Ser Ile Ile Gly Met Leu Ile Leu Phe Val Leu Leu Ala Leu
 50
                     55
                                  60
Gln Val Leu Pro Ala Lys Trp Val Asn Pro Gly Cys Phe Val Leu Ile
                 70
                                    75
Arg Tyr Met Ala Leu Leu Phe Val Pro Ile Gly Val Gly Val Met Gln
           85
                                90
Tyr Tyr Asp Val Leu Lys Ala Gln Phe Gly Pro Ile Val Val Ser Cys
          100 105 110
Ala Ile Ser Thr Leu Val Val Phe Leu Val Val Ser Trp Ser Ser His
                               125
 115 120
Ile Val His Gly Glu Arg Lys Val Val Gly Glu Lys Thr Lys Lys
                      135
<210> 6629
<211> 120
<212> PRT
<213> Enterobacter cloacae
<400> 6629
Ile Arg His His Ala Asp Cys His Gly Arg Gly Arg Gln His Arg Gly
                             10
His Ser Gly His Gln Arg Arg Val Arg Asp Phe Arg Arg Tyr Pro Gly
                            25
                                               30
Arg Gly Val Trp Ser Tyr Ala Ala Glu Tyr His Glu Asn Ser Tyr Gln
                      40
                                  45
Ser Gly Thr Arg Ser Gly Asp Gly Tyr Arg Leu Ala Arg Ala Gly His
                     55
Arg Thr Leu Arg Gly Thr Gly Leu Ser Gly Arg Gly Ile Gln Leu Ala
                  70
                                    75
Gly Ala Gly Asp Leu Arg Asp Tyr His Phe Pro Gly Arg Ala Val Tyr
                                90
Leu Pro Asp Tyr Ser Gly Ser Asn Gly Leu Lys Phe Ala Met Arg Arg
          100
Ala Asn Phe Ile Phe Ile Ser
       115
                         120
<210> 6630
<211> 298
<212> PRT
<213> Enterobacter cloacae
<400> 6630
Gly Asn Val Met His Pro Arg Phe Gln Ala Ala Phe Ser Gln Leu Ala
                                 1.0
Glu Asn Leu Gln Ser Ala Leu Ala Pro Val Leu Ala Asp Ala His Phe
```

```
Pro Ala Leu Leu Thr Ala Asp Gln Val Thr Thr Leu Lys Gln Ala Thr
      3.5
                      40
Gly Leu Asp Glu Asp Ala Leu Ala Phe Ala Leu Leu Pro Leu Ala Ala
Ala Cys Ala Arg Ala Asp Leu Ser His Phe Asn Val Gly Ala Ile Ala
                70
                                75
Arg Gly Val Ser Gly Thr Trp Tyr Phe Gly Gly Asn Met Glu Phe Leu
                             90
Gly Ala Thr Met Gln Gln Thr Val His Ala Glu Gln Ser Ala Ile Ser
         100
                         105
His Ala Trp Leu Arg Gly Glu Lys Ala Leu Arg Ala Ile Thr Val Asn
                   120
     115
Tyr Thr Pro Cys Gly His Cys Arg Gln Phe Met Asn Glu Leu Asn Ser
 130 135
                         140
Gly Leu Glu Leu Arg Ile Asn Leu Pro Gly Arg Ala Pro His Thr Leu
145 150 155
Arg Asp Tyr Leu Pro Asp Ala Phe Gly Pro Lys Asp Leu Glu Ile Lys
        165 170 175
Thr Leu Leu Met Asp Glu Gln Asp His Gly Tyr Ala Leu Ser Gly Asp
  180 185 190
Glu Leu Ser Glu Ala Ala Ile Ala Ala Ala Asn Lys Ser His Thr Pro
195 200 205
Tyr Ser Lys Ser Pro Ser Gly Val Ala Leu Gln Cys Arg Asp Gly Arg
 210 215 220
Ile Phe Thr Gly Ser Tyr Ala Glu Asn Ala Ala Phe Asn Pro Thr Leu
225 230 235 240
Pro Pro Leu Gln Gly Ala Leu Asn Leu Leu Ser Leu Asn Gly Tyr Asp
            245 250 255
Tyr Pro Asp Ile Gln Arg Ala Ile Leu Ala Glu Lys Ala Asp Ala Pro
        260 265 270
Leu Ile Gln Trp Asp Ala Thr Ala Ala Thr Leu Lys Ala Leu Gly Cys
 275 280
Ser Thr Ile Asp Arg Val Leu Leu Ala
                   295
<210> 6631
<211> 240
<212> PRT
<213> Enterobacter cloacae
<400> 6631
Gly Arg Arg Gly Glu Asn Lys Lys Met Met Ala Asn Ile Trp Trp Ser
                             10
Leu Pro Leu Thr Leu Val Val Phe Phe Ala Ala Arg Lys Leu Ala Val
         20
                          25
                                           3.0
Arg Phe Lys Met Pro Leu Leu Asn Pro Leu Leu Val Ala Met Val Val
    35
                       40
Ile Ile Pro Phe Leu Leu Leu Thr Gly Ile Ser Tyr Glu Arg Tyr Phe
                   5.5
                                    60
Ala Gly Ser Lys Ile Leu Asn Asp Leu Leu Gln Pro Ala Val Val Ala
                7.0
                             7.5
Leu Ala Phe Pro Leu Tyr Glu Gln Leu His Gln Ile Arg Ala Arg Trp
            85
                             90
Lys Ser Ile Ile Thr Ile Cys Phe Val Gly Ser Leu Val Ala Met Ile
         100
                          105
                                           110
Thr Gly Thr Ser Val Ala Leu Met Met Gly Ala Ser Pro Gln Ile Ala
                      120
      115
                                        125
Ala Ser Ile Leu Pro Lys Ser Val Thr Thr Pro Ile Ala Met Ala Val
```

Gly Gly Ser Ile Gly Gly Ile Pro Ala Ile Ser Ala Val Cys Val Ile

```
Phe Val Gly Ile Leu Gly Ala Val Phe Gly His Thr Leu Leu Asn Ile
          165
                       170
Met Lys Ile Arg Thr Lys Ala Ala Arg Gly Leu Ala Met Gly Thr Ala
                             190
       180
             185
Ser His Ala Leu Gly Thr Ala Arg Cys Ala Glu Leu Asp Tyr Gln Glu
 195 200
                             205
Gly Ala Phe Ser Ser Leu Ala Leu Val Ile Cys Gly Ile Ile Thr Ser
 210 215 220
Leu Val Ala Pro Phe Ile Phe Pro Ile Ile Leu Ala Val Met Gly
<210> 6632
<211> 255
<212> PRT
<213> Enterobacter cloacae
<400> 6632
Pro Gly Gly Tyr Ser Ser Leu Arg Glu Ile Ser Ser Ser Val Arg Ala
                         10
Ile Cys Met Leu Lys Arg Val Phe Tyr Ser Leu Ser Val Leu Val Gly
 2.0
                         25
Ile Leu Leu Leu Ile Val Leu Gly Leu Asp Arg Trp Met Ser Trp Lys
                     40
Thr Ala Pro Tyr Ile Phe Asp Asp Leu Gln Asp Leu Pro Tyr Arg Gln
                55
Val Gly Val Val Leu Gly Thr Ala Lys Tyr Tyr Arg Thr Gly Val Ile
                             75
      70
Asn Gln Tyr Tyr Arg Tyr Arg Ile Gln Gly Ala Leu Asn Ala Tyr Asn
          85
                           90 95
Ser Gly Lys Val Asn Tyr Leu Leu Leu Ser Gly Asp Asn Ala Leu Gln
        100 105 110
Ser Tyr Asn Glu Pro Val Thr Met Arg Lys Asp Leu Ile Ala Ala Gly
                     120 125
 115
Val Asp Pro Ala Asp Ile Val Leu Asp Tyr Ala Gly Phe Arg Thr Leu
                  135
Asp Ser Ile Val Arg Thr Arg Lys Val Phe Asp Thr Asn Asp Phe Ile
      150 155
Ile Ile Thr Gln Arg Phe His Cys Glu Arg Ala Leu Phe Ile Ala Leu
            165
                            170 175
His Met Gly Ile Gln Ala Gln Cys Tyr Ala Val Pro Ser Pro Lys Asp
         180
                         185
Met Leu Ser Val Arg Val Arg Glu Phe Gly Ala Arg Phe Gly Ala Leu
   195
                     200 205
Ala Asp Leu Tyr Leu Phe Lys Arg Glu Pro Arg Phe Leu Gly Pro Leu
 210 215
                                   220
Val Pro Ile Pro Thr Met His Glu Val Pro Glu Asp Ala Gln Gly Tyr
225 230
                               235
Pro Ala Val Thr Pro Glu Gln Leu Leu Glu Ile Gln Lys Lys
                            250
            245
<210> 6633
<211> 326
<212> PRT
<213> Enterobacter cloacae
<400> 6633
Arg Ala Ala Thr Ile Ala Arg Leu Phe Ser Gln Val Leu Arg Met Arg
                          10
Val Leu Leu Ala Pro Met Glu Gly Val Leu Asp Ser Leu Val Arg Glu
```

```
Leu Leu Thr Glu Val Asn Asp Tyr Asp Leu Cys Val Thr Glu Phe Leu
     35
                      4.0
Arg Val Val Asp Met Leu Leu Pro Glu Lys Ser Phe Tyr Arg Leu Cys
                 55
                                    60
Pro Glu Leu His Arg Gln Ser Arg Thr Pro Ser Gly Thr Leu Val Arg
                7.0
Val Gln Leu Leu Gly Gln Tyr Pro Glu Trp Leu Ala Glu Asn Ala Ala
            85
                             90
Arg Ala Val Ala Leu Gly Ser Tyr Gly Val Asp Leu Asn Cys Gly Cys
                         105 110
Pro Ser Lys Leu Val Asn Gly Ser Gly Gly Gly Ala Thr Leu Leu Lys
           120 125
     115
Asp Pro Glu Leu Ile Tyr Arg Gly Ala Lys Ala Met Arg Glu Ala Val
       135
                       140
 130
Pro Ser His Leu Pro Val Thr Val Lys Val Arg Leu Gly Trp Asp Ser
      150
                    155
Gly Asp Lys Gln Phe Glu Ile Ala Asp Ala Val Gln Gln Ala Gly Ala
                             170
         1.65
Thr Glu Leu Val Val His Gly Arg Thr Lys Glu Asp Gly Tyr Lys Ala
                                          190
         180
                          185
Glu Arg Ile Asn Trp Gln Ala Ile Gly Glu Ile Arg Lys Arg Leu Thr
                      200
                             2.05
      195
Ile Pro Val Ile Ala Asn Gly Glu Ile Trp Asp Tyr Glu Ser Ala Gln
                   215
                                    220
 210
Ala Cys Leu Lys Glu Thr Gly Cys Asn Ala Val Met Ile Gly Arg Gly
                                 235
225
                230
Ala Leu Asn Val Pro Asn Leu Ser Arg Val Val Lys Tyr Asn Glu Pro
                             250 255
             245
Arg Met Pro Trp Ala Asp Val Val Lys Leu Leu Gln Lys Tyr Thr Arg
                          265
                                           270
         260
Leu Glu Lys Gln Gly Asp Thr Gly Leu Tyr His Val Ala Arg Ile Lys
                                       285
275
                       280
Gln Trp Leu Ser Tyr Leu Arg Lys Glu Tyr Asp Asp Ala Leu Gly Leu
                   295
                                   300
290
Phe Gln Glu Ile Arg Thr Leu Gln Thr Ser Ala Asp Ile Ala Arg Val
                310
                                 315
Ile Gln Ser Lys Ser
```

<210> 6634 <211> 179 <212> PRT

<213> Enterobacter cloacae

<400> 6634 Ile Ile Ile Arg Ser Leu Ile Met Leu Lys Phe Arg Val Ser Leu Leu 10 Ser Leu Ala Leu Leu Gly Val Ser Ala Thr Ala Pro Ala Ile Ala 20 Lys Thr Thr Ala Val Ala Thr Ala Ala Ala Gln Pro Gln Ile Ala Ser 40 Gly Ser Ala Met Ile Val Asp Leu Asn Thr Asn Lys Val Ile Tyr Ala 50 55 Ser His Pro Asp Leu Val Arg Pro Ile Ala Ser Ile Thr Lys Val Met 70 75 Thr Ala Met Val Val Leu Asp Ala Arg Leu Pro Leu Asp Glu Lys Leu 8.5 90 95 Lys Val Asp Ile Ser His Thr Pro Glu Met Lys Gly Ile Tyr Ser Arg 100 105 Val Arg Leu Lys Ser Glu Ile Ser Arg Lys Asn Met Leu Leu Leu Ala 115 120

```
Leu Met Ser Ser Glu Asn Arg Ala Gly Glu Pro Cys Pro Pro Leu
            135
                                  140
Ser Trp Arg Leu Arg Arg Val Tyr Pro Arg Asp Glu Cys Gln Ser Gln
          150
                       155
Ser Ala Gly Asp Glu Lys Tyr Pro Phe Arg Gly Ala Asn Arg Ser Val
           165
                170
Asp Pro
<210> 6635
<211> 310
<212> PRT
<213> Enterobacter cloacae
<400> 6635
Ser Lys Asn Ser Gly Ala Gln Arg Ala Tyr Cys Arg Val Asp Ala Glu
1 5
                          10
Arg Ser Val Arg Gly Cys His Ala Pro Ala His Leu Arg Ala Gly Trp
                         25
        20
Arg Ile Ser Ser Arg Leu Thr Leu Arg Ile Ile Tyr Thr Tyr Leu Phe
    35
                     40
                                     45
Ala Asp Phe Gln Glu Val Ser Met Thr Arg Val Ala Ile Val Thr Ala
50 55 60
Ser Asp Ser Gly Ile Gly Lys Thr Thr Ala Leu Met Leu Ala Glu Arg
                    75 80
             70
Gly Phe Asp Ile Gly Val Thr Trp His Ser Asp Glu Glu Gly Ala Leu
          8.5
                 90
Glu Thr Cys Arg Glu Val Glu Ala Arg Gly Gln Arg Ala Glu Ala Ile
        100 105
His Leu Asp Leu Gly Thr Leu Pro Glu Gly Ala Lys Ala Ile Glu Thr
    115 120
                                      125
Leu Ile Ser Arg Phe Gly Arg Leu Asp Val Leu Val Asn Asn Ala Gly
130 135 140
Ala Met Asn Lys Ala Pro Phe Leu Glu Leu Ser Phe Asp Asp Trp Arg
               150 155
Asn Ile Phe Thr Val Asp Val Asp Gly Ala Phe Leu Cys Ser Gln Ile
           165
                            170 175
Ala Ala Arg Gln Met Val Lys Gin Gly Glu Gly Gly Arg Ile Val Asn
        180 185
Ile Thr Ser Val His Glu His Thr Pro Leu Pro Asp Ala Ser Ala Tyr
                     200 205
    195
Thr Ala Ala Lys His Ala Leu Gly Gly Leu Thr Lys Ser Met Ala Leu
                  215
                                   220
Glu Leu Val Gln His Lys Ile Leu Val Asn Ala Val Ala Pro Gly Ala
225 230 235 240
Ile Ala Thr Pro Met Asn Asp Met Asp Asp Ser Glu Val Lys Glu Gly
            245
                            250
Ser Met Pro Glu Ile Pro Leu Ala Arg Pro Gly His Thr Lys Glu Ile
                        265 270
         260
Ala Ser Leu Val Ala Trp Leu Cys Asp Ser Asp Ala Ser Tyr Thr Thr
                     280
                                     285
Gly Gln Ser Phe Ile Val Asp Gly Gly Phe Met Leu Ala Asn Pro Gln
                   295
                                   300
 290
Phe Lys Pro Glu Gly
<210> 6636
<211> 215
<212> PRT
```

<213> Enterobacter cloacae

```
<400> 6636
Ser Lys Ala Cys Ile Ile Leu Lys Leu Ser Leu Thr Gly Arg Gln Gln
Gly Gly Val Met Asn His Val Trp Gly Leu Phe Ser His Pro Asp Arg
          20
                            25
Glu Met Gln Val Ile Arg Asn Glu Asn Glu Thr Val Ala His His Tyr
                        40
Thr His His Val Leu Leu Met Ala Ala Val Pro Val Val Cys Ala Phe
                     55
                                       60
Ile Gly Thr Thr Gln Ile Gly Trp Asn Phe Gly Asp Gly Thr Val Val
                 70
                                   75
                                                     80
Gln Leu Ser Trp Phe Thr Gly Leu Tyr Leu Ala Ile Leu Phe Tyr Gly
              85
                               90
Leu Met Leu Ala Gly Val Ala Val Met Gly Arg Val Ile His Trp Met
         100
                         105
                                             110
Ala Arg Asn Tyr Pro Gln Arg Pro Ser Leu Ala His Cys Met Val Phe
                     120
      115
                                125
Ala Gly Tyr Val Ala Thr Pro Leu Phe Leu Ser Gly Ile Val Ala Leu
 130
        135 140
Tyr Pro Leu Val Trp Leu Cys Ala Leu Ile Gly Thr Val Ala Leu Phe
145 150
                      155
Tyr Thr Gly Tyr Leu Leu Tyr Val Gly Val Pro Thr Phe Leu Asn Ile
             165 170 175
Asn Lys Glu Glu Gly Leu Ser Phe Ser Ser Ser Thr Leu Ala Ile Gly
    180 185 190
Val Leu Val Leu Glu Ala Leu Leu Ala Leu Thr Val Ile Leu Trp Gly
 195
                        200
Tyr Gly Tyr Arg Leu Phe
   210
<210> 6637
<211> 89
<212> PRT
<213> Enterobacter cloacae
<400> 6637
Cys Pro Gln Arg Thr Ala Arg Ala Ala Ser Leu Ala His His Tyr Pro
                                10
Gly Gly Tyr Asp Ala Phe Ile Arg Ala Met Asn Ala Lys Ala Lys Ala
                            25
Leu Gly Met Lys Asn Thr His Phe Val Glu Pro Thr Gly Leu Ser Ile
                        40
His Asn Val Ser Thr Gly Arg Asp Leu Thr Lys Leu Leu Ile Ala Ser
                    5.5
                                       60
Lys Gln Tyr Pro Leu Ile Gly Gln Leu Asn Thr Thr Pro Glu Glu Met
                 7.0
Ala Asn Phe Ser Lys Pro Gly Val
              85
<210> 6638
<211> 477
<212> PRT
<213> Enterobacter cloacae
<400> 6638
Val His Gly Val Met Lys Arg Ser Leu Thr Leu Ser Leu Ser Ala Pro
                                1.0
Leu Val Phe Met Leu Ala Ala Cys Ala Pro Glu His Ala Thr Val Ser
```

Pro Val Lys Thr Gln Ala Ala Ala Ala Thr Val Asn Thr Gln Leu Arg

4.0

```
His Ala Asp Trp Pro Lys Ser Glu Trp Trp Lys Asp Phe Asn Asp Ser
Gln Leu Asn Ala Leu Ile Asp Lys Ala Leu Ala Asp Ala Pro Asp Met
               70
Gln Ile Ala Arg Gln Arg Ile Thr Leu Ala Glu Ala Gln Ala Lys Ala
           85
                           90
Ala Val Ala Ala Glu Gly Pro Gln Leu Asp Phe Ser Ala Asp Val Glu
             105 110
Arg Gln Lys Met Ser Ala Glu Gly Leu Met Gly Pro Phe Ala Leu Thr
 115 120 125
Asp Pro Ala Ala Gly Thr Thr Gly Pro Trp Tyr Thr Asn Gly Thr Phe
 130 135
                      140
Gly Leu Thr Ala Gly Trp Asp Leu Asp Leu Trp Gly Lys Asn Arg Ala
145 150 155
Gln Ile Glu Ala Arg Ile Gly Lys Val Asn Ala Gln Lys Ala Glu Leu 165 170 175
Glu Gln Thr Arg Gln Leu Leu Ala Ser Ser Val Ala Arg Leu Tyr Trp
        180 185 190
Asp Trp Gln Thr Glu Ala Ala Val Gly Asp Val Leu Ala Gln Ile Lys
 195 200 205
Arg Glu Gln Glu Asn Ile Ile Gly Ala Asp Arg Glu Leu Tyr Gln His
 210 215 220
Gly Ile Thr Ser Ser Val Glu Gly Val Glu Thr Asp Ile Ser Ala Ser
225 230 235
Lys Thr Asp Glu Gln Leu Ala Asp Val His Gly Lys Met Lys Ala Ile
            245 250 255
Glu Ala Arg Leu Asn Ala Leu Thr Asn Thr Pro Ser Val Thr Leu Ala
 260
                        265
                                        270
Arg His Ala Leu Pro Asp Ala Glu Ala Ser Leu Pro Ser Thr Leu Gly
275 280
                                     285
Tyr Glu Leu Leu Ala Arg Arg Pro Asp Leu Gln Glu Ala His Trp Tyr
 290 295
                                  300
Ile Glu Ala Ser Met Ser Glu Val Asp Ala Ala Arg Ala Ala Phe Tyr
              310
                               315
Pro Asp Ile Asn Leu Met Ala Phe Leu Gln Gln Asp Ala Leu His Leu
           325
                           330 335
Ser Asp Leu Phe Arg Ser Ser Ala Gln Gln Met Gly Val Thr Ala Gly
         340
                        345
                                        350
Leu Thr Leu Pro Ile Phe Asp Ser Gly Arg Leu Asn Ala Asn Leu Asp
      355
                     360
                                     365
Ile Ala Gln Ala Gln Asn Asn Leu Ser Val Ala Asn Tyr Asn Lys Ala
                 375
                                  380
Val Val Asp Ala Val Asn Gln Val Ala Arg Thr Ala Ser Glu Val Glu
               390
                               395
                                              400
Thr Leu Thr Ala Lys Asn Gln His Gln Gln Gln Ile Glu Lys Asp Ala
                           410 415
            405
Ala Arg Val Val Ala Leu Ala Gln Ala Arg Phe Arg Ala Gly Ile Ile
         420
                        425
                                      430
Ala Gly Ser Arg Val Ser Glu Ala Lys Ile Pro Ala Leu Lys Glu Arg
     435
                     440
Ile Ala Gly Leu Met Leu Lys Gly Gln Tyr Val Asp Ala Thr Leu Gln
               455
Leu Thr Ser Ala Leu Gly Gly Gly Tyr His His Gly
             470
<210> 6639
<211> 853
```

<212> PRT

<213> Enterobacter cloacae

Val Lys Pro Gly Ala Ile Ser Tyr Leu Pro Met Asn Asn Thr Ser Glu Tyr Ile Asp Ala Met Pro Leu Thr Asp Ile Lys Lys Ala Ala Leu Pro Ala Ser Asp Ile Arg Ala Val His Thr Ala Leu Asp Gly Glu His Arg 4.0 His Phe Ser Arg Asp Asp Asp Thr Pro Leu Gly Ser Val Lys Ala Arg 50 55 Leu Glu Gln Ala Trp Pro Asp Ser Leu Ala Glu Gly Gln Leu Ile Lys Asp Asp Glu Gly Arg Asp Gln Leu Gln Ala Met Pro Lys Ala Thr Arg Ser Ser Met Phe Pro Asp Pro Trp Arg Thr Asn Pro Val Gly Arg Phe 100 105 Trp Asp Arg Leu Arg Gly Arg Asp Val Thr Pro Arg Tyr Leu Ser Arg  $115 \\ 120 \\ 120$ Leu Thr Lys Glu Gln Gln Ala Ser Glu Gln Lys Trp Arg Thr Val Gly Thr Ile Arg Arg Tyr Ile Leu Leu Leu Leu Thr Leu Ala Gln Thr Val 150 155 Val Ala Thr Trp Tyr Met Lys Thr Ile Leu Pro Tyr Gln Gly Trp Ala 165 170 Leu Ile Asn Pro Ala Asp Met Ile Gly Gln Asp Ile Trp Val Ser Phe Met Gln Leu Leu Pro Tyr Ile Leu Gln Ser Gly Ile Leu Leu Leu Phe Ala Val Leu Phe Cys Trp Val Ser Ala Gly Phe Trp Thr Ala Leu Met 215 220 Gly Phe Leu Gln Leu Leu Met Gly Arg Asp Lys Tyr Ser Ile Ser Ala Ser Thr Val Gly Asp Glu Pro Leu Asn Pro Glu His Arg Thr Ala Leu 245 250 Ile Met Pro Ile Cys Asn Glu Asp Val Asp Arg Val Phe Ala Gly Leu Arg Ala Thr Trp Glu Ser Val Lys Ala Thr Gly Asn Ala Ala His Phe Asp Val Tyr Ile Leu Ser Asp Ser Tyr Asn Pro Asp Ile Cys Val Ala Glu Gln Lys Ala Trp Met Glu Leu Ile Ala Glu Val Gln Gly Glu Gly Gln Ile Phe Tyr Arg Arg Arg Arg Arg Arg Val Lys Arg Lys Ser Gly Asn Ile Asp Asp Phe Cys Arg Arg Trp Gly Asn Gln Tyr Ser Tyr Met Val Val Leu Asp Ala Asp Ser Val Met Ser Gly Asp Cys Leu Ser Gly Leu Val Arg Leu Met Glu Ala Asn Pro Asn Ala Gly Ile Ile Gln Ser Ser Pro Lys Ala Ser Gly Met Asp Thr Leu Tyr Ala Arg Cys Gln Gln Phe Ala Thr Arg Val Tyr Gly Pro Leu Phe Thr Ala Gly Leu His Phe Trp Gln Leu Gly Glu Ser His Tyr Trp Gly His Asn Ala Ile Ile Arg Val Lys Pro Phe Ile Glu His Cys Ala Leu Ala Pro Leu Pro Gly Glu Gly Ser Phe Ala Gly Ser Ile Leu Ser His Asp Phe Val Glu Ala Ala Leu Met Arg Arg Ala Gly Trp Gly Val Trp Ile Ala Tyr Asp Leu Pro Gly Ser Tyr Glu Glu Leu Pro Pro Asn Leu Leu Asp Glu Leu Lys Arg

```
485
                           490
                                          495
Asp Arg Arg Trp Cys His Gly Asn Leu Met Asn Phe Arg Leu Phe Leu
      500
             505 510
Val Lys Gly Met His Pro Val His Arg Ala Val Phe Leu Thr Gly Val
    515 520 525
Met Ser Tyr Leu Ser Ala Pro Leu Trp Phe Met Phe Leu Ala Leu Ser
 530 535 540
Thr Ala Leu Gln Val Val His Ala Leu Thr Glu Pro Gln Tyr Phe Leu
545 550 555 560
Gln Pro Arg Gln Leu Phe Pro Val Trp Pro Gln Trp Arg Pro Glu Leu
      565 570 575
Ala Ile Ala Leu Phe Ala Ser Thr Met Val Leu Leu Phe Leu Pro Lys
       580 585 590
Leu Leu Ser Ile Ile Leu Ile Trp Cys Lys Gly Ser Lys Glu Tyr Gly
595 600 605
Gly Phe Cys Arg Val Thr Leu Ser Leu Leu Leu Glu Val Leu Phe Ser
               615 620
Val Leu Leu Ala Pro Val Arg Met Leu Phe His Thr Val Phe Val Val
             630 635 640
Ser Ala Phe Leu Gly Trp Glu Val Val Trp Asn Ser Pro Gln Arg Asp 645 650 655
Asp Asp Ser Thr Pro Trp Ser Glu Ala Pne Met Arg His Gly Ser Gln
     660
                       665 670
Leu Leu Leu Gly Leu Val Trp Ala Val Gly Met Ala Trp Leu Asp Leu
675 680 685
Arg Phe Leu Phe Trp Leu Ala Pro Ile Val Phe Ser Leu Ile Leu Ser 690 695 700
Pro Phe Val Ser Val Ile Ser Ser Arg Ser Thr Val Gly Leu Arg Thr
              710
                              715
Lys Arg Trp Lys Leu Phe Leu Ile Pro Glu Glu Tyr Ser Pro Pro Gln
           725
                          730
Val Leu Val Asp Thr Asp Thr Tyr Leu Glu Gln Asn Arg Lys Arg Thr
     740 745 750
Leu Asp Asp Gly Phe Met His Ala Val Phe Asn Pro Ser Phe Asn Ala
     755
                    760 765
Leu Ala Thr Ala Met Ala Thr Ala Arg His Arg Ala Ser Gln Val Leu
770 775
                                 780
Glu Ile Ala Arg Asp Arg His Val Glu Gln Ala Leu Asn Glu Thr Pro
              790
                              795 800
785
Glu Lys Leu Asn Arg Asp Arg Arg Leu Val Leu Leu Ser Asp Pro Val
          805 810 815
Thr Met Ala Arg Leu His Tyr Arg Val Trp Ser Ala Pro Glu Arg Tyr
                       825
Ser Ser Trp Val Asn Tyr Tyr Lys Asp Val Lys Leu Asn Pro Leu Ala
                    840
  835
Leu Lys Ala Lys
  850
<210> 6640
<211> 79
<212> PRT
<213> Enterobacter cloacae
```

<400> 6640
Arg Ser Asp Met Lys Val Ile Ile Val Val Met Met Ala Cys Leu Leu 15
5 10 15
Ser Gly Cys Gly Ser Ile Ile Ser Arg Thr Ile Pro Gly Gln Gly His 20
25 30 30
Gly Asn Gln Tyr Tyr Pro Gly Val Gln Trp Asp Val Arg Asp Ser Ala 35
40 45
Trp Arg Tyr Leu Thr Val Ile Asp Leu Pro Phe Ser Leu Ile Phe Asp

```
55
Thr Leu Leu Pro Ile Asp Ala Ser His Gly Pro Tyr Glu
<210> 6641
<211> 379
<212> PRT
<213> Enterobacter cloacae
<400> 6641
Arg Lys Leu Cys Gly Cys Lys Leu Ser Leu Phe Ala Ile Ser Cys Arg
                  10
Pro Ile Phe Ile Ser Gln Arg Leu Gln Asp Leu Tyr Thr Met Pro Val
   20
                     25
Leu His Asn Arg Val Ser Asn Glu Met Leu Lys Ala Arg Met Leu Ala
 35 40 45
Glu Thr Glu Pro Arg Thr Thr Ile Ser Phe Tyr Lys Tyr Phe Thr Ile
50 55 60
Asp Asp Pro Gln Ala Thr Arg Asp Ala Leu Tyr Gln Ala Phe Thr Ala
65 70 75 80
Leu Asn Val Phe Gly Arg Val Tyr Leu Ala Arg Glu Gly Ile Asn Ala
85 90 95
Gln Ile Ser Val Pro Glu Ser Lys Val Ser Ala Phe Arg Asp Leu Leu
 100 105 110
Tyr Gly Phe Asp Pro Ala Leu Asn Gly Leu Arg Leu Asn Ile Ala Leu
115 120 125
Asp Asp Asp Gly Lys Ser Phe Trp Val Leu Arg Met Lys Val Arg Glu
130 135 140
Arg Ile Val Ala Asp Gly Ile Asp Asp Pro Ser Phe Asn Ala Ala Asn
145 150 155
Val Gly Glu Tyr Leu Lys Ala Ala Glu Val Asn Ala Met Leu Asp Asp 165 170 175
Pro Asp Ala Val Phe Ile Asp Met Arg Asn His Tyr Glu Tyr Glu Val
180 185 190
Gly His Phe Glu Asn Ala Met Glu Ile Pro Ala Asp Thr Phe Arg Glu
195 200 205
Gln Leu Pro Lys Ala Val Glu Met Met Gln Glu His Lys Asp Lys Lys
210 215 220
Ile Val Met Tyr Cys Thr Gly Gly Ile Arg Cys Glu Lys Ala Ser Ala
225 230
                            235
Trp Met Lys His Asn Gly Phe Asn Lys Val Trp His Ile Glu Gly Gly
           245 250 255
Ile Ile Glu Tyr Ala Arg Arg Ala Arg Glu Gln Gly Leu Pro Val Arg
        260 265 270
Phe Ile Gly Lys Asn Phe Val Phe Asp Glu Arg Met Gly Gla Arg Ile
         280 285
Ser Glu Asp Val Ile Ala His Cys His Gln Cys Gly Thr Pro Cys Asp
                295
                                300
Thr His Thr Asn Cys Lys Asn Asp Gly Cys His Leu Leu Phe Ile Gln
              310
                             315
Cys Pro Ala Cys Ala Glu Lys Phe Asn Gly Cys Cys Ser Glu Leu Cys
         325
                          330
                              335
Ser Glu Glu Ser Met Leu Pro Glu Glu Glu Gln Arg Arg Arg Ala
        340
                       345 350
Gly Arg Glu Asn Gly Asn Lys Ile Phe Asn Lys Ser Arg Gly Arg Leu
   355 360
Asn Thr Lys Leu Gly Ile Pro Asp Pro Glu
  370
                 375
```

<210> 6642 <211> 538 <212> PRT <213> Enterobacter cloacae

<400> 6642 Val Ser Ile Lys Met Asp Arg Ile Asp Ile Ser Thr Gln Arg Gly Lys 10 Cys Leu Leu Ile Met Lys His Lys Pro Gln Met Met Lys Met Arg Trp 20 25 Leu Gly Val Ala Val Leu Leu Ser Leu Tyr Thr Ser Ser Ala Leu Ala 35 40 4.5 Phe Asn Ile Asp Asp Val Ala Lys Gln Ala Lys Ser Met Ala Gly Lys 55 60 Ser Tyr Glu Ala Pro Lys Ser Asn Leu Pro Ser Val Phe Arg Asp Met 70 7.5 Lys Tyr Ala Asp Tyr Gln Gln Ile Gln Phe Asn His Asp Lys Ala Tyr 85 90 95 Trp Asn Asn Ile Lys Thr Pro Phe Lys Leu Glu Phe Tyr His Gln Gly 100 105 110 Met Tyr Phe Asp Thr Pro Val Ala Ile Asn Glu Val Thr Ala Thr Ala 115 120 125 Val Arg Lys Ile Lys Tyr Ser Pro Asp Tyr Phe Asn Phe Gly Asp Val 130 135 140 Gln His Asp Lys Asp Thr Val Lys Asp Leu Gly Phe Ala Gly Phe Lys 145 150 155 Val Leu Tyr Pro Ile Asn Ser Lys Asp Lys Asn Asp Glu Ile Val Ser 165 170 175 Met Leu Gly Ala Ser Tyr Phe Arg Val Ile Gly Ala Gly Gln Val Tyr 180 185 190 Gly Leu Ser Ala Arg Gly Leu Ala Ile Asp Thr Ala Leu Pro Ser Gly 195 200 205 Glu Glu Phe Pro Arg Phe Arg Glu Phe Trp Ile Glu Arg Pro Lys Pro 210 215 220 Thr Asp Lys Arg Leu Thr Ile Tyr Ala Leu Leu Asp Ser Pro Arg Ala 230 235 Thr Gly Ala Tyr Arg Phe Val Ile Met Pro Gly Arg Asp Thr Val Val 245 250 255 Asp Val Gln Ser Lys Val Tyr Leu Arg Asp Lys Val Gly Lys Leu Gly 260 265 270 Val Ala Pro Leu Thr Ser Met Phe Leu Phe Gly Pro Asn Gln Pro Ser 275 280 285 Pro Ala Thr Asn Phe Arg Pro Glu Leu His Asp Ser Asn Gly Leu Ser 290 295 300 Ile His Ala Gly Asn Gly Glu Trp Ile Trp Arg Pro Leu Asn Asn Pro 305 310 315 Lys His Leu Ala Val Ser Ser Phe Ala Met Glu Asn Pro Gln Gly Phe 325 330 335 Gly Leu Leu Gln Arg Gly Arg Gln Phe Ser Arg Phe Glu Asp Leu Asp 340 345 350 Asp Arg Tyr Asp Leu Arg Pro Ser Ala Trp Val Thr Pro Lys Gly Asp 355 360 365 Trp Gly Lys Gly Lys Val Glu Leu Val Glu Ile Pro Thr Asn Asp Glu 375 380 370 Thr Asn Asp Asn Ile Val Ala Tyr Trp Thr Pro Asp Gln Leu Pro Glu 395 385 390 Ala Gly Lys Glu Met Asn Phe Lys Tyr Ala Ile Thr Phe Ser Arg Asp 405 410 Glu Asp Lys Leu His Ala Pro Asp Asp Ala Tyr Val Met Gln Thr Arg 420 425 430 Arg Ser Thr Gly Asp Val Lys Gln Ser Asn Leu Ile Arg Gln Pro Asp 440 445 Gly Thr Leu Ala Phe Ile Val Asp Phe Thr Gly Gln Asp Met Lys Lys

```
450
                    455
                                     460
Leu Ala Pro Asp Thr Ala Val Thr Ala Gln Ala Ser Ile Gly Asp Asn
          470
                        475
Gly Glu Ile Val Glu Asn Ala Val Arg Tyr Asn Pro Val Thr Lys Gly
          485 490 495
Trp Arg Leu Thr Leu Arg Val Lys Val Lys Asp Pro Lys Gln Thr Thr
        500 505 510
Glu Met Arg Ala Ala Leu Val Ser Asn Asp Lys Pro Leu Ser Glu Thr
 515 520 525
Trp Ser Tyr Gln Leu Pro Ala Asn Glu
                   535
   530
<210> 6643
<211> 207
<212> PRT
<213> Enterobacter cloacae
<400> 6643
Ser Ala Cys Leu Ala Val Arg Gln Leu Thr Leu Glu His Lys Met Lys
                               1.0
Lys Arg Leu Leu Gly Ile Ala Leu Gly Ser Leu Leu Phe Thr Thr Gly
 20
                           25
                                            3.0
Ser Ala Leu Ala Ala Asp Tyr Lys Ile Asp Lys Glu Gly Gln His Ala
35
                       4.0
Phe Val Asn Phe Arg Ile Gln His Leu Gly Tyr Ser Trp Leu Tyr Gly
50
                  55
                                      60
Thr Phe Asn Asp Phe Asp Gly Thr Phe Thr Phe Asp Glu Lys Asn Pro
                70
                                  75
                                                  80
Ala Ala Asp Lys Val Asn Val Thr Ile Asn Thr Asn Ser Val Asp Thr
            8.5
                               90
Asn His Ala Glu Arg Asp Lys His Leu Arg Ser Ala Glu Phe Leu Asn
         100
                           105
                                             110
Val Gly Lys Phe Pro Gln Ala Thr Phe Ala Ser Thr Glu Val Lys Lys
      115
                        120
Asp Ser Asp Lys Leu Ala Ile Thr Gly Asn Leu Thr Leu Asn Gly Val
  130
                    135
                                      140
Thr Lys Pro Val Thr Leu Asp Ala Lys Leu Ile Gly Gln Gly Asp Asp
145
                 150
                        155
                                                    160
Pro Trp Gly Gly Lys Arg Ala Gly Phe Glu Ala Ala Gly Lys Ile His
                              170
             165
                                               175
Leu Lys Asp Phe Asn Ile Thr Thr Asp Leu Gly Pro Ala Ser Gln Asp
                           185
Val Glu Leu Ile Ile Ser Val Glu Gly Val Gln Gln Lys Ser
     195
                        200
<210> 6644
<211> 319
<212> PRT
<213> Enterobacter cloacae
<400> 6644
Pro Phe Arg Thr Leu Glu His Arg Thr Asp Met Thr Gln Leu Pro Lys
                               10
Phe Thr Ala Ala Leu Leu His Pro Arg Tyr Trp Leu Thr Trp Ser Gly
                           25
                                             30
Ile Gly Leu Leu Trp Leu Ile Val Gln Leu Pro Tyr Pro Val Ile Phe
                       4.0
                                  4.5
Arg Met Gly Lys Gly Leu Gly Arg Ile Ala Gln Gln Phe Met Lys Arg
                    55
                           60
Arg Ala Arg Ile Ala Tyr Arg Asn Leu Glu Leu Cys Phe Pro Gln Met
```

Ser Glu Ser Glu Arg His Asp Met Val Val Lys Asn Phe Glu Ser Val 85 Gly Met Gly Leu Met Glu Thr Gly Met Ala Trp Phe Trp Ser Asp Lys 100 105 Arg Met Ala Arg Trp Thr Glu Val Ala Gly Thr Gly Met Glu Pro Val 115 120 125 His Thr Leu Gln Ala Asn Gln Thr Gly Val Leu Leu Ile Gly Val His 135 140 Phe Leu Thr Leu Glu Ile Gly Ala Arg Met Phe Gly Met Gln Ala Pro 145 150 155 160 Gly Ile Gly Val Tyr Arg Pro Asn Asp Asn Pro Val Ile Asp Leu Ile 165 170 175 Gln Thr Asn Gly Arg Met Arg Ser Asn Lys Ser Met Ile Asp Arg Lys 180 185 190 Asp Leu Lys Gly Met Ile Arg Ala Leu Lys Ser Gly Glu Val Val Trp 195 200 205 Tyr Ala Pro Asp His Asp Tyr Gly Pro Gln Ser Ser Val Phe Val Pro 210 215 220 Phe Phe Ala Val Glu Asp Ala Ala Thr Thr Thr Gly Thr Trp Met Leu 225 230 235 240 Ala Arg Met Ser Lys Ala Ala Ile Val Pro Phe Val Pro Arg Arg Lys 245 250 255 Pro Asp Gly Ser Gly Tyr Gln Leu Ile Met Leu Glu Pro Glu Leu Ala 260 265 270 Pro Pro Leu Ile Asp Ala Giu Thr Thr Ala Arg Trp Met Asn Gly Val 280 Val Glu Lys Cys Ile Met Leu Ala Pro Glu Gln Tyr Met Trp Leu His 290 295 300 Arg Arg Phe Lys Thr Arg Pro Gln Gly Val Pro Ser Arg Tyr 310

<211> 430 <212> PRT <213> Enterobacter cloacae

<210> 6645

<400> 6645 Gln Ala Tyr Tyr Leu Thr Gly His Gly Ala Leu His Leu Ile Met Arg 10 Ile Val Met Ser Pro Thr Asp Ala Pro Ile Asn Trp Lys Arg Asn Leu 2.5 3.0 20 Thr Val Ala Trp Leu Gly Cys Phe Leu Tnr Gly Ala Ala Phe Ser Leu 35 40 Val Met Pro Phe Leu Pro Leu Tyr Val Glu Gln Leu Gly Val Thr Gly 5.5 His Ser Ala Leu Asn Met Trp Ser Gly Leu Val Phe Ser Ile Thr Phe 75 70 Leu Phe Ser Ala Ile Ala Ser Pro Phe Trp Gly Gly Leu Ala Asp Arg 8.5 90 Lys Gly Arg Lys Ile Met Leu Leu Arg Ser Ala Leu Gly Met Ala Ile 105 Ile Met Leu Leu Met Gly Met Ala Gln Asn Val Trp Gln Phe Leu Ile 120 125 Leu Arg Ala Leu Leu Gly Leu Leu Gly Gly Phe Ile Pro Asn Ala Asn 130 135 140 Ala Leu Ile Ala Thr Gln Ile Pro Arg Gln Lys Ser Gly Trp Ala Leu 150 155 160 1.45 Gly Thr Leu Ser Thr Gly Gly Val Ser Gly Ala Leu Leu Gly Pro Leu 165 170 175 Ala Gly Gly Leu Leu Ala Asp His Tyr Gly Leu Arg Pro Val Phe Phe 185 190

```
Ile Thr Ala Ser Val Leu Phe Leu Cys Phe Leu Val Thr Leu Ile Cys
            200
Ile Arg Glu Asn Phe Thr Pro Val Ala Lys Lys Glu Met Leu His Ala
  210
               215
Arg Asp Val Leu Ala Ser Leu Lys Asn Pro Lys Leu Val Leu Ser Leu
225
      230 235
Phe Val Thr Thr Met Ile Ile Gln Val Ala Thr Gly Ser Ile Ala Pro
         245 250
Ile Leu Thr Leu Tyr Val Arg Asp Leu Ala Gly Asn Val Ser Asn Ile
   260 265 270
Ala Phe Ile Ser Gly Leu Ile Ala Ser Val Pro Gly Val Ala Ala Leu
 275 280 285
Leu Ser Ala Pro Arg Leu Gly Lys Leu Gly Asp Arg Ile Gly Pro Glu
290 295 300
Lys Ile Leu Ile Cys Ala Leu Ile Val Ser Val Leu Leu Leu Ile Pro
305 310 315 320
Met Ala Met Val Gln Ser Pro Trp Gln Leu Gly Val Leu Arg Phe Leu
          325 330 335
Leu Gly Ala Ala Asp Gly Ala Leu Leu Pro Ala Val Gln Thr Leu Leu
       340 345 350
Val Tyr Asn Ser Thr Asn Gln Ile Ala Gly Arg Ile Phe Ser Tyr Asn
355 360
Gln Ser Phe Arg Asp Leu Gly Asr. Val Thr Gly Pro Leu Val Gly Ala
370 375
                               380
Gly Ile Ser Ala Ser Phe Gly Phe Arg Ala Val Phe Ile Val Thr Ala
385 390 395 400
Gly Val Val Leu Phe Asn Ala Val Tyr Ser Trp Leu Ser Leu Ser Arg
    405 410
Ala Leu Arg Pro Gly Arg Ile Arg Gln His Arg Asp Gly
                      425
```

<210> 6646 <211> 157 <212> PRT

<213> Enterobacter cloacae

<400> 6646 Gly Glu Lys Ser Glu Asn Ala Gln Ser Tyr Met Ser Thr Thr Pro Val 10 Gln Arg Glu Tyr Phe Leu Asp Ser Ile Arg Ala Trp Leu Met Leu Leu 2.0 25 3.0 Gly Ile Pro Phe His Ile Ser Leu Ile Tyr Ser Ser His Thr Trp His 35 40 4.5 Val Asn Ser Gln Met Pro Ser Trp Trp Leu Thr Leu Phe Asn Asp Phe 5.5 Ile His Ala Phe Arg Met Gln Val Phe Phe Val Ile Ser Gly Tyr Phe 75 65 70 80 Ser Tyr Met Leu Phe Leu Arg Tyr Pro Leu Lys Arg Trp Trp Lys Val 90 85 Arg Val Glu Arg Val Gly Ile Pro Met Leu Thr Ala Ile Pro Leu Leu 100 105 Thr Leu Pro Gln Phe Ile Met Leu Gln His Val Lys Gly Lys Ala Glu 120 115 Asn Trp Pro Asn Leu Ser Phe Tyr Glu Lys Tyr Asn Thr Leu Val Trp 130 135 Glu Leu Ile Ser His Leu Trp Phe Leu Leu Val Leu Val 150

<210> 6647 <211> 103 <212> PRT <213> Enterobacter cloacae

```
<400> 6647
Arg Gln Glu Arg Gln Pro Tyr Gly Ala Tyr Pro Gln Asp Gly Ser Glu
Ala Phe Thr Phe Leu Arg Asn Ile Leu Pro Gly Val Gly Gly Leu Leu
        20
                           25
Tyr Gly Ala Ala Cys Thr Tyr Asp Asn Thr Leu Asp Glu Asp Phe Ile
                        4.0
      35
Ile Asp Thr Leu Pro Gly His Asp Asn Thr Leu Leu Val Thr Gly Leu
 50 55
                                 60
Ser Gly His Gly Phe Lys Phe Ala Ser Val Leu Gly Glu Ile Ala Ala
              70
                               75
Gln Phe Ala Gln Gly Ile Ala Pro Ser Phe Asp Leu Lys Pro Phe Ala
                               90
            85
Leu Ser Arg Phe Asp Arg
          100
<210> 6648
<211> 217
<212> PRT
<213> Enterobacter cloacae
<400> 6648
Asn Thr Leu Phe Ile Phe Phe Ser Cys Ile Ile Tyr Leu Thr Arg Pro
                               10
Phe Leu Leu Ser His Leu Arg Thr Glu Ile His Met Gln Trp Arg
 20
Asn Ser Ser Arg Arg Tyr Gly Ile Ile Ser Met Cys Leu His Trp Leu
                       4.0
Phe Ala Ile Ala Val Tyr Ala Met Pne Gly Leu Gly Leu Trp Met Val
                    55
                                      60
Thr Leu Ser Tyr Tyr Asp Gly Trp Tyr His Gln Ala Pro Glu Leu His
                 70
                                  7.5
Lys Ser Ile Gly Val Leu Leu Met Met Gly Leu Val Phe Arg Val Ile
             8.5
                               90
Trp Arg His Ile Ser Pro Pro Pro Pro Ala Pro Lys Ser His Gly Arg
          100
                           105
                                             110
Leu Thr Arg Ile Ser Ala Val Gly Ala His Ile Ala Leu Tyr Ala Leu
      115
                        120
                                         125
Leu Phe Ala Ile Leu Ile Ser Gly Tyr Leu Ile Ser Thr Ala Asp Gly
                    135
                                      140
Lys Pro Ile Ser Val Phe Gly Leu Phe Asp Val Pro Ala Thr Leu Ala
                 150 155 160
Asp Ala Gly Ser Gln Ala Asp Thr Ala Gly Val Val His Leu Trp Leu
             165
                               170 175
Ala Trp Ser Val Val Ile Leu Ser Val Leu His Gly Leu Ala Ala Leu
          180
                           185
                                  190
Lys His His Phe Ile Asp Lys Asp Asp Thr Leu Lys Arg Met Leu Gly
      195 200
Arg Ser Ser Val Asp Ser Gly Ala
   210
                     215
<210> 6649
<211> 141
<212> PRT
<213> Enterobacter cloacae
<400> 6649
Ser Ala Ile Leu Ser Leu Asn Thr Phe Thr Lys Asn Arg Glu Thr Pro
                                1.0
```

Met Thr Met Tyr Ala Thr Leu Glu Glu Ala Ile Asp Ala Ala Arg Glu Glu Phe Leu Ala Asp Asn Pro Gly Ile Glu Glu Glu Asp Ala Asp Val 40 Gln Gln Leu Asn Ile Gln Lys Tyr Val Leu Gln Asp Gly Asp Ile Met Trp Gln Ala Glu Phe Phe Ala Asp Glu Gly Glu Asp Gly Glu Cys Leu Pro Ile Leu Ser Gly Glu Gly Ala Gln Ala Val Phe Asp Gly Asp Tyr 90 85 Asp Glu Ile Glu Leu Arg Gln Glu Trp Leu Glu Glu Asn Thr Leu His 100 105 Glu Trp Asp Glu Gly Glu Phe Gln Leu Glu Pro Pro Leu Asp Thr Glu 115 120 125 Glu Gly Gln Ala Ala Ala Asp Glu Trp Asp Glu Arg 135

<210> 6650 <211> 91 <212> PRT

<213> Enterobacter cloacae

<400> 6650 Ser His His Pro Ala Cys Val Cys Gly Ser Ala Pro Asp Arg Tyr Arg 10 Tyr Pro Pro Ala Pro Ala Ala Glu Asn Thr Leu Pro Gly Ser Gly Thr 20 25 Ala Ser Ser Val Trp Tyr Ala Gly Gln Pro Trp Asn Gly Trp Arg Ser 40 Pro Thr Gln Thr Ala Thr Gly Ser Ala Arg Arg Arg Leu Ala Pro Ala 55 Arg Thr Gly Asn Ala Asp Pro Ala Arg Pro Tyr Gln Arg Pro Thr Pro

70 Gly Pro Ala Ala Ala Glu Ser Arg Gly Ala 85

<210> 6651 <211> 433 <212> PRT

<213> Enterobacter cloacae <400> 6651

Ser Asn Ser Lys Leu Ile Phe Tyr His Thr Met Ser Lys Thr His Leu 10 Thr Glu Gln Lys Phe Ser Asp Phe Ala Leu His Pro Lys Val Ile Glu 20 25 3.0 Ala Leu Glu Thr Lys Gly Phe His Asn Cys Thr Pro Ile Gln Ala Leu 40 45 Ala Leu Pro Leu Thr Leu Ala Gly Arg Asp Val Ala Gly Gln Ala Gln 5.5 60 50 Thr Gly Thr Gly Lys Thr Met Ala Pne Leu Thr Ser Thr Phe His Tyr 75 70 8.0 Leu Leu Ser His Pro Ala Ile Ala Asp Arg Lys Val Asn Gln Pro Arg 90 95 85 Ala Leu Ile Met Ala Pro Thr Arg Glu Leu Ala Val Gln Ile His Ala 100 105 110 Asp Ala Glu Pro Leu Ala Gln Ala Thr Gly Leu Lys Leu Gly Leu Ala 120 125 Tyr Gly Gly Asp Gly Tyr Asp Lys Gln Leu Lys Val Leu Glu Ser Gly 135 140 Val Asp Ile Leu Ile Gly Thr Thr Gly Arg Leu Ile Asp Tyr Ala Lys

```
150
                            155
Gln Asn His Ile Asn Leu Gly Ala Ile Gln Val Val Val Leu Asp Glu
         165 170 175
Ala Asp Arg Met Tyr Asp Leu Gly Phe Ile Lys Asp Ile Arg Trp Leu
     180
            185 190
Phe Arg Arg Met Pro Ala Ala Asn Gln Arg Leu Asn Met Leu Phe Ser
195 200 205
Ala Thr Leu Ser Tyr Arg Val Arg Glu Leu Ala Phe Glu Gln Met Asn
210 215 220
Asn Ala Glu Tyr Val Glu Val Glu Pro Glu Gln Lys Thr Gly His Arg
225 230 235 240
Ile Lys Glu Glu Leu Phe Tyr Pro Ser Asn Glu Glu Lys Met Arg Leu
         245 250 255
Leu Gln Thr Leu Ile Glu Glu Glu Trp Pro Asp Arg Ala Ile Ile Phe
     260 265 270
Ala Asn Thr Lys His Arg Cys Glu Asp Ile Trp Gly His Leu Ala Ala
   275 280 285
Asp Gly His Arg Val Gly Leu Leu Thr Gly Asp Val Ala Gln Lys Lys
290 295 300
Arg Leu Arg Ile Leu Asp Glu Phe Thr Arg Gly Asp Leu Asp Ile Leu
305 310
                           315
Val Ala Thr Asp Val Ala Ala Arg Gly Leu His Ile Pro Ala Val Thr
          325
                         330 335
His Val Phe Asn Tyr Asp Leu Pro Asp Asp Cys Glu Asp Tyr Val His
   340
           345 350
Arg Ile Gly Arg Thr Gly Arg Ala Gly Ala Ser Gly His Ser Ile Ser
                   360
     355
                                  365
Leu Ala Cys Glu Glu Tyr Ala Leu Asn Leu Pro Ala Ile Glu Thr Tyr
370
                375
                              380
Ile Gly His Ser Ile Pro Gln Ser Lys Tyr Asn Pro Glu Ala Leu Leu
             390
                            395 400
385
Ser Glu Leu Pro Pro Pro Lys Arg Leu Thr Arg Pro Arg Ser Gly Asn
        405
              410
Gly Pro Arg Arg Ser Gly Gly Ala Pro Arg Asn Arg Arg Arg Ser Gly
```

```
<210> 6652
<211> 497
<212> PRT
<213> Enterobacter cloacae
```

<400> 6652

Glu Asn Met Leu Ser Ser Thr Ser Leu Tyr Ala Ala Ile Asp Leu Gly Ser Asn Ser Phe His Met Leu Val Val Arg Glu Val Ala Glv Ser Ile 20 Gln Thr Leu Thr Arg Ile Lys Arg Lys Val Arg Leu Ala Ala Gly Leu 40 Ser Ser Asp Asn His Leu Ser Pro Glu Ala Met Glu Arg Gly Trp Gln 55 Cys Leu Arg Leu Phe Ala Glu Arg Leu Gln Asp Ile Pro Leu Ser Gln 7.0 7.5 Ile Arg Val Val Ala Thr Ala Thr Leu Arg Leu Ala Val Asn Ala Gly 85 90 95 Asp Phe Ile Ala Arg Ala Gln Glu Ile Leu Gly Cys Pro Val Gln Val 100 105 110 Ile Ser Gly Glu Glu Glu Ala Arg Leu Ile Tyr Gln Gly Val Ala His 115 120 125 Thr Thr Gly Gly Asp Asp Arg Arg Leu Val Val Asp Ile Gly Gly Ala

```
135
Ser Thr Glu Leu Val Thr Gly Thr Gly Ala Gln Ala Thr Ser Leu Phe
145
       150
                 155
Ser Leu Ser Met Gly Cys Val Thr Trp Leu Glu Arg Tyr Phe Thr Asp
        165 170 175
Arq Asn Leu Ala Lys Glu Asn Phe Asp Glu Ala Glu Asn Ala Ala Arg
   180 185 190
Ala Val Leu Arg Pro Val Met Asp Glu Leu Arg Tyr His Gly Trp Lys
   195 200 205
Val Cys Val Gly Ala Ser Gly Thr Val Gln Ala Leu Gln Glu Ile Met
210 215 220
Met Ala Gln Gly Met Asp Glu Arg Ile Thr Leu Ala Lys Leu Gln Gln
225 230 235 240
Leu Lys Gln Arg Ala Ile Gln Cys Gly Arg Leu Glu Glu Leu Glu Ile
          245 250 255
Glu Gly Leu Thr Leu Glu Arg Ala Leu Val Phe Pro Ser Gly Leu Ala
       260 265 270
Ile Leu Ile Ala Ile Phe Thr Glu Leu Asn Ile Gln Cys Met Thr Leu
     275 280 285
Ala Gly Gly Ala Leu Arg Glu Gly Leu Val Tyr Gly Met Leu His Gln
290 295 300
Ser Val Asp Gln Asp Ile Arg Ser Arg Thr Leu Arg Asn Val Gln Arg
305 310 315 320
Arg Phe Ile Val Asp Thr Asp Gln Ala Gln Arg Val Ser Gln Leu Ala
           325 330 335
Ser Gln Phe Ala Asp Gln Val Lys Lys Ser Trp Asp Ile Glu Pro Leu
      340
                   345 350
Ser Arg Asp Leu Leu Ser Ala Cys Ala Leu His Glu Ile Gly Leu
    355
                   360
                                 365
Ser Val Glu Tyr Lys Gln Ala Pro Leu His Ala Ala Trp Leu Val Arg
370
     375
Asn Leu Asp Leu Pro Gly Tyr Thr Pro Ala Gln Lys Lys Leu Leu Ala
385 390
                           395 400
Thr Leu Leu Leu Asn Gln Thr Asn Ala Val Asp Leu Ser Ser Leu His
          405 410
Gln Gln Asn Ala Val Pro Pro Arg Val Ala Glu His Leu Cys Arg Leu
       420
                     425 430
Leu Arg Leu Ala Ile Leu Phe Ala Ser Arg Arg Arg Asp Asp Leu Leu
                   440 445
     435
Pro Ala Ile Thr Leu Ala Ala Asp Asp Glu Lys Leu Thr Leu Thr Leu
                455 460
Pro Glu Asn Trp Leu Glu Asp His Pro Leu Gly Ala Glu Leu Ile Glu
           470 475 480
Gln Glu Tyr Gln Trp Gln Ser Tyr Val His Trp Ala Leu Asp Val Lys
                        490
           485
```

```
<210> 6653
<211> 93
<212> PRT
```

<220> <221>UNSURE <222>(93)

<400> 6653

Ser Thr Gln Gly Thr Ile Met Ala Lys Thr Ala Ala Ala Leu His Ile Leu Val Lys Glu Glu Lys Leu Ala Gln Asp Leu Leu Glu Gln Ile Lys

<sup>&</sup>lt;213> Enterobacter cloacae

2792 20 Asn Gly Ala Asp Phe Gly Lys Leu Ala Lys Lys His Ser Ile Cys Pro 40 3.5 Ser Gly Lys Arg Gly Gly Asp Leu Gly Glu Phe Arg Gln Gly Gln Met 55 60 Val Pro Ala Phe Asp Lys Val Val Phe Ser Leu Pro Arg Ser Trp Ser 70 75 Gln Arg Phe His Thr Arg Arg Trp Lys Asp Asn Ala Xaa <210> 6654 <211> 135 <212> PRT <213> Enterobacter cloacae <400> 6654 Leu Val Asn Ala Thr Ser Thr Arg Arg Trp Trp Arg Gln Asn Gln Arg Thr Arg Leu Ile Pro Val Glu Leu Tyr Met Ser Asp Lys Ile Ile His 25 20 Leu Thr Asp Asp Ser Phe Asp Thr Asp Val Leu Lys Ala Asp Gly Leu 35 4.0 Ile Leu Val Asp Phe Trp Ala Glu Trp Cys Gly Pro Cys Lys Met Ile 5.5 50 Ala Pro Ile Leu Asp Glu Ile Ala Asp Glu Tyr Gln Gly Lys Leu Thr 70 75 Val Ala Lys Leu Asn Ile Asp Gln Asn Pro Gly Thr Ala Pro Lys Tyr 90 85 Gly Ile Arg Gly Ile Pro Thr Leu Leu Leu Phe Lys Asn Gly Asp Val 105 110 100 Ala Ala Thr Lys Val Gly Ala Leu Ser Lys Gly Gln Leu Lys Glu Phe 120 115 Leu Asp Ala Asn Leu Ala 130 <210> 6655 <211> 677 <212> PRT <213> Enterobacter cloacae <400> 6655 Ser Phe Met Arg Leu Asn Pro Gly Gln Gln Gln Ala Val Glu Phe Val 1.0 Thr Gly Pro Cys Leu Val Leu Ala Gly Ala Gly Ser Gly Lys Thr Arg 20 25 Val Ile Thr Asn Lys Ile Ala His Leu Ile Arg Gly Cys Gly Tyr Gln 40 Ala Arg His Ile Ala Ala Val Tor Phe Thr Asn Lys Ala Ala Arg Glu 50 Met Lys Glu Arg Val Gly Gln Thr Leu Gly Arg Lys Glu Ala Arg Gly 70 65 Leu Met Ile Ser Thr Phe His Thr Leu Gly Leu Asp Ile Ile Lys Arg 90 95 Glu Tyr Ala Ala Leu Gly Met Lys Ser Asn Phe Ser Leu Phe Asp Asp 100 105 110 Thr Asp Gln Val Ala Leu Leu Lys Glu Leu Thr Glu Gly Leu Ile Glu 120 Asp Asp Lys Val Leu Leu Gln Gln Leu Ile Ser Thr Ile Ser Asn Trp 130 135 140 Lys Asn Asp Leu Met Thr Pro Ala Gln Ala Ala Ala Ser Ala Lys Gly

Glu Arg Asp Arg Ile Phe Ala His Cys Tyr Gly Leu Tyr Asp Ala His 170 165 Met Lys Ala Cys Asn Val Leu Asp Phe Asp Asp Leu Ile Leu Leu Pro 180 185 Thr Leu Leu Gln Arg Asn Glu Glu Val Arg Glu Arg Trp Gln Asn 195 200 205 Lys Ile Arg Tyr Leu Leu Val Asp Glu Tyr Gln Asp Thr Asn Thr Ser 210 215 220 Gln Tyr Glu Leu Val Lys Leu Leu Val Gly Gln Arg Ala Arg Phe Thr 230 235 240 Val Val Gly Asp Asp Gln Ser Ile Tyr Ser Trp Arg Gly Ala Arg 245 250 255 Pro Gln Asn Leu Val Leu Leu Ser Lys Asp Phe Pro Ala Leu Gln Val 260 265 270 Ile Lys Leu Glu Gln Asn Tyr Arg Ser Ser Gly Arg Ile Leu Lys Ala 275 280 285 Ala Asn Ile Leu Ile Ala Asn Asn Pro His Val Phe Glu Lys Arg Leu 290 295 300 Phe Ser Glu Leu Gly Tyr Gly Thr Glu Leu Lys Val Leu Ser Ala Asn 305 310 315 320 Asn Glu Glu His Glu Ala Glu Arg Val Thr Gly Glu Leu Ile Ala His 325 330 335 His Phe Val Asn Lys Thr Glu Tyr Lys Asp Tyr Ala Ile Leu Tyr Arg 340 345 350 Gly Asn His Gln Ser Arg Val Phe Glu Lys Met Leu Met Gln Asn Arg 360 365 Ile Pro Tyr Lys Ile Ser Gly Gly Thr Ser Phe Phe Ser Arg Pro Glu 370 375 380 Ile Lys Asp Leu Leu Ala Tyr Leu Arg Val Leu Thr Asn Pro Asp Asp 395 385 390 Asp Ser Ala Phe Leu Arg Ile Val Asn Thr Pro Lys Arg Glu Ile Gly 405 410 415 Ser Ala Thr Leu Gln Lys Leu Gly Glu Trp Ala Met Thr Arg Asn Lys 425 430 Ser Leu Phe Thr Ala Ser Phe Asp Met Gly Leu Ser Gln Thr Leu Thr 435 440 445 Gly Arg Gly Tyr Glu Ala Leu Thr Arg Phe Thr His Trp Leu Gly Glu 455 460 Val Glm Arg Leu Ala Glu Arg Giu Pro Val Ala Ala Val Arg Asp Leu 470 475 Ile His Gly Ile Asp Tyr Glu Ser Trp Leu Tyr Glu Thr Ser Ala Ser 485 490 Pro Lys Ala Ala Glu Met Arg Met Lys Asn Val Asn Gln Leu Phe Ser 500 505 510 Trp Met Thr Glu Met Leu Glu Gly Ser Glu Ile Asp Glu Pro Met Thr 515 520 525 Leu Thr Gln Val Val Thr Arg Phe Thr Leu Arg Asp Met Met Glu Arg 535 540 Gly Glu Ser Glu Glu Glu Ala Asp Gln Val Gln Leu Met Thr Leu His 550 555 Ala Ser Lys Gly Leu Glu Phe Pro Tyr Val Tyr Leu Val Gly Met Glu 565 570 575 Glu Gly Leu Leu Pro His Gln Ser Ser Ile Asp Glu Asp Asn Val Asp 580 585 Glu Glu Arg Arg Leu Ala Tyr Val Gly Ile Thr Arg Ala Gln Lys Glu 595 600 605 Leu Thr Phe Thr Leu Cys Lys Glu Arg Arg Gln Tyr Gly Glu Leu Val 610 615 620 Arg Pro Glu Pro Ser Arg Phe Leu Leu Glu Leu Pro Gln Asp Asp Leu 635 625 630 Ile Trp Glu Gln Glu Arg Lys Val Ile Thr Ala Glu Glu Arg Met His

2794 650 Lys Gly Gln Ala Asn Val Ala Asn Ile Arg Ala Met Leu Ala Lys Ala 660 665 Lys Glu Lys Gly 675 <210> 6656 <211> 166 <212> PRT <213> Enterobacter cloacae <400> 6656 Glu Gln Ser Ile Val Asn Leu Leu Thr Ala Val Thr Glu Leu Ile Ser 1 5 10 Ile Phe Leu Phe Thr Thr Cys Phe Leu Phe Ile Ala Arg Lys Val Ala 20 25 3.0 Lys Arg Ile Gly Leu Val Asp Lys Pro Asn Phe Arg Lys Arg His Gln 4.0 4.5 Gly Leu Ile Pro Leu Val Gly Gly Ile Ser Val Tyr Ala Gly Ile Cys 55 Phe Thr Phe Gly Ile Ala Asp Tyr Tyr Ile Pro His Ala Ala Leu Tyr 75 7.0 Leu Ala Cys Ala Gly Val Leu Val Leu Val Gly Ala Leu Asp Asp Arg 90 95 85 Phe Asp Ile Ser Val Lys Phe Arg Ala Thr Val Gln Ala Ala Ile Gly 100 105 110 Ile Ile Met Met Val Val Gly Gly Leu Tyr Leu Arg Ser Leu Gly Tyr 120 115 Val Phe Gly Pro Trp Glu Leu Val Leu Gly Pro Phe Gly Phe Phe Leu 130 135 140 Thr Leu Phe Ala Val Trp Ala Ala Ile Val Phe Thr Asp Arg Gly Arg 145 150 Lys Glu Thr Arg Met Arg <210> 6657 <211> 446 <212> PRT <213> Enterobacter cloacae <400> 6657 Thr Gly Met Asp Asp Pro Ala Ile Pro Phe Thr Thr Leu Ser Ser Arg 10 Ile Thr Pro Ser Leu Arg Thr His Thr Ile Met Asn Leu Thr Glu Leu 25 Lys Asn Thr Pro Val Ser Glu Leu Ile Thr Leu Gly Glu Asn Met Gly 35 4.0 Leu Glu Asn Gln Ala Arg Met Arg Lys Gln Asp Ile Ile Phe Ala Ile 55 Leu Lys Gln His Ala Lys Ser Gly Glu Asp Ile Phe Gly Asp Gly Val 70 75 Leu Glu Ile Leu Gln Asp Gly Phe Gly Phe Leu Arg Ser Ala Asp Ser 90 Ser Tyr Leu Ala Gly Pro Asp Asp Ile Tyr Val Ser Pro Ser Gln Ile 105 100 Arg Arg Phe Asn Leu Arg Thr Gly Asp Thr Ile Ser Gly Lys Ile Arg 120 125 Pro Pro Lys Glu Gly Glu Arg Tyr Phe Ala Leu Leu Lys Val Asn Glu 135 140

Val Asn Tyr Asp Lys Pro Glu Asn Ser Arg Asn Lys Ile Leu Phe Glu

155

```
Asn Leu Thr Pro Leu His Ala Asn Ser Arg Leu Arg Met Glu Arg Gly
                         170
          165
Asn Gly Ser Thr Glu Asp Leu Thr Ala Arg Val Leu Asp Leu Ala Ser
        180 185
                                     190
Pro Ile Gly Arg Gly Gln Arg Gly Leu Ile Val Ala Pro Pro Lys Ala
         200 205
     195
Gly Lys Thr Met Leu Leu Gln Asn Ile Ala Gln Ser Ile Ala Tyr Asn
 210 215
                               220
His Pro Asp Cys Val Leu Met Val Leu Leu Ile Asp Glu Arg Pro Glu
    230 235
Glu Val Thr Glu Met Gln Arg Leu Val Lys Gly Glu Val Val Ala Ser
     245 250 255
Thr Phe Asp Glu Pro Ala Ser Arg His Val Gln Val Ala Glu Met Val
       260 265 270
Ile Glu Lys Ala Lys Arg Leu Val Glu His Lys Lys Asp Val Ile Ile
    275 280 285
Leu Leu Asp Ser Ile Thr Arg Leu Ala Arg Ala Tyr Asn Thr Val Val
      295 300
Pro Ala Ser Gly Lys Val Leu Thr Gly Gly Val Asp Ala Asn Ala Leu
305 310 315
His Arg Pro Lys Arg Phe Phe Gly Ala Ala Arg Asn Val Glu Glu Gly
           325 330 335
Gly Ser Leu Thr Ile Ile Ala Thr Ala Leu Ile Asp Thr Gly Ser Lys
            345
                                     350
        340
Met Asp Glu Val Ile Tyr Glu Glu Phe Lys Gly Thr Gly Asn Met Glu
                                  365
 355
                    360
Leu His Leu Ser Arg Lys Ile Ala Glu Lys Arg Val Phe Pro Ala Ile
                               380
 370
                 375
Asp Tyr Asn Arg Ser Gly Thr Arg Lys Glu Glu Leu Leu Thr Thr Gln
385 390 395
Glu Glu Leu Gln Lys Met Trp Ile Leu Arg Lys Ile Ile His Pro Met
          405 410 415
Gly Glu Ile Asp Ala Met Glu Phe Leu Ile Asn Lys Leu Ala Met Thr
        420 425 430
Lys Thr Asn Asp Asp Phe Phe Asp Met Met Lys Arg Ser
                   440
```

<210> 6658 <211> 175 <212> PRT

<213> Enterobacter cloacae

<400> 6658 Val Lys Val Val Ile Met Gly Gln Asp Pro Tyr His Gly Pro Gly Gln 10 Ala His Gly Leu Ala Phe Ser Val Arg Pro Gly Val Ala Ile Pro Pro 25 30 Phe Leu Leu Asn Met Tyr Lys Glu Leu Glu Gly Thr Ile Pro Gly Phe 35 40 Thr Arg Pro Asn His Gly Tyr Leu Glu Ser Trp Ala Arg Gln Gly Val 55 60 Leu Leu Leu Asn Thr Val Leu Thr Val Arg Ala Gly Gln Ala His Ser 75 His Ala Ser Leu Gly Trp Glu Thr Phe Thr Asp Lys Val Ile Ser Leu 85 90 Ile Asn Glu His Arg Glu Gly Val Val Phe Leu Leu Trp Gly Ser His 105 100 Ala Gln Lys Lys Gly Ala Ile Ile Asp Arg Gln Arg His His Val Leu 115 120 Lys Ala Pro His Pro Ser Pro Leu Ser Ala His Arg Gly Phe Phe Gly 135 140

Ser Asn His Phe Val Leu Thr Asn Glu Trp Leu Glu Lys Arg Gly Glu 145 150 Lys Pro Ile Asp Trp Met Pro Val Leu Pro Ala Glu Ser Glu 170 165 <210> 6659 <211> 295 <212> PRT <213> Enterobacter cloacae <400> 6659 Lys Ile Ser Val Trp Arg Gly Arg Leu Thr Thr Pro Phe Pro Phe Gly 10 5 Phe Phe Ser Arg Leu Leu Pro Phe Phe Asp Lys Ile Thr Thr Gln Ile 20 25 Thr Met Leu Ile Ile Asp Leu Asp Asn Lys Ile His Arg Lys Asn Met 35 40 45 Met Lys His Ile Ser Gly Lys Ala Ala Leu Leu Ala Leu Ser Met Ile 5.5 Ser Ala Thr Ala Tyr Ala Ser His Trp Ser Tyr Gln Gly Glu Gly Ala 70 75 Pro Glu His Trp Gly Glu Leu Asp Glu Ala Tyr Lys Thr Cys Lys Ser 90 Gly Met Tyr Gln Ser Pro Val Asn Ile Asp Asn Thr Val Lys Ala His 100 105 110 Ile Ser Pro Leu Glu Thr His Tyr Ile Asp Gly Pro Val Ile Leu Thr 115 120 125 Asn Asn Gly His Thr Ile Gln Ala Ser Glu Asn Ala Asp Thr Arg Asp 135 140 Ser Ile Thr Leu Asp Lys Gln Arg Trp Thr Leu Gln Gln Phe His Phe 150 155 160 His Ala Pro Ser Glu Asn Thr Val His Gly Lys Lys Tyr Ala Met Glu 165 170 Met His Leu Val His Lys Asn Ala Asp Gly Glu Leu Thr Val Val Ala 180 185 190 Val Met Phe Asp Gln Gly Ala Ala Asn Thr Glu Leu Asp Lys Leu Trp 205 195 200 Gly Val Met Pro Gly Gln Val Asp Gln Asn Val Thr Ile Lys Pro Thr 215 220 Leu Asp Met Asn Lys Leu Leu Pro Ala Asp Lys Thr Tyr Trp Arg Phe 225 230 235 Ser Gly Ser Leu Thr Thr Pro Pro Cys Ser Glu Gly Val Thr Trp Leu 245 250 Val Leu Lys His Pro Leu Thr Val Ser Ala Glu Gln Leu Gln Lys Phe 265 Thr His Thr Leu His His Glu Asn Ser Arg Pro Val Gln Pro Leu His 275 280 Gly Arg Leu Val Val Glu 290 <210> 6660 <211> 383 <212> PRT <213> Enterobacter cloacae <400> 6660 Gly Thr Val Met Thr Asn His Phe Arg Cvs Leu Pro Leu Ser Gly Phe 10 Ile Val Cys Ala Ala Leu Leu Thr Gly Cys Asp Gly Gln Glu Asn Pro

20 25 30 Gln Gln His Ala Gln Ala Pro Gln Val Ser Val His Ile Val Lys Ser

```
40
Ala Pro Leu Ala Val Thr Thr Glu Leu Pro Gly Arg Thr Asp Ala Tyr
            55
Arg Val Ala Glu Val Arg Pro Gln Val Ser Gly Ile Ile Leu His Arg
            70 75
Asn Phe Thr Glu Gly Ser Asp Val Lys Ala Gly Glu Ser Leu Tyr Gln
         85 90 95
Ile Asp Pro Ala Thr Tyr Gln Ala Ala Tyr Asp Asn Ala Lys Gly Glu
      100 105 110
Leu Val Lys Ala Gln Ala Ala Ala Asn Ile Ala His Leu Thr Val Lys
115 120 125
Arg Tyr Val Pro Leu Val Gly Thr Gln Tyr Val Ser Lys Gln Glu Tyr
 130 135 140
Asp Gln Ala Val Ala Thr Ala Gln Gln Ala Asp Ala Ser Val Val Ala
145 150 155
Ala Lys Ala Gly Val Glu Ser Ala Arg Ile Asn Leu Ala Tyr Thr Lys
      165 170
Val Thr Ser Pro Ile Asn Gly Arg Ile Gly Lys Ser Ser Val Thr Glu
       180 185 190
Gly Ala Leu Val Thr Asn Gly Gln Ser Thr Ala Leu Ala Thr Val Gln
195 200 205
Gln Leu Asp Pro Ile Tyr Val Asp Val Thr Gln Ser Ser Ser Asp Phe
210 215
                                220
Met Arg Leu Lys Gln Gln Thr Ser Leu Gln Lys Gly Asp Thr Ser Ser
225 230 235
Val Glu Leu Leu Met Glu Asn Gly Gln Pro Tyr Pro Leu Lys Gly Thr
         245 250
Leu Gln Phe Ser Asp Val Thr Val Asp Glu Ser Thr Gly Ser Ile Thr
 260 265
Leu Arg Ala Leu Phe Pro Asn Pro Gln His Met Leu Leu Pro Gly Met
275 280
                                285
Phe Val Arg Ala Arg Ile Asp Glu Gly Thr Gln Pro Asp Ala Ile Leu
              295
290
                               300
Val Pro Gln Gln Gly Val Thr Arg Thr Pro Arg Gly Asp Ala Thr Val
305 310
                            315
Leu Val Val Asn Asp Lys Asn Gln Val Glu Ser Arg Thr Val Val Ala
          325
                          330
Pro Gln Ala Ile Gly Asp Arg Trp Leu Ile Thr Glu Gly Leu Lys Asn
      340
                      345 350
Gly Asp Arg Val Ile Ile Ser Gly Leu Gln Lys Val Arg Pro Gly Val
                 360
    355
                                  365
Thr Val Val Ala Ile Pro Asp Thr Ala Ala Thr Pro Ala Ser
                 375
                                380
<210> 6661
<211> 425
<212> PRT
<213> Enterobacter cloacae
<221>UNSURE
<222>(125)
<220>
<221>UNSURE
<222>(135)
<400> 6661
Asp Lys Ile Val Asp Val His Ser Ser Ala Asp Arg Asp Leu Lys His
                        10
Val Leu Leu Ala Asp Glu Thr Val Cys Ile Gly Pro Ala Pro Ser Val
```

```
Lys Ser Tyr Leu Asn Ile Pro Ala Ile Ile Ser Ala Ala Glu Ile Thr
     35
                  4.0
                                  4.5
Gly Ala Val Ala Ile His Pro Gly Tyr Gly Phe Leu Ser Glu Asn Ala
                 55
Asn Phe Ala Glu Gln Val Glu Arg Ser Gly Phe Ile Phe Ile Gly Pro
      70
                            7.5
Lys Ala Asp Thr Ile Arg Leu Met Gly Asp Lys Val Ser Ala Ile Thr
         8.5
                  90
Ala Met Lys Lys Ala Gly Val Pro Thr Val Pro Gly Ser Asp Gly Pro
      100 105 110
Leu Thr Asp Asp Met Asp Ala Asn Arg Ala His Ala Xaa Arg Ile Gly
    115 120 125
Tyr Pro Val Ile Ile Lys Xaa Ser Gly Arg Arg Gly Gly Arg Gly Met
 130 135 140
Arg Val Val Arg Ser Asp Ala Glu Leu Ala Gln Ser Ile Ser Met Thr
   150 155 160
145
Lys Ala Glu Ala Lys Ala Ala Leu Ser Asn Asp Met Val Tyr Met Glu
      165 170 175
Lys Tyr Leu Glu Asn Pro Arg His Ile Glu Ile Gln Val Leu Ala Asp
     180 185 190
Gly Gln Gly Asn Ala Ile Tyr Leu Ala Glu Arg Asp Cys Ser Met Gln
195 200 205
Arg Arg His Gln Lys Val Val Glu Glu Ala Pro Ala Pro Gly Ile Thr
210 215 220
Pro Glu Leu Arg Arg Tyr Ile Gly Glu Arg Cys Ala Lys Ala Cys Val
225 230 235
Asp Ile Gly Tyr Arg Gly Ala Gly Thr Phe Glu Phe Leu Phe Glu Asn
          245
               250 255
Gly Glu Phe Tyr Phe Ile Glu Met Asn Thr Arg Ile Gln Val Glu His
 260 265 270
Pro Val Thr Glu Met Ile Thr Gly Val Asp Leu Ile Lys Glu Gln Leu
275 280 285
Arg Ile Ala Ala Gly Gln Pro Leu Ser Ile Lys Gln Glu Glu Val Val
290 295
                               300
Val Lys Gly His Ala Val Glu Cys Arg Ile Asn Ala Glu Asp Pro Asn
305 310 315
Thr Phe Leu Pro Ser Pro Gly Lys Ile Thr Arg Phe His Ala Pro Gly
      325 330 335
Gly Phe Gly Val Arg Trp Glu Ser His Ile Tyr Ala Gly Tyr Thr Val
                      345 350
Pro Pro Tyr Tyr Asp Ser Met Ile Gly Lys Leu Ile Cys Tyr Gly Glu
   355 360 365
Asn Arg Asp Val Ala Ile Ala Arg Met Lys Asn Ala Leu Gln Glu Leu
              375
                         380
Ile Ile Asp Gly Ile Lys Thr Asn Val Asp Leu Gln Met Arg Ile Met
385 390
                            395
Ser Asp Glu His Phe Gln Asn Gly Gly Thr Asn Ile His Tyr Leu Glu
         405
                         410
Lys Lys Leu Gly Leu Asn Glu Lys
        420
<210> 6662
<211> 97
```

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;400> 6662

Ala Pro Ser Cys Thr Ile Pro Ala Phe Phe Ile His Lys Gly Gln Lys 1.0 Met Asp Lys Arg Phe Val Gln Ala His Lys Glu Ala Arg Trp Ala Leu

<210> 6663 <211> 300 <212> PRT <213> Enterobacter cloacae <400> 6663 Gln Ile Lys Ser Phe Ala Met Pro Trp Ile Gln Leu Lys Leu Asn Thr 10 Thr Gly Ala Asn Ala Glu Glu Leu Ser Asp Ala Leu Met Glu Ala Gly 25 3.0 Ser Val Ser Ile Thr Phe Gln Asp Thr His Asp Thr Pro Val Phe Glu 40 4.5 Pro Leu Pro Gly Glu Thr Arg Leu Trp Gly Asp Thr Asp Val Ile Gly 55 60 Leu Phe Asp Ala Glu Thr Asp Met Lys Glu Val Val Ala Ile Leu Glu 70 75 Asn His Pro Leu Leu Gly Ala Gly Phe Thr His Lys Ile Glu Gln Leu 8.5 90 Glu Asp Lys Asp Trp Glu Arg Glu Trp Met Asp Asn Phe His Pro Met 100 105 110 Gln Phe Gly Gln Arg Leu Trp Ile Cys Pro Ser Trp Arg Glu Val Pro 115 120 Asp Glu Asn Ala Val Asn Val Met Leu Asp Pro Gly Leu Ala Phe Gly 135 140 130 Thr Gly Thr His Pro Thr Thr Ser Leu Cys Leu Gln Trp Leu Asp Gly 145 150 155 Leu Asp Leu Glu Gly Lys Thr Val Ile Asp Phe Gly Cys Gly Ser Gly 165 170 175 Ile Leu Ala Ile Ala Ala Leu Lys Leu Gly Ala Ala Lys Ala Ile Gly 185 180 Ile Asp Ile Asp Pro Gln Ala Ile Gln Ala Ser Arg Asp Asn Ala Glu 195 200 Arg Asn Gly Val Ser Asp Arg Leu Glu Leu Tyr Leu Pro Asp Ala Gln 210 215 220 Pro Glu Ala Met Lys Ala Asp Val Val Val Ala Asn Ile Leu Ala Gly 230 235 Pro Leu Arg Glu Leu Ala Pro Leu Ile Ser Val Leu Pro Val Glu Gly 245 250 255 Gly Leu Leu Gly Leu Ser Gly Ile Leu Ala Ser Gln Ala Asp Ser Val 265 270 260 Cys Glu Ala Tyr Ala Asp Leu Phe Ala Leu Asp Pro Val Val Glu Lys 275 280 Glu Glu Trp Cys Arg Ile Thr Gly Arg Lys Lys 295 290

<210> 6664 <211> 104

<211> 104 <212> PRT

<213> Enterobacter cloacae

```
<400> 6664
Arg Ala Asp Arg Thr Met Phe Glu Gln Arg Val Asn Ser Asp Val Leu
                   10
          5
Thr Val Ser Thr Val Asn Ser Gln Asp Gln Val Thr Gln Lys Pro Leu
    20
                         25
                                              30
Arg Asp Ser Val Lys Gln Ala Leu Lys Asn Tyr Phe Ala Gln Leu Asn
            40
                              4.5
Gly Gln Asp Val Asn Asp Leu Tyr Glu Leu Val Leu Ala Glu Val Glu
                   55
                                      60
Gln Pro Leu Leu Asp Met Val Met Gln Tyr Thr Arg Gly Asn Gln Thr
65 70 75
Arg Ala Ala Leu Met Met Gly Ile Asn Arg Gly Thr Leu Arg Lys Lys
           8.5
                              9.0
Leu Lys Lys Tyr Gly Met Asn
          100
<210> 6665
<211> 751
<212> PRT
<213> Enterobacter cloacae
<400> 6665
Thr Gly Gln Leu Leu Arg Ala Gly Leu Thr Ala Ser Ile Leu Tyr Lys
                                               15
Thr Leu Leu Thr Pro Asn Lys Asn Arg Gly Leu Asn His Phe Ser Ser
        20
                            25
Phe Pro Asp Asp Asp Asn Val Cys Pro Leu Ser Asn Arg Ser Cys Leu
35
                                4.5
                        40
Thr Ser His Thr Ser Glu Gln Thr Met Leu Val Ser Gln Tyr Asn Gln
50
                    55
                                       60
Ile Leu Val Val Ile Ser Phe Val Val Ala Ile Leu Ala Ala Tyr Thr
65
                 7.0
                                   75
Ala Leu Asn Met Ala Ala Arg Val Ala Gly Ser Gln Gly Val Ala Ala
                               90
             85
Arg Val Trp Leu Ala Gly Gly Gly Val Ser Met Gly Ile Gly Val Trp
                                              110
Ala Met His Phe Ile Gly Met Leu Ala Met Asp Leu Ser Met Ser Met
       115
                        120
Ser Tyr Asn Ala Ala Leu Thr Val Leu Ser Met Val Ile Ala Ile Ser
 130
                                       140
Ser Ser Met Phe Ala Leu Trp Leu Val Ser Gly Glu Gln Leu Arg Leu
145 150
                                 155
Arg Arg Leu Leu Pro Gly Ala Val Val Met Gly Thr Gly Ile Val Ala
             165
                                170
Met His Tvr Thr Glv Met Ala Ala Leu Glu Val Thr Pro Glv Ile Val
                            185
                                190
Trp Asp Lys Thr Trp Val Ala Ile Ser Val Val Ile Ala Leu Ala Ala
      195
                        200
Ser Leu Ala Ala Leu Trp Leu Thr Phe Arg Leu Arg Gln Glu Ala Ala
                    215
Arg Met Ala Leu Met Arg Leu Gly Ala Ala Ile Thr Met Gly Ile Ala
                 230
                                   235
Ile Ala Gly Met His Tyr Ala Gly Met Glu Ala Ala Gln Phe Pro Met
             245
                               250
Ser Thr Met Val His His His Gly Ile Asn Gly Ser Trp Leu Ala Ile
          260
                            265
Leu Val Ser Val Val Ala Leu Ala Ile Leu Gly Ile Thr Leu Leu Val
       275
                        280
                                          285
Ser Met Phe Asp Ala Arg Leu Gln Ala Arg Thr Ser Leu Leu Ala Ser
```

```
Ser Leu Ala Glu Ala Asn Arg Glu Leu Ala Gln Leu Ala Leu His Asp
          310
                     315
Thr Leu Thr Arg Leu Pro Asn Arg Ile Leu Leu Glu Asp Arg Leu Asp
            325
                            330 335
Gln Ala Ile Ser Lys Ala Asp Arg Glu Gly Ser Pro Phe Ala Leu Met
             345
         340
                              350
Phe Met Asp Leu Asp Gly Phe Lys Thr Val Asn Asp Ala Tyr Gly His
 355 360
                                      365
Asp Val Gly Asp Lys Leu Leu Val Ala Val Thr Gln Arg Leu Leu Leu
 370 375 380
Gln Leu Lys Gly Gln Tyr Thr Leu Ala Arg Ile Gly Gly Asp Glu Phe
385 390 395
Val Leu Leu Ala Glu Thr Ala Thr Pro Asp Asp Ala Ala Ser Leu Ala
       405 410
Asn Ser Leu Val Arg Val Ile Asp Ser Pro Phe His Leu Asp Pro Tyr
                        425
                                         430
Glu Leu Met Val Thr Leu Ser Ile Gly Ile Ala Leu Tyr Pro His Asp
                     440
                           445
Gly Lys Thr Asp Arg Glu Leu Met Phe Asn Ala Asp Ala Ala Met Tyr
                  455
                          460
His Thr Lys His Met Gly Arg Asn Gly Tyr His Phe Phe Gln Pro Ser
               470
                              475
Met Asn Thr Leu Ala Gln Thr His Leu Gln Leu Met Asn Asp Leu Trp
            485
                            490
Gln Ala Ile Asp Arg Asp Glu Leu Arg Leu Leu Tyr Gln Pro Lys Phe
         500
                         505
                                         510
His Ala Pro Ala Gly Pro Val Ile Gly Phe Glu Ala Leu Leu Arg Trp
      515
                      520
                            525
Gln His Pro Lys Gln Gly Leu Leu Ser Pro Asp Leu Phe Leu Pro Leu
 530
                   535
                                   540
Ala Glu Lys Thr Gly Leu Ile Ile Pro Ile Gly Asn Trp Val Ile Asp
                550
                               555
Glu Ala Cys Arg Gln Leu Arg Glu Trp His Leu Gln Gly His Thr Asp
            565
                            570
Trp Ser Met Ala Val Asn Leu Ser Thr Leu Gln Phe Glu Gln Pro Ser
         580
                         585
                                         590
Leu Val Lys Thr Val Leu Asp Cys Leu Thr Arg His Ser Val Pro Pro
      595 600
                                      605
Gly Met Leu Ile Leu Glu Val Thr Glu Thr Thr Ala Met Ser Asn Pro
 610
                   615
                                   620
Asp Glu Ser Val Arg Val Leu Thr Ala Leu Thr Asp Ala Gly Val Lys
625
               630
                               635
                                                640
Ala Ser Ile Asp Asp Pne Gly Thr Gly Tyr Ser Ser Leu Leu Tyr Leu
            645
                            650 655
Lys Arg Leu Pro Ala Cys Glu Leu Lys Ile Asp Arg Ala Phe Val Lys
         660
                         665
Glu Leu Ser Gly Glu Ser Glu Asp Ala Thr Ile Val Ser Ala Ile Val
      675
                      680
                                      685
Ala Leu Ala Lys Thr Leu Asn Leu Lys Val Val Ala Glu Gly Val Glu
  690
                   695
                                   700
Thr Ala Ala Gln Gln Thr Phe Leu Thr Glu Leu Gly Cys Asn Thr Leu
                710
                                715
Gln Gly Tyr Leu Leu Gly Lys Pro Ile Thr Ala Gln Ala Ile Met Glu
          725
                            730
Gln Cys Gln His Gly Glu Met Ser Pro Pro Arg Ala Gln Ser
         740
                         745
```

<sup>&</sup>lt;210> 6666 <211> 496

<sup>&</sup>lt;211> 496 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6666 Asn Ser Ser Ile Ala Ile Phe His Trp Arg Thr Met Met Gln Leu Glu 10 Val Ile Leu Pro Leu Ile Ala Tyr Leu Cys Leu Val Phe Gly Leu Ser 20 25 Val Tyr Ala Met Arg Lys Arg Ser Thr Gly Thr Phe Leu Asn Glu Tyr 3.5 40 4.5 Phe Leu Gly Ser Arg Ser Met Gly Gly Val Val Leu Ala Met Thr Leu 50 55 Thr Ala Thr Tyr Ile Ser Ala Ser Ser Phe Ile Gly Gly Pro Gly Ala 70 75 Ala Tyr Lys Tyr Gly Leu Gly Trp Val Leu Leu Ala Met Ile Gln Leu 8.5 90 Pro Ala Ile Trp Leu Ser Leu Gly Ile Leu Gly Lys Lys Phe Ala Ile 100 105 110 Leu Ala Arg Arg Tyr Asn Ala Val Thr Leu Asn Asp Met Leu Phe Ala 115 120 125 Arg Tyr Gln Ser Arg Leu Leu Val Trp Leu Ala Ser Leu Ser Leu Leu 130 135 140 Val Ala Phe Ile Gly Ala Met Thr Val Gln Phe Ile Gly Gly Ala Arg 145 150 155 Leu Leu Glu Thr Ala Ala Gly Ile Pro Tyr Glu Thr Gly Leu Val Ile 165 170 175 Phe Gly Val Ser Ile Ala Leu Tyr Thr Ala Phe Gly Gly Phe Arg Ala 180 185 190 Ser Val Leu Asn Asp Thr Met Gln Gly Met Val Met Leu Ile Gly Thr 195 200 205 Leu Val Leu Leu Val Gly Ile Val His Ala Ala Gly Gly Leu Ser His 210 220 Ala Val Glu Thr Leu Glu Ala Ile Asp Pro Lys Leu Val Ser Pro Gln 225 230 235 240 Gly Ala Asp Asp Ile Leu Ser Pro Thr Phe Met Thr Ser Phe Trp Val 245 250 255 Leu Val Cys Phe Gly Val Ile Gly Leu Pro His Thr Ala Val Arg Cys 260 265 270 Ile Ser Tyr Lys Asp Ser Lys Ala Val His Arg Gly Ile Ile Ile Gly 275 280 Thr Ile Val Val Ala Ile Leu Met Phe Gly Met His Leu Ala Gly Ala 290 295 300 Leu Gly Arg Ala Val Ile Pro Asp Leu Thr Val Pro Asp Leu Val Ile 315 310 Pro Thr Leu Met Val Lys Val Leu Pro Pro Phe Ala Ala Gly Ile Phe 325 330 Leu Ala Ala Pro Met Ala Ala Ile Met Ser Thr Ile Asn Ala Gln Leu 345 350 340 Leu Gln Ser Ser Ala Thr Ile Ile Lys Asp Leu Tyr Leu Asn Leu Arg 355 360 365 Pro Glu Gln Val Glu Asn Glu Arg Arg Leu Lys Arg Met Ser Ala Val 370 375 380 Ile Thr Leu Val Leu Gly Ala Leu Leu Leu Leu Ala Ala Trp Arg Pro 390 395 Pro Glu Met Ile Ile Trp Leu Asn Leu Leu Ala Phe Gly Gly Leu Glu 405 410 Ala Val Phe Leu Trp Pro Leu Val Leu Gly Leu Tyr Trp Glu Arg Ala 420 425 430 Asn Ala Ala Gly Ala Leu Ser Gly Met Ile Val Gly Gly Val Leu Tyr 440 445 Ala Val Leu Ala Thr Phe Lys Ile Gln Tyr Leu Gly Phe His Pro Ile 450 455 460 Val Pro Ser Leu Leu Ser Leu Leu Ala Phe Val Val Gly Asn Arq

```
475
               470
Phe Gly Arg Pro Val Pro Gln Thr Ala Leu Ile Ser Thr Asp Lys
            485
<210> 6667
<211> 323
<212> PRT
<213> Enterobacter cloacae
<400> 6667
Leu Met Arg Ile Gly His His Gln Leu Arg Asn Arg Leu Ile Ala Ala
                  10
Pro Met Ala Gly Ile Thr Asp Arg Pro Phe Arg Thr Leu Cys Tyr Glu
20 25 30
Met Gly Ala Gly Leu Thr Val Ser Glu Met Met Ser Ser Asn Pro Gln
    35 40
Val Trp Glu Ser Asp Lys Ser Arg Leu Arg Met Val His Val Asp Glu
50 55
Pro Gly Ile Arg Thr Val Gln Ile Ala Gly Ser Val Pro Glu Glu Met
             70 75
Ala Asp Ala Ala Arg Ile Asn Val Glu Ser Gly Ala Gln Ile Ile Asp
           85
                            90
Ile Asn Met Gly Cys Pro Ala Lys Lys Val Asn Arg Lys Leu Ala Gly
        100
             105
                                        110
Ser Ala Leu Leu Gln Tyr Pro Asp Gln Val Lys Ser Ile Leu Thr Ala
115 120
                                      125
Val Val Ser Ala Val Asp Val Pro Val Thr Leu Lys Ile Arg Thr Gly
 130
                  135
                                  140
Trp Ser Pro Glu His Arg Asn Cys Val Glu Ile Ala Gln Leu Ala Glu
               150
145
                               155 160
Asp Cys Gly Ile Gln Ala Leu Thr Ile His Gly Arg Thr Arg Ala Cys
            165
                            170
Leu Phe Asn Gly Glu Ala Glu Tyr Asp Ser Ile Arg Ala Val Lys Gln
 180
                         185
                                         190
Lys Val Ser Ile Pro Val Ile Ala Asn Gly Asp Ile Thr Asp Pro Leu
                     200
  195
                                      205
Lys Ala Arg Ala Val Leu Asp Tyr Thr Gly Ala Asp Ala Leu Met Ile
                  215
                                   220
  210
Gly Arg Ala Ala Gln Gly Arg Pro Trp Ile Phe Arg Glu Ile Gln His
225
               230
                               235
Tyr Leu Asp Thr Gly Glu Leu Leu Ala Pro Leu Pro Leu Ala Glu Val
            245
                            250
Lys Arg Leu Leu Cys Ser His Val Arg Glu Leu His Asp His Tyr Gly
         260
                         265
                                         270
Gln Ala Lys Gly Tyr Arg Ile Ala Arg Lys His Val Ser Trp Tyr Leu
                      280
                                      285
Gln Glu His Ala Pro Asn Asp Gln Phe Arg Arg Thr Phe Asn Ala Ile
 290 295
                                  300
Glu Asp Ala Ser Glu Gln Leu Glu Ala Leu Glu Ala Tyr Phe Glu Asn
               310
                               315
305
                                                320
Leu Ala
<210> 6668
<211> 78
<212> PRT
<213> Enterobacter cloacae
```

<220> <221>UNSURE <222>(78)

```
<400> 6668
Tyr Arg Arg Asp Ser Ser Gln Leu Arg Asn Asp Met Ala Asn Phe
Phe Ile Gln Arg Pro Val Phe Ala Trp Val Leu Ala Ile Ile Leu Met
Ile Ala Gly Gly Leu Ala Ile Leu Lys Leu Pro Val Ala Gln Tyr Pro
                        40
                                           45
Thr Ile Ala Pro Pro Ala Val Ala Val Thr Ala Thr Tyr Pro Gly Ala
                     55
                                       60
Asp Ala Gln Thr Val Gln Asp Thr Val Thr Gln Val Ile Xaa
                 7.0
<210> 6669
<211> 218
<212> PRT
<213> Enterobacter cloacae
<400> 6669
Gln Val Met Ala Arg Lys Lys Glu Glu Ala Gln Lys Thr Arg Gln
                               1.0
Gln Leu Ile Glu Ala Ala Ile Arg Leu Phe Ala Thr Arg Glv Val Ala
         20
                            25
Ser Thr Thr Leu Thr Asp Ile Ala Asp Ala Ala Gln Leu Thr Arg Gly
                     40
Ala Val Tyr Trp His Phe Ser Ser Lys Ala Glu Ile Phe Asn Ala Ile
                  5.5
Trp Glu Gln Gln Leu Pro Leu Arg Glu Ile Ile Arg Asp Arg Leu Met
              7.0
                                   7.5
Leu Ser Glu Asn Asp Asp Pro Leu Leu Met Leu Arg Glu Gln Phe Ile
             85
                  90
Val Ala Leu Gln Tyr Ile Ala Ser Glu Pro Arg Gln Tyr Ala Leu Leu
         100
               105
Gln Ile Leu Tyr His Lys Cys Glu Phe His Asp Asp Val Ile Ser Glu
      115
                        120 125
Cys Glu Ile Arg Lys Arg Ile Gly Leu Asn Asp Asp Tyr Leu Arg Lys
               135
Thr Leu Lys Arg Cys Ile Ala His Asn Ile Ile Ser Ser Gln Thr Asn
                 150 155 160
Ile Glu Leu Ala Leu Ile Val Phe His Ala Phe Phe Ser Gly Val Ile
              165 170 175
Lys Asn Trp Leu Met Asp Asn Thr Ser Phe Asn Leu Tyr Lys Gln Ala
          180
                            185 190
Pro Ala Leu Val Asp Asn Ile Leu Ala Thr Leu Asn Ile Thr Arg Val
                         200
Ala Pro Val Val Tyr Asp Thr Ala Leu
   210
                     215
<210> 6670
<211> 306
<212> PRT
<213> Enterobacter cloacae
<400> 6670
Thr Met Val Ala Gln Tyr Tyr Thr Asp Pro Glu Ile Gln Gln Leu Ala
                                10
Glu Glu Thr Gly Gly Cys Ile Ser Asp Ser Leu Glu Met Ala Arg Phe
         20
                            25
                                              3.0
Gly Ala Lys His Pro Ala Ser Thr Leu Leu Val Ala Gly Val Arg Phe
                        40
Met Gly Glu Thr Ala Lys Ile Leu Ser Pro Glu Lys Thr Ile Leu Met
```

```
Pro Thr Leu Asn Ala Asp Cys Ser Leu Asp Leu Gly Cys Pro Ile Asp
              70
                        75
Glu Phe Thr Ala Phe Cys Asp Ala His Pro Asp Arg Thr Val Val Val
           85
                     90 95
Tyr Ala Asn Thr Ser Ala Ala Val Lys Ala Arg Ala Asp Trp Val Met
    100 105 110
Thr Ser Ser Ile Ala Val Glu Leu Ile Glu His Leu Asp Ser Leu Gly
 115 120 125
Glu Lys Ile Ile Trp Ala Pro Asp Arg His Leu Gly Asn Tyr Val Gln
 130 135 140
Lys Gln Thr Gly Ala Asp Val Leu Cys Trp Gln Gly Ala Cys Ile Val
145 150 155
His Asp Glu Phe Lys Thr Gln Ala Leu Thr Arg Met Lys Gly Leu Tyr
        165 170 175
Pro Asp Ala Ala Ile Leu Val His Pro Glu Ser Pro Gln Ser Ile Val
      180 185 190
Asp Met Ala Asp Ala Val Gly Ser Thr Ser Gln Leu Ile His Ala Ala
                        205
 195 200
Lys Thr Leu Pro Asn Lys Gln Leu Ile Val Ala Thr Asp Arg Gly Ile
210 215
                                220
Phe Tyr Lys Met Gln Gln Ala Val Pro Glu Lys Glu Leu Leu Glu Ala
   230 235
                                            240
Pro Thr Ala Gly Glu Gly Ala Ser Cys Arg Ser Cys Ala His Cys Pro
          245
                          250
                                          255
Trp Met Ala Met Asn Gly Leu Lys Ala Ile Ser Glu Ala Leu Glu Asn
        260
                       265
                                     270
Gly Gly Ala Ala His Glu Ile His Val Asp Ala Ala Leu Arg Glu Gly
                    280
                                    285
Ala Leu Ile Pro Leu Asn Arg Met Leu Asp Phe Ala Ala Thr Leu Arg
                 295
                                 300
Thr
```

<210> 6671 <211> 263 <212> PRT

305

<213> Enterobacter cloacae

<400> 6671 Phe His Leu Thr Val Cys Trp Ile Leu Arg Leu His Tyr Val Leu Asn Leu Leu Arg Pro Gly Glu Lys Met Asp Phe Phe Ser Thr Gln Asn Ile 20 25 Leu Val His Ile Pro Ile Gly Ala Gly Gly Tyr Asp Leu Ser Trp Ile 35 4.0 Glu Ala Val Gly Thr Leu Ala Gly Leu Leu Cys Ile Trp Leu Ala Ser 50 55 Leu Glu Lys Ile Ser Asn Tyr Ala Phe Gly Leu Ile Asn Val Thr Leu 7.0 Phe Ala Ile Ile Phe Phe Gln Ile Gln Leu Tyr Ala Ser Leu Leu Leu 85 90 Gln Leu Phe Phe Ala Ala Asn Ile Tyr Gly Trp Tyr Ala Trp Ser 100 105 Arg Gln Asn Ser Gln Gln Glu Ala Glu Leu Gln Ile Arg Trp Leu Pro 120 115 125 Leu Pro Lys Ala Ile Ala Trp Phe Ala Ala Cys Val Val Ala Ile Gly 130 135 140 Phe Met Thr Val Phe Ile Asp Pro Val Phe Ala Phe Leu Thr Arg Val 150 155 Ala Val Ser Val Met Ser Gly Leu Gly Leu Asn Val Thr Met Pro Glu

170 Leu Gln Pro Asp Ala Phe Pro Phe Trp Asp Ser Cys Met Met Val Leu 185 180 190 Ser Ile Ala Ala Met Ile Leu Met Thr Arg Lys Tyr Val Glu Asn Trp 195 200 205 Leu Leu Trp Val Val Ile Asn Val Ile Ser Val Val Ile Phe Ala Arg 210 215 220 Gln Gly Val Tyr Ala Met Ser Leu Glu Tyr Met Leu Leu Thr Phe Ile 225 230 235 Ala Leu Asn Gly Ser Arg Met Trp Ile Asn Ser Ala Arg Glu Arg Gly 245 250 Ser Arg Ala Leu Ser Arg 260

<210> 6672 <211> 359 <212> PRT

<213> Enterobacter cloacae

<400> 6672 Arg Tyr Gly Arg Ala Gly Lys Lys Met Asn Tyr Gln Asn Asp Asp Leu 1.0 Arg Ile Lys Glu Ile Asn Glu Leu Leu Pro Pro Val Ala Leu Leu Glu 2.5 Lys Phe Pro Ala Thr Glu Asn Ala Ala Asn Thr Val Ser His Ala Arg 4.0 Lys Ala Ile His Lys Ile Leu Lys Gly Ser Asp Asp Arg Leu Leu Val 5.5 Val Ile Gly Pro Cys Ser Ile His Asp Pro Ala Ala Ala Lys Glu Tyr 7.0 7.5 Ala Ser Arg Leu Leu Ala Leu Arg Glu Glu Leu Lys Gly Glu Leu Glu 85 90 Ile Val Met Arg Val Tyr Phe Glu Lys Pro Arg Thr Thr Val Gly Trp 100 105 Lys Gly Leu Ile Asn Asp Pro His Met Asp Asn Ser Phe Gln Ile Asn 115 120 Asp Gly Leu Arg Ile Ala Arg Lys Leu Leu Glu Ile Asn Asp Ser 135 140 130 Gly Leu Pro Ala Ala Gly Glu Phe Leu Asp Met Ile Thr Pro Gln Tyr 150 155 Leu Ala Asp Leu Met Ser Trp Gly Ala Ile Gly Ala Arg Thr Thr Glu 165 170 Ser Gln Val His Arg Glu Leu Ala Ser Gly Leu Ser Cys Pro Val Gly 180 185 190 Phe Lys Asn Gly Thr Asp Gly Thr Ile Lys Val Ala Ile Asp Ala Ile 195 200 205 Asn Ala Ala Gly Ala Pro His Cys Phe Leu Ser Val Thr Lys Trp Gly 210 215 220 His Ser Ala Ile Val Asn Thr Ser Gly Asn Gly Asp Cys His Ile Ile 225 235 230 Leu Arg Gly Gly Lys Glu Pro Asn Tyr Ser Ala Lys His Val Ala Glu 250 Val Lys Ala Gly Leu Glu Lys Ala Gly Leu Ala Pro Gln Val Met Ile 260 265 270 Asp Phe Ser His Ala Asn Ser Ser Lys Gln Phe Lys Lys Gln Met Glu 285 280 275 Val Gly Ala Asp Val Cys Gln Gln Ile Ala Ser Gly Glu Arg Ala Val 295 300 Ile Gly Val Met Ile Glu Ser His Leu Val Glu Gly Asn Gln Asn Leu 315 Glu Gly Ser Glu Pro Leu Val Tyr Gly Lys Ser Val Thr Asp Ala Cys

330 Ile Gly Trp Asp Asp Thr Asp Ala Ile Leu Arg Gln Leu Ala Asp Ala 340 345 Val Lys Ala Arg Arg Gly 355 <210> 6673 <211> 371 <212> PRT <213> Enterobacter cloacae <400> 6673 Thr Val Arg Ser Gln Asn Gly His Gln Arg Asn Phe Leu Cys Leu Gln 10 Ser Ile Thr Arg Ser Arg Thr Val Leu Asn Glu Thr Pro Thr Leu Ala 20 25 Pro Asp Gly Leu Pro Tyr Arg Leu Leu Thr Leu Arg Asn Ser Ala Gly 40 Met Val Val Thr Leu Met Asp Trp Gly Ala Thr Leu Leu Ser Ala Arg 50 55 60 Val Pro Met Pro Asp Gly Ser Val Arg Glu Thr Leu Leu Gly Cys Ala 65 70 75 Ser Pro Glu Gln Tyr Ile Glu Gln Thr Ala Phe Leu Gly Ala Ser Ile 85 90 Gly Arg Tyr Ala Asn Arg Ile Ala Arg Ser Arg Phe Thr Leu Asp Gly 100 105 110 Val Thr Tyr Ser Leu Leu Ala Ser Gln Gly Glu Asn Gln Leu His Gly 115 120 125 Gly Pro Glu Gly Phe Asp Lys Arg Arg Trp Lys Ile Val Gln Gln Asn 130 135 140 Asp Ala Glu Val Trp Phe Ser Leu Asp Ser Leu Asp Gly Asp Gln Gly 150 155 Phe Pro Gly Asn Leu Thr Ala Thr Ala Arg Phe Thr Leu Thr Glu Asp 170 165 Asn Arg Ile Ala Ile Glu Tyr Arg Ala Thr Val Asp Lys Pro Cys Pro 180 185 190 Val Asn Leu Thr Asn His Ala Tyr Phe Asn Leu Asp Gly Asn Gln Thr 195 200 205 Asp Val Arg Ser His Lys Leu Gln Ile Leu Ser Asp Glu Tyr Leu Pro 215 220 Val Asp Glu Met Gly Ile Pro Tyr Gln Gly Leu Lys Pro Val Ser Gly 235 230 240 Asn Ser Phe Asp Phe Arg Gln Pro Lys Thr Ile Ala Gln Asp Phe Leu 245 250 Ser Asp Asp Asp Gln Arg Lys Val Lys Gly Tyr Asp His Ala Phe Leu 260 265 270 Leu Gln Ala Lys Gly Asp Leu Ser Gln Pro Ala Ala Gln Val Trp Ser 275 280 285 Ala Asp Glu Lys Leu Gln Met Thr Val Tyr Thr Thr Ala Pro Ala Leu 290 295 300 Gln Phe Tyr Ser Gly Asn Tyr Leu Glu Gly Thr Thr Ala Arg Glu His 310 315 Asp Ala Tyr Gly Ala Trp Gln Gly Leu Ala Leu Glu Ser Glu Phe Leu 330 325 Pro Asp Ser Pro Asn His Pro Glu Trp Pro Gln Pro Asp Cys Val Leu 340 345 350 Arg Pro Gly Glu Glu Tyr Val Ser Val Thr Glu Tyr His Phe Ile Pro 360 Arg Ala

```
<210> 6674
<211> 149
<212> PRT
<213> Enterobacter cloacae
<400> 6674
Phe Arg Ser Pro Glu Ser Phe Ala Thr Glu Gln Asp Ala Leu Leu Glu
Asn Val Ile Gln Arg Asn Asp Lys Asn Arg Ser Thr Met Met Lys Met
        20
                         25
                                               30
Thr Lys Leu Thr Thr Leu Phe Leu Thr Ala Thr Leu Thr Leu Ala Ser
      35
                  40
                                        4.5
Gly Ser Val Leu Ala Ala Asp Ala Gly Ser Ser Gly Ser Asn Gly Asp
 5.0
                  55
                                      60
Ala Asn Ala Ala Ala Glu Ala Gly Gln Val Ala Pro Asp Ala Lys Gln
                 70 75
Asn Ile Ala Pro Asn Asn Val Asp Asn Ser Asn Ile Asn Thr Gly Asn
            85 90
                                                  95
Thr Asn Thr Gly Gly Thr Asn Thr Gly Thr Met Asn His Glu Gly Met
         100 105 110
Thr Thr Asp Glu Val His Lys Asn Ser Val Cys Lys Asp Gly Lys Cys
 115 120 125
Pro Asp Pro Asn Asp Lys Val Gly Ser Asp Ala Asn Thr Lys Thr Asp
                  135
Gly Thr Thr Gln
145
<210> 6675
<211> 318
<212> PRT
<213> Enterobacter cloacae
<400> 6675
Ile Arg Asn Asp Thr Met Ala His Ser His Ser His Ser His Ser Thr
                                10
Gly Asp Glu Asn Ala Lys Arg Leu Leu Leu Ala Phe Gly Val Thr Ala
                            25
Thr Phe Met Ile Ile Glu Val Thr Gly Gly Leu Ile Ser Gly Ser Leu
                        40
                                          4.5
Ala Leu Leu Ala Asp Ala Gly His Met Leu Thr Asp Ala Ala Ala Leu
 5.0
                     5.5
                                 60
Leu Phe Ala Leu Leu Ala Val Gln Phe Ala Arg Arg Pro Pro Asn Ala
                  70
                                   75
Arg His Thr Phe Gly Trp Leu Arg Leu Thr Thr Leu Ala Ala Phe Val
              85
                                90
Asn Ala Ile Ala Leu Val Val Ile Thr Ile Leu Ile Val Trp Glu Ala
          100
                            105
                                            110
Phe Gln Arg Phe Arg His Pro Gln Pro Ile Ala Gly Thr Thr Met Met
                         120
     115
Val Ile Ala Ile Ala Gly Leu Val Ala Asn Ile Leu Ala Phe Trp Ile
                     135
   1.30
                                       140
Leu His Arg Gly Ser Ser Glu Lys Asn Leu Asn Val Arg Ala Ala Ala
                  150
                                    155
                                                      160
Leu His Val Leu Gly Asp Leu Leu Gly Ser Val Gly Ala Ile Val Ala
              165
                                170
                                    175
Ala Leu Ile Ile Met Gly Thr Gly Trp Thr Pro Ile Asp Pro Ile Leu
          180
                             185
                                              190
Ser Val Leu Val Ser Cys Leu Val Leu Arg Ser Ala Trp Arg Leu Leu
       195
                        200
                                           205
Lys Glu Ser Val Asn Glu Leu Leu Glu Gly Ala Pro Thr Ser Leu Asp
```

215

```
Ile Gly Glu Leu Lys Arg Asn Leu Ser Arg Ser Ile Pro Glu Val Arg
         230
                             235
Asn Val His His Val His Val Trp Leu Val Gly Glu Lys Pro Leu Met
                       250
           245
Thr Leu His Val Gln Val Ile Pro Pro His Asp His Asp Ala Leu Leu
        260 265
Glu Arg Ile Arg His Phe Leu Glu His His Tyr Glu Ile Ala His Ser
          280
                          285
     275
Thr Ile Gln Met Glu Tyr Gln Pro Cys Ser Gly Pro Asp Cys His Leu
               295
                                300
Asn Glu Ala Gln Ser Gly His Ser His Ala His His His
305 310 315
<210> 6676
<211> 394
<212> PRT
<213> Enterobacter cloacae
<400> 6676
Arg Arg Pro Leu Pro Arg Ile Arg Ser Leu Lys Met Ser Leu Lys Asp
                       10
Lys Thr Gln Ser Leu Phe Ala Glu Lys Phe Gly Tyr Pro Ala Thr His
                      25
                                 30
Val Ile Gln Ala Pro Gly Arg Val Asn Leu Ile Gly Glu His Thr Asp
                 40 45
Tyr Asn Asp Gly Phe Val Leu Pro Cys Ala Ile Asp Tyr Gln Thr Val
                 55
                     60
Ile Ser Cys Ala Lys Arg Asp Asp Arg His Val Arg Val Ile Ala Ala
              70 75
Asp Tyr Gly Asn Glu Ile Asp Glu Phe Ser Leu Asp Ala Pro Ile Val
         85 90
Thr His Asp Ser Gln Gln Trp Ser Asn Tyr Val Arg Gly Val Val Lys
       100 105 110
His Leu Gln Lys Arg Asn Lys Asn Phe Gly Gly Ala Asp Leu Val Ile
    115 120 125
Ser Gly Asn Val Pro Gln Gly Ala Gly Leu Ser Ser Ser Ala Ser Leu
130 135 140
Glu Val Ala Val Gly Thr Val Phe Gln Gln Leu Tyr His Leu Pro Leu
145 150 155 160
Asp Gly Ala Gln Ile Ala Leu Asn Gly Gln Glu Ala Glu Asn Gln Phe
          165 170 175
Val Gly Cys Asn Cys Gly Ile Met Asp Gln Leu Ile Ser Ala Leu Gly
        180 185 190
Lys Lys Glu His Ala Leu Leu Ile Asp Cys Arg Ser Leu Gly Thr Lys
     195 200 205
Ala Val Pro Leu Pro Lys Gly Ala Ala Val Val Ile Ile Asn Ser Asn
                215 220
 210
Phe Lys Arg Thr Leu Val Gly Ser Glu Tyr Asn Thr Arg Arg Glu Gln
              230 235 240
Cys Glu Thr Gly Ala Arg Phe Phe Gln Gln Pro Ala Leu Arg Asp Val
           245 250 255
Ser Leu Asp Glu Phe Asn Lys Val Ala His Glu Leu Asp Pro Val Val
         260 265 270
Thr Lys Arg Val Arg His Ile Leu Thr Glu Asn Ala Arg Thr Val Glu
                    280 285
     275
Ala Ala Ser Ala Leu Ala Lys Gly Asp Leu Lys Arg Met Gly Glu Leu
                 295
                                300
290
Met Ala Glu Ser His Ala Ser Met Arg Asp Asp Phe Glu Ile Thr Val
                             315
305
              310
Pro Gln Ile Asp Thr Leu Val Glu Ile Val Lys Ala Thr Ile Gly Asp
```

```
Lys Gly Gly Val Arg Met Thr Gly Gly Gly Phe Gly Gly Cys Val Val
           340
                               345
                                                  350
Ala Leu Val Pro Glu Glu Leu Val Pro Ala Ile Gln Asp Ala Val Ala
                                        365
       355
                   360
Lys Gln Tyr Glu Ala Lys Thr Gly Ile Lys Glu Thr Phe Tyr Val Cys
   370 375
Lys Ala Ser Gln Gly Ala Gly Gln Cys
                   390
<210> 6677
<211> 252
<212> PRT
<213> Enterobacter cloacae
<400> 6677
Glu Met Ala Asn Thr Lys Leu Val Leu Val Arg His Gly Glu Ser Gln
Trp Asn Asn Glu Asn Arg Phe Thr Gly Trp Tyr Asp Val Asp Leu Ser
           2.0
                                                   3.0
Glu Lys Gly Val Ser Glu Ala Lys Ala Ala Gly Lys Leu Leu Lys Glu
        35
                           40
                                               4.5
Glu Gly Phe Asn Phe Asp Phe Ala Tyr Thr Ser Val Leu Lys Arg Ala
  50
                       55
                                           60
Ile His Thr Leu Trp Asn Ile Leu Asp Glu Leu Asp Gln Ala Trp Leu
                                       75
                   70
                                                           8.0
Pro Val Glu Lys Ser Trp Lys Leu Asn Glu Arg His Tyr Gly Ala Leu
               85
                                  90
Gln Gly Leu Asn Lys Ala Glu Tar Ala Glu Lys Tyr Gly Asp Glu Gln
           100
                               105
                                                   110
Val Lys Gln Trp Arg Arg Gly Phe Ala Val Thr Pro Pro Glu Leu Ser
                           120
        115
Lys Asp Asp Glu Arg Tyr Pro Gly His Asp Pro Arg Tyr Ala Lys Leu
   130
                       135
                                           140
Thr Glu Ala Glu Leu Pro Gln Thr Glu Ser Leu Ala Leu Thr Ile Asp
145
                150
                                       155
                                                           160
Arq Val Val Pro Tyr Trp Asn Glu Thr Ile Leu Pro Arq Leu Lys Ser
                                   170
               165
Gly Glu Arq Val Ile Ile Ala Ala His Gly Asn Ser Leu Arg Ala Leu
            180
                               185
                                                   190
Val Lys Tyr Leu Asp Asn Met Gly Glu Asp Glu Ile Leu Glu Leu Asn
        195
                                               205
Ile Pro Thr Gly Val Pro Leu Val Tyr Glu Phe Asp Glu Asn Phe Lys
   210
                       215
                                          220
Pro Val Lys His Tyr Tyr Leu Gly Asn Ala Asp Glu Ile Ala Ala Lys
225
                    230
                                       235
Ala Ala Ala Val Ala Asn Gln Gly Lys Ala Lys
               245
<210> 6678
<211> 406
<212> PRT
<213> Enterobacter cloacae
<400> 6678
Arg Ser Glu Gly Ala Ala Leu Arg Phe Ser Asp Asn Leu Gln Gln Tyr
Ile Ser Ile Ser Leu Ile Tyr Asn Ala Leu Ser Leu Arg Lys Ser Ala
           20
                               25
                                                   30
Cys Glu Asn Gln Cys Lys Arg Tyr His Tyr Phe Ile Pro Cys His Thr
       35
                           4.0
                                              4.5
Phe Arg Val Ser Asp Met Leu Trp Leu Ile His Thr Ile Ser Leu Met
```

```
Glu Arg Asn Met Arg Val Leu Val Thr Gly Gly Ser Gly Tyr Ile Gly
                    75
      70
Ser His Thr Cys Val Gln Leu Leu Gln Ser Gly His Asp Val Val Ile
         85 90
Leu Asp Asn Leu Cys Asn Ser Lys Arg Ser Val Leu Pro Val Ile Glu
   100 105 110
Arg Leu Ser Gly Lys Gln Pro Thr Phe Val Glu Gly Asp Ile Arg Asn
115 120 125
Glu Ala Leu Met Thr Glu Ile Leu His Asp His Ala Ile Glu Thr Val
 130 135 140
Ile His Phe Ala Gly Leu Lys Ala Val Gly Glu Ser Val Ala Lys Pro
145 150 155 160
Leu Glu Tyr Tyr Asp Asn Asn Val Asn Gly Thr Leu Arg Leu Ile Ser 165 170 175
Ala Met Arg Ala Ala Asn Val Lys Asn Phe Ile Phe Ser Ser Ala
       180 185 190
Thr Val Tyr Gly Asp Gln Pro Lys Ile Pro Tyr Val Glu Ser Phe Pro
   195 200 205
Thr Gly Thr Pro Gln Ser Pro Tyr Gly Lys Ser Lys Leu Met Val Glu
      215 220
  210
Gln Ile Leu Thr Asp Leu Gln Lys Ala Gln Pro Glu Trp Ser Ile Ala
225 230 235
Leu Leu Arg Tyr Phe Asn Pro Val Gly Ala His Pro Ser Gly Asp Met
          245
                         250 255
Gly Glu Asp Pro Gln Gly Ile Pro Asn Asn Leu Met Pro Tyr Ile Ala
        260 265
                          270
Gin Val Ala Val Gly Arg Arg Asp Ser Leu Ala Ile Phe Gly Asn Asp
     275
                    280
                        285
Tyr Pro Thr Glu Asp Gly Thr Gly Val Arg Asp Tyr Ile His Val Met
  290
      295 300
Asp Leu Ala Asp Gly His Val Ala Ala Met Gln Gln Leu Ala Asp Lys
              310
                            315
305
Pro Gly Val His Ile Tyr Asn Leu Gly Ala Gly Val Gly Ser Ser Val
                         330 335
           325
Leu Asp Val Val Asn Ala Phe Ser Lys Ala Cys Gly Lys Pro Val Lys
        340
                      345
Tyr His Phe Ala Pro Arg Arg Asp Gly Asp Leu Pro Ala Tyr Trp Ala
                       365
     355
                   360
Asp Ala Thr Lys Ala Asp Lys Glu Leu Asn Trp Arg Val Thr Arg Thr
                375
                               380
370
Leu Asp Glu Met Ala Gln Asp Thr Trp His Trp Gln Ser Arg His Pro
385 390
Gln Gly Tyr Pro Asp
           405
<210> 6679
<211> 352
```

<211> 352 <212> PRT

<213> Enterobacter cloacae

```
7.0
Asp Phe Ala Ala Leu Met Thr Asp Thr Pro Asp Ala Pro Glu Ser His
        8.5
                      90
                                      95
Asp Pro Leu Met Arg Cys Glu Ser Ala Arg Gly Thr Ser Arg Val Ile
     100 105 110
Cys Phe Ser Pro Asp His Ser Lys Thr Leu Pro Glu Leu Ser Val Asp
  115 120 125
Ala Leu Lys Glu Val Val Ser Thr Trp Gln Val Gln Thr Ala Glu Leu
130 135 140
Gly Gln Ser Tyr Pro Trp Val Gln Val Phe Glu Asn Lys Gly Ala Ala
   150 155 160
Met Gly Cys Ser Asn Pro His Pro His Gly Gln Ile Trp Ala Asn Ser
      165 170 175
Phe Leu Pro Asn Glu Ala Glu Arg Glu Asp Arg Leu Gln Lys Ala Tyr
   180 185 190
Phe Ala Gln Asn Gly Ser Pro Met Leu Val Asp Tyr Thr Gln Arg Glu
   195 200 205
Leu Ala Asp Gly Ser Arg Thr Val Val Glu Thr Glu His Trp Leu Ala
210 215 220
Val Val Pro Tyr Trp Ala Ala Trp Pro Phe Glu Thr Leu Leu Pro
           230 235
Lys Ala His Val Gln Arg Ile Thr Glu Leu Ser Asp Ala Gln Arg Asp
                        250 255
          245
Asp Leu Ala Leu Ala Leu Lys Lys Leu Thr Ser Arg Tyr Asp Asn Leu
260 265 270
Phe Gln Cys Ser Phe Pro Tyr Ser Met Gly Trp His Gly Ala Pro Phe
275 280
                      285
Asn Gly Glu Glu Asn Gln His Trp Gln Leu His Ala His Phe Tyr Pro
290 295
                    300
Pro Leu Leu Arg Ser Ala Thr Val Arg Lys Phe Met Val Gly Tyr Glu
305 310 315
Met Leu Ala Glu Thr Gln Arg Asp Leu Thr Ala Glu Gln Ala Ala Glu
          325 330 335
Arg Leu Arg Ala Val Ser Asp Val His Tyr Arg Glu Ser Gly Val
        340
                      345
```

<210> 6680 <211> 232 <212> PRT

<213> Enterobacter cloacae

<400> 6680 Gln Ser Arg Tyr Ser Pro Pro Lys Arg Glu Thr Lys Asp Asp Lys Glu 1 10 Ser Pro Asp Asn Met Thr Leu Lys His Ser Asn Leu Leu His Leu Asp 20 25 Leu His Thr Asn His Val Thr Met Thr Asn Ile Arg Thr Val Leu Gly 35 40 Ser Met Glu Leu Asp Glu Met Leu Ser Gln Arg Asp Ser Ile Asn Thr 55 60 Arg Leu Leu His Ile Val Asp Glu Ala Thr Asn Pro Trp Gly Ile Lys 70 Val Thr Arg Ile Glu Ile Arg Asp Val Arg Pro Pro Ala Glu Leu Ile 85 90 Ala Ser Met Asn Ala Gln Met Lys Ala Glu Arg Thr Lys Arg Ala Tyr 110 100 105 Ile Leu Glu Ala Glu Gly Val Arg Gln Ala Glu Ile Leu Lys Ala Glu 120 125 Gly Glu Lys Gln Ser Gln Ile Leu Lys Ala Glu Gly Asp Arg Gln Ser 135 140

Ala Phe Leu Gln Ala Glu Ala Arg Glu Arg Ser Ala Glu Ala Glu Ala

```
150
                            155
Arg Ala Thr Gln Met Val Ser Glu Ala Ile Ala Ala Gly Asp Ile Gln
                  170
      165
Ala Val Asn Tyr Phe Val Ala Gln Lys Tyr Thr Asp Ala Leu Lys Glu
      180
            185
                               190
Ile Gly Ser Ala Asn Asn Ser Lys Val Val Met Met Pro Leu Asp Ala
     195 200
                          205
Ser Ser Leu Met Gly Ser Ile Ala Gly Ile Ala Glu Leu Ile Lys Asp
 210 215
Gly Gly Asn Glu Arg Lys Lys
<210> 6681
<211> 286
<212> PRT
<213> Enterobacter cloacae
<400> 6681
Thr Glu Arg Leu Asn Leu Val Pro Val Arg Ala Ser Met Asn Leu Ser
                   10
Val Tyr Gly Ala Arg Met Gly Leu Phe Asn Arg Ile Lys Thr Ser Phe
20 25
Arg Ala Leu Phe Pro Arg Arg Tyr Ala Trp Pro Gly Met Asp Ile Ser
35
         40
Leu Pro Gly Gly Gln His Leu His Leu Val Gly Ser Ile His Met Gly
50 55
                    60
Thr Gln Asp Met Ser Pro Leu Pro Ser Gly Leu Ile Lys Leu Leu Lys
65 70 75
Arg Ala Asp Ala Leu Ile Val Glu Ala Asp Ile Ser Gly His Glu Ser
         85 90 95
Pro Phe Ala Gly Leu Glu Ser Asp Arg Pro Leu Ala Glu Arg Leu Asn
 100 105 110
Glu Thr Gln Leu Ala Glu Leu Thr Arg Leu Ala Asp Glu Thr Gly Val
115 120 125
Ser Leu Ser Met Leu Asp Thr Leu Pro Leu Trp Gln Ile Ala Met Val
 130 135 140
Leu Gln Ala Thr Gln Ala Gln Arg Leu Gly Leu Arg Gly Asp Tyr Gly
145 150 155
Ile Asp Tyr Gln Leu Leu Asn Ala Ala Arg Ala Arg Asn Leu Ser Ile
          165 170 175
Ile Glu Leu Glu Gly Thr Gly Ser Gln Ile Ala Leu Leu Arg Gln Leu
        180
                      185 190
Pro Asp Asp Gly Leu Ile Leu Leu Asp Asp Thr Leu Thr His Trp His
 195 200 205
Thr Asn Ala Arg Leu Leu Gln Thr Met Ile Gly Trp Trp Leu Asp Ala
 210 215 220
Pro Pro Ala Asp Gly Lys Leu Ala Leu Pro Ser Thr Phe Ser Glu Ser
225
              230 235
Leu Tyr Asp Val Leu Met Asn Ala Arg Asn Gln Ala Trp Arg Glu Thr
           245 250 255
Leu Tyr Ala Leu Pro Ala Gly Arg Tyr Val Val Ala Val Gly Ala Leu
        260 265 270
His Leu Tyr Gly Glu Gly Asn Leu Pro Ser Leu Leu Lys
                   280
<210> 6682
<211> 193
<212> PRT
<213> Enterobacter cloacae
<400> 6682
```

Pro Ser Leu Pro Ile Leu Leu Arg Lys Met Val Leu Phe Phe Arg Gln Thr Ser Gly Val Cys Cys Trp His Glu Ser Ser Val Val Arg Arg Ile 20 25 Ala Met Thr Pro Ala Val Lys Leu Leu Glu Lys Asn Lys Ile Ser Phe Arg Ile His Thr Tyr Asp His Asp Pro Asn Glu Thr Asn Phe Gly Asp 55 60 Glu Val Val Arg Lys Leu Gly Leu Asn Ala Asp Gln Val Tyr Lys Thr 7.0 7.5 Leu Leu Val Ala Val Asn Gly Asp Met Lys His Leu Ala Val Ala Val 85 90 95 Thr Pro Val Ala Gly Gln Leu Asp Leu Lys Lys Val Ala Lys Ala Leu 100 105 110 Gly Ala Lys Lys Val Asp Met Ala Asp Pro Met Val Ala Gln Arg Thr 115 120 125 Thr Gly Tyr Leu Val Gly Gly Ile Ser Pro Leu Gly Gln Lys Lys Arg 135 140 130 Leu Pro Thr Leu Ile Asp Ala Pro Ser Gln Glu Phe Glu Thr Ile Tyr 145 150 155 160 Ile Ser Gly Gly Lys Arg Gly Leu Asp Ile Glu Leu Ser Ala Gly Asp 165 170 175 Leu Ala Lys Met Leu Asp Ala Lys Phe Ala Asp Ile Ala Arg Arg Asp 180 185

<210> 6683 <211> 880 <212> PRT

<213> Enterobacter cloacae

<400> 6683 Ala Gly Phe Phe Arg Asn Ile Ala Asp Ile His Ile Ser Pro Leu Thr 10 Phe Pro Leu Met Glu Gly Leu Thr Phe Ile Thr Val Ser Glu Lys Gln 20 25 Ser Glu Gly Gln Gln Leu Thr Arg Thr Leu Tyr Gly Ser Phe Val Met 35 40 Ser His Thr Ile Asp Leu Thr Leu Asp Gly Leu Ser Cys Gly His Cys 50 55 Val Lys Arg Val Lys Glu Ser Leu Glu Gln Arg Pro Asp Val Glu Ser 7.0 7.5 Ala Glu Val Thr Ile Asp His Ala Ala Val Thr Gly Ser Ala Ser Ala 90 Asp Ala Leu Ile Asp Thr Ile Lys Gln Ala Gly Tyr Gly Ala Glu Leu 100 105 110 Ser His Pro Lys Ala Lys Pro Leu Ala Glu Ser Ser Ser Pro Ser Glu 115 120 125 Ala Leu Thr Ala Ala Thr Pro Glu Leu Pro Val Ala Asp Asp Ile Asp 135 140 Asp Ser Gln Gln Leu Leu Ile Asn Gly Met Ser Cys Ala Ser Cys Val 145 150 155 Ser Arg Val Gln Asn Ala Leu Gln Ala Val Pro Gly Val Ala Gln Ala 165 170 175 Arg Val Asn Leu Ala Glu Arg Thr Ala Leu Val Met Gly Ser Ala Ser 180 185 190 Ala Ala Glu Leu Val Gln Ala Val Glu Lys Ala Gly Tyr Gly Ala Glu 195 200 Ala Ile Glu Asp Asp Ala Glu Arg Arg Glu Arg Gln Gln Glu Thr Ala 210 215

Val Ala Thr Met Lys Arg Phe Arg Trp Gln Ala Ile Val Ala Leu Leu 230 235 Val Gly Ile Pro Val Met Val Trp Gly Met Met Gly Asp Asn Met Met 245 250 255 Val Thr Ala Asp Asn Arg Thr Leu Trp Leu Val Ile Gly Leu Ile Thr 260 265 270 Leu Ala Val Met Val Phe Ala Gly Gly His Phe Tyr Thr Ser Ala Trp 275 280 285 Lys Ser Leu Lys Asn Arg Thr Ala Thr Met Asp Thr Leu Val Ala Leu 290 295 300 Gly Thr Gly Ala Ala Trp Leu Tyr Ser Met Ser Val Asn Val Trp Pro 305 310 315 320 Gln Trp Phe Pro Met Glu Ala Arg His Leu Tyr Tyr Glu Ala Ser Ala 325 330 335 Met Ile Ile Gly Leu Ile Asn Leu Gly His Met Leu Glu Ala Arg Ala 340 345 350 Arg Gln Arg Ser Ser Lys Ala Leu Glu Arg Leu Leu Asp Leu Thr Pro 355 360 365 Pro Thr Ala Arg Val Val Thr Asp Glu Gly Glu Lys Ser Val Pro Leu 375 380 370 Ala Glu Val Gln Pro Gly Met Tar Leu Arg Leu Thr Thr Gly Asp Arg 385 390 395 Val Pro Val Asp Gly Lys Ile Ser Gln Gly Glu Ala Trp Leu Asp Glu 405 410 415 Ala Met Leu Thr Gly Glu Pro Ile Pro Gln Gln Lys Ser Asp Gly Asp 420 425 430 Ala Val His Ala Gly Thr Val Val Gln Asp Gly Ser Val Leu Phe Arg 435 440 445 Ala Ser Ala Val Gly Ser His Thr Thr Leu Ser Arg Ile Ile Arg Met 450 455 460 Val Arg Gln Ala Gln Ser Ser Lys Pro Glu Ile Gly Gln Leu Ala Asp 470 475 465 Lys Ile Ser Ala Ile Phe Val Pro Val Val Val Gly Ile Ala Leu Leu 485 490 Ser Ala Ala Ile Trp Tyr Phe Phe Gly Pro Ala Pro Gln Ile Val Tyr 500 505 Thr Leu Val Ile Ala Thr Thr Val Leu Ile Ile Ala Cys Pro Cys Ala 515 520 525 Leu Gly Leu Ala Thr Pro Met Ser Ile Ile Ser Gly Val Gly Arg Ala 530 535 540 Ala Glu Phe Gly Val Leu Val Arg Asp Ala Asp Ala Leu Gln Arg Ala 550 555 Ser Thr Leu Asp Thr Leu Val Phe Asp Lys Thr Gly Thr Leu Thr Glu 565 570 Gly Lys Pro Gln Val Val Ala Val Ser Thr Val Gly Cys Thr Glu Thr 585 Asp Ala Leu Arg Leu Ala Ala Ala Leu Glu Gln Gly Ser Ser His Pro 595 600 605 Leu Ala Arg Ala Ile Leu Glu Lys Ala Gly Asp Ala Arg Leu Pro Gln 610 615 620 Val Ser Asn Phe Arg Thr Leu Arg Gly Leu Gly Val Ser Gly Glu Ala 630 635 Glu Gly His Thr Leu Leu Gly Asn Gln Ala Leu Leu Thr Glu His 645 650 655 Gly Val Asp Thr Ser Ala Leu Asp Ala Glu Leu Asn Ala Gln Ala Ser 660 665 670 Gln Gly Ala Thr Pro Val Leu Leu Ala Arg Asp Gly Gln Val Ala Ala 680 685 Leu Leu Ala Val Arg Asp Pro Leu Arg Gln Asp Ser Val Asp Ala Leu 690 695 700 Gln Arg Leu His Arg Ala Gly Tyr Arg Leu Val Met Leu Thr Gly Asp

```
710
Asn Pro Thr Thr Ala Asn Ala Ile Ala Lys Glu Ala Gly Ile Asp Glu
            725
                      730
Val Ile Ala Gly Val Leu Pro Asp Gly Lys Ala Asp Ala Ile Lys Asn
         740
                745
Leu Gln Ser Gln Gly Arg Gln Val Ala Met Val Gly Asp Gly Ile Asn
 755 760 765
Asp Ala Pro Ala Leu Ala Gln Ala Asp Val Gly Ile Ala Met Gly Gly
 770 775 780
Gly Ser Asp Val Ala Ile Glu Thr Ala Ala Ile Thr Leu Met Arg His
785 790 795 800
Ser Leu Met Gly Val Ala Asp Ala Leu Ala Ile Ser Lys Ala Thr Leu
       805 810 815
Arg Asn Met Lys Gln Asn Leu Leu Gly Ala Phe Val Tyr Asn Ser Leu
      820 825 830
Gly Ile Pro Ile Ala Ala Gly Ile Leu Trp Pro Leu Thr Gly Thr Leu
835 840 845
Leu Asn Pro Val Val Ala Gly Ala Ala Met Ala Leu Ser Ser Ile Thr
 850 855
Val Val Ser Asn Ala Asn Arg Leu Leu Arg Phe Lys Pro Lys Asp
<210> 6684
<211> 152
<212> PRT
<213> Enterobacter cloacae
<400> 6684
Lys Met Ile Glu Leu Ile Val Ala His Pro His Ala Phe Trp Leu Ser
                             1.0
Leu Gly Gly Leu Leu Ala Ala Glu Met Leu Gly Gly Asn Gly Tyr
20
                         25
Leu Leu Trp Ser Gly Val Ala Ala Val Ile Thr Gly Leu Val Val Trp
35
                      40
                                      4.5
Leu Leu Pro Val Gly Trp Glu Trp Gln Gly Ala Leu Phe Ala Val Leu
                  55
                                60
Thr Leu Leu Ala Ala Trp Leu Trp Trp Arg Trp Leu Asn Lys Arg Val
               70
                                75
Lys Ala Gln Lys Pro Val Asp Ala His Leu Asn Gln Arg Gly Gln Gln
               90
            8.5
Ile Val Gly Lys Arg Phe Thr Leu Asp Asn Thr Leu Ile Asn Gly Arg
         100 105 110
Gly His Met Arg Val Gly Asp Ser Ser Trp Pro Val Val Ala Asp Asp
      115 120
Asp Leu Ser Ala Gly Thr Arg Val Glu Val Ile Ala Val Glu Gly Ile
130 135
                                  140
Thr Leu Arg Val Lys Ala Cys
145
               150
<210> 6685
<211> 342
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<400> 6685
Gln Ile Asp Val Val Phe Met Ala Ile Ser Glu Ser Thr Gln Pro Val
```

```
Gln Gly Ala Pro Ala Ser Pro Pro Lys Ser Arg Thr Ser Phe Lys Val
      20
                     25
Leu Gly Ala Ile Ser Leu Ser His Leu Leu Asn Asp Met Ile Gln Ser
     3.5
                    4.0
                                   4.5
Leu Ile Leu Ala Ile Tyr Pro Leu Leu Gln Ser Glu Phe Ser Leu Thr
               55 60
Phe Val Gln Ile Gly Met Ile Thr Leu Thr Phe Gln Leu Ala Ser Ser
              7.0
                             7.5
Leu Leu Gln Pro Val Val Gly Tyr Trp Thr Asp Lys Tyr Pro Met Pro
      85 90
Trp Ser Leu Pro Ile Gly Met Cys Phe Thr Leu Ser Gly Leu Val Leu
      100 105 110
Leu Ala Met Ala Gly Ser Phe Glu Ala Val Leu Val Ala Ala Ala Leu
   115 120 125
Val Gly Thr Gly Ser Ser Val Phe His Pro Glu Ser Ser Arg Val Ala
                 135 140
Arg Met Ala Ser Gly Gly Arg His Gly Leu Ala Gln Ser Leu Phe Gln
145 150 155 160
Val Gly Gly Asn Phe Gly Ser Ser Leu Gly Pro Leu Leu Ala Ala Val
           165 170 175
Ile Ile Ala Pro Tyr Gly Lys Gly Asn Val Ala Trp Phe Val Leu Ala
        180 185
Ala Leu Leu Ala Ile Val Val Leu Ala Gln Ile Ser Arg Trp Tyr Ala
     195 200 205
Ala Gln His Arg Val Asn Lys Gly Lys Pro Ala Val Lys Ile Thr Asn
                 215
                                220
Pro Leu Pro Arg Asn Lys Val Ile Leu Ala Val Ser Val Leu Leu Val
225 230 235
Leu Ile Phe Ser Lys Tyr Phe Tyr Met Ala Ser Ile Ser Ser Tyr Tyr
          245 250 255
Thr Phe Tyr Leu Met Gln Lys Phe Giy Leu Ser Val Gln Asn Ala Gln
        260 265 270
Phe His Leu Phe Ala Phe Leu Phe Ala Val Ala Ala Gly Thr Val Ile
                    280
                                    285
Gly Gly Pro Val Gly Asp Lys Ile Gly Arg Lys Tyr Val Ile Trp Gly
290 295 300
Ser Ile Leu Gly Val Ala Pro Phe Thr Leu Val Leu Pro Tyr Ala Thr
              310 315
Leu Glu Trp Thr Gly Ile Leu Ser Ser Thr Xaa Ala Asp Gly Thr Tyr
   325
                          330
Thr Ser Pro Pro Pro Pro
```

<210> 6686 <211> 566 <212> PRT

<213> Enterobacter cloacae

340

<400> 6686 Val Thr Val Ile Phe Ala Phe Val Tyr Gly Ser Gly Arg Glu Lys Met Lys Leu Met Lys Arg Gly Val Ala Leu Ala Leu Ile Ala Ala Trp Gly 20 25 Leu Thr Ser Leu Pro Ala Gln Ala Tyr Glu Lys Asp Lys Thr Tyr Lys 35 40 Ile Thr Ile Leu His Thr Asn Asp His His Gly His Phe Trp Arg Ser 5.5 Glu Tyr Gly Glu Tyr Gly Leu Ala Ala Gln Lys Thr Leu Val Asp Gly 70 75 Ile Arg Lys Glu Val Ala Ala Gln Gly Gly Ser Val Leu Leu Ser 85 90

```
Gly Gly Asp Ile Asn Thr Gly Val Pro Glu Ser Asp Leu Gln Asp Ala
               105
                                 110
Glu Pro Asp Phe Arg Gly Met Asn Leu Ile Gly Tyr Asp Ala Met Ala
     115
              120
Val Gly Asn His Glu Phe Asp Asn Pro Leu Ser Val Leu Arg Gln Gln
  130
      135
Glu Lys Trp Ser Lys Phe Pro Phe Leu Ser Ala Asn Ile Tyr Gln Lys 145 \phantom{\bigg|}150\phantom{\bigg|}155\phantom{\bigg|}155\phantom{\bigg|}
Ser Thr Gly Glu Arg Leu Phe Lys Pro Trp Ala Leu Phe Lys Arg Gln
     165 170 175
Asp Leu Lys Ile Ala Val Ile Gly Leu Tnr Thr Asp Asp Thr Ala Lys
   180 185
Ile Gly Asn Pro Glu Phe Phe Thr Asp Ile Glu Phe Arg Lys Pro Ala
 195 200 205
Asp Glu Ala Lys Leu Val Ile Gln Glu Leu Gln Gln Asn Glu Lys Pro
 210 215 220
Asp Val Ile Ile Ala Thr Thr His Met Gly His Tyr Asp Asn Gly Gln
225 230 235 240
His Gly Ser Asn Ala Pro Gly Asp Val Glu Met Ala Arg Ser Leu Pro
    245 250 255
Ala Gly Ser Leu Ala Met Ile Val Gly Gly His Ser Gln Asp Pro Val
 260 265 270
Cys Met Ala Ser Glu Asn Lys Lys Gln Val Asp Tyr Val Pro Gly Thr
275 280 285
Pro Cys Ala Pro Asp Arg Gln Asn Gly Ile Trp Ile Val Gln Ala His
290 295 300
Glu Trp Gly Lys Tyr Val Gly Arg Ala Asp Phe Glu Phe Arg Asn Gly 305 310 315 320
Glu Met Lys Leu Val His Tyr Gln Leu Ile Pro Val Asn Leu Lys Lys
        325 330 335
Lys Val Thr Tyr Pro Asp Gly Lys Ser Glu Arg Val Leu Tyr Thr Pro
        340 345 350
Glu Ile Ala Glu Asn Gln Gln Met Leu Ser Leu Leu Thr Pro Phe Gln
     355 360 365
Ser Lys Gly Lys Ala Gln Leu Asp Val Lys Ile Gly Thr Leu Asn Gly
 370 375 380
Arg Leu Glu Gly Asp Arg Ser Lys Val Arg Phe Val Gln Thr Asn Met
            390 395 400
Gly Arg Leu Val Leu Ala Ala Gln Met Ala Arg Thr Asn Ala Asp Phe
           405 410 415
Ala Val Met Ser Gly Gly Gly Ile Arg Asp Ser Ile Glu Gly Gly Asp
                     425 430
        420
Ile Thr Tyr Lys Asp Val Leu Lys Val Gln Pro Phe Gly Asn Val Val
     435 440
                                    445
Val Tyr Ala Asp Met Ser Gly Lys Glu Val Ile Asp Tyr Leu Thr Ala
  450 455
                                 460
Val Ala Gln Met Lys Pro Asp Ser Gly Ala Tyr Pro Gln Phe Ala Asn
              470
                             475
Val Ser Phe Val Ala Lys Asp Gly Lys Leu Asn Asp Leu Lys Ile Lys
           485
                           490 495
Gly Glu Pro Val Asp Thr Ala Lys Thr Tyr Arg Leu Ala Thr Leu Ser
        500
                        505 510
Phe Asn Ala Thr Gly Gly Asp Gly Tyr Pro His Ile Asp Asn Lys Pro
                     520
                                    525
 515
Gly Tyr Val Asn Thr Gly Phe Ile Asp Ala Glu Val Leu Lys Gln Phe
  530
                  535 540
Ile Gln Gln Asn Ser Pro Ile Asp Val Asn Ala Tyr Glu Pro Lys Gly
545 550
                       555
Glu Val Ser Trp Gln
            565
```

```
<210> 6687
<211> 148
<212> PRT
<213> Enterobacter cloacae
<400> 6687
Thr Phe His Gln Gly Glu Gly Gln Gly Gly Asn Val Asn Ile Ser Asp
Val Ala Lys Lys Thr Gly Leu Thr Ser Lys Ala Ile Arg Phe Tyr Glu
           20
                               25
Glu Lys Gly Leu Val Thr Pro Pro Leu Arg Ser Glu Asn Gly Tyr Arg
       3.5
                          4.0
Ser Tyr Thr Gln Leu His Leu Asp Glu Leu Thr Leu Leu Arg Gln Ala
 50
                      55
Arg Gln Val Gly Phe Asn Leu Glu Glu Cys Gly Glu Leu Val Asn Leu
                   70
Phe Asn Asp Pro Lys Arg His Ser Ala Asp Val Lys Lys Arg Thr Leu
            85
                                 90
Glu Lys Val Ala Glu Ile Glu Arg His Ile Ile Glu Leu Gln Ala Met
          100 105
Arg Glu Gln Leu Leu Gln Leu Ala Glu Ser Cys Pro Gly Asp Asp Ser
 115 120
                                       125
Ala Glu Cys Pro Ile Ile Asp Asn Leu Ser Gly Cys Cys His Arg Lys
                   135
                                          140
 130
Thr His Ala
<210> 6688
<211> 69
<212> PRT
<213> Enterobacter cloacae
<400> 6688
Arg Ile Gly Phe Gln Arg Trp Glu Pro Phe Leu Tyr Arg Lys Phe Ile
                                10
Met Arg Thr Ala Tyr Ala Tyr Ile Arg Phe Ser Ser Glu Lys Gln Ser
                            2.5
                                                 30
Ala Gly Asp Ser Val Arg Arg Gln Gln Ser Leu Ile Asp Ser Trp Val
                         40
Lys Asn Asn Pro Asp Tyr Ile Leu Ser Phe Phe Thr Thr Ala Ala Lys
Val Thr Leu Leu Val
65
<210> 6689
<211> 245
<212> PRT
<213> Enterobacter cloacae
<400> 6689
Cys Thr His His Leu Asn Thr Phe Asp Gly Gly Val Ser Arg Leu His
                                  10
Gly Phe Lys Ser Gln Arg Gly Ala Asp Tyr Pro Phe Gln Phe Ala Met
           2.0
                               25
                                                  30
Ile Ala Phe Asn His Val Val Pro Val Leu Asn Leu Ser Val Phe Asn
       35
                          4.0
                                              4.5
Val Arg Arg Ala Pro Ala Phe Ala Phe Glu Gln Ser Lys Arg Ala Thr
   50
                      55
                                          60
Ile Gly Gly Arg Phe Ile Arg Val Asp Glu Ser Arg Asp Leu Pro Leu
                   70
                                      75
Leu His Val Val Glu Asp Phe Thr Gln Lys Pro Val Cys Ser Phe Ala
```

85 90 Val Thr Thr Gly Gly Glu Ile Lys Ile Asp Ser Ala Ala Pro Ala Val 100 105 110 Asp Gly Pro Val Gln Ile Arg Pro Ala Ala Ile Asp Leu His Val Gly 115 120 125 Phe Ile His Val Pro Arg Ala Lys Ile Gly Arg Val Thr Pro Val Pro 130 135 140 Ala Gln Pro Phe Phe His Phe Arg Arg Ile Thr Leu Asn Pro Ala Val 145 150 155 160 Asn Arg Gly Val Ile Asp Ile His Ser Ala Phe Ser Gln His Leu Leu 165 170 175 Gln Leu Thr Val Thr Asp Ala Val Phe Ala Val Pro Ala Tyr Gly Pro 180 185 190 Gln Asn Asp Val Thr Leu Lys Met Pro Ala Phe Glu Trp Val His Val 200 205 195 Gln Leu His Gln Gln Lys Gly Met Ile Ser Leu Ser Pro Pro Thr Ile 210 215 220 Cys Asn Ser Ala Pro Ser Asp Val Thr Leu His Lys Ile Lys Ile Tyr 225 230 235 240 His His Glu Gln 245 <210> 6690 <211> 76 <212> PRT <213> Enterobacter cloacae <400> 6690 Asn Ala His Ile Gly Thr Tyr Gln Cys Arg Phe Leu Gly Thr 1le Met Gly Arg Gly Arg Arg Leu Lys Ser Tyr Leu Asp Tyr Glu Asn Ala Leu 20 25 30 Gly Asp Gly Ile Gly Val Gly Tyr Gly Gln Ser Tyr Gln Pro Trp Leu 35 40 45 Arq Ala Gln Asp Val Lys Ser Arg Gly Asn Arg Ser Ile Val Phe Gly 55 Leu Lys Thr Phe Arg Asn His His His Gly Val 7.0 <210> 6691 <211> 287 <212> PRT <213> Enterobacter cloacae <400> 6691 Thr Ile Lys Leu Ser Ala Tyr Ile Asn Ser Asn Thr Arg Gly Val Met 10 Ser His Ile Gln Arg Glu Thr Ser Cys Ser Arg Pro Arg Leu Asn Ser 20 Asn Met Asp Ala Asp Leu Tyr Gly Tyr Lys Trp Ala Arg Asp Asn Val 35 40 4.5 Gly Gln Ser Gly Ala Thr Ile Tyr Arg Leu Tyr Gly Lys Pro Asp Ala 55 60 Pro Glu Leu Phe Leu Lys His Gly Lys Gly Ser Val Ala Asn Asp Val 70 75 Thr Asp Glu Met Val Arg Leu Asn Trp Leu Thr Glu Phe Met Pro Leu 85 90

Pro Thr Ile Lys His Phe Ile Arg Thr Pro Asp Asp Ala Trp Leu Leu 105

Thr Thr Ala Ile Pro Gly Lys Thr Ala Phe Gln Val Leu Glu Glu Tyr 120

110

```
Pro Asp Ser Gly Glu Asn Ile Val Asp Ala Leu Ala Val Phe Leu Arg
        135
Arg Leu His Ser Ile Pro Val Cys Asn Cys Pro Phe Asn Ser Asp Arg
    150
                   155
Val Phe Arg Leu Ala Gln Ala Gln Ser Arg Met Asn Asn Gly Leu Val
    165 170
Asp Ala Ser Asp Phe Asp Asp Glu Arg Asn Gly Trp Pro Val Glu Gln
   180 185 190
Val Trp Lys Glu Met His Lys Leu Leu Pro Phe Ser Pro Asp Ser Val
    195 200 205
Val Thr His Gly Asp Phe Ser Leu Asp Asn Leu Ile Phe Asp Glu Gly
 210 215 220
Lys Leu Ile Gly Cys Ile Asp Val Gly Arg Val Gly Ile Ala Asp Arg
             230 235 240
Tyr Gln Asp Leu Ala Ile Leu Trp Asn Cys Leu Gly Glu Phe Ser Pro
            245 250 255
Ser Leu Gln Lys Arg Leu Phe Gln Lys Tyr Gly Ile Asp Asn Pro Asp
        260 265 270
Met Asn Lys Leu Gln Phe His Leu Met Leu Asp Glu Phe Phe
   275
                     280
<210> 6692
<211> 262
<212> PRT
<213> Enterobacter cloacae
<400> 6692
Cys Thr His His Leu Asn Thr Phe Asp Gly Gly Val Ser Arg Leu His
Gly Phe Lys Ser Gln Arg Gly Ala Asp Tyr Pro Phe Gln Phe Ala Met
         20
                         25
Ile Ala Phe Asn His Val Val Pro Val Leu Asn Leu Ser Val Phe Asn
                               4.5
                     40
Val Arg Arg Ala Pro Ala Phe Ala Phe Glu Gln Ser Lys Arg Ala Thr
 50
Ile Gly Gly Arg Phe Ile Arg Val Asp Glu Ser Arg Asp Leu Pro Leu
               70
Leu His Val Val Glu Asp Phe Thr Gln Lys Pro Val Cys Ser Phe Ala
                            90
Val Thr Thr Gly Gly Glu Ile Lys Ile Asp Ser Ala Ala Pro Ala Val
                              110
         100
                        105
Asp Gly Pro Val Gln Ile Arg Pro Ala Ala Ile Asp Leu His Val Gly
          120 125
Phe Ile His Val Pro Arg Ala Lys Ile Gly Arg Val Thr Pro Val Pro
                  135
                                  140
 130
Ala Gln Pro Phe Phe His Phe Arg Arg Ile Thr Leu Asn Pro Ala Val
             150
                               155
Asn Arg Gly Val Ile Asp Ile His Ser Ala Phe Ser Gln His Leu Leu
                                         175
            165 170
Gln Leu Thr Val Thr Asp Ala Val Phe Ala Val Pro Ala Tyr Gly Pro
  180 185 190
Gln Asn Asp Val Thr Leu Lys Met Pro Ala Phe Glu Trp Val His Val
                          205
 195
          200
Gln Leu His Gln Gln Lys Gly Met Ile Ser Leu Ser Pro Pro Thr Ile
 210 215
Cys Asn Ser Ala Ser Thr Leu Ala Thr Gly Leu Arg Val Gly Asp Leu
        230
                              235
Gly Gly Ser Val Leu Ala Phe Glu Val Gly Ala Lys Glu Arg Met Ala
            245
                           250
Leu Arg Ala Thr His
```

```
<210> 6693
<211> 85
<212> PRT
<213> Enterobacter cloacae
<400> 6693
Val Arg Asn Val Val Gln Arg Gln Val Ser Ala Asp Asp Phe Met Cys
                                 10
Phe Thr Val Asn Gly Glu Met Gln Leu Thr Pro Asp Thr Ala Ala Phe
        20
                   25
                                        30
Leu Ala Met Leu Phe Asp Phe Pro Leu Ala Phe Thr Glu Asp Leu Gln
                       40
                                     4.5
Pro Gly Gly Ile Asn Tyr Gln Val Cys Asp Phe Thr Pro Gly Gly Arg
                     5.5
Phe Glu Thr Asp Ile Asn Arg Leu Cys Pro Pro Ala Asp Thr Ala Val
Ile Arg Ala Ala
<210> 6694
<211> 555
<212> PRT
<213> Enterobacter cloacae
<400> 6694
Leu Ser Ser Met Phe Leu Leu Val Tyr Tyr Phe Pro Glu Val Leu Met
                                 10
Pro Val Leu Phe Arg Val Lys Val Ile Pro Leu Val Leu Leu Ala
20
                             25
                                                3.0
Met Ile Phe Ala Phe Leu Leu Asn Trp Pro Ile Leu Leu His Phe Tyr
35
                         40
                                            4.5
Glu Ile Leu Ser His Leu Glu His Val Lys Ile Gly Phe Val Ile Ser
                      55
50
                                        60
Ile Pro Phe Val Leu Val Ala Ala Leu Asn Val Val Phe Met Pro Phe
                  7.0
                             7.5
Ser Val Arg Phe Leu Leu Lys Pro Phe Phe Ala Leu Leu Phe Ile Thr
              85
                                90
Gly Ser Leu Val Ser Tyr Ser Thr Leu Lys Tyr Lys Leu Met Phe Asp
                             105
                                                110
          100
Gln Thr Met Ile Gln Asn Ile Ile Glu Thr Asn Pro Gln Glu Ala His
       115
                          120
                                            125
Ser Tyr Leu Asn Gly Ser Ile Ile Ile Trp Phe Val Phe Thr Gly Ile
   130
                      135
                                        140
Leu Pro Ala Ile Leu Leu Phe Ser Ile Lys Ile Gln Tyr Pro Glu Lys
145
                  150
                                    155
                                                       160
Trp Tyr Lys Gly Ile Ala Tyr Arg Leu Leu Ser Val Leu Ala Ser Leu
              165
                                 170
                                                    175
Ser Leu Ile Ala Gly Val Ala Ala Leu Tyr Tyr Gln Asp Tyr Ala Ser
                             185
                                                190
           180
Val Gly Arg Asn Asn Ser Thr Leu Asn Lys Glu Ile Ile Pro Ala Asn
                                             205
       195
                          200
Tyr Ala Tyr Ser Thr Phe Gln Tyr Val Lys Asp Thr Tyr Phe Thr Thr
                      215
   210
Lys Val Pro Phe Gln Thr Leu Gly Asn Asp Ala Lys Arg Val Val Ala
225
                                    235
                  230
                                                        240
His Glu Lys Pro Thr Leu Met Phe Leu Val Ile Gly Glu Thr Ala Arg
              245
                                250
Ser Gln Asn Phe Ser Met Asn Gly Tyr Ser Arg Asp Thr Asn Ala Phe
                             265
```

Thr Ser Lys Ser Gly Gly Val Ile Ser Phe Lys Asn Met His Ser Cys

```
280
Gly Thr Ala Thr Ala Ile Ser Val Pro Cys Met Phe Ser Asn Met Asn
                                 300
                 295
Arg Thr Glu Tyr Asp Ser Lys Lys Ala Ser Asn Ser Glu Asn Phe Leu
                      315
              310
Asp Ile Val Gln Lys Thr Gly Val Ser Leu Leu Trp Lys Glu Asn Asp
         325 330
Gly Gly Cys Lys Gly Val Cys Ser Arg Ile Pro Thr Val Glu Ile Lys
       340 345 350
Pro Ser Asp Asn Pro Lys Leu Cys Asp Gly Lys Thr Cys His Asp Glu
    355 360
                                  365
Val Met Leu Glu Asn Leu Asp Asp Glu Ile Ala Lys Met Pro Gly Asp
370 375 380
Lys Leu Val Ala Phe His Ile Ile Gly Ser His Gly Pro Thr Tyr Tyr
385 390 395
Leu Arg Tyr Pro Ala Glu His Arg His Phe Met Pro Glu Cys Ala Arg
       405 410 415
Ser Asp Ile Glu Asn Cys Thr Gln Glu Gln Leu Val Asn Thr Tyr Asp
        420 425 430
Asn Thr Leu Arg Tyr Thr Asp Tyr Val Leu Ala Glu Met Ile Glu Lys
     435 440
                          445
Leu Lys Asn Tyr Ser Asp Gln Tyr Asn Thr Val Leu Leu Tyr Val Ser
450 455
Asp His Gly Glu Ser Leu Gly Glu Ser Gly Leu Tyr Leu His Gly Thr
465 470 475
Pro Tyr Lys Leu Ala Pro Asp Gln Gln Thr His Ile Pro Met Gln Val
           485
                           490
Trp Met Ser Pro Gly Phe Ile Ala Gly Lys His Ile Asn Met Ser Cys 500 505 510
Leu Glu Asn Asn Ala Ala Lys Lys Ser Tyr Ser His Asp Asn Leu Phe
515 520 525
Ser Ser Ile Leu Gly Leu Trp Asp Val Ser Thr Ser Val Tyr Asn Pro
               5.35
Asp Arg Asp Leu Phe Arg Glu Cys Arg Gly
               550
```

<210> 6695 <211> 246 <212> PRT

<213> Enterobacter cloacae

<400> 6695 Thr Tyr His Pro Leu Leu Leu Met Glu Leu His Met Asn Pro Phe Lys 1.0 Gly Arg His Phe Gln Arg Asp Ile Ile Leu Trp Ala Val Arg Trp Tyr 20 25 Cys Lys Tyr Gly Ile Ser Tyr Arg Glu Leu Gln Glu Met Leu Ala Glu 35 40 Arg Gly Val Asn Val Asp His Ser Thr Ile Tyr Arg Trp Val Gln Arg 55 Tyr Ala Pro Glu Met Glu Lys Arg Leu Arg Trp Tyr Trp Arg Asn Pro 7.0 Ser Asp Leu Cys Pro Trp His Met Asp Glu Thr Tyr Val Lys Val Asn 85 90 Gly Arg Trp Ala Tyr Leu Tyr Arg Ala Val Asp Ser Arg Gly Arg Thr 105 110 100 Val Asp Phe Tyr Leu Ser Ser Arg Arg Asn Ser Lys Ala Ala Tyr Arg 125 120 Phe Leu Gly Lys Ile Leu Asn Asn Val Lys Lys Trp Gln Ile Pro Arg 140 Phe Ile Asn Thr Asp Lys Ala Pro Ala Tyr Gly Arg Ala Leu Ala Leu

```
155
Leu Lys Arg Glu Gly Arg Cys Pro Ser Asp Val Glu His Arg Gln Ile
                            170
          165
Lys Tyr Arg Asn Asn Val Ile Glu Cys Asp His Gly Lys Leu Lys Arg
        180
                         185
                                         190
Ile Ile Gly Ala Thr Leu Gly Phe Lys Ser Met Lys Thr Ala Tyr Ala
      195
                     200
                                    205
Thr Ile Lys Gly Ile Glu Val Met Arg Ala Leu Arg Lys Gly Gln Ala
210 215
                             220
Ser Ala Phe Tyr Tyr Gly Asp Pro Leu Gly Glu Met Arg Leu Val Ser
          230
Arg Val Phe Glu Met
            245
<210> 6696
<211> 273
<212> PRT
<213> Enterobacter cloacae
<400> 6696
Thr Trp Tyr Glu Ser Ala Ala Leu Ser Ser Arg Gly Arg Pro Gln Arg
                       10
Tyr Ser Asp Leu Ala Ile Thr Thr Val Leu Val Ile Lys Arg Val Phe
                         25
Arg Leu Thr Leu Arg Ala Ala Gln Gly Phe Ile Asp Ser Ile Phe Ser
                      4.0
                                      45
Leu Met Asn Val Pro Leu Arg Cys Pro Asp Tyr Ser Cys Val Ser Arg
          55
                         60
Arg Ala Lys Ser Val Asn Val Ser Phe Lys Thr Pro Thr Arg Gly Glu
                             75
             7.0
Ile Ala His Leu Val Ile Asp Ser Thr Gly Leu Lys Val Phe Gly Glu
           85
                            90
Gly Glu Trp Lys Val Lys Lys His Gly Gln Glu Arg Arg Ile Trp
        100 105
                                         110
Arg Lys Leu His Leu Ala Val Asp Ser Lys Thr His Glu Ile Ile Cys
                     120 125
Ala Asp Leu Ser Leu Asn Asn Val Thr Asp Ser Glu Ala Phe Pro Gly
 130 135 140
Leu Ile Arg Gln Thr His Arg Lys Ile Arg Ser Ala Ala Ala Asp Gly
               150
                               155
Ala Tyr Asp Thr Arg Leu Cys His Asp Glu Leu Arg His Lys Lys Ile
            165
                            170 175
Ser Ala Leu Ile Pro Pro Arg Lys Gly Ala Gly Tyr Trp Pro Gly Glu
                         185 190
         180
Tyr Ala Asp Arg Asn Arg Ala Val Ala Asn Gln Arg Met Thr Gly Ser
                      200 205
      195
Asn Ala Arg Trp Lys Trp Thr Thr Asp Tyr Asn Arg Arg Ser Ile Ala
 210
                  215
                             220
Glu Thr Ala Met Tyr Arg Val Lys Gln Leu Phe Gly Gly Ser Leu Thr
               230
                               235
Leu Arg Asp Tyr Asp Gly Gln Val Ala Glu Ala Met Ala Leu Val Arg
           245 250 255
Ala Leu Asn Lys Met Thr Lys Ala Gly Met Pro Glu Ser Val Arg Ile
                          265
         260
Ala
```

<sup>&</sup>lt;210> 6697 <211> 246

<sup>&</sup>lt;212> PRT <213> Enterobacter cloacae

```
<400> 6697
Thr Tyr His Pro Leu Leu Leu Met Glu Leu His Met Asn Pro Phe Lys
          5
                              10
Gly Arg His Phe Gln Arg Asp Ile Ile Leu Trp Ala Val Arg Trp Tyr
          20
                         25
Cys Lys Tyr Gly Ile Ser Tyr Arg Glu Leu Gln Glu Met Leu Ala Glu
      3.5
                       40
                               4.5
Arg Gly Val Asn Val Asp His Ser Thr Ile Tyr Arg Trp Val Gln Arg
  50
                   55
                                    60
Tyr Ala Pro Glu Met Glu Lys Arg Leu Arg Trp Tyr Trp Arg Asn Pro
    70 75
Ser Asp Leu Cys Pro Trp His Met Asp Glu Thr Tyr Val Lys Val Asn
           85 90
Gly Arg Trp Ala Tyr Leu Tyr Arg Ala Val Asp Ser Arg Gly Arg Thr
        100 105
                                             110
Val Asp Phe Tyr Leu Ser Ser Arg Arg Asn Ser Lys Ala Ala Tyr Arg
              120
Phe Leu Gly Lys Ile Leu Asn Asn Val Lys Lys Trp Gln Ile Pro Arg
 130
                    135
                                      140
Phe Ile Asn Thr Asp Lys Ala Pro Ala Tyr Gly Arg Ala Leu Ala Leu
                 150
                                155
Leu Lys Arg Glu Gly Arg Cys Pro Ser Asp Val Glu His Arg Gln Ile
                               170
            165
Lys Tyr Arg Asn Asn Val Ile Glu Cys Asp His Gly Lys Leu Lys Arg
         180
                           185
                                            190
Ile Ile Gly Ala Thr Leu Gly Phe Lys Ser Met Lys Thr Ala Tyr Ala
      195
                        200
Thr Ile Lys Gly Ile Glu Val Met Arg Ala Leu Arg Lys Gly Gln Ala
                           220
 210
                    215
Ser Ala Phe Tyr Tyr Gly Asp Pro Leu Gly Glu Met Arg Leu Val Ser
225 230
                                   235
Arg Val Phe Glu Met
              245
<210> 6698
<211> 333
<212> PRT
<213> Enterobacter cloacae
<400> 6698
Phe Ser Val Leu Val Ser Val Gly Arg Ile Leu Gly Gly Gly Glu Val
Ala Ser Ala Asp Gly Met Arg Phe Val Thr Pro Val Lys Thr Val Asn
          20
                           2.5
Ser Gly Pro Asn Arg Lys Tyr Phe Gly Ser Gly Arg Gly Ile Thr Trp
Tyr Asn Phe Val Ser Asp Gln Tyr Ser Gly Phe His Gly Ile Val Ile
                    5.5
Pro Gly Thr Leu Arg Asp Ser Ile Phe Val Leu Glu Gly Leu Leu Glu
                 70
                                   75
Gln Gln Thr Gly Leu Asn Pro Val Glu Ile Met Thr Asp Thr Ala Gly
                               90
Thr Ser Asp Ile Ile Phe Gly Leu Phe Trp Leu Leu Gly Tyr Gln Phe
         100
                           105
Ser Pro Arg Leu Ala Asp Ala Gly Glu Ala Val Phe Trp Arg Ala Asp
      115
                       120
Lys Ala Ala Asn Tyr Gly Ala Leu Asp Lys Leu Ala Arg Gly Cys Val
                    135 140
```

Asp Leu Ser Lys Ile Glu Ser His Trp Asp Glu Met Met Arg Val Ala

```
Gly Ser Leu Lys Leu Gly Thr Ile His Ala Ser Glu Leu Ile Arg Ser
                         170
       165
Leu Leu Arg Ser Thr Arg Pro Ser Gly Leu Ala Gln Ala Ile Met Glu
        180
                      185
Val Gly Arg Val Asn Lys Thr Leu Tyr Leu Leu Asn Tyr Ile Asp Asp
    195 200 205
Glu Asp Tyr Arg Arg Ile Leu Thr Gln Leu Asn Arg Gly Glu Gly
      215 220
 210
Arg His Ala Val Ala Arg Ala Ile Cys Tyr Gly Gln Arg Gly Glu Ile
   230 235 240
Arg Lys Arg Tyr Arg Glu Gly Gln Glu Asp Gln Leu Gly Ala Leu Gly
         245 250 255
Leu Val Thr Asn Ala Val Val Leu Trp Asn Thr Leu Tyr Met Gln Glu
      260 265 270
Ala Leu Ser His Leu Arg Ser Ile Gly Glu Gly Pro Glu Asp Glu His
     275 280 285
Ile Ala Arg Leu Ser Pro Leu Met His Gly His Ile Asn Met Leu Gly
 290 295 300
His Tyr Thr Phe Thr Leu Pro Glu Asp Ile Met Lys Gly Glu Leu Arg
305 310 315
Pro Leu Asn Leu Asn Leu Asn Asn Glu Leu Ser Pro
           325
                         330
```

<210> 6699 <211> 716 <212> PRT

<213> Enterobacter cloacae

<400> 6699 His Ser Val Pro Phe Trp Val Val Ser Lys Leu Ile Thr Phe Glu Thr 10 Val Lys Lys Arg Thr Glu His Pro Phe Thr Lys Gly Cys Val Met Ala 20 25 Ala Asp Phe Leu Thr Asp Lys Gln Thr Gln Asn Tyr GIy Arg Tyr Ala 40 45 35 Ala Glu Pro Asn Glu Ile Gln Leu Ala Arg Tyr Phe His Leu Asp Glu 50 5.5 Arg Asp Leu Thr Phe Ile Asn Leu Arg Arg Gly Arg His Asn Arg Leu 70 75 Gly Ile Ala Leu Gln Leu Thr Thr Ala Arg Phe Leu Gly Thr Phe Leu 90 9.5 8.5 Ser Asp Leu Met Gln Ile Pro Pro Gly Val Gln Phe Tyr Val Ala Arg 105 100 Gin Leu Asn Ile Arg Tyr Pro Glu Ile Ile Ser Arg Tyr Ala Gin Arg 120 125 115 Glu Asn Thr Arg Trp Glu His His Gly Leu Ile Arg Gln His Tyr Ser 140 Tyr His Asp Phe Gly Asp Phe Pro Trp Ser Phe Arg Leu Lys Arg Leu 150 155 Leu Tyr Thr Arg Ala Trp Leu Ser Asn Glu Arg Pro Gly Leu Met Phe 175 165 170 Asp Phe Ala Thr Ala Trp Leu Leu Gln Asn Lys Val Leu Leu Pro Ala 180 185 190 Ala Ser Thr Leu Thr Arg Val Ile Gly Glu Ile Arg Glu Arg Ala Thr 200 195 205 Arg Arg Leu Trp Arg Lys Leu Ala Ala Leu Pro Asn Arg Trp Gln Thr 210 215 220 Ala Gln Leu Ala Gly Leu Leu Glu Ile Pro Glu Gly Gln Arg Leu Ser 230 235 Val Met Glu His Leu Lys Arg Gly Pro Val Thr Ile Ser Gly Pro Ala 245 250 255

Phe Thr Glu Ala Leu Glu Arg Tyr Thr Arg Leu Arg Ser Leu Glu Phe 260 265 Ser Cys Leu Asn Phe Thr Gly Leu Pro Ala Ile Gln Leu Arg Asn Leu 275 280 285 Ala Arg Tyr Ala Gly Met Ala Ser Val Lys Tyr Ile Ser Arg Met Pro 290 295 300 Glu Glu Arg Arg Leu Ala Ile Leu Thr Ala Phe Val Lys Ala Gln Glu 305 310 315 Ile Ser Ala Leu Asp Glu Ala Val Asp Val Leu Asp Met Leu Ile Leu 325 330 Asn Ile Thr Arg Glu Ala Lys Lys Thr Gly Gln Lys Lys Arg Leu Arg 350 340 345 Thr Leu Lys Asp Leu Asp Arg Ala Ala Leu Leu Leu Ala Arg Ala Cys 360 365 355 Ala Leu Leu Leu Asp Glu Asp Thr Ala Asp Asp Leu Leu Arg Lys Thr 375 380 Ile Phe Ser Ser Val Ser Val Ala Arg Leu Ala Glu Ser Val Glu Lys 390 395 Val Asn Glu Leu Ala Arg Pro Gln Asp Thr Asn Phe Gln Asp Glu Met 405 410 415 Val Glu Gln Tyr Gly Arg Val Arg Arg Phe Leu Pro Ala Leu Leu Arg 425 430 420 Asp Leu His Phe Arg Ala Ala Pro Asp Gly Glu His Thr Leu Ala Ala 440 445 435 Ile His Tyr Leu Ala Glu Leu Asn Gly Ser Lys Lys Arg Ile Leu Asp 455 460 Asp Ala Pro Glu His Ile Ile Ser Gly Pro Trp Lys Arg Leu Val Tyr 470 475 465 Asp Ala Asp Gly Arg Ile Gln Arg Ala Gly Tyr Ser Leu Cys Leu Leu 485 490 Glu Arg Leu Gln Asp Ala Leu Arg Arg Arg Asp Ile Trp Leu Glu Asn 505 510 500 Ser Asp Arg Trp Gly Asp Pro Arg Gln Lys Leu Leu Gln Gly Glu Glu 520 525 515 Trp Gln Ala Gln Arg Val Pro Val Cys Arg Ala Leu Gly His Pro Thr 540 530 535 Asn Gly Ser Lys Ala Ser Glu Gln Leu Ala Ala Gln Leu Asp Glu Thr 550 555 545 Trp Lys Thr Val Ala Ser Arg Phe Asp Arg Asn Thr Ala Val Asp Ile 565 570 Cys Asn Glu Gly Lys His Pro Ser Leu Thr Ile Ser Ser Leu Asp Lys 585 580 Leu Asp Glu Pro Pro Ala Leu Ile Gln Leu Ser Ser Arg Val Arg Gln 600 595 Leu Leu Pro Pro Val Asp Leu Thr Glu Leu Leu Glu Ile Asp Ala 615 620 610 Arg Thr Gly Phe Thr Arg Glu Phe Ser His Val Ser Glu Ser Gly Ala 630 635 Arg Ala Gln Asp Leu His Ile Ser Leu Cys Ala Val Met Leu Ala Glu 650 645 Ala Cys Asn Ile Gly His Glu Pro Leu Ile Lys His Asn Ile Pro Ala 665 670 660 Leu Thr Arg His Arg Leu Ser Trp Val Lys Gln Asn Tyr Ile Arg Ala 680 685 675 Glu Thr Leu Val Ser Ala Asn Ala Arg Leu Val Asp Phe Gln Ser Ser 700 695 Leu Ala Leu Ala Gly Tyr Trp Gly Ala Gly Arg 710

<210> 6700 <211> 197 <212> PRT <213> Enterobacter cloacae

<400> 6700 Ala Glu Gly Ile Thr Met Gln Arg Leu Phe Pro Ala Leu Trp Val Val 1.0 Leu Phe Leu Val Val Ser Pro Leu His Ala Glu Pro Lys Val Tyr Gly 20 25 30 Glu Gln Arg Ile His Arg Trp Trp Asp Ala Val Thr Asp Asp Ile Ala 40 Gln Thr Trp Glu Gln Pro Asp Arg Tyr Asp Leu Tyr Leu Pro Phe Leu 50 55 60 Ser Trp His Ala Arg Phe Met Tyr Asp Lys Glu Lys Thr Asp Asn Tyr 75 7.0 Asn Glu Met Pro Trp Gly Gly Gly Leu Gly Val Ser Arg Tyr Asn Asp 85 90 Glu Gly Asn Trp Ser Ala Leu Phe Ala Met Met Phe Lys Asp Ser His 100 105 110 Asn Glu Trp Gln Pro Ala Met Gly Tyr Gly Trp Glu Lys Gly Trp Phe 115 120 125 Leu Asp Asn Ala Lys Asp Phe Arg Leu Gly Leu Gly Ala Ala Ala Gly 130 135 140 Ile Thr Ala Arg Asp Asp Phe Ala Asn Tyr Val Pro Leu Pro Phe Ile 150 155 Phe Pro Leu Phe Ser Ala Gly Tyr Lys Arg Val Thr Val Gln Phe Thr 165 170 175 Tyr Ile Pro Gly Thr Tyr Asn Asn Gly Asn Val Leu Phe Ala Trp Leu

185

Arg Leu Gly Phe 195

<210> 6701 <211> 905 <212> PRT <213> Enterobacter cloacae

180

<400> 6701 Lys Glu Pro Glu Glu Gly Thr Met Ile Thr Glu Lys Pro His Arg Pro 10 Tyr Tyr Gln Gln Thr Val Asp Glu Thr Leu Thr Asn Ile Gln Ser Ser 20 25 Leu Asp Gly Leu Ser Ser Thr Glu Ala Thr Ala Arg Leu Glu Lys Tyr 4.5 35 40 Gly Glu Asn Ala Leu Pro Gln Lys Pro Gly Lys Pro Gly Trp Leu Arg 55 Phe Leu Ala His Phe Asn Asp Val Leu Ile Tyr Val Leu Leu Ala Ala 70 7.5 Ala Leu Leu Lys Leu Ile Met Gly His Trp Val Asp Met Phe Val Ile 90 Leu Gly Val Ala Ile Ile Asn Ala Leu Ile Gly His Ile Gln Glu Ser 105 100 Asn Ala Glu Lys Ser Leu Gln Ser Ile Arg Asn Met Leu Ser Ser Glu 120 125 115 Ala Val Val Ile Arg Gln Gly Asn His Glu Thr Ile Pro Thr Thr Ala 140 135 Leu Val Pro Gly Asp Ile Val Val Ile Arg Ala Gly Asp Arg Ile Pro 145 150 155 Ala Asp Leu Arg Val Ile Glu Ala His Asn Leu Arg Val Glu Glu Ala 165 170 Ile Leu Thr Gly Glu Ser Thr Val Val Glu Lys Ser Ser Asp Val Leu 180 185 190

```
Ser Gly Glu Leu Pro Leu Gly Asp Arg Tyr Asn Leu Leu Tyr Ser Gly
                     200
 195
Thr Thr Val Ser Ser Gly Gly Gly Lys Gly Leu Val Val Ala Thr Gly
                                 220
                 215
Gly Glu Thr Glu Leu Gly His Ile Asn Gln Met Met Ser Asp Ile Glu
    230 235
225
Lys His Arg Thr Pro Leu Met Val Gln Met Asp Lys Leu Gly Lys Thr
      245 250
Ile Phe Ile Thr Ile Leu Val Met Met Leu Ala Leu Phe Val Phe Ser
     260
                        265
Leu Ile Phe Arg Asp Met Pro Val Ser Glu Leu Val Leu Ser Leu Ile
 275 280 285
Ser Leu Ala Val Ala Ala Val Pro Glu Gly Leu Pro Ala Ile Ile Ser
290 295 300
Ile Ile Leu Ser Leu Gly Val Gln Ala Met Ala Arg Arg Lys Ala Ile
305 310 315
Ile Arg Lys Leu Pro Thr Val Glu Thr Leu Gly Ala Met Thr Val Ile
           325 330
                                           335
Cys Ser Asp Lys Thr Gly Thr Leu Thr Met Asn Glu Met Thr Val Lys
        340 345 350
Ala Val Ile Thr Ala Asp Thr Thr Tyr Arg Val Glu Gly Asp Ser Tyr
     355 360 365
Glu Pro Val Gly Ala Ile His Pro Val Asp Asp Pro Thr Pro Val Thr
      375 380
370
Val Thr Gln Gly Ser Val Leu Glu Arg Tyr Leu Arg Thr Val Asp Leu 385 390 395 400
Cys Asn Asp Ser Gln Leu Ile Lys Asp Glu Gln Gly Leu Trp Lys Ile
         405 410 415
Thr Gly Gly Pro Thr Glu Gly Ala Leu Lys Val Leu Ala Ala Lys Ile
        420 425 430
Pro Leu Pro Thr Ile Asp Ala Glu Leu Arg Ser Lys Ile Pro Phe Asp
 435 440 445
Ser Gln Tyr Lys Tyr Met Ser Thr Leu Tyr His Leu Gly Asp Glu Glu
      455 460
 450
Val Met Leu Ile Thr Gly Ala Pro Asp Val Leu Phe Arg Leu Cys Gln
               470 475 480
His Gln Gln Thr Gln Asn Gly Leu Glu Pro Phe Asn Leu His Tyr Trp
            485 490 495
Glu Glu Lys Ile Glu Glu Tyr Ala Arg Glu Gly Leu Arg Met Val Ala 500 \hspace{1.5cm} 505 \hspace{1.5cm} 510
Ala Ala Trp Lys Pro Ala Ala Ser Gly Gln Arg Glu Leu Thr His Ala
                     520
                         525
      515
Asp Leu Gln Glu Gly Val Ile Leu Leu Gly Ile Ala Gly Met Met Asp
                  535 540
  530
Pro Pro Arg Pro Glu Ala Ile Ser Ala Ile Ala Asp Cys Leu Gln Ala
               550
                              555 560
Gly Ile Arg Val Lys Met Ile Thr Gly Asp His Pro Gln Thr Ala Met
            565
                            570 575
Ser Ile Gly Gln Met Leu Gly Ile Gly Asn Ala Ala Ser Ala Ile Thr
                        585 590
         580
Gly Arg Glu Leu Glu Ala Met Asp Asp His Gln Leu Ser Glu Ala Ala
          600 605
      595
Gln Lys Tyr Asp Ile Phe Ala Arg Thr Ser Pro Glu Asp Lys Phe Arg
                  615
                                 620
  610
Leu Val Gln Ala Leu Gln Ser Lys Gln Glu Val Val Gly Met Thr Gly
                               635
              630
Asp Gly Val Asn Asp Ala Pro Ala Leu Lys Arg Ala Asp Val Gly Ile
            645 650
Ala Met Gly Ile Lys Gly Thr Glu Val Thr Lys Glu Ala Ala Asp Met
         660
                        665
Val Leu Thr Asp Asp Asn Phe Ala Thr Ile Ala Arg Ala Val His Glu
```

```
675
                   680
Gly Arg Arg Val Tyr Asp Asn Leu Lys Lys Thr Ile Leu Phe Val Ile
        695 700
Pro Ser Asn Ile Ala Gln Ala Leu Leu Ile Ile Ile Ala Leu Leu Ala
      710 715
Gly Asn Leu Ile Pro Leu Thr Pro Val Leu Ile Leu Trp Met Asn Met
       725 730 735
Ala Thr Ser Ala Thr Leu Ser Phe Gly Leu Ala Phe Glu Ala Gly Glu
       740 745 750
Lys Asp Ile Met Asn Arg Pro Pro Arg Lys Ser Asn Leu His Val Met
     755 760 765
Asp Gly Tyr Ala Ile Trp Arg Val Val Phe Val Gly Leu Met Ile Ala
770 780
Ile Ser Ala Phe Val Met Glu Ala Trp Leu Gln Pro Arg Gly Tyr Ser
785 790 795
Pro Glu Ile Ile Arg Thr Val Leu Leu Gln Thr Val Val Thr Ala Gln
        805 810 815
Trp Phe Tyr Met Leu Asn Cys Arg Val Thr Asp Gly Phe Ser Leu Ser
        820 825 830
Lys Gly Leu Leu Ala Asn Lys Gly Ile Trp Ile Val Ser Gly Val Leu
     835 840
Met Ala Leu Gln Leu Leu Ile Ile Tyr Ala Pro Phe Met Gln Met Leu
850 855 ° 860
Phe Gly Thr Glu Ala Leu Pro Phe Arg Tyr Trp Ile Ile Thr Cys Leu
865 870 875
Ile Gly Phe Ala Met Phe Met Ile Val Glu Ala Glu Lys Val Phe Thr
                      890
        885
Arg Arg Trp Arg Thr Thr Lys Arg
        900
```

<210> 6702 <211> 180 <212> PRT

<213> Enterobacter cloacae

<400> 6702 His Pro Phe Leu Phe Ser Val Lys Gly Ile His Ala Cys Thr His Gly 10 Val Asp Ala Ile Ser Pro Asp Ser Leu Thr Val Val Leu Val Ile Lys 20 25 30 Arg Met Leu Asp Met Tyr Lys Thr Ile Leu Val Pro Val Asp Val Tyr 40 4.5 Glu Thr Ala Leu Ser Asp Lys Ala Leu Gln His Ala Gln Phe Leu Ala 55 60 Gln Ser Ala Ser Gly Asn Val His Leu Leu Tyr Val Met Pro Lys Phe 7.0 75 Ser Ala Glu Leu Thr Arg Gly Phe Ile Ala Asp Ala Arg Lys Met Asp 85 90 Glu Tyr Met Ile Asn Asn Ala Lys Glu Lys Leu Ala Ala Leu Val Lys 100 105 110 Lys Ile Asn Leu Pro Glu Ala Asn Val His Leu His Val Arg Ser Gly 115 125 120 Asn Ile Arg Asp Glu Val Ile Lys Leu Ala Asp Glu Leu Asn Val Gly 135 140 Ala Ile Ile Val Gly Ser Arg Asn Pro Asn Ile Gln Thr His Leu Leu 150 155 Gly Ser Glu Ala Ala Ser Ile Val Arg Tyr Ala His Val Pro Val Phe 170

Val Ile Arg 180

```
<210> 6703
<211> 238
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(238)
<400> 6703
Val Gln Asn Thr Met Ile Arg Phe Ala Ser Phe Val Phe Thr Leu Gly
                              10
Ile Leu Val Pro Ala Ala Ser Ala Val Thr Tyr Pro Leu Pro Pro Glu
       20
                           25
                                            3.0
Gly Ser Arg Leu Val Gly Ala Pro Ile Thr Ile Thr Val Pro Glu Gly
     35
                       40
                                         45
Asn Thr Leu Pro Leu Glu Ala Phe Ala Ala Gln His Gly Gln Gly Leu
5.0
                    5.5
Ser Asn Met Leu Glu Ala Asn Pro Gly Val Asp Pro Phe Leu Pro Arg
                7.0
                                7.5
Ala Gly Thr Gln Leu Ala Val Pro Gln Gln Leu Ile Leu Pro Pro Thr
            8.5
                              90
Val Arq Glu Gly Ile Val Val Asn Val Ala Glu Met Arg Leu Tyr Tyr
                        105
                                            110
         100
Tyr Pro Pro Gly Ser Asn Thr Val Glu Val Leu Pro Ile Gly Ile Gly
                                         125
   115
                        120
Gln Ala Gly Arg Glu Thr Pro Arg Asn Trp Val Thr Ala Val Glu Arg
 130
                    135 140
Lys Gln Glu Gly Pro Thr Trp Ser Pro Thr Pro Asn Thr Arg Arg Ala
                150
                       155
145
Tyr Ala Lys Glu Gly Lys Thr Leu Pro Ala Phe Val Pro Ala Gly Pro
             165
                              170
Asp Asn Pro Met Gly Leu Tyr Ala Leu Tyr Ile Gly Arg Leu Tyr Ala
                           185 190
         180
Ile His Gly Thr Asn Ser Asn Phe Gly Ile Gly Leu Arg Val Ser Gln
                       200 205
Gly Cys Ile Arg Leu Arg Asn Asn Asp Ile Lys Tyr Leu Phe Asp Asp
                   215 220
Val Ser Phe Ser Pro Gly Ser Ala Gly Ser Gly Ile Ile Xaa
                230
<210> 6704
<211> 370
<212> PRT
<213> Enterobacter cloacae
<400> 6704
Asn Asn Tyr Tyr Gln Gly Asn Thr Val Lys Arg Tyr Leu Ser Leu Leu
                           10 15
Pro Val Val Leu Leu Leu Thr Ala Cys Asp Pro Lys Ser Asp Arg
                           25
          2.0
                                            3.0
Ala Ala Pro Leu Pro Lys Met Val Lys Val Ala Glu Val Val Lys Ala
     3.5
                      40
                                      45
Gly Asn Ala Gln Gln Arg Val Phe Pro Ala Arg Ile Glu Ser Gly Asp
                    55
Ala Thr Asp Leu Ala Phe Lys Arg Ala Gly Gln Ile Glu Thr Leu Asp
                                 75
             70
Ile Arg Gln Gly Ala Val Val Lys Gln Gly Gln Arg Leu Ala Ser Leu
                         90
             85
Asn Asp Arg Glu Ala Arg Gln Arg Leu Asn Asp Arg Gln Thr Ala Ala
                          105
```

```
Thr Leu Ala Gln Arg Gln Phe Asp Arg Phe Gln Thr Leu Ala Gly Arg
         120
 115
Gln Ala Val Ser Lys Ala Glu Met Asp Val Gln Arg Ala Asn Arg Asp
130
     135
                         140
Ser Ala Asn Ala Ala Leu Gln Ile Ala Arg Glu Glu Leu Ser Gln Met
145 150 155
Thr Leu Val Ala Pro Phe Ser Gly Thr Ala Ala Ser Val His Val Arg
     165 170 175
Asn His Gln Val Val Ser Ala Gly Gln Pro Val Val Thr Leu Thr Arg
       180 185 190
Thr Asp Leu Leu Asp Val Val Phe Ser Leu Pro Glu Asn Leu Phe Asn
    195 200 205
Thr Phe Asp Ile Arg Asn Ala Gln Tyr Lys Pro Val Val Arg Ile Asn
210 215 220
Ala Leu Pro Gly Arg Glu Phe Thr Ala Val Tyr Lys Glu His Ser Gly
225 230 235 240
Ser Ser Asp Ser Asn Thr Leu Thr Trp Gln Val Ile Leu Thr Met Pro
      245 250 255
Arg Pro Asp Asp Phe Pro Val Val Gly Gly Val Ser Gly Thr Val Thr
       260 265 270
Ile Asn Leu Thr Asn Leu Pro Ala Gly Val Gly Ser Glu Ala Leu Val
275 280 285
Val Pro Val Glu Ala Val Phe Asn Pro Asp Asn His Pro Arg Asn Glu
                295 300
290
Pro His Val Trp Val Val Thr Gly Glu Gly Asp Thr Leu His Leu Glu
            310 315
Asp Arg Lys Val Ser Val Gly Gln Val Ser Ala Glu Gly Val Ile Ile
           325 330 335
Val Gly Gly Leu Lys Ala Gly Glu Arg Val Val Ala Ala Gly Val Gly
       340 345 350
Glu Leu His Pro Asn Gln Pro Val Arg Ile Trp Thr Arg Glu Arg Gly
     355
                   360
```

Leu 370

<210> 6705 <211> 159 <212> PRT

<213> Enterobacter cloacae

<400> 6705 Val Val Ser Ala Val Ile Thr Ala Phe Thr Val Ile Ser Phe Met Val 10 Arg Val Pro Val Leu Ser Glu Gln Ile Thr Val Ile Ala Pro Ser Val 20 25 Ser Thr Val Gly Ser Leu Arg Ile Ile Ala Leu Arg Arg Ala Ile Ala 40 Cys Thr Pro Ser Glu Arg Met Ile Glu Ile Met Ala Gly Asn Pro Ser 55 Gly Thr Ala Ala Thr Ala Arg Leu Ile Ser Asp Ser Thr Ser Ser Glu 70 75 Thr Gly Ile Ser Arg Lys Met Arg Leu Lys Thr Asn Ser Ala Ser Ile 90 85 Ile Thr Arg Met Val Ile Lys Met Val Leu Pro Ser Leu Ser Ile Cys 110 100 105 Thr Ile Asn Gly Val Arg Cys Phe Ser Met Ser Asp Ile Ile Trp Leu 125 115 120 Ile Trp Pro Ser Ser Val Ser Pro Pro Val Ala Thr Thr Ser Pro Phe 135 140 1.30 Pro Pro Pro Glu Leu Thr Val Val Pro Glu Tyr Ser Arg Leu 150

```
<210> 6706
<211> 448
<212> PRT
<213> Enterobacter cloacae
<400> 6706
Leu Lys Ile Ser Thr Asp Arg Thr Thr Met Asp Ser Thr Leu Ile Ser
                          1.0
Ala Arg Arg Asn Glu Glu Thr Pro Ser Leu Asn Arg Ala Arg Arg Ala
      20
                     25
Ala Leu Gly Ser Phe Ala Gly Ala Val Val Asp Trp Tyr Asp Phe Leu
        40
Leu Tyr Gly Ile Thr Ala Ala Leu Val Phe Asn Arg Glu Phe Phe Pro
              55 60
Gln Ile Ser Pro Ala Met Gly Thr Leu Ala Ala Phe Ala Thr Phe Gly
      70 75
Val Gly Phe Leu Phe Arg Pro Leu Gly Gly Ile Ile Phe Gly His Phe
           85 90
Gly Asp Arg Leu Gly Arg Lys Arg Met Leu Met Leu Thr Val Trp Met
      100 105 110
Met Gly Ile Ala Thr Ala Leu Ile Gly Ile Leu Pro Ser Phe Ala Ser
     115 120 125
Ile Gly Trp Trp Ala Pro Val Leu Leu Val Thr Leu Arg Ala Ile Gln
 130 135 140
Gly Phe Ala Val Gly Gly Glu Trp Gly Gly Ala Ala Leu Leu Ser Val
145 150 155 160
Glu Ser Ala Pro Lys Asn Lys Lys Ala Phe Tyr Ser Ser Gly Val Gln
165 170 175
Val Gly Tyr Gly Val Gly Leu Leu Leu Ser Thr Gly Leu Val Ser Leu
         180 185 190
Ile Ser Gln Leu Thr Thr Asp Glu Gln Phe Leu Ser Trp Gly Trp Arg
 195 200 205
Ile Pro Phe Ile Phe Ser Ile Val Leu Val Val Val Ala Leu Trp Ile
 210 215 220
Arg Asn Gly Met Glu Glu Ser Ala Glu Pne Glu Arg Gln Gln Arg Glu
            230 235 240
Lys Pro Val Ala Lys Lys Arg Leu Pro Val Met Glu Ala Leu Val Gln
            245 250 255
His Pro Gly Ala Phe Leu Lys Ile Ile Ala Leu Arg Leu Cys Glu Leu
       260 265 270
Leu Thr Met Tyr Ile Val Thr Ala Phe Ala Leu Asn Tyr Ser Thr Gln
                    280 285
      275
Asn Leu Gly Leu Pro Arg Glu Leu Phe Leu Asn Ile Gly Leu Val Val
                 295 300
Gly Gly Ile Ser Cys Leu Thr Ile Pro Cys Phe Ala Trp Leu Ala Asp
     310 315
Arg Phe Gly Arg Arg Arg Val Tyr Ile Thr Gly Ala Leu Ile Gly Thr
            325 330 335
Leu Ser Ala Trp Pro Phe Phe Met Ala Leu Glu Ala Gln Ser Val Phe
         340 345
Trp Ile Val Phe Phe Ala Ile Met Leu Ala Asn Ile Ala His Asp Met
                     360
      355
Val Val Cys Val Gln Gln Pro Met Phe Thr Glu Leu Phe Gly Ala Ser
        375 380
Tyr Arg Tyr Ser Gly Ala Gly Val Gly Tyr Gln Val Ala Ser Val Val
               390
                             395 400
Gly Gly Gly Phe Thr Pro Phe Ile Ala Ala Ala Leu Val Thr Phe Ser
                          410
            405
Gly Gly Asn Trp His Ser Val Ala Ile Tyr Leu Leu Ala Gly Cys Leu
         420
                        425
```

```
2834
 Leu Ser Ala Ala Thr Ala Leu Leu Met Lys Glu Thr Ala His Ser
                  440
<210> 6707
 <211> 1025
 <212> PRT
<213> Enterobacter cloacae
<400> 6707
Thr Gly Thr Ile Met Asp Ile Ser Arg Gln Phe Ile Ser Asn Pro Val
                          10
Arg Val Trp Leu Thr Ile Leu Leu Gly Val Gly Gly Ile Ile Ala
               25 30
Leu Leu Asn Ile Gly Arg Leu Glu Asp Pro Ala Phe Thr Ile Lys Thr
               40
Ala Val Val Ile Thr His Tyr Pro Gly Ala Ser Ala Gln Gln Val Glu
          55 * 60
Glu Glu Val Thr Leu Pro Leu Glu Asn Ala Leu Gln Gln Leu Pro Tyr
         70
                            75
Leu Asp Asn Val Ser Ser Ile Ser Ser Ser Gly Leu Ser Gln Ile Thr
      85
                         9.0
Val Asn Ile Ala Ser Arg Tyr His Ser Asn Ala Leu Pro Gln Ile Trp
 100 105
Asp Glu Leu Arg Arg Arg Val Gly Asp Ala Ala Arg Gln Phe Pro Pro
 115 120
                                  125
Gly Val Val Thr Pro Phe Val Asn Asp Asp Phe Gly Asp Val Phe Gly
 130 135 140
Phe Phe Phe Ala Ile Ser Gly Asp Glu Phe Ser Asn Pro Glu Leu Val
145 150 155 160
Arg Tyr Ala Glu Gln Leu Arg Arg Glu Leu Val Leu Val Pro Gly Val
      165 170
                                      175
Gly Lys Val Ala Ile Gly Gly Ala Leu Thr Gln Gln Ile Asn Val Asp
  180 185
                                      190
Ile Ser Leu Ser Lys Met Ala Ala Arg Gly Ile Thr Leu Asn Gln Leu
 195 200
                                   205
Ser Ala Gln Leu Ser Arg Leu Asn Val Val Ser Ser Ala Gly Glu Ile
 210 215
                                220
Pro Ser Gly Thr Glu Ser Ile Arg Leu His Pro Thr Gly Glu Phe Glu
225 230
                             235
Ser Ile Asp Glu Leu Ala Asp Leu Ile Val Thr Pro Pro Gly Val Gly
        245
                          250
Ala Ala Thr Arg Leu Arg Asp Ile Ala Thr Leu Ser Arg Gly Leu Asp
      260 265
                                      270
Ala Ser Pro Ala Ser Ile Tyr His Ala Asn Gly Lys Glu Ala Val Thr
  275
                   280 285
Met Gly Val Ser Phe Ile Pro Gly Val Asn Val Ile Asp Val Gly His
 290 295
                                300
Ala Leu Glu Ala Lys Leu Glu Gln Met Ser Ala Glu Lys Pro Ala Gly
305 310
                             315
                                         320
Ile His Ile Asp Leu Phe Tyr Asp Gln Ala Ala Glu Val Gly His Ser
          325
                          330
Val Asn Gly Phe Ile Ile Asn Phe Val Met Ala Leu Ala Ile Val Val
                       345
Gly Val Leu Leu Ile Phe Met Gly Leu Arg Ser Gly Ile Ile Ile Ala
     355 360
Phe Ser Leu Ala Leu Asn Val Leu Gly Thr Leu Leu Ile Met Tyr Leu
 370 375
                     380
Trp Gly Ile Glu Leu Gln Arg Ile Ser Leu Gly Ala Leu Ile Ile Ala
385 390 395
Leu Ser Met Leu Val Asp Asn Ala Ile Val Ile Val Glu Gly Val Leu
```

Ile Ala Arg Gln Gln Gly Ser Ser Leu Met Asn Ala Ile Ser Asn Ile 420 425 Ile Arg Arg Ser Ala Leu Pro Leu Leu Gly Ala Thr Val Ile Ala Ile 435 445 440 Leu Ala Phe Ala Pro Val Gly Leu Ser Gln Asp Ser Thr Gly Glu Tyr 455 460 Cys Lys Ser Leu Phe Gln Val Leu Leu Ile Ser Leu Met Leu Ser Trp 470 475 480 Phe Ser Ala Leu Thr Ile Thr Pro Val Leu Ile Lys Trp Trp Leu Phe 485 490 495 Lys Arg Asp Ala Ala Pro Pro Glu Ala Asp Glu Thr Asp Pro Tyr Asp 500 505 510 Lys Arg Ile Tyr Arg Ile Tyr Gln Ala Val Leu Asn Ala Leu Leu Arg 515 520 525 Arg Lys Ala Pro Thr Leu Val Val Met Ala Ala Leu Leu Ala Ala Ala 535 540 Ile Trp Gly Phe Gly Ser Val Arg Gln Asn Phe Phe Pro Ser Ser Ser 550 555 560 Thr Pro Ile Phe Phe Val Asp Leu Trp Leu Pro Tyr Gly Thr Asp Ile 565 570 Lys Trp Thr Glu Lys Met Thr Ser Asp Ile Glu Lys Thr Ile Asn Gly 580 585 590 Gln Pro Gly Val Glu Thr Thr Val Ser Thr Ile Gly Gln Gly Ser Met 595 600 605 Arg Phe Ile Leu Thr Tyr Ser Gly Gln Arg Gln Tyr Ser Asn Tyr Ala 610 615 620 Gln Ile Met Val Arg Met Asp Asp Gln Arg Asn Ile Pro Ala Leu Thr 630 635 Arg His Val Asp Glu Tyr Ile Ala Arg Asn Tyr Pro Gln Val Asn Ala 645 650 Ser Thr Lys Arg Val Met Phe Gly Pro Ser Gly Asp Ser Ala Ile Glu 660 665 Val Arg Ile Lys Gly Pro Asp Pro Asp Arg Leu Arg Leu Ile Ala Ser 675 680 Gln Val Asp Asn Ile Leu Thr Arg Asp Pro Ala Thr Asp Ser Val Arg 690 695 700 Asn Asp Trp Gln Asn Arg Ser Lys Val Ile Arg Pro Gln Tyr Ile Thr 705 710 715 Ala Leu Gly Arg Glu Leu Gly Val Asp Lys Gln Asp Val Asp Asn Ala 725 730 735 Leu Glu Met Asn Phe Ser Gly Ser Arg Ala Gly Leu Tyr Arg Glu Gly 740 745 750 Ser Asp Leu Leu Pro Val Val Val Arg Pro Pro Glu Ser Glu Arg Leu 760 765 Asp Ala Asn His Leu Asn Asn Val Leu Val Trp Ser Gln Thr Arg Gln 770 775 780 Gln Tyr Ile Pro Leu Ser Asn Val Val Ser Gly Phe Ala Leu Glu Trp 785 790 795 Glu Asp Pro Leu Ile Leu Arg Arg Asp Arg Ser Arg Val Leu Thr Val 805 810 815 Gln Thr Asp Pro Asp Pro Leu Ser Gln Gln Thr Ser Gly Asp Ile Leu 820 825 830 Ala Arg Val Lys Pro Gln Ile Asp Ala Leu Pro Leu Pro His Gly Tyr 840 845 Ser Ile Glu Trp Gly Gly Asp Ala Glu Asn Ser Ser Glu Ala Gln Gln 855 Gly Leu Phe Thr Thr Leu Pro Ile Gly Tyr Leu Val Met Phe Val Ile 870 875 Thr Val Leu Met Phe Ser Ser Val Lys Asn Ala Val Ala Ile Trp Leu 885 890 Thr Val Pro Leu Ala Leu Ile Gly Val Thr Pro Gly Phe Leu Ile Thr

```
900
                            905
                                             910
 Gly Ile Pro Phe Gly Phe Met Ala Leu Ile Gly Leu Leu Ser Leu Ser
                        920
                                 925
 Gly Met Leu Ile Arg Asn Gly Ile Val Leu Val Glu Glu Ile Glu Gln
                    935
                             940
 Gln Lys Ala Gln Gln Asp Gln His Ser Ala Ile Val Tyr Ala Ala Thr
          950
                       955
 Ser Arg Leu Arg Pro Ile Leu Leu Thr Ala Phe Thr Thr Val Leu Asp
              965 970 975
 Leu Ala Pro Leu Leu Leu Asp Val Phe Phe Gln Ser Met Ala Val Val
          980 985 990
 Ile Met Phe Gly Leu Gly Phe Ala Thr Ile Leu Thr Leu Leu Val Leu
      995 1000 1005
 Pro Val Ile Tyr Ala Cys Phe His Arg Lys Asp Lys Ala Glu Gln Gln
                    1015
1025
<210> 6708
<211> 517
<212> PRT
<213> Enterobacter cloacae
<400> 6708
Arg Lys Pro Arg Thr Ala Asp Leu Leu Thr Phe Val Ser Gln Ala Cys
                              1.0
Asp Ile Leu Ser Gly Lys Ala Ala His Leu Trp Asn Lys Glu Thr Asp
  20
                           2.5
Met Asn Asn Lys Gly Ser Ser Leu Thr Pro Ala Gln Ala Leu Glu Lys
 35
                        4.0
Leu Asp Ala Leu Tyr Glu Gln Ser Val Asn Ala Leu Arg Ser Ala Ile
 50
                    55
Ser Asp Tyr Ile Glu Thr Gly Lys Leu Pro Asp Glu Lys Ala Arg Thr
                 7.0
                                  75
Gln Gly Leu Phe Val Tyr Pro Ser Leu Ser Val Thr Trp Asp Gly Ser
        8.5
                              90
Ala Ser Ser Asn Pro Lys Thr Arg Ala Tyr Ala Arg Phe Thr His Ser
         100 105
Gly Cys Tyr Ser Thr Thr Ile Thr Arg Pro Ala Leu Phe Arg Pro Tyr
      115
                       120
                              125
Leu Glu Glu Gln Leu Thr Leu Leu Tyr Gln Asp Tyr Gly Ala His Ile
  130 135
                                     140
Ser Val Glu Pro Ser Leu His Glu Ile Pro Tyr Pro Tyr Val Ile Asp
145 150
Gly Ser Ala Leu Thr Leu Asp Arg Ser Met Ser Ala Gly Leu Thr Arg
            165
                               170
His Phe Pro Thr Thr Glu Leu Ser Gln Ile Gly Asp Glu Thr Ala Asp
         180
                           185
                                            190
Gly Ile Tyr His Pro Ala Glu Phe Ser Pro Leu Ser His Phe Asp Ala
      195
                        200
Arg Arg Val Asp Phe Ser Leu Ala Arg Leu Arg His Tyr Thr Gly Thr
                    215
                                     220
Pro Ala Glu His Phe Gln Pro Phe Val Leu Phe Thr Asn Tyr Thr Arg
                230
                                  235
Tyr Val Asp Glu Phe Val Arg Trp Gly Cys Ser Gln Ile Leu Ala Pro
             245
                               250
Asp Ser Pro Tyr Val Ala Leu Ser Cys Ala Gly Gly Ile Trp Ile Thr
         260
                           265
Ala Glu Thr Glu Ala Pro Glu Glu Ala Ile Ser Asp Leu Ala Trp Lys
                       280
Lys His Gln Met Pro Ala Trp His Leu Ile Thr Ala Asp Gly Gln Gly
```

```
100
112
1.71
TU
In.
 13
1.4
65
(3)
14
1.4
40
```

```
295
                                    300
 Ile Thr Leu Ile Asn Ile Gly Val Gly Pro Ser Asn Ala Lys Thr Ile
                310
                         315
 Cys Asp His Leu Ala Val Leu Arg Pro Asp Val Trp Leu Met Ile Gly
             325
                     330
His Cys Gly Gly Leu Arg Glu Ser Gln Leu Ile Gly Asp Tyr Val Leu
          340
               345 350
 Ala His Ala Tyr Leu Arg Asp Asp His Val Leu Asp Ala Val Leu Pro
    355
              360 365
 Pro Asp Ile Pro Ile Pro Ser Ile Ala Glu Val Gln Arg Ala Leu Tyr
              375 380
Asp Ala Thr Lys Glu Val Ser Gly Met Pro Gly Glu Glu Val Lys Gln
       390 395
Arg Leu Arg Thr Gly Thr Val Val Thr Thr Asp Asp Arg Asn Trp Glu
        405 410
                                  415
Leu Arg Tyr Ser Ala Ser Ala Leu Arg Phe Asn Leu Ser Arg Ala Val
        420 425 430
Ala Ile Asp Met Glu Ser Ala Thr Ile Ala Ala Gln Gly Tyr Arg Phe
    435 440
                           445
Arg Val Pro Tyr Gly Thr Leu Leu Cys Val Ser Asp Asn Pro Leu His
 450 455
                                    460
Gly Glu Ile Lys Leu Pro Gly Gln Ala Asn Arg Phe Tyr Glu Gly Ala
465 470
                      475
Ile Ser Glu His Leu Gln Ile Gly Ile Arg Ala Ile Asp Leu Leu Arg
       485 490
Ala Glu Gly Asp Lys Leu His Ser Arg Lys Leu Arg Thr Phe Asn Glu
    500
                         505
Pro Pro Phe Arg
     515
<210> 6709
<211> 180
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(180)
<400> 6709
Arg Val Leu Lys His Ile Ile Leu Thr Ala Ile Cys Ala Leu Leu Asn
                             1 C
Leu Tyr Ala Lys Lys Phe Arg Cys Pro Asp Val Leu Thr Ser Ile Leu
                         25
Ser Met Phe Thr Leu Val Pro Asp Phe Ser Pro His Ser Pro Gly Ser
                      40
Leu Thr Met Thr Arg Lys Gln Ala Thr Ile Ala Val Arg Ser Gly Leu
                  55
Asn Asp Asp Glu Gln Tyr Gly Cys Val Val Pro Pro Ile His Leu Ser
                70
Ser Thr Tyr Asn Phe Thr Gly Phe Asn Glu Pro Arg Ala His Asp Tyr
           85
                             90
Ser Arg Arg Gly Asn Pro Thr Arg Asp Val Thr Gln Arg Ala Leu Ala
         100
                          105
                                         110
Glu Leu Glu Gly Gly Ala Gly Ala Val Leu Thr Asn Thr Gly Met Ser
     115
                                     125
Ala Ile His Leu Val Thr Thr Val Phe Leu Lys Pro Gly Asp Leu Leu
                   135
                                   140
Val Ala Pro His Glu Cys Tyr Gly Gly His Tyr Pro Leu Phe Asp Ile
                150
```

155

Pro Ala Asn Thr Gly Phe Tyr Leu Val Phe Leu Pro Pro Ser Ser Ile

```
170
                                                       175
 Tyr Thr Thr Xaa
            180
 <210> 6710
 <211> 104
 <212> PRT
 <213> Enterobacter cloacae
<400> 6710
 Pro Thr Ser Val Asn Leu Val Ala Ser Thr Leu Met Asn Gly Ala Leu
                                 10
Ala Ser Leu Ala Arg Arg Arg Ala Ile Ser Val Leu Pro Thr Pro Val
        20
                               25
Gly Pro Ile Ile Arg Ile Phe Phe Gly Val Thr Ser Trp Arg Ser Ser
                           40
Ser Ser Ser Cys Met Arg Arg Gln Arg Leu Arg Ser Ala Ile Ala Thr
                       5.5
Glu Arg Leu Ala Leu Ser Trp Pro Ile Met Cys Leu Phe Ser Ser Leu
                   7.0
                                    75
Thr Ile Ser Arg Gly Val Ile Ser Asp Met Gly Asp Pro Tyr Ala Leu
     8.5
Asp Gly Asn Ser Ser Met Val
        100
<210> 6711
<211> 74
<212> PRT
<213> Enterobacter cloacae
<400> 6711
Gly Ser Pro Met Lys Lys Asp Ile His Pro Lys Tyr Glu Met Ile Thr
Ala Asn Cys Ser Cys Gly Asn Ser Ile Gln Ile Arg Ser Thr Val Gly
                               25
His Asp Leu Asn Leu Asp Val Cys Gly Lys Cys His Pro Phe Tyr Thr
                           40
Gly Lys Gln Arg Asp Val Ala Thr Gly Gly Arg Val Asp Arg Phe Asn
                   5.5
Lys Arg Phe Ser Ile Pro Gly Ala Lys
<210> 6712
<211> 255
<212> PRT
<213> Enterobacter cloacae
<400> 6712
Asn Tyr Thr Ala Leu Asp Ile Asn Ser Tyr Leu Pro Phe Gln Gln Arg
                                   1.0
Trp Leu Ser Gly Cys Ile Tyr Phe Glu Gly Lys Arg Met Lys Leu Lys
                               25
Gln Leu Leu Phe Val Leu Pro Leu Leu Ser Cys Ala Ala Gln Ala Gly
Tyr Val Asp Tyr Arg His Glu Tyr Tyr Asp Asp Gly Arg Asn Tyr Asp
                       55
Arg Val Tyr Met Ser His Arg Phe Gly Thr Gly Phe Gly Val Ala Val
                  70
Glu Ala Val Ser Arg Ser Asp Glu Lys Gln Ser Asn Asp Ala Leu Asn
              85
Asn Met Glu Ser Asn Ser Asn Glu Tyr Thr Ala Ser Tyr Gln Phe Thr
```

Trp Gln Gly Phe Ile Trp Gln Pro Gly Val Ala Val Glu Met Gly Asp 115 120 125 Asp Met Ala Ile Tyr Lys Pro Tyr Leu Arg Val Gln Tyr Asn Ile Asn 135 140 Glu Ser Trp Trp Thr Ala Phe Arg Tyr Arg Thr Glu Tyr Thr Arg Arg 150 155 160 Asn Ala Asp Gly Lys Asp Asp Arg Leu Val Tyr Arg Pro Glu Met Trp 165 170 Leu Gly Tyr Asn Ile Asp Asn Trp Met Phe Glu Leu Asn Gly Ile Tyr 180 185 190 Lys Phe Ala Asp Asn Glu Asp Leu Tyr Asn Asn Lys Lys Glu Asp Tyr 200 205 195 Glu Tyr Asn Phe Arg Val Ala Tyr Asn Ile Asp Ser Trp Val Pro Phe 210 215 220 Val Glu Val Gly Asn Val Ser Ser Gly Tyr Asn Thr Ala Thr Thr Asp 225 230 235 Asp Arg Gln Thr Arg Leu Arg Val Gly Leu Gly Tyr Asn Phe 245 <210> 6713 <211> 360 <212> PRT <213> Enterobacter cloacae <400> 6713 Leu Ser Val Lys Met Val Arg Ser Ala Val Arg Cys Ser Gly Glu Glu Lys Thr Leu Lys Ser Arg Lys Glu Val Ala Ser Ala Thr Met Lys Asp 20 Val Ala Glu Lys Ala Gln Val Ser Thr Ala Thr Val Ser Arg Ala Leu 4 C Met Asn Pro Asp Lys Val Ser Gln Ala Thr Arg Asn Arg Val Glu Lys Ala Ala Leu Glu Val Gly Tyr Phe Pro Gln Ala Met Gly Arg Asn Val 65 70 75 Lys Arg Asn Glu Ser Arg Thr Ile Leu Val Ile Val Pro Asp Ile Cys 90 85 95 Asp Pro Phe Phe Ser Glu Ile Ile Arg Gly Ile Glu Val Thr Ala Ala 100 105 110 Ala Gln Gly Tyr Leu Val Leu Ile Gly Asp Cys Ala His Gln Asn Gln 120 125 Gln Glu Lys Thr Phe Ile Asp Leu Ile Ile Thr Lys Gln Ile Asp Gly 135 140 Met Leu Leu Gly Ser Arg Leu Pro Phe Asp Ala Ser Ile Glu Glu 150 155 160 Gln Arg Asn Leu Pro Pro Met Val Met Ala Asn Glu Phe Ala Pro Glu 165 170 Leu Glu Leu Pro Thr Val His Ile Asp Asn Leu Thr Ala Ala Phe Asn 180 185 190 Ala Val Asn Tyr Leu Gln Glu Leu Gly His Lys Arg Ile Gly Cys Ile 195 200 205 Ala Gly Pro Glu Glu Met Pro Leu Cys His Tyr Arg Leu Gln Gly Tyr 210 215 Val Gln Ala Leu Arg Arg Thr Gly Ala Ile Val Asp Pro His Tyr Ile 230 235 240 Ala Arg Gly Asp Phe Thr Phe Glu Ala Gly Gly Gln Ala Leu Glu Lys 245 250 Leu Leu Ala Leu Pro Glu Pro Pro Thr Ala Val Phe Cys His Ser Asp

265 Val Met Ala Leu Gly Ala Leu Ser Tyr Ala Lys Arg His Gly Leu Arg

```
Val Pro Gln Asp Leu Ser Ile Ile Gly Phe Asp Asn Ile Ser Leu Ser
   290
              295
                                   300
Glu Phe Cys Asp Pro Pro Leu Ser Thr Val Ala Gln Pro Arg Tyr Asp
               310
                            315
Ile Gly Arg Glu Ala Met Leu Leu Leu Leu Asp Gln Leu His Gly Gln
           325 330
                                   335
Thr Val Ser Ser Gly Ser Arg Leu Leu Asp Cys Glu Leu Ile Val Arg
       340 345
Gly Ser Thr Gln Ala Leu Thr
      355
                        360
<210> 6714
<211> 153
<212> PRT
<213> Enterobacter cloacae
<400> 6714
Thr Lys Cys Arg Gly Thr Asn Lys Pro Arg Arg Ser Val Ser Lys His
                          10
Cys Ser Ala Ser Val Arg Leu Ser Ser Lys Arg Asn Ser Ser Ser Gly
20
                          25
Arg Arg Arg Ser Arg Tyr Ser Ser Arg Val His Asn Arg Ser Ser Arg
35
                       4.0
Arg Val Pro Tyr Lys Leu Ser Leu Ser Ser Ser Asn Arg Arg Ser
 50 55
Arg Arg Ser Lys Arg His Ser Arg Ile Arg Ile Cys Cys Arg Arg Leu
                 70
Arg Ile Pro Leu Arg Asn Ser Gln Lys Arg Ser Arg Leu Arg Arg Ser
       85
                              90 95
Pro Lys Arg Pro Arg Cys Arg Ser Arg Arg Leu Arg Lys Lys Met Asn
         100
                           105
                                          110
Ala Ala Gly Trp Phe Ser Ala Val Arg Leu Lys Ala Pro Asn Arg Gln
 115 120
Lys Arg Cys Val Leu Ser Trp His Leu Lys Asp Leu Thr His Ala Leu
130 135
Pro Pro Ile Thr Ala Gly Ile Ala
<210> 6715
<211> 182
<212> PRT
<213> Enterobacter cloacae
<400> 6715
Pro Gly Gly Leu Leu Val Thr Thr Ile Val Ser Val Arg Arg Asn Gly
                              10
Gln Val Val Ile Ala Gly Asp Gly Gln Ala Thr Leu Gly Asn Thr Val
          20
                           25
Met Lys Gly Asn Val Lys Lys Val Arg Arg Leu Tyr Asn Asp Lys Val
                      4.0
Ile Ala Gly Phe Ala Gly Gly Thr Ala Asp Ala Phe Thr Leu Phe Glu
Leu Phe Glu Arg Lys Leu Glu Met His Gln Gly His Leu Val Lys Ala
                 70
                                 75
Ala Val Glu Leu Ala Lys Asp Trp Arg Thr Asp Arg Met Leu Arg Lys
                              90
Leu Glu Ala Leu Leu Ala Val Ala Asp Glu Asn Ala Ser Leu Ile Ile
         100
                        105 110
Thr Gly Asn Gly Asp Val Val Gln Pro Glu Asn Asp Leu Ile Ala Ile
      115
                        120
```

Gly Ser Gly Gly Pro Tyr Ala Gln Ala Ala Ala Arg Ala Leu Leu Glu 135 Asn Thr Asp Met Asn Ala Arg Asp Ile Ala Val Lys Ala Leu Asp Ile 150 155 Ala Gly Asp Ile Cys Ile Tyr Thr Asn His Asn His Thr Ile Glu Glu 165 170 175 Leu Pro Ser Lys Ala 180

<210> 6716 <211> 358 <212> PRT <213> Enterobacter cloacae

<400> 6716

Gly Ser Pro Met Ser Glu Met Thr Pro Arg Glu Ile Val Ser Glu Leu 1 5 10 Asn Lys His Ile Ile Gly Gln Asp Asn Ala Lys Arg Ser Val Ala Ile 20 25 Ala Leu Arg Asn Arg Trp Arg Arg Met Gln Leu Asp Glu Glu Leu Arg 40 His Glu Val Thr Pro Lys Asn Ile Leu Met Ile Gly Pro Thr Gly Val 55 Gly Lys Thr Glu Ile Ala Arg Arg Leu Ala Lys Leu Ala Asn Ala Pro 65 70 75 Phe Ile Lys Val Glu Ala Thr Lys Phe Thr Glu Val Gly Tyr Val Gly 85 90 Lys Glu Val Asp Ser Ile Ile Arg Asp Leu Thr Asp Ser Ala Ile Lys 100 105 Met Val Arg Val Gln Ala Ile Glu Lys Asn Arg Tyr Arg Ala Glu Glu 115 120 125 Met Ala Glu Glu Arg Ile Leu Asp Val Leu Ile Pro Pro Ala Lys Asn 135 140 130 Asn Trp Gly Gln Ala Glu Gln Gln Ser Glu Pro Ser Ala Ala Arg Gln 150 155 Ala Phe Arg Lys Lys Leu Arg Glu Gly Glu Leu Asp Asp Lys Glu Ile 170 165 175 Glu Ile Asp Leu Ala Ala Pro Met Gly Val Glu Ile Met Ala Pro 180 185 190 Pro Gly Met Glu Glu Met Thr Ser Gln Leu Gln Ser Met Phe Gln Asn 200 195 205 Leu Gly Gly Gln Lys Gln Lys Ala Arg Lys Leu Lys Ile Lys Asp Ala 210 215 220 Met Lys Leu Leu Ile Glu Glu Glu Ala Ala Lys Leu Val Asn Pro Glu 230 235 Glu Leu Lys Gln Asp Ala Ile Asp Ala Val Glu Gln His Glv Ile Val 245 250 Phe Ile Asp Glu Ile Asp Lys Ile Cys Lys Arg Gly Asn Ala Ser Gly 260 265 270 Pro Asp Val Ser Arg Glu Gly Val Gln Arg Asp Leu Leu Pro Leu Val 280 285 Glu Gly Cys Thr Val Ser Thr Lys His Gly Met Val Lys Thr Asp His 290 295 Ile Leu Phe Ile Ala Ser Gly Ala Phe Gln Ile Ala Ser Pro Ser Asp

310 315 Leu Ile Pro Glu Leu Gln Gly Arg Leu Pro Ile Arg Val Glu Leu Gln

325 330 335 Ala Leu Thr Thr Glu Asp Phe Glu Arg Ile Leu Thr Glu Pro Ile Leu 340 345

Thr Pro Arg Leu Glu Asn 355

```
<210> 6717
<211> 775
<212> PRT
<213> Enterobacter cloacae
<400> 6717
Val Leu Trp Arg Lys Ile His Gln Arg Arg Arg Ile Ile Gln Asn Leu
                      10
Thr Asn Val Cys Lys Leu Ile Arg Thr Pro Leu Ser Leu Met Cys Ile
      20
             25 30
Leu Thr Arg His Phe Ser Ser Gln Glu Asp Ser Met Pro Val Ala His
          40
                         45
Val Ala Leu Pro Val Pro Leu Pro Arg Thr Phe Asp Tyr Leu Leu Pro
               55 60
Asp Ser Met Ser Ala Lys Ala Gly Cys Arg Val Thr Val Pro Phe Gly
   70 75 80
Lys Gln Gln Arg Val Gly Ile Val Val Ser Val Ser Asp Lys Ser Glu
Leu Pro Leu Asn Glu Leu Lys Ser Val Val Glu Val Leu Asp Ser Glu
                    105 110
   100
Pro Val Tyr Ser Thr Ser Thr Trp Arg Leu Leu Trp Ala Ala Asp
115
                  120 125
Tyr Tyr His His Pro Ile Gly Asp Val Leu Phe His Ala Leu Pro Ile
130
                 135 140
Met Leu Arg Gln Gly Lys Ser Ala Ser His Ala Pro Met Trp Tyr Trp
              150 155
Phe Ala Thr Glu Gln Gly Gln Ala Val Asp Ile Asn Ser Leu Lys Arg
           165 170
Ser Gln Lys Gln Gln Gln Ala Leu Ala Ala Leu Arg Gin Gly Lys Ile
   180
                     185 190
Trp Arg His Gln Val Asp Glu Leu Glu Val Ser Glu Thr Ala Leu Gln
     195 200 205
Ala Leu Arg Lys Lys Gly Leu Ser Glu Leu Ala Ser Glu Ala Pro Ala
   210
      215
                                 220
Leu His Asp Trp Arg Asp Gly Phe Ser Val Ser Gly Asp Arg Leu Arg
225
            230
                              235
Leu Asn Thr Glu Gln Ala Thr Ala Val Gly Ala Ile His Ser Ala Ala
           245
                           250
Asp Arg Phe Ser Ala Trp Leu Leu Ala Gly Val Thr Gly Ser Gly Lys
       260 265
Thr Glu Val Tyr Leu Ser Val Leu Glu Asn Val Leu Ala Gln Gly Lys
      275 280
                                 285
Gln Ala Leu Val Met Val Pro Glu Ile Gly Leu Thr Pro Gln Thr Ile
   290
                  295
                                 300
Ala Arg Phe Arg Glu Arg Phe Asn Ala Pro Val Glu Val Leu His Ser
              310 315
Gly Leu Asn Asp Ser Glu Arg Leu Ser Ala Trp Leu Lys Ala Lys Asn
                                        335
            325
                           330
Gly Glu Ala Ala Ile Val Ile Gly Thr Arg Ser Ser Leu Phe Thr Pro
         340
                        345
Phe Lys Asn Leu Gly Val Ile Val Ile Asp Glu Glu His Asp Ser Ser
                     360
      355
                                    365
Tyr Lys Gln Gln Glu Gly Trp Arg Tyr His Ala Arg Asp Leu Ala Val
                  375
                                 380
Tyr Arg Ala His Ser Glu Gln Ile Pro Ile Ile Leu Gly Ser Ala Thr
               390
                           395
Pro Ala Leu Glu Thr Leu His Asn Val Arg Gln Arg Lys Tyr His Met
           405
                           410
```

Leu Arg Leu Thr Arg Arg Ala Gly Asn Ala Arg Pro Ala Ile Gln His
420 425 430

```
Val Leu Asp Leu Lys Gly Gln Gln Val Gln Ala Gly Leu Ala Pro Ala
 435
          440
Leu Ile Ser Arg Met Arg Gln His Leu Gln Ala Gly Asn Gln Val Ile
 450 455
                                  460
Leu Phe Leu Asn Arg Arg Gly Phe Ala Pro Ala Leu Leu Cys His Asp
465 470 475
Cys Gly Trp Ile Ala Glu Cys Pro Arg Cys Asp His Tyr Tyr Thr Phe
          485 490 495
His Gln Ala Gln Arg His Leu Arg Cys His His Cys Asp Ser Gln Arg
500 505 510
Pro Val Pro Arg Gln Cys Pro Ser Cys Gly Ser Thr His Ile Val Pro
   515 520 525
Val Gly Leu Gly Thr Glu Gln Leu Glu Gln Ala Leu Ala Pro Phe Phe
 530 535 540
Pro Asp Val Pro Ile Ser Arg Ile Asp Arg Asp Thr Thr Ser Arg Lys 545 550 555 560
Gly Ala Leu Glu Gln Gln Leu Ala Glu Val His Arg Gly Gly Ala Arg
            565 570 575
Ile Leu Ile Gly Thr Gln Met Leu Ala Lys Gly His His Phe Pro Asp 580 \hspace{1.5cm} 590 \hspace{1.5cm} 590
Val Thr Leu Val Ala Leu Leu Asp Val Asp Gly Ala Leu Phe Ser Ala
 595 600 605
Asp Phe Arg Ser Ala Glu Arg Phe Ala Gln Leu Tyr Thr Gln Val Ala
 610 615 620
Gly Arg Ala Gly Arg Ala Gly Lys Gln Gly Glu Val Val Leu Gln Thr
625 630
                               635
His His Pro Glu His Pro Leu Leu Gln Thr Leu Leu His Lys Gly Tyr
                            650 655
            645
Asp Ala Phe Ala Asp Gln Ala Leu Ala Glu Arg Gln Thr Met Gln Leu
         660
                        665 670
Pro Pro Trp Thr Ser His Val Ile Ile Arg Ala Glu Asp His Asn Asn
      675
                     680 685
Gln Gln Ala Pro Leu Phe Leu Gln Gln Leu Arg Asn Leu Leu Gln Ala
 690 695
                                  700
Ser Pro Leu Val Asp Asn Gln Leu Trp Ile Leu Gly Pro Val Pro Ala
               710
                               715
Leu Ala Pro Lys Arg Gly Gly Arg Phe Arg Trp Gln Leu Leu Leu Gln
            725
                            730 735
His Pro Ser Arg Ile Arg Leu Gln Gln Ile Val Ser Gly Thr Leu Ala
                         745 750
         740
Leu Ile Asn Thr Leu Pro Glu Ala Arg Lys Val Lys Trp Val Leu Asp
                      760
Val Asp Pro Ile Glu Gly
   770
<210> 6718
<211> 109
<212> PRT
<213> Enterobacter cloacae
```

<400> 6718

Arg Tyr Leu Met Ala Giu Trp Ser Gly Glu Tyr Ile Ser Pro Tyr Ala 10 Glu His Gly Lys Lys Ser Glu Gln Val Lys Lys Ile Thr Val Ser Ile 20 25 Pro Leu Lys Val Leu Lys Ile Leu Thr Asp Glu Arg Thr Arg Arg Gln 35 40 Val Asn Asn Leu Arg His Ala Thr Asn Ser Glu Leu Leu Cys Glu Ala 55 60 Phe Leu His Ala Phe Thr Gly Gln Pro Leu Pro Asn Asp Asp Asp Leu 75 7.0

```
Arg Lys Glu Arg Ser Asp Glu Ile Pro Glu Glu Ala Lys Val Ile Met
            85
                           90
Arg Glu Leu Gly Ile Asp Pro Glu Thr Trp Glu Tyr
<210> 6719
<211> 332
<212> PRT
<213> Enterobacter cloacae
<400> 6719
Arg Thr Asn Lys Tyr Ser Glu Thr Ile Val Ala Gln Arg Asp Tyr Val
                           10
Arg Arg Gly Gln Pro Ala Pro Ser Arg Arg Lys Lys Ser Ser Ser Lys
         20
                      25
                                         30
Ser Lys Gln Arg Ser Leu Ser Ala Val Ser Pro Ala Met Val Ala Ile
      35
                 4.0
                                     45
Ala Ala Ala Val Leu Val Ala Phe Ile Gly Gly Leu Tyr Phe Ile Thr
 50
                55
                      60
His His Lys Lys Glu Glu Ser Glu Ala Leu Gln Gly Asn Lys Val Val
          70 75
Gly Asn Gly Leu Pro Pro Lys Pro Glu Glu Arg Trp Arg Tyr Ile Lys
           85 90
Glu Leu Glu Ser Arg Gln Pro Gly Val Arg Ala Pro Thr Glu Pro Ser
      100 105 110
Ala Gly Gly Glu Val Lys Asn Ala Asp Gln Leu Thr Asp Glu Gln Arg
    115 120
                                     125
Gln Leu Leu Ala Gln Met Gln Ala Asp Met Arg Gln Gln Pro Thr Gln
 130 135 140
Leu Asn Glu Val Pro Trp Asn Glu Gln Thr Pro Ala Gln Arg Gln Gln
145 150 155
Thr Leu Gln Arg Gln Arg Gln Ala Gln Gln Gln Thr Gln Gln Gln
           165 170 175
Trp Thr Gln Thr Gln Pro Val Gln Gln Pro Arg Ser Gln Pro Gln Gln
       180
                        185
                                      190
Gln Thr Arg Thr Val Gln Thr Gln Pro Val Gln Gln Gln Pro Lys Ala
     195 200 205
Gln Pro Gln Lys Gin Thr Ala Gln Pro Tyr Gln Asp Leu Leu Gln Thr
 210 215 220
Pro Ala His Thr Thr Ala Gln Gln Pro Lys Thr Gln Gln Ala Ala Pro
             230 235
Val Thr Lys Glu Thr Glu Val Pro Lys Gln Thr Ala Glu Lys Lys Asp
            245 250
Glu Arg Arg Trp Met Val Gln Cys Gly Ser Phe Lys Gly Ala Glu Gln
         260
                        265
Ala Glu Thr Val Arg Ala Gln Leu Ala Phe Glu Gly Phe Asp Ser Arg
      275
                   280
                                     285
Ile Thr Thr Asn Asn Gly Trp Asn Arg Val Val Ile Gly Pro Val Lys
                  295
                                  300
Gly Lys Glu Asn Ala Asp Gly Thr Ile Ser Arg Leu Lys Val Ala Gly
               310
                               315
                                              320
305
His Thr Asn Cys Ile Arg Leu Ala Ser Gly Gly
            325
<210> 6720
<211> 714
<212> PRT
<213> Enterobacter cloacae
```

<400> 6720

Leu Asn Gly Asp Gln His Ala Gly Leu Leu Val Leu Pro Gly Met Asp

Pro Asn Ala Cys His Leu Pro Asp Leu Arg Val Arg Ala Ile Arg Ser His His Gln Leu Tyr Gly Gln Leu Ile Val Val Val Gln Arg Gln Glu 4.5 Ile Pro Ala Leu Met Thr Met Gln Ala Phe Gln Arg Val Arg His Ala Gln Arg His Leu Arg Val Arg Leu Gln Arg Leu Pro Glu Cys Leu Leu 7.0 Glu His Val Val Phe His His Ile Ala Gln Ala Arg Gln Phe Gln Leu 85 90 Gly Gly Ile Lys Arg His Met Ser Ile Phe Pro Leu Pro Gly Phe Glu 100 105 110 Thr Ala Val Arg Met Arg Ala His Arg Gln His Arg Leu Pro Asp Ala Gln Pro Ala Lys Gln Ile Asn Arg Gly Arg Ala Asp Gly Gly Asn Thr 130 135 Tyr Val Arg Leu Ala Gly Arg Ile Glu Cys Arg Arg Ser Arg Leu Phe 145 150 155 Asn Asn Gly Tyr Val Lys Ser Leu Leu Arg Gln Pro Gln Arg Gln Cys Ala Ala Asp His Thr Ala Ala Asn Asn Gly Asn Phe Gly Val Gln Glu Cys His Gly His Tyr Ser Leu Leu Lys Asn Thr Leu Ser Leu Pro Asp Phe Cys Gly Pro Glu Val Asp Asn Leu His Thr Gly His Asn Arg Thr Lys Ala Leu Gln Tyr Ala Ala Cys Asn Pro Glu Leu Ser Lys Ser Met 225 230 235 240 Thr Lys Lys Leu His Ile Lys Thr Trp Gly Cys Gln Met Asn Glu Tyr Asp Ser Ser Lys Met Ala Asp Leu Leu Asp Thr Thr His Gly Tyr Gln Leu Thr Glu Asn Ala Lys Glu Ala Asp Val Leu Leu Leu Asn Thr Cys Ser Ile Arg Glu Lys Ala Gln Glu Lys Val Phe His Val Leu Gly Arg Trp Lys Leu Leu Lys Arg Lys Asn Pro Asp Leu Ile Ile Gly Val Gly Gly Cys Val Ala Ser Gln Glu Gly Lys Leu Ile Arg Gln Arg Ala Pro Tyr Val Asp Ile Val Phe Gly Pro Gln Thr Leu His Arg Leu Pro Glu Met Ile Asn Gln Val Arg Gly Ser Arg Ser Pro Val Val Asp Val Ser Phe Pro Glu Ile Glu Lys Phe Asp Arg Leu Pro Glu Pro Arg Ala Asp Gly Pro Thr Ala Phe Val Ser Ile Met Glu Gly Cys Asn Lys Tyr Cys Thr Tyr Cys Val Val Pro Tyr Thr Arg Gly Glu Glu Val Ser Arg Pro Ala Asp Asp Ile Leu Phe Glu Ile Ala Gln Leu Ala Ala Gln Gly Val Arg Glu Val Asn Leu Leu Gly Gln Asn Val Asn Ala Trp Arg Gly Glu Asn Tyr Asp Gly Thr Thr Gly Ser Phe Ala Glu Leu Leu Arg Leu Val Ala Ala Ile Asp Gly Ile Asp Arg Ile Arg Phe Thr Thr Ser His Pro Met Glu Phe Thr Asp Asp Ile Ile Asp Val Tyr Arg Asp Thr Pro Glu

```
Leu Val Ser Phe Leu His Leu Pro Ile Gln Cys Gly Ser Asp Arg Val
     500 505 510
Leu Asn Leu Met Gly Arg Pro His Thr Val Leu Glu Tyr Lys Ser Thr
 515 520 525
Ile Arg Lys Leu Arg Glu Ala Arg Pro Asp Ile Gln Ile Ser Ser Asp
 530 535 540
Phe Ile Val Gly Phe Pro Gly Glu Thr Ala Asp Asp Phe Glu Arg Thr
545 550 555 560
Met Lys Leu Ile Gly Glu Val Asn Phe Asp Val Ser Tyr Ser Phe Ile
565 570 575
Phe Ser Ala Arg Pro Gly Thr Pro Ala Ala Asp Met Val Asp Asp Val
        580 585 590
Pro Glu Glu Glu Lys Lys Gln Arg Leu Tyr Ile Leu Gln Glu Arg Ile
 595 600 605
Asn Gln Gln Ala Asn Ala Trp Ser Arg Arg Met Leu Gly Thr Val Gln
610 615 620
Arg Ile Leu Val Glu Gly Thr Ser Arg Lys Ser Ile Met Glu Leu Ser 625 630 635 640
Gly Arg Thr Glu Asn Asn Arg Val Val Asn Phe Glu Gly Thr Pro Asp
          645 650 655
Met Ile Gly Lys Phe Val Asp Val Glu Ile Val Glu Val Leu Thr Asn
660 665 670
Ser Leu Arg Gly Lys Val Val Arg Thr Glu Asp Glu Met Gly Leu Arg
675 680 685
Ile Ala Gln Thr Pro Glu Ser Val Ile Ser Arg Thr Arg Lys Val Asn
690 695
Asp Ser Gly Val Gly Ile Tyr Gln Pro
              710
<210> 6721
<211> 158
<212> PRT
<213> Enterobacter cloacae
<400> 6721
Thr Glu Met Ser Gln Val Ile Leu Asp Leu Gln Leu Ala Cys Glu Asp
               10 15
Asn Ser Gly Met Pro Glu Glu Ala Gln Phe Gln Lys Trp Leu Asp Ala
        20
                    25
Val Ile Pro Gln Phe Gln Glu Glu Ser Glu Val Thr Ile Arg Leu Val
35 40 45
Asp Glu Ala Glu Ser His Glu Leu Asn Leu Thr Tyr Arg Gly Lys Asp
 50 55 60
Lys Pro Thr Asn Val Leu Ser Phe Pro Phe Glu Ala Pro Pro Gly Ile
65 70 75
Glu Met Pro Leu Leu Gly Asp Leu Ile Ile Cys Arg Gln Val Val Glu
        85 90 95
Gln Glu Ala Lys Glu Gln Gln Lys Pro Leu Glu Ala His Trp Ala His
```

100 105 110 Met Val Val His Gly Ser Leu His Leu Leu Gly Tyr Asp His Ile Glu 115 120 125 Asp Asp Glu Ala Glu Glu Met Glu Ser Leu Glu Thr Glu Ile Met Leu

130 135 140 Ala Leu Gly Tyr Glu Asp Pro Tyr Ile Ala Glu Lys Glu 145 150 155

<sup>&</sup>lt;210> 6722 <211> 321

<sup>&</sup>lt;212> PRT <213> Enterobacter cloacae

```
<400> 6722
Ser Val Thr Asp Tyr His Ala Ala Ala Gln Gly His Ser Ala Ala Val
                             10
Asn Val Glu Leu Thr Arg Glu Pro Leu Thr Asn Ala Met Ser Asp Asp
                         25
Asn Ser His Ser Ser Asp Thr Thr Thr Thr Lys Lys Gly Phe Phe Ser
                      4.0
Leu Ile Leu Asn Gln Leu Phe His Gly Glu Pro Lys Asn Arg Asp Glu
                 55
Leu Leu Glu Leu Ile Arg Asp Ser Gly Gln Asn Asp Leu Ile Asp Glu
               70
                         75
Asp Thr Arg Glu Met Leu Glu Gly Val Met Asp Ile Ala Asp Gln Arg
                90
           8.5
Val Arg Asp Ile Met Ile Pro Arg Ser Gln Met Ile Thr Leu Lys Arg
       100
                        105
Asn Gln Thr Leu Asp Glu Cys Leu Asp Val Ile Ile Glu Ser Ala His
   115 120 125
Ser Arg Phe Pro Val Ile Ser Glu Asp Lys Asp His Ile Glu Gly Ile
 130 135 140
Leu Met Ala Lys Asp Leu Leu Pro Phe Met Arg Ser Asp Ala Glu Ala
   150 155
Phe Ser Met Glu Lys Val Leu Arg Pro Ala Val Val Pro Glu Ser
           165 170
Lys Arg Val Asp Arg Met Leu Lys Glu Phe Arg Ser Gln Arg Tyr His
                        185 190
       180
Met Ala Ile Val Ile Asp Glu Phe Gly Gly Val Ser Gly Leu Val Thr
                     200
                                      205
Ile Glu Asp Ile Leu Glu Leu Ile Val Gly Glu Ile Glu Asp Glu Tyr
 210
                  215
                                  220
Asp Glu Glu Glu Asp Ile Asp Phe Arg Gln Leu Ser Arg His Thr Trp
              230
                             235
Thr Val Arg Ala Leu Ala Ser Ile Glu Asp Phe Asn Asp Thr Phe Gly
           245 250
Thr Ser Phe Ser Asp Glu Glu Val Asp Tnr Ile Gly Gly Leu Val Met
         260
                         265
Gln Ala Phe Gly His Leu Pro Ala Arg Gly Glu Thr Val Asp Ile Asp
     275 280
                                      285
Gly Tyr Gln Phe Lys Val Ala Met Ala Asp Ser Arg Arg Ile Ile Gln
290 295
                                   300
Val His Val Arg Met Pro Asp Asp Ser Pro Val Pro Lys Leu Glu Asp
                               315
```

```
<210> 6723
<211> 409
<212> PRT
<213> Enterobacter cloacae
```

<400> 6723
Val Phe Thr Ser Arg Asp Pro Pro Gly Leu Pro Val Arg Gln Ala Leu
1
1
1
1
1
1
1
1
1
5
1
1
1
1
1
5
1
1
1
1
7
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1

```
Gly Ile Glu Ile Asn Arg Arg Asp Asn His Phe Lys Leu Thr Gly Arg
       100
                      105
Pro Ile Cys Val Asn Ala Ala Ala Asp Ile Leu Arg Ser Leu Tyr Val
     115
        120
Asp Thr Ala Pro Met Arg Gly Glu Ile Gln Asp Ile Glu Pro Glu Gln
 130 135 140
Ile His Leu Ala Ile Lys Glu Ala Arg Val Leu Glu Gln Ser Ala Glu
    150 155 160
Ser Val Pro Asp Tyr Gly Lys Ala Ile Asn Ile Lys Thr Lys Arg Gly
      165 170 175
Val Ile Lys Pro Arg Thr Pro Asn Gln Ala Gln Tyr Ile Ala Asn Ile
       180 185 190
Leu Asp His Asp Ile Thr Phe Gly Val Gly Pro Ala Gly Thr Gly Lys
    195 200 205
Thr Tyr Leu Ala Val Ala Ala Ala Val Asp Ala Leu Glu Arg Gln Glu
210 215 220
Ile Arg Arg Ile Leu Leu Thr Arg Pro Ala Val Glu Ala Gly Glu Lys
225 230 235 240
Leu Gly Phe Leu Pro Gly Asp Leu Ser Gln Lys Val Asp Pro Tyr Leu
        245 250 255
Arg Pro Leu Tyr Asp Ala Leu Phe Glu Met Leu Gly Phe Glu Lys Val
      260 265 270
Glu Lys Leu Ile Glu Arg Asn Val Ile Glu Val Ala Pro Leu Ala Tyr
275 280
Met Arg Gly Arg Thr Leu Asn Asp Ala Phe Ile Ile Leu Asp Glu Ser
290 295 300
Gln Asn Thr Thr Ile Glu Gln Met Lys Met Phe Leu Thr Arg Ile Gly
305 310 315
Phe Asn Ser Lys Ala Val Ile Thr Gly Asp Val Thr Gln Ile Asp Leu
          325 330 335
Pro Arg Asn Thr Lys Ser Gly Leu Arg His Ala Ile Glu Val Leu Ala
 340
           345 350
Glu Val Glu Glu Ile Ser Phe Asn Phe Phe His Ser Glu Asp Val Val
355 360 365
Arg His Pro Val Val Ala Arg Ile Val Asn Ala Tyr Glu Ala Trp Glu
370 375 380
Glu Ala Asp Gln Lys Arg Arg Ala Glu Leu Ala Ala Glu Arg Lys Arg
           390
Glu Ala Gln Glu His Glu Gln Lys
           405
```

<210> 6724 <211> 256 <212> PRT <213> Enterobacter cloacae

Ser Val Pro Phe Ser Tyr Tyr Asp Asn Thr Gin Lys Val Val Gly Tyr 85 90 95 Ser Gin Asp Tyr Ser Asn Ala Ile Val Glu Ala Val Lys Lys Lys Leu

```
105
Asn Lys Pro Asp Leu Gln Val Lys Leu Ile Pro Ile Thr Ser Gln Asn
     115
                    120
                                      125
Arg Ile Pro Leu Gln Asn Gly Thr Phe Asp Phe Glu Cys Gly Ser
                   135
                                   140
Thr Thr Asn Asn Leu Glu Arg Gln Lys Gln Ala Ala Phe Ser Asp Thr
             150
                               155
Ile Phe Val Val Gly Thr Arg Leu Leu Thr Lys Lys Gly Gly Asp Ile
            165
                    170
Lys Asp Phe Ala Asp Leu Lys Gly Lys Ala Val Val Thr Ser Gly
        180
                        185
Thr Thr Ser Glu Val Leu Leu His Lys Leu Asn Asp Glu Lys Lys Met
                200
                             205
   195
Asp Met Arg Ile Ile Ser Ala Lys Asp His Gly Asp Ser Phe Arg Thr
 210 215
                          220
Leu Glu Ser Gly Arg Ala Val Ala Phe Met Met Asp Asp Ala Leu Leu
225 230 235
Ala Gly Glu Arg Ala Lys Ala Lys Lys Pro Asp Asn Trp Glu Ile Val
             245
<210> 6725
<211> 513
<212> PRT
<213> Enterobacter cloacae
<400> 6725
Met Ala Phe Ala Pro Leu Val Glu Arg Gln Arg Val Arg Leu Leu Leu
                       10
Ala Leu Leu Gly Ala Ser Gly Thr Leu Ala Phe Ser Pro Tyr Asp
20
                   25
                                    30
Ile Trp Pro Ala Ala Ile Leu Ser Leu Met Gly Leu Gln Gly Leu Thr
35
                     40
                                    4.5
Leu Asn Arg Arg Pro Val Gln Ala Ala Ala Ile Gly Tyr Phe Trp Gly
            5.5
                                   60
Leu Gly Leu Phe Gly Ser Gly Ile Asn Trp Val Tyr Val Ser Ile Ala
               70
                               75
Gln Phe Gly Gly Met Pro Gly Pro Val Asn Val Phe Leu Val Val Leu
           85 90 95
Leu Ala Ala Tyr Leu Ser Leu Tyr Thr Gly Leu Phe Ala Gly Ile Leu
         100
                         105
                                         110
Ser Arg Leu Trp Pro Lys Thr Thr Trp Leu Arg Val Ala Ile Ala Ala
     115 120
Pro Val Val Trp Gln Ile Thr Glu Phe Leu Arg Gly Trp Val Leu Thr
                                   140
Gly Phe Pro Trp Leu Gln Pne Gly Tyr Ser Gln Val Asp Gly Pro Leu
      150
                               155
Lys Gly Leu Ala Pro Val Met Gly Val Glu Ala Ile Asn Phe Leu Leu
            165
                            170
Met Ile Val Ser Gly Leu Leu Val Leu Ala Leu Val Thr Arg Asn Trp
         180
                         185
Lys Pro Leu Val Ala Ala Leu Ile Leu Phe Ala Leu Pro Phe Pro Leu
      195
                      200 205
Arg Tyr Ile Gln Trp Phe Thr Leu Glu Pro Ala Arg Ala Thr Gln Val
                215
                                   220
   210
Ser Leu Val Gln Gly Asp Ile Pro Gln Ser Leu Lys Trp Asp Glu Asn
                230
                                235
Gln Leu Leu Asn Thr Leu Lys Ile Tyr Ala Asn Ala Thr Glu Lys Val
        245
                            250 255
Met Gly Lys Ser Gln Leu Ile Ile Trp Pro Glu Ser Ala Ile Pro Asp
         260
                         265 270
```

Leu Glu Ile Asn Gln Gln Pro Phe Leu Lys Met Met Asp Asp Leu Leu

275 280 285 Arg Ala Arg Gly Ser Thr Leu Ile Thr Gly Ile Val Asp Ala Arg Leu 295 300 Asn Gln Gln Asn Arg Tyr Asp Thr Tyr Asn Thr Ile Ile Thr Leu Gly 305 310 315 Lys Gly Ser Glu Tyr Ser Tyr Thr Ser Thr Asn Arg Tyr Asn Lys Asn 325 330 335 His Leu Val Pro Phe Gly Glu Phe Val Pro Leu Glu Ser Ile Leu Arg 340 345 350 Pro Leu Ala Pro Phe Phe Asp Leu Pro Met Ser Ser Phe Ser Arg Gly 355 360 365 Pro Tyr Val Gln Pro Gln Leu His Ala His Gly Phe Ala Leu Thr Ala 370 375 380 Ala Ile Cys Tyr Glu Ile Ile Leu Gly Glu Gln Val Arg Asp Asn Phe 390 395 Arg Pro Asp Thr Asp Tyr Leu Leu Thr Ile Ser Asn Asp Ala Trp Phe 405 410 415 Gly Lys Ser Ile Gly Pro Trp Gln His Phe Gln Met Ala Arg Met Arg 420 425 430 Ser Leu Glu Leu Ala Arg Pro Leu Leu Arg Ser Thr Asn Asn Gly Ile 440 Thr Ala Val Ile Gly Pro Glr Gly Glu Ile Gln Ala Met Ile Pro Gln 455 460 Phe Thr Arg Glu Val Leu Ser Thr Asn Val Thr Pro Thr Thr Gly Leu 465 470 475 Thr Pro Tyr Ala Arg Thr Gly Asn Trp Pro Leu Trp Ile Leu Thr Val 490 495 485 Leu Phe Gly Phe Gly Ala Val Leu Met Ser Leu Arg Gln Arg Arg Lys 500 505

<210> 6726 <211> 396 <212> PRT

<213> Enterobacter cloacae

<400> 6726 Gly Ile Val Thr Met Thr Leu Leu Asn Thr Glu Val Ala Val Val Gly 10 Gly Gly Met Val Gly Gly Ala Leu Ala Leu Gly Leu Ala Gln Gln Gly Phe Asp Val Thr Val Ile Glu Gln Ala Ala Pro Pro Ala Phe Asp Pro 40 Ala Ser Gln Pro Asp Val Arg Ile Ser Ala Ile Ser Ala Ala Ser Val 55 60 Asp Leu Leu Arg Gly Leu Gly Val Trp Glu Ala Val Leu Ala Met Arg 7.0 75 Ala His Pro Tyr Ser Arg Leu Glu Thr Trp Glu Trp Glu Asn Ala His 90 Val Ser Phe Asp Ala Ala Glu Leu Lys Leu Pro Arg Leu Gly Tyr Met 105 110 100 Val Glu Asn Asn Val Leu Gln Gln Ala Leu Trp Gln Ala Leu Glu Ala 120 125 115 His Pro Lys Val Thr Leu Arg Val Pro Asp Ser Leu Lys Gly Leu His 135 140 130 Arg His Glu Gly Gly Tyr Leu Leu Thr Leu Asp Asn Asn Asp Glu Leu 150 155 Ala Val Lys Leu Val Val Gly Ala Asp Gly Ala Asn Ser Gln Val Arg 165 170 175 Gln Met Ala Gly Ile Gly Ile His Ala Trp Gln Tyr Gln Gln Ser Cys

```
185
                                    190
Met Leu Ile Thr Val Gln Ser Glu Asn Ala Pro Gly Glu Ser Thr Trp
   195
              200
                       205
Gln His Phe Thr Pro Asn Gly Pro His Ala Phe Leu Pro Leu Phe Asp
210
             215 220
Asn Trp Ala Ser Leu Val Trp Tyr Asp Lys Pro Ala Arg Ile Arg Gln
225 230 235
Leu Gln Gly Leu Ser Met Asp Gln Leu Gln Arg Glu Ile Arg Gln His
       245 250 255
Phe Pro Ser Arg Leu Gly Asn Val Thr Pro Val Ala Ala Gly Ala Phe
  260 265 270
Pro Leu Met Arg Arg His Ala Leu Gln Tyr Ala Arg Glu Gly Leu Val
                  280 285
Leu Val Gly Asp Ala Ala His Thr Ile His Pro Leu Ala Gly Gln Gly
290 295 300
Val Asn Leu Gly Tyr Arg Asp Val Asp Ala Leu Leu Asp Val Leu Gly
305 310 315
Asn Ala Arg Ala His Ala Glu Ala Trp Ala Ser His Gln Val Leu Lys
          325 330
Arg Tyr Gln Thr Arg Arg Met Ala Asp Asn Phe Ile Met Gln Ser Gly
   340 345 350
Met Asp Leu Phe Tyr Ala Gly Phe Ser Asn Asp Val Gly Pro Val Arg
355 360
                        365
Ile Val Arg Asn Ile Gly Leu Met Ala Ala Glu Arg Ala Gly Gly Leu
370 375 380
Lys Arg Gln Ala Leu Lys Tyr Ala Leu Gly Leu
```

<210> 6727 <211> 99 <212> PRT

Ile Thr

<213> Enterobacter cloacae

<210> 6728 <211> 82 <212> PRT <213> Enterobacter cloacae

Ser Asn Gln Gly Met Pro Val Ser Lys Thr Gly Ala Leu Pro Leu Gly 5.5 Asp Thr Pro Ser Val Gln Arg Leu Pro Gly Asn Gly Ala Gly Glu 7.0 75 Thr <210> 6729 <211> 82 <212> PRT <213> Enterobacter cloacae <400> 6729 Ser Lys Lys Tyr Gly Trp Gly Thr Trp Ile Arg Thr Arg Glu Cys Arg 10 Tyr Gln Lys Pro Val Pro Tyr Arg Leu Ala Ile Pro His Pro Cys Asn 2.0 25 Ala Tyr Leu Gly Met Val Arg Glu Ala Arg Leu Glu Leu Ala His Leu 35 40 45 Ala Ala Pro Glu Pro Lys Ser Gly Ala Ser Thr Asn Phe Ala Thr Pro 55 60 Ala Lys Lys Met Val Ala Thr Thr Gly Phe Glu Pro Val Thr Pro Ser 65 Leu <210> 6730 <211> 126 <212> PRT <213> Enterobacter cloacae <400> 6730 Val Met Cys Ser Asn Gln Leu Ser Tyr Val Ala Ser Thr Ala Ile Phe 1.0 Asp Gly Trp Gly Thr Trp Ile Arg Thr Arg Glu Cys Arg Tyr Gln Lys 20 25 Pro Val Pro Tyr Arg Leu Ala Ile Pro Gln Tyr Arg Gly Glu Pro His 35 40 Asp Arg Arg Asn Met Ala Gly Val Pro Gly Phe Glu Pro Gly Asn Ala 55 Gly Ile Lys Asn Arg Cys Leu Thr Ala Trp Arg Tyr Pro Ile Arg Ala 70 65 75 8.0 Thr Leu Thr Trp Glu Trp Cys Gly Arg Arg Asp Leu Asn Ser His Thr 85 90 Leu Arg Arg Gln Asn Leu Asn Leu Val Arg Leu Pro Ile Ser Pro Leu 100 105 Pro Gln Lys Arg Trp Trp Leu Arg Arg Asp Ser Asn Leu 120 <210> 6731 <211> 196 <212> PRT <213> Enterobacter cloacae <400> 6731 Phe Phe Cys Arg Lys Tyr Trp Val Lys Asn Met Gln Ile Gly Tyr Val 10 Arg Val Ser Thr Asn Asp Gln Asn Thr Asp Leu Gln Arg Gln Ala Leu

Glu Arg Ala Gly Cys Glu Gln Val Phe Glu Glu Lys Met Ser Gly Thr

```
Val Ala Asn Arg Pro Ala Leu Lys Lys Leu Leu Gln Thr Leu Asn Glu
  5.0
                     5.5
                                       60
Gly Asp Thr Leu Val Val Trp Lys Leu Asp Arg Leu Gly Arg Ser Met
                 7.0
                                    75
Arg Asn Leu Val Leu Leu Val Asp Glu Leu Arg Gln Arg Gly Ile His
            85
                                90
Phe Lys Ser Leu Thr Asp Ser Ile Asp Thr Ser Ser Pro Met Gly Arg
         100 105 110
Phe Ile Phe His Ile Met Ser Ala Leu Ala Glu Met Glu Arg Glu Leu
       115 120
Ile Val Glu Arg Thr Arg Ala Gly Leu Ala Ala Arg Glu Lys Gly
 130 135 140
Arg Ile Gly Gly Arg Arg Pro Lys Leu Thr Pro Glu Gln Trp Ala Gln
                 150
                                   155
Ala Gly Arg Leu Ile Ala Asn Gly Val Asp Arg Lys Gln Val Ala Ile
             165
                                170 175
Ile Tyr Asp Val Ala Val Cys Thr Leu Tyr Lys Lys Phe Pro Ala Ser
                            185
Lys Pro Ala
      195
<210> 6732
<211> 167
<212> PRT
<213> Enterobacter cloacae
<400> 6732
Thr Val Ala Thr Thr Lys Val Tyr Cys Ala Leu Thr Glu Thr Lys Leu
Leu Tyr Ile Lys Thr Val Leu Glu Val Cys Val Met Glu Phe Ile Arg
           20
                             25
                                                30
Pro Thr Glu Leu Arg Glu Ile Ile Ala Ile Pro Leu Tyr Ser Asp Leu
      35
                         4.0
Val Gln Cys Gly Phe Pro Ser Pro Ala Ala Asp Tyr Val Glu Gln Arg
                     55
                                        60
Ile Asp Leu Asn Glu Leu Leu Val Ser His Pro Ser Ser Thr Tyr Phe
                  70
65
Val Lys Ala Ala Gly Asp Ser Met Ile Glu Ala Gly Ile Ser Asp Gly
              85
                                 90
Asp Leu Leu Val Val Asp Ser Ser Arg Thr Val Glu His Gly Asp Ile
                             105
                                               110
Val Ile Ala Ala Val Asp Gly Glu Phe Thr Val Lys Arg Leu Gln Leu
                         120
       115
                                            125
Arg Pro Thr Val Gln Leu Asn Pro Met Asn Gly Ala Tyr Ser Pro Ile
                     135
   130
                                        140
Val Val Gly Ser Glu Asp Thr Leu Asp Val Phe Gly Val Val Thr Phe
                  150
145
                                     155
                                                       160
Ile Val Lys Ser Ala Ser
              165
<210> 6733
<211> 177
<212> PRT
<213> Enterobacter cloacae
<400> 6733
Gly Ser Phe Gln Pro Arg Gly Glu Asp Trp Ser Met Asp Phe Val Met
                                 10
Asp Ala Leu Ser Thr Gly Arg Arg Ile Lys Cys Leu Thr Cys Val Asp
```

25 Asp Phe Thr Lys Glu Cys Leu Thr Val Thr Val Ala Phe Gly Ile Ser

```
40
Gly Val Gln Val Thr Arg Ile Leu Asp Ser Ile Ala Leu Phe Arg Gly
               55
                                60
Tyr Pro Ala Thr Ile Arg Thr Asp Gln Gly Pro Glu Phe Thr Cys Arg
           70
                             75
Ala Leu Asp Gln Trp Ala Phe Glu His Gly Val Glu Leu Arg Leu Ile
         85
               90 95
Gln Pro Gly Lys Pro Thr Gln Asn Gly Phe Ile Glu Ser Phe Asn Gly
     100 105 110
Arg Phe Arg Asp Glu Cys Leu Asn Glu His Trp Phe Ser Asp Ile Val
  115 120 125
His Ala Arg Lys Ile Ile Asn Asp Trp Arg Gln Asp Tyr Asn Glu Cys
 130 135 140
Arg Pro His Ser Thr Leu Asn Tyr Gln Thr Pro Ser Glu Phe Ala Ala
145 150 155 160
Gly Trp Arg Lys Gly His Ser Glu Asn Glu Asp Ser Asp Val Thr Asn
           165
```

```
<210> 6734
<211> 215
<212> PRT
<213> Enterobacter cloacae
<400> 6734
Ser Ser Glu Ala Leu Met Asn Gln Thr Gln Phe Gln Lys Ala Ala Gly
                               10
Ile Ser Ala Gly Leu Ser Ala Arg Trp Phe Pro His Ile Asp Ala Ala
          20
                            25
                                             30
Met Lys Glu Tyr Gly Ile Thr Thr Pro Leu Asp Gln Ala Met Phe Ile
                        40
                                        4.5
35
Ala Gln Met Gly His Glu Ser Thr Arg Phe Thr Arg Val Val Glu Asn
5.0
                     5.5
                                       60
Leu Asn Tyr Ala Ala Glu Asn Leu Val Pro Thr Phe Gly Ser His Arg
                 7.0
                                   7.5
Ile Thr Pro Gln Gln Ala Ala Ala Leu Gly Arg Thr Ala Ala His Pro
                               90
             8.5
Ala Asn Gln Lys Ala Ile Ala Asn Leu Val Tyr Gly Gly Glu Trp Gly
                            105
          100
                                              110
Lys Glu His Leu Gly Asn Gln Val Ala Gly Asp Gly Trp Lys Tyr Arg
      115
                        120
                                          125
Gly Arg Gly Leu Lys Gln Val Thr Gly Leu Ser Asn Tyr His Ser Cys
                     135
                                       140
Gly Tyr Ala Leu Lys Leu Asp Leu Val Thr His Pro Glu Leu Leu Glu
          150
                                   155
                                          160
Gln Asp Glu Tyr Ala Ala Arg Ser Ala Ala Trp Phe Tyr Ala Ser Arg
             165
                                170
Gly Cys Leu Leu His Ser Gly Asp Val Glu Arg Val Thr Leu Leu Ile
          180
                        185
                                              190
Asn Gly Gly Arg Asn Gly Leu Asp Lys Arg Arg Glu Leu Phe Asn Leu
       195
Ala Lys Ser Val Leu Val
   210
                     215
```

<210> 6735

<211> 341

<212> PRT

<213> Enterobacter cloacae

<400> 6735

```
Gly Arg Phe Phe Ile Gly Val Tyr Met Ala Lys Pro Asp Trp Gly Glu
                            10
Leu Gln Gln Arg Phe Leu Ser Glu His Ala Ala Thr Gly Val Ser Pro
        20
                         25
Lys Glu Trp Cys Glu Ala Gln Gly Leu Asn Tyr Ala Thr Ala Arg Arg
      35
                     40
Tyr Ile Lys Lys Pro Ser Ala Gln Ser Val Gln Lys Ser Ala Gln Lys
  50
       5.5
                                  60
Lys Val Arg Thr Ala Gln Lys Glu Gln Ser Ala Glu Glu Leu Val Asp
         7.0
                              7.5
Asp Asp Gly Leu Thr Ala Gln Gln Arg Arg Phe Val Ala Glu Tyr Leu
                90
                                         95
         8.5
Lys Asp Gly Asn Ala Thr Gln Ala Ala Ile Arg Ala Gly Tyr Ser Lys
        100 105 110
Lys Ser Ala Glu Gln Ile Gly Tyr Gln Leu Leu Gln Lys Thr Ser Val
115 120 125
Ala Gln Ala Ile Ala Gln Gln Gln Lys Ala Ser Ile Ala Arg Thr Leu
 130 135 140
Gly Ser Ala Asp Glu Val Leu Ala Gln Met Trp Gln Leu Ala Thr Phe
145 150 155 160
Asp Ala Asn Gln Leu Ser Gln Tyr Arg Arg Gly Ala Cys Arg Tyr Cys
          165 170 175
Trp Gly Phe Gly His His Tyr Gln Trp Arg Asp Ala Val Glu Phe Glu
        180
                        185
Glu Lys Arg Leu Glu Ala Val Glu Arg Asp Arg Arg Glu Pro Glu Asp
 195
                     200
Ser Gly Gly Tyr Gly Tyr Asp His Asn Arg Glu Pro Asn Pro Glu Cys
 210
         215
                                  220
Pro Arg Cys Asn Gly Asp Gly Ile Gly Gln Pro Tyr Phe Pro Asp Thr
              230
                               235
Arg Lys Leu Pro Ala Val Ser Arg Leu Ala Tyr Ser Gly Val Lys Val
            245
                            250 255
Gly Lys Asn Gly Val Glu Ile Thr Ala Ile Ser Arg Glu Arg Met Phe
                             270
        260
                         265
Glu Ala Val Met Lys Arg Leu Gly Leu Ala Asp Ser Glu Phe Ala Gln
     275
                     280 285
Arg Leu Gln Gln Ile Glu Ile Asp Arg Arg Leu Leu Glu Val Glu Lys
                  295 300
  290
Leu Arg Lys Glu Leu Ala Gly Asp Gly Asp Asp Asp Glu Pro Thr Pro
                     315
305
               310
Val Gln Ile Asn Ile Asn Val Val Asp Ala Arg Ala Glu Asp Gly Asp
                            330
Gln Pro Asp Thr
```

<210> 6736

<211> 433

<212> PRT

<213> Enterobacter cloacae

340

<400> 6736

```
Ser Ser Asn Tyr Glu Leu Tyr Ala Asp Met Ser Asn Arg Val Met Thr
           85
                            90
Thr Leu Glu Glu Met Ser Pro Arg Val Glu Ile Tyr Ser Ile Asp Glu
       100
                        105
Ala Phe Cys Asp Leu Thr Gly Val Arg Ser Cys Arg Asp Leu Thr Asp
     115
                    120
                                     125
Phe Gly Lys Glu Ile Arg Ala Thr Val Leu Lys Arg Thr His Leu Thr
             135
                                  140
Val Gly Val Gly Ile Ala Gln Thr Lys Thr Leu Ala Lys Leu Ala Asn
             150 155 160
His Ala Ala Lys Lys Trp Gln Arg Gln Thr Gly Gly Val Val Asp Leu
         165 170 175
Ser Asn Ile Asp Arg Gln Arg Arg Leu Leu Ala Ile Val Pro Val Glu
       180 185 190
Asp Val Trp Gly Val Gly Arg Arg Ile Ile Lys Lys Leu Asn Ala Met
 195 200 205
Gly Ile Lys Thr Ala Leu Asp Leu Ser Glu Gln Ser Thr Trp Ile Ile
210 215 220
Arg Lys His Phe Asn Val Val Leu Glu Gly Thr Val Arg Glu Leu Arg
225 230 235 240
Gly Glu Pro Cys Leu Glu Leu Glu Glu Phe Ala Pro Ser Lys Gln Glu
   245 250 255
Ile Val Cys Ser Arg Ser Phe Gly Glu Arg Val Thr Glu Tyr Glu Gln 260 \hspace{1cm} 265 \hspace{1cm} 270 \hspace{1cm}
Met Arg Gln Ala Ile Cys Ser Tyr Ala Ala Arg Gly Ala Glu Lys Leu
275 280 285
Arg Gly Glu His Gln Tyr Cys Arg Phe Ile Ser Ala Phe Val Lys Thr
290 295 300
Ser Pro Phe Ala Leu Asn Glu Pro Tyr Tyr Gly Asn Ser Ala Ser Met
305 310
                             315 320
Lys Leu Leu Thr Pro Thr Gln Asp Thr Arg Asp Ile Phe Asn Ala Ala
           325 330 335
Val Lys Cys Leu Asp Lys Ile Trp Lys Asp Gly His Arg Tyr Gln Lys
        340 345 350
Ala Gly Ile Met Leu Gly Asp Phe Phe Ser Gln Gly Val Ala Gln Leu
                     360 365
Asn Leu Phe Asp Glu Asn Ala Pro Arg Ala Gly Ser Glu Arg Leu Met
370 375 380
Glu Val Leu Asp His Leu Asn Ala Lys Asp Gly Lys Gly Thr Leu Tyr 385 390 395 400
Phe Ala Gly Gln Gly Ile Gln Gln Trp Gln Met Lys Arg Ser Met
       405 410 415
Leu Ser Pro Arg Tyr Thr Thr Arg Phe Ser Asp Leu Leu His Val Arg
```

```
<210> 6737
<211> 120
<212> PRT
<213> Enterobacter cloacae
```

420

<400> 6737

Thr Ser Leu Ala Ala Trp Pro Gly Asp Met Leu Arg Arg Leu Met Val 1 5 10 15
Arg Met Glu Lys Gly Arg Arg Gln Glu Thr Ala Leu Leu His Ser Pro 20 25 30
Ser Arg Arg Asp Ala Glu Gly Phe Leu Ile Val Thr Ser Ala Ala Asp 35 40 45
Lys Gly Leu Val Asp Ile His Asp Arg Arg Pro Leu Val Leu Ser Pro 50

```
Glu Val Ala Leu Glu Trp Met Arg Gln Asp Val Gly Gly Lys Lys Ala
Glu Glu Leu Ala Ser Asp Gly Val Val Pro Thr Glu Lys Phe Ile Trp
             8.5
                                   90
His Ala Ile Ser Arg Ala Val Gly Asn Thr Ala Asn Asn His Phe Ser
          100
                              105
Leu Ile Glu Ser Ile Asn Leu
<210> 6738
<211> 212
<212> PRT
<213> Enterobacter cloacae
<400> 6738
Asn Val Gly Leu Gly Ser Ser Ala Thr Lys Asp Val Gly Thr Asp Ser
                                   10
Gly Asn Val Met Gln Val Gly Ala Phe Gly Val Gly Thr Tyr Gln Ala
                               25
                                                   3.0
Pro Arg Pro Asn Asp Ala Asn Ser Ser Phe Ile Ser Asp Ala Asp Gly
                          4.0
                                              4.5
Asn Thr Ser Trp Ala Pro Ala Asn Gly Cys Gly Tyr Gln Ser Ser Tyr
                    55
Asn Thr Gln Arg Ile Ala Gln Met Trp Val Thr Thr Gly Gly Ala Gly
                   7.0
                                       7.5
Tyr Cys Arg Phe Leu Leu Asn Thr Asn Pro Gln Thr Ala Lys Thr Asp
               8.5
                                   90
Ala Pro Trp Thr Val Phe Gln Ser Ala Gly Thr Ser Asp Ile Asn Phe
                               105
Lys Lys Val Thr Gly Asp Leu Asp Leu Asn Glu Ser Leu Ser Asn Ile
                           120
       115
Ala Ala Met Asp Phe Lys Thr Phe Tyr Tyr Leu Ala Asp Glu Asp Lys
                       135
                                          140
Val Ile Arg Arg Gly Val Ile Ala Gln Glu Leu Glu Lys Ile Asp Pro
                   150
                                       155
Gln Tyr Val His Ser Ala Glu Glu Ser Gly Lys Met Thr Leu Asp Leu
                    170
               165
Asn Pro Leu Val Leu Asp Ala Leu Ala Ala Ile Lys Ala Leu Thr Ile
           180
                               185
                                                   190
Arg Val Arg Glu Leu Glu Asn Glu Ala Gln Ala Val Val Pro Val Ser
       195
                          200
Ser Ala Asp
   210
<210> 6739
<211> 106
<212> PRT
<213> Enterobacter cloacae
<400> 6739
Leu Glu Val Ser Met Cys Gly Arg Phe Ala Gln Ala Gln Thr Arg Glu
Glu Tyr Leu Val Tyr Leu Ala Asp Glu Ala Asp Arg Asp Ile Ala Tyr
                               25
Asp Pro Glu Pro Ile Gly Arg Tyr Asn Val Ala Pro Gly Thr Lys Val
        35
                           40
                                               4.5
Leu Leu Leu Ser Glu Arg Asp Glu Gln Leu His Leu Asp Pro Val Leu
                       55
                                           60
Trp Ser Tyr Ala Pro Gly Trp Trp Asp Lys Pro Pro Leu Ile Asn Ala
                   70
                                       7.5
```

Arg Ile Glu Thr Thr Ala Thr Ser Arg Met Phe Lys Pro Leu Trp Gln

95 His Gly Arg Ala Ile Cys Phe Ala Asp 100 <210> 6740 <211> 382 <212> PRT <213> Enterobacter cloacae <400> 6740 Ser Lys Arg Ile Asp Val Lys Val Leu Thr Val Phe Gly Thr Arg Pro 10 Glu Ala Ile Lys Met Ala Pro Leu Val His Ala Leu Ala Arg Asp Pro 20 25 30 Asp Ile Glu Ala Lys Val Cys Val Thr Ala Gln His Arg Glu Met Leu 35 40 45 Asp Gln Val Leu Thr Leu Phe Ser Ile Val Pro Asp Tyr Asp Leu Asn 55 60 Ile Met Lys Pro Gly Gln Gly Leu Thr Glu Ile Thr Cys Arg Ile Leu 70 75 Gln Glu Leu Lys Pro Ile Leu Glu Ser Phe Lys Pro Asp Val Val Leu 85 90 95 Val His Gly Asp Thr Thr Thr Thr Val Ala Thr Ser Leu Ala Ala Phe 100 105 Tyr Gln Arg Ile Pro Val Gly His Ile Glu Ala Gly Leu Arg Thr Gly 115 120 125 Asn Leu Tyr Ser Pro Trp Pro Glu Glu Ala Asn Arg Thr Leu Thr Gly 130 135 140 His Leu Ala Met Tyr His Phe Ala Pro Thr Glu Asn Ser Arg Gln Asn 145 150 155 Leu Leu Arg Glu Asn Ile Ser Asp Ser Lys Ile Phe Val Thr Gly Asn 165 170 175 Thr Val Ile Asp Ala Leu Ile Trp Val Arg Asp Arg Val Leu Ala Asn 180 185 190 Ser Glu Leu Gln Ala Glu Leu Ala Ala Arg Tyr Pro Phe Leu Asn Asn 195 200 205 Gly Lys Lys Thr Ile Leu Val Thr Gly His Arg Arg Glu Ser Phe Gly 210 215 220 Arg Gly Phe Glu Gln Ile Cys His Ala Leu Ala Glu Ile Ala Ala Gln 225 230 235 240 Asn Glu Asp Val Gln Ile Val Tyr Pro Val His Leu Asn Pro Asn Val 245 250 255 Ser Glu Pro Val Asn Arg Ile Leu Gly His Val Glu Asn Val Leu Leu 260 265 270 Ile Glu Pro Gln Asp Tyr Leu Pro Phe Val Trp Leu Met Asn His Ala 275 280 285 Trp Leu Ile Leu Thr Asp Ser Gly Gly Ile Gln Glu Glu Ala Pro Ser 295 300 Leu Gly Lys Pro Val Leu Val Met Arg Glu Thr Thr Glu Arg Pro Glu 310 315 Ala Val Thr Ala Gly Thr Val Arg Leu Val Gly Thr Asp Pro Arg Arg 325 330 335 Ile Val Glu Glu Val Thr Arg Leu Leu His Asp Asp Glu Glu Tyr Gln 345 340 350 Ala Met Ser Arg Ala His Asn Pro Tyr Gly Asp Gly Gln Ala Cys Gly 365 355 360 Arg Ile Leu His Ala Leu Lys His Asn Arg Val Thr Leu 370 375

<210> 6741 <211> 422 <212> PRT <213> Enterobacter cloacae

<400> 6741 Val Ile Ser Pro Asp Met Ser Leu Ala Lys Ala Ser Val Trp Thr Ala Ala Ser Thr Leu Val Lys Ile Gly Ala Gly Leu Leu Val Val Lys Leu 20 Leu Ala Val Ser Phe Gly Pro Ser Gly Val Gly Leu Ala Gly Asn Phe 35 40 Arg Gln Leu Val Thr Val Leu Gly Val Leu Ala Gly Ala Gly Ile Phe 50 55 60 Asn Gly Val Thr Lys Tyr Val Ala Gln His His Asp Asp Ala Glu Lys 70 75 Leu Arg Thr Val Val Gly Thr Ser Ser Ala Met Val Leu Gly Phe Ser 85 90 Thr Leu Leu Ala Val Val Phe Leu Leu Ala Ala Ala Pro Ile Ser Gln 100 105 110 Gly Leu Phe Gly His Thr His Tyr Gln Gly Leu Val Arg Leu Val Ala 115 120 125 Leu Val Gln Met Gly Ile Ala Trp Ala Asn Leu Leu Leu Ala Leu Met 130 135 140 Lys Gly Phe Arg Asp Ala Ala Gly Asn Ala Leu Ala Leu Ile Leu Gly 145 150 155 160 Ser Ile Ile Gly Val Ile Ala Tyr Tyr Phe Cys Tyr Arg Leu Gly Gly 165 170 175 Tyr Glu Gly Ala Leu Leu Gly Leu Ala Leu Val Pro Ala Leu Val Val 180 185 190 Ile Pro Ala Ala Phe Met Leu Met Arg Arg Gly Asn Val Pro Leu Ser 195 200 205 Tyr Leu Lys Pro Gln Trp Asp Lys Ile Leu Ala Gly Gln Leu Gly Lys 210 215 220 Phe Thr Leu Met Ala Leu Ile Thr Ser Val Thr Leu Pro Val Ala Tyr 225 230 235 240 Val Met Met Arg Asn Leu Leu Ala Ala His Tyr Ser Trp Asp Glu Val 245 250 255 Gly Ile Trp Gln Gly Val Ser Ser Ile Ser Asp Ala Tyr Leu Gln Phe 260 265 270 Ile Thr Ala Ser Phe Ser Val Tyr Leu Leu Pro Thr Leu Ser Arg Leu 280 285 Thr Ser Arg Gln Asp Ile Thr Arg Glu Ile Phe Arg Ser Leu Arg Phe 295 300 Val Leu Pro Ala Val Ala Ile Ala Ser Phe Thr Val Trp Leu Leu Arg 310 315 320 Asp Phe Ala Ile Trp Leu Leu Phe Ser Ala Lys Phe Thr Ala Met Arg 325 330 335 Asp Leu Phe Ala Trp Gln Leu Val Gly Asp Val Leu Lys Val Gly Ala 340 345 Tyr Val Phe Gly Tyr Leu Val Ile Ala Lys Ala Ser Leu Arg Leu Tyr 360 365 Ile Leu Ala Glu Ile Gly Gln Phe Ala Leu Leu Thr Ala Phe Ser His 370 375 380 Trp Leu Ile Pro Thr His Gly Ala Leu Gly Ala Ala Gln Ala Tyr Met 390 395 Ala Thr Tyr Ile Val Tyr Phe Ala Ala Cys Cys Gly Val Phe Leu Leu 410 405 415

<210> 6742 <211> 327

Trp Arg Lys Arg Ala

```
<212> PRT
<213> Enterobacter cloacae
<400> 6742
Phe Arg Val Leu Trp Gln Gly Arg Leu Trp Ile Val Gly Ile Ala Leu
                         10
Gly Phe Ala Leu Leu Ala Leu Ala Tyr Thr Phe Phe Ala Lys Gln Glu
      20
                        25
Trp Ser Ala Thr Ala Ile Thr Asp Arg Pro Thr Val Asn Met Leu Gly
  3.5
                    4.0
                                    4.5
Gly Tyr Tyr Ser Gln Gln Gln Phe Leu Arg Asn Leu Asp Ile Lys Ala
       55
                      60
Asn Leu Ala Thr Pro Asp Gln Ala Ser Val Met Asp Glu Ser Tyr Lys
65 70 75
Glu Phe Val Met Gln Leu Ala Ser Trp Asp Thr Arg Arg Asp Phe Trp
          85
                           90
Ser Gln Thr Asp Tyr Tyr Lys Gln Arg Met Val Gly Asn Ser Lys Ala
        100 105 110
Asp Ala Ala Leu Leu Asp Asp Leu Ile Asn Asn Ile Gln Phe Met Pro
   115 120 125
Gly Asp Val Leu Arg Asn Val Ser Asp Ser Val Lys Leu Ile Ala Glu
130 135
                                 140
Thr Ala Pro Asp Ala Asn Asn Leu Leu Arg Gln Tyr Val Ala Phe Ala
145 150 155
Ser Gln Arg Ala Ala Ser His Leu Asn Asp Glu Leu Lys Gly Ala Trp
     165
                           170 175
Ala Ala Arg Thr Ile Gln Met Lys Ala Gln Val Lys Arg Gln Glu Glu
                       185 190
        180
Val Ala Lys Ala Ile Phe Ala Arg Arg Val His Asn Leu Glu Gln Ala
                     200 205
195
Leu Lys Ile Ala Glu Gln His Asn Ile Ser Arg Ser Glu Thr Asp Val
 210 215
                                 220
Pro Ala Asp Glu Leu Pro Asp Ser Glu Met Phe Leu Leu Gly Arg Pro
225 230
                              235
                                             240
Met Leu Gln Ala Arg Leu Glu Asn Ile Gln Ala Val Gly Pro Asp Phe
         245
                           250 255
Asp Leu Asp Tyr Asp Gln Asn Arg Ala Met Leu Asn Thr Leu Asn Val
        260
                        265 270
Gly Pro Thr Leu Asp Pro Arg Phe Gln Thr Tyr Arg Tyr Leu Arg Thr
     275
                     280 285
Pro Glu Glu Pro Val Lys Arg Asp Ser Pro Arg Arg Ala Phe Leu Met
  290 295
                                 300
Ile Met Trp Gly Ile Val Gly Ala Leu Thr Gly Ala Gly Val Ala Leu
305 310
                              315
                                              320
Leu Arg Arg Arg Thr Asn
<210> 6743
<211> 232
<212> PRT
<213> Enterobacter cloacae
<400> 6743
Tyr Gln Arg Arg Val Ala Leu Ser Ile Leu Asn Gly Val Leu Glu Ser
                           10
Leu Glu Trp Glu Ser Ala Phe Phe Ala Arg Pro Ser Ala Ile Val Arg
        2.0
                        25
Leu Arg Asp Asn Ala Pro Ala Leu Gln Asp Ala Asp Phe Ser Ala Trp
```

40 Gln Arg Val Gln Ala Lys Ile Pro Ala Asp Arg Ala Asp Leu Leu Asp

```
Ala Leu Gln Gln His Gly Phe Arg Leu Val Glu Gly Glu Val Asp Leu
Ser Val Thr Val Ala Arg Tyr Ala Ser Pro Gly Ala Glu Ile Ala Thr
             85
                             90
Glu Gln Asp Ile Pro Thr Leu Arg Lys Met Ala Ala Leu Ala Phe Ala
         100 105
                              110
Gln Ser Arg Phe Arg Ala Pro Trp Tyr Ala Pro Asp Asp Ser Gly Arg
  115 120
                            125
Phe Tyr Ala Gln Trp Ile Glu Asn Ala Val Lys Gly Thr Phe Asp His
 130 135 140
Val Cys Leu Val Phe Arg Thr Asp Gly Gly Gln Ile Gln Gly Phe Val
145 150 155
Ser Leu Arg Arg Leu Thr Glu His Glu Ala Arg Ile Gly Leu Leu Ala
            165 170 175
Gly Arg Gly Met Gly Glu Lys Leu Met Gln Ala Ala Leu His Trp Ala
        180 185 190
Glu Gln Gln Gln Val Ser Thr Leu Arg Val Ala Thr Gln Met Gly Asn
     195 200 205
Thr Ala Ala Leu Lys Arg Tyr Ile Ala Ser Gly Ala Ser Ile Asp Ala
 210 215
Thr Ala Tyr Trp Leu Tyr Arg
<210> 6744
<211> 475
<212> PRT
<213> Enterobacter cloacae
<400> 6744
His Arg Leu Phe Gln Pro Glu Leu Pro His Ala Val Ala Pro Arg Ala
                          10
Ala Tyr Cys Phe Arg Arg Gln Arg Met Ser Gln Leu Gln Phe Ser Gly
       20
                       25
                                          3.0
Leu Leu Val Val Trp Leu Leu Ser Thr Leu Phe Ile Ala Thr Leu Thr
35
                    4.0
                                      45
Trp Phe Glu Phe Arg Arg Val Ser Phe Asn Phe Asn Val Phe Phe Ser
               5.5
                                 60
Leu Leu Phe Leu Leu Thr Phe Phe Phe Gly Phe Pro Leu Thr Ser Ile
    70
65
                                75
Leu Val Phe Arg Phe Asp Val Gly Val Ala Pro Pro Glu Ile Leu Leu
            85
                             90
Gln Ala Leu Leu Ser Ala Thr Cys Phe Tyr Ala Val Tyr Tyr Val Thr
                          105
         100
                                           110
Tyr Lys Thr Arg Leu Arg Ala Ala Lys Asp Thr Ala Pro Arg Arg Pro
      115 120
Leu Phe Thr Met Asn Arg Val Glu Thr His Leu Thr Trp Val Met Leu
                   135
 130
                                    140
Met Thr Ile Ala Leu Val Ser Val Ala Ile Phe Phe Met His Asn Gly
145
      150
                                155
Phe Leu Leu Phe Lys Leu Gln Ser Tyr Ser Gln Ile Phe Ser Ala Glu
            165
                            170
                                              175
Val Ser Gly Val Ala Leu Lys Arg Phe Phe Tyr Phe Phe Ile Pro Ala
          180
                         185
Met Leu Val Val Phe Phe Leu Arg Gln Asp Ser Lys Ala Trp Leu Phe
                       200
Phe Leu Val Ser Thr Val Ala Phe Gly Ile Leu Thr Tyr Met Ile Val
210
                215
                                    220
Gly Gly Thr Arg Ala Asn Ile Ile Ile Ala Phe Ala Ile Phe Leu Phe
225
               230
                                235
Ile Gly Ile Ile Arg Gly Trp Ile Ser Leu Trp Met Leu Ala Ala Ala
```

Gly Val Phe Gly Ile Val Gly Met Phe Trp Leu Ala Leu Lys Arg Tyr 265 260 Gly Leu Asn Val Ala Gly Asp Glu Ala Phe Tyr Thr Phe Leu Tyr Leu 285 275 280 Thr Arg Asp Thr Phe Ser Pro Trp Glu Asn Leu Ala Leu Leu Gln 295 300 Asn Tyr Asp Lys Ile Glu Phe Gln Gly Leu Ala Pro Ile Val Arg Asp 310 315 320 Phe Tyr Val Phe Ile Pro Thr Trp Leu Trp Pro Asp Arg Pro Gly Ile 325 330 335 Val Leu Asn Thr Ala Asn Tyr Phe Thr Trp Glu Val Leu Asn Asn His 340 345 350 Ser Gly Leu Ala Ile Ser Pro Thr Leu Ile Gly Ser Leu Val Val Met 355 360 365 Gly Gly Thr Trp Phe Ile Leu Pro Gly Ala Ile Ala Val Gly Leu Ile 375 380 Ile Lys Trp Phe Asp Trp Leu Tyr Thr Leu Gly Asn Glu Glu Thr Asn 385 390 395 Arg Tyr Lys Ala Ala Val Leu His Ser Phe Cys Phe Gly Ala Ile Phe 410 415 405 Asn Met Ile Val Leu Ala Arg Glu Gly Leu Asp Ser Phe Val Ser Arg 425 430 420 Val Val Phe Phe Met Val Val Phe Gly Leu Cys Leu Leu Leu Ala Lys 435 440 445 Leu Leu Tyr Trp Leu Phe Asp Ser Ala Gly Leu Val His Arg Arg Glu 450 455 Pro Gln Gly Ser Thr Thr Leu Ser Gln Val 470 465

<213> Enterobacter cloacae <400> 6745 Val Gly Ile Ile Met Thr Asp 1 5

<210> 6745

<211> 251

<212> PRT

Val Gly Ile Ile Met Thr Asp Thr Thr Ser Ala Pro Arg Tyr Ala Leu Arg Gly Leu Gln Leu Ile Gly Trp Arg Asp Met Gln His Ala Leu Asp 20 25 30 Phe Leu Phe Ala Asp Gly Gln Met Lys Ser Gly Thr Leu Val Ala Ile 4∩ 4.5 Asn Ala Glu Lys Met Leu Ala Val Glu Asp Asn Ala Glu Val Lys Ser 60 55 Leu Ile Glu Ala Ala Glu Phe Lys Tyr Ala Asp Gly Ile Ser Val Val 70 75 Arg Ser Ile Arg Lys Lys Phe Pro Asp Ala Asn Val Ser Arg Val Ala 8.5 90 Gly Ala Asp Leu Trp Glu Arg Leu Met Glu Arg Ala Gly Ala Glu Gly Thr Pro Val Phe Leu Ile Gly Gly Lys Pro Glu Val Leu Ala Gln Thr Glu Gln Lys Leu Arg Asn Gln Trp Asn Val Asn Ile Val Gly Ser Gln 135 140 Asp Glv Tvr Phe Arg Pro Glu Asp Arg Gln Thr Leu Tvr Glu Arg Val 145 150 155 Arg Asp Ser Gly Ala Lys Ile Val Thr Val Ala Met Gly Ser Pro Arg 165 170 Gln Glu Ile Leu Met Arg Asp Cys Arg Leu Val Ser Pro Asp Ala Leu 180 185 190 Tyr Met Gly Val Gly Gly Thr Tyr Asp Val Phe Thr Gly His Val Lys 200

```
Arg Ala Pro Lys Val Trp Gln Asn Leu Gly Leu Glu Trp Leu Tyr Arg
 210 215 220
Leu Leu Ser Gin Pro Thr Arg Ile Lys Arg Gln Ile Arg Leu Leu Arg
225 230 235
Tyr Leu Ala Trp His Tyr Thr Gly Lys Met
   245
<210> 6746
<211> 328
<212> PRT
<213> Enterobacter cloacae
<400> 6746
Glu Thr Ile Arg Ser Val Phe Gln Tyr Pro Ser Lys Thr Ile Pro Gly
                           10
Asn Lys Ser Gly Asn Ser Lys His Asn Arg Gly Ile Met Ala Glu Lys
      2.0
                      2.5
Lys Pro Glu Leu Gln Arg Gly Leu Glu Ala Arg His Ile Glu Leu Ile
         40 45
Ala Leu Gly Gly Thr Ile Gly Val Gly Leu Phe Met Gly Ser Ala Ser
                5.5
Thr Leu Lys Trp Ala Gly Pro Ser Val Leu Leu Ala Tyr Ile Ile Ala
                  75
            7.0
Gly Leu Phe Val Phe Phe Ile Met Arg Ser Met Gly Glu Met Leu Phe
          85
                            90
Leu Glu Pro Val Thr Gly Ser Phe Ala Val Asn Ala His Arg Tyr Met
             105
 100
                                        110
Ser Pro Phe Phe Gly Tyr Leu Thr Ala Trp Ser Tyr Trp Phe Met Trp
115 120
                                      125
Met Ala Val Gly Ile Ser Glu Ile Thr Ala Ile Gly Val Tyr Val Gln
130 135
                                 140
Phe Trp Phe Pro Glu Met Ala Gin Trp Ile Pro Ala Leu Ile Ala Val
              150 155
Gly Leu Val Ala Leu Ala Asn Ile Ala Ala Val Arg Leu Tyr Gly Glu
                            170
                                           175
          165
Ile Glu Phe Trp Phe Ala Met Ile Lys Val Thr Thr Ile Ile Val Met
                            190
         180
                         185
Ile Val Val Gly Leu Gly Val Ile Phe Phe Gly Phe Gly Asn Gly Gly
      195 200 205
His Ala Val Gly Phe Gly Asn Leu Thr Gly His Gly Gly Phe Phe Ala
                  215 220
Gly Gly Trp Lys Gly Phe Leu Thr Ala Leu Cys Ile Val Val Ala Ser
               230
                   235
Tyr Gln Gly Val Glu Leu Ile Gly Ile Thr Ala Gly Glu Ala Lys Asn
            245
                            250
                                            255
Pro Gin Val Thr Leu Arg Ser Ala Val Gly Lys Val Leu Trp Arg Ile
                            270
                         265
Leu Ile Phe Tyr Val Gly Ala Ile Phe Val Ile Val Thr Ile Phe Pro
            280
      275
Trp Asn Glu Ile Gly Thr Thr Gly Ser Pro Phe Val Leu Thr Phe Ala
                      300
 290
               295
Lys Ile Gly Ile Thr Ala Ala Ala Ala Ile Ile Asn Phe Val Val Leu
               310
                               315
Thr Ala Ala Leu Ser Arg Leu
            325
```

<210> 6747 <211> 427

<212> PRT <213> Enterobacter cloacae

```
<400> 6747
Thr Gln Ser Gly Asn Ala Met Ser Phe Thr Thr Ile Ser Val Val Gly
                         10
Leu Gly Tyr Ile Gly Leu Pro Thr Ala Ala Ala Phe Ala Ser Arg Gln
       20
                     2.5
Lys Gln Val Val Gly Val Asp Ile Asn Ala His Ala Val Glu Thr Ile
35 40
                         4.5
Asn Arg Gly Glu Ile His Ile Val Glu Pro Asp Leu Asp Arg Val Val
        5.5
                   60
Lys Lys Ala Val Asp Gly Gly Phe Leu Arg Ala Ser Thr Thr Pro Val
65 70 75
Glu Ala Asp Ala Tyr Leu Ile Ala Val Pro Thr Pro Phe Lys Gly Asp
               90 95
        85
His Glu Pro Asp Met Val Tyr Val Glu Ala Ala Ala Lys Ser Ile Ala
       100 105 110
Pro Val Leu Lys Lys Gly Ala Leu Val Ile Leu Glu Ser Thr Ser Pro
115 120 125
Val Gly Ala Thr Glu Gln Met Ala Gln Trp Leu Ala Glu Ala Arg Pro
 130 135 140
Asp Leu Ser Phe Pro Gln Gln Val Gly Asp Gln Ala Asp Ile Asm Ile
145 150 155 160
Ala Tyr Cys Pro Glu Arg Val Leu Pro Gly Gln Val Met Val Glu Leu
     165 170 175
Ile Lys Asn Asp Arg Val Ile Gly Gly Met Thr Pro Val Cys Ser Ala
 180 185 190
Arg Ala Ser Glu Leu Tyr Lys Ile Phe Leu Glu Gly Glu Cys Val Val
195
                   200 205
Thr Asn Ser Arg Thr Ala Glu Met Cys Lys Leu Thr Glu Asn Ser Phe
              215 220
Arg Asp Val Asn Ile Ala Phe Ala Asn Glu Leu Ser Leu Ile Cys Ala
225 230 235
Asp Gln Gly Ile Asn Val Trp Glu Leu Ile Arg Leu Ala Asn Arg His
          245 250 255
Pro Arg Val Asn Ile Leu Gln Pro Gly Pro Gly Val Gly Gly His Cys
      260 265 270
Ile Ala Val Asp Pro Trp Phe Ile Val Ala Gln Asn Pro Glu Gln Ala
    275 280 285
Arg Leu Ile Arg Thr Ala Arg Glu Val Asn Asp His Lys Pro His Trp
                295
                              300
Val Ile Asn Gln Val Lys Ala Thr Val Ala Asp Cys Leu Ala Asp Ser
305 310 315
Gly Lys Arg Ala Ser Glu Leu Lys Ile Ala Cys Phe Gly Leu Ala Phe
          325
              330
Lys Pro Asn Ile Asp Asp Leu Arg Glu Ser Pro Ala Met Glu Ile Ala
                          350
        340
                      345
Glu Met Ile Ala Ala Trp His Ser Gly Glu Thr Leu Val Val Glu Pro
     355 360 365
Asn Ile His Ala Leu Pro Ala Lys Leu Ala Gly His Cys Thr Leu Thr
                375
                               380
Ala Leu Asp Asp Ala Leu Ala Thr Ala Asp Val Leu Val Leu Leu Val
           390
                           395 400
Asp His Asn Ala Phe Lys Ala Val Ser Gly Asp Ala Val Arg Gln Gln
          405 410
Tyr Val Val Asp Thr Lys Gly Val Trp Arg
```

<210> 6748 <211> 435 <212> PRT

<sup>&</sup>lt;212> FRI <213> Enterobacter cloacae

```
<400> 6748
Pro Gly Ala Ala Trp Ala Arg Asn Ser Cys Arg Arg Arg Cys Thr Gly
Arg Ser Asn Asn Arg Tyr Arg Arg Cys Gly Ser Gln Pro Arg Trp Ala
      20
Thr Pro Leu Arg Leu Asn Val Ile Leu Arg Val Val Pro Ala Ser Thr
 35
                  40
Pro Pro Pro Thr Gly Tyr Thr Gly Asp Lys Met Ile Pro Phe Asn Ala
                   60
               5.5
Pro Pro Val Val Gly Thr Glu Leu Asp Tyr Met Gln Ser Ala Met Gly
65 70 75
Ser Gly Lys Leu Cys Gly Asp Gly Gly Phe Thr Arg Arg Cys Gln Gln
               90 95
Trp Met Glu Gln Arg Phe His Ser Ala Lys Val Leu Leu Thr Pro Ser
   100 105 110
Cys Thr Ala Ser Leu Glu Met Ala Ala Leu Leu Leu Asp Ile Gln Pro
 115 120 125
Gly Asp Glu Val Ile Met Pro Ser Tyr Thr Phe Val Ser Thr Ala Asn
 130 135 140
Ala Phe Val Leu Arg Gly Ala Lys Ile Val Phe Val Asp Ile Arg Pro
145 150 155 160
Asp Thr Met Asn Ile Asp Glu Thr Leu Ile Glu Ala Ala Ile Thr Asp
      165 170 175
Lys Thr Arg Ala Ile Val Pro Val His Tyr Ala Gly Val Ala Cys Glu
 180 185 190
Met Asp Thr Ile Met Ala Ile Ala Lys Lys His Asn Leu Phe Val Val
195 200 205
Glu Asp Ala Ala Gln Gly Val Met Ser Thr Tyr Lys Gly Arg Ala Leu
210 215 220
Gly Thr Ile Gly His Ile Gly Cys Phe Ser Phe His Glu Thr Lys Asn
225 230 235
Tyr Thr Ala Gly Gly Glu Gly Gly Ala Thr Leu Ile Asn Asp Arg Ala
          245 250 255
Leu Val Glu Arg Ala Glu Val Ile Arg Glu Lys Gly Thr Asn Arg Ser
            265 270
     260
Gln Phe Phe Arg Gly Gln Val Asp Lys Tyr Thr Trp Arg Asp Ile Gly
     275 280
                                  285
Ser Ser Tyr Leu Met Ala Asp Leu Gln Ala Ala Tyr Leu Trp Ala Gln
       295
                               300
Leu Glu Ala Ala Glu Arg Ile Asn Leu Gln Arg Leu Ser Leu Trp Gln
305 310 315
Thr Tyr Tyr Asp Ala Leu Glu Pro Leu Ala Lys Ala Gly Arg Ile Glu
           325
               330
Leu Pro Thr Ile Pro Ala Asp Cys Ile His Asn Ala His Met Phe Tyr
            345
        340
Ile Lys Leu Arg Asp Asn Asp Asp Arg Ser Lys Leu Ile Ala Trp Leu
     355 360 365
Lys Glu Ala Glu Ile Met Ala Val Phe His Tyr Ile Pro Leu His Ser
      375
                                380
Ser Pro Ala Gly Glu Ala Phe Gly Met Phe Ala Gly Glu Asp Arg Tyr
             390 395 400
Thr Thr Lys Glu Ser Glu Arg Leu Leu Arg Leu Pro Leu Phe Tyr Asn
           405
                         410
Leu Ala Pro Val Asn Gln Arg Thr Val Ile Asn Ser Leu Leu Ser Tyr
             425
Phe Ala
```

<210> 6749 <211> 362 <212> PRT

<213> Enterobacter cloacae

```
<400> 6749
Thr Arg Met Thr Ala Leu Ile His Ile Leu Gly Ser Asp Ile Pro His
His Asn Gln Thr Val Leu Arg Phe Phe Asn Asp Glu Leu Ala Ser Gly
       20
                        25
                                        30
Thr Pro Asp Ala Arg Glu Phe Met Val Val Gly Arg Asp Asn Gly Leu
   35
                   4.0
                                4.5
Ser Val Ala Cys Pro Ala Leu His Ile Thr Phe Trp Pro Asp Lys Ala
                 5.5
                         60
Ala Leu Thr Lys Ala Val Val Ala Lys Ala Lys Ala Asp Arg Ser Gln
65 70 75
Arg Phe Phe His Gly Gln Phe Asn Thr Gly Leu Trp Leu Ala Leu
          85 90
Leu Ser Gly Gly Ile Lys Pro Ser Gln Phe Ser Trp His Ile Trp Gly
        100 105 110
Ala Asp Leu Tyr Glu Val Ser Arg Gly Trp Lys Phe Arg Leu Phe Tyr
         120 125
Pro Leu Arg Arg Leu Ala Gln Ala Arg Val Gly Cys Val Phe Ala Thr
130 135
                                 140
Arg Gly Asp Leu Asn Tyr Phe Ala Lys Gln His Pro Lys Val Arg Gly
    150 155
Glu Leu Leu Tyr Phe Pro Thr Arg Met Asp Pro Ala Leu Asn Thr Leu
         165 170 175
Ala Asn Asp Ala Val Arg Glu Gly Lys Leu Thr Ile Leu Val Gly Asn
       180 185 190
Ser Gly Asp Arg Ser Asn Glu His Val Ala Ala Leu Arg Ala Val His
     195
                     200
                                     205
Gln Gln Phe Gly Asp Thr Val Asn Val Val Val Pro Met Gly Tyr Pro
                215
                                  220
Ala Asn Asn Asp Ala Tyr Ile Asn Asp Val Arg Gln Gln Gly Leu Ala
               230
                               235
Leu Phe Ser Ala Glu Asn Leu His Ile Leu Asn Asp Lys Leu Glu Phe
            245
                            250
Asp Asp Tyr Leu Ala Leu Leu Arg Lys Cys Asp Leu Gly Tyr Phe Ile
                        265
        260
                                        270
Phe Ala Arg Gln Gln Gly Ile Gly Thr Leu Cys Leu Leu Ile Gln Ala
      275
                     280 285
Gly Val Pro Cys Val Leu Asn Arg Glu Asn Pro Phe Trp Gln Asp Met
                  295
                                  300
Ala Glu Gln His Ile Pro Val Leu Phe Thr Ser Asp Thr Leu Asn Val
               310
305
                               315
Glu Val Val Arg Glu Ala Gln Arg Gln Leu Thr Leu Val Asp Lys Asn
            325 330
                                            335
Ser Ile Asp Phe Phe Ser Pro Asn Tyr Leu Thr Pro Trp His His Ala
             345
         340
Leu Arg Ile Ala Ser Gly Asp Asn Ala
                      360
```

<210> 6750 <211> 291 <212> PRT

<213> Enterobacter cloacae

```
Ser Arg Cys Arg Ala Glu Gly Asn Phe Leu Phe Leu Ala Asp Gln Leu
                    55
                                     60
Asp Arg Ser Ile Tyr Val Lys Thr Asn Lys Val Leu Glu Ala Ala Gly
                 7.0
                                 75
Gly Lys Trp Asn Arg Lys Glu Gln Ala His Ile Phe Thr Ala Asp Ala
             8.5
                     90
Ala Glu Arg Ile Glu Gln Ile Ile Leu Thr Gly Ser Val Asp Ile Pro
         100
              105 110
Arg Asp Leu Phe Asn Phe Phe Pro Thr Pro Glu Asn Leu Val Thr Asp
     115
           120
Met Val Leu Arg Ala Glu Pro Ala Ala Gly Glu Arg Val Leu Glu Pro
 130 135 140
Glu Phe Gly Asp Gly Arg Ile Leu Lys Ala Leu Lys Leu Ala Ala Pro
         150 155
Asp Ala Leu Ile Thr Gly Ile Glu Leu Asn Asp Glu Arg Phe Leu Ala
                   170
          165
Val Lys Asn Asp Ser Val Leu Ser Thr Gly Val Glu Leu Val His Thr
       180 185 190
Asp Phe Leu Gly Tyr Gln Pro Asp Glu Thr Phe Asp Val Ile Val Met
    195 200
Asn Pro Pro Phe Leu Lys Arg Ser Asp Val Lys His Val Met His Ala
210 215
Ile Ala Met Leu Ala Lys Arg Gly Arg Leu Gln Ala Ile Leu Ser Ala
          230
                                 235
Gly Val Leu Phe Arg Glu Asp Thr Leu Thr Lys Ala Leu Arg Glu Arg
             245 250
Val Lys Gln Leu Gly Gly Gln Ile Ser Pro Leu Pro Asp Asp Thr Phe
        260
                        265
Arg Glu Ser Gly Tar Lys Val Lys Thr Ala Arg Leu Glu Ile Asp Leu
Arg Arg
   290
<210> 6751
<211> 365
<212> PRT
<213> Enterobacter cloacae
<400> 6751
Leu Ile Met Thr Lys Glu Lys Asp Thr Glu Gln Gln Asp Leu Val Thr
                              10
Arg Ala Phe Ser Val Arg Glu Lys Glu Ser Gly Lys Asp Ile Ile Leu
    2.0
                           25
                                            30
Arg Pro Asn Ser Asn Arg Thr Val Gln Ser Ile Ala Leu Met Arg Leu
      35
                       40
Gly Leu Phe Val Pro Ser Pro Lys Ser Val Gly Arg Gln Asn Arg Glu
                    55
                                     60
Tyr Lys Thr Val Gly Phe Asp Ala Thr Lys Glu Leu Gln Thr Leu Ser
                7.0
                                  75
Leu Met Glu Ser Glu Gly Phe Thr Asn Ile Ser Ile Val Gly Glu Arg
             85
                              90
Leu Asp Met Ser Val Asp Phe Lys Thr Trp Met Gly Ile Ile Arg Thr
          1.00
                           105
                                            110
Tyr Ala Asn His Pro Ile Asn Asn Asp Thr Ile Ser Leu Lys Phe Thr
                       120
                                         125
Glu Phe Leu Lys Leu Cys Thr Pro Glu Asn Tyr Arg Ser Ser Thr Ala
  130
                    135
                                     140
```

Ser Arg Lys Arg Ile Asp Ala Ser Leu Arg Arg Leu Ala Ser Val Thr

Leu Ser Phe Thr Ser Asn Asn Ser Ser Lys Val Tyr Thr Thr His Leu

155

```
170
Val Gln Ser Ala Leu Leu Asp Pro Glu Ser Asp Gln Val Val Leu Gln
        180
                         185
                                         190
Val Asp Pro Lys Ile Phe Glu Leu Tyr Gln Tyr Asp His Lys Val Leu
      195
             200
Met Gln Leu Lys Ala Ile Lys Glu Leu Ala Lys Lys Glu Ser Ala Gln
                 215
                          220
Ala Leu Tyr Thr Phe Ile Glu Ser Leu Pro Pro Asn Pro Ile Pro Ile
      230 235 240
Ser Leu Thr Arg Leu Lys Asn Arg Leu Asn Leu Lys Thr Arg Ala Asn
        245 250 255
Ser Gln Asn Ala Thr Val Arg Lys Ala Leu Glu Glu Leu Ala Ser Ile
       260 265 270
Gly Tyr Leu Gln Tyr Thr Glu Ile Lys Lys Asp Gly Lys Val Tyr Phe
     275 280 285
Gln Ile His Lys Arg Asp Pro Asp Leu Asn Leu Asn Asn Thr Gln Pro
 290 295 300
Pro Leu Glu Val Val Glu Asp Glu Glu Asn Ser Gly Ser Ser Val
    310 315
Leu Glu Gly Glu Leu Cys Pro Pro Ala Asp Pro Ile Asp Gly Asp Asp
            325 330 335
Val Leu Thr Val His Asp Leu Thr Ala Glu Glu Leu Arg Tyr Ile Arg
        340 345
Ser Leu Arg Ser Gln Lys Lys Asn Ser Asn Ala Ser
<210> 6752
<211> 273
<212> PRT
<213> Enterobacter cloacae
<400> 6752
Arg Pro Tyr Val Lys Asp Met Thr Gly Gly Gly Pro Phe Gln Leu Arg
                            1.0
Ala Gly Glu Trp Thr Asp Asp Thr Ser Met Ala Leu Cys Leu Ala Glu
Thr Leu Leu Glu Lys Gly Asp Ala Asp Thr Ile Cys Phe Arg Asn Lys
    3.5
                     4.0
Leu Leu Glu Trp Tyr Gln His Gly Tyr Asn Ser Ser Ile Gly Val Cys
                   55
Phe Asp Ile Gly Asn Thr Thr Arg Phe Ala Leu Glu Gln Tyr Leu Thr
                               75
              70
Ile Gly Pro Gly Trp Ser Gly Asn Thr Ala Pro Glu Thr Ala Gly Asn
            85
                            90
Ala Ser Ile Ile Arg Gln Ala Pro Val Ser Ile Phe Phe Arg Lys Ser
         100
                         105
                             110
Leu Ser Lys Ala Phe Tyr Glu Ala Lys Lys Gln Cys Ile Ala Thr His
      115
                      120
Gly Ala Ala Glu Ala Ile Asn Ser Thr Gln Tyr Leu Ser Tyr Leu Leu
                                   140
   130
                   135
Val His Met Ile Asn Gly Ser Asn Lys Asp Phe Val Phe Ser Pro His
               150
                               155
Val Met Pro Leu Gln Pro Arg Val Met Ile Ile Asn Ala Gly Glu Tyr
            165
                            170
Lys Gln Lys Thr Arg Asp Gln Ile Arg Ser Ser Gly Tyr Val Ile Asp
                             190
         180
                         185
Thr Leu Glu Ala Ala Met Trp Ser Val Trp Asn Thr Asp Asn Phe Arg
                      200
                                      205
      195
Asp Ala Ile Leu Leu Ala Ala Asn Leu Ala Asp Asp Ala Asp Ser Val
                                   220
                   215
```

Ala Ala Thr Ala Gly Gln Ile Ala Gly Ala Leu Tyr Gly Tyr Ser Gly

225 235 240
Tile Pro Gin Glu Trp Lys Asn Asn Leu Val Gin His Glu Arg Ile Alia
245 250 250
Lys Met Ala Gly Glu Leu Phe Asp Arg Ala Pro Glu Asp Thr Phe Leu
260 265 270

<210> 6753 <211> 1457 <212> PRT <213> Enterobacter cloacae

<400> 6753 Gly Met Ser Asp Asn Asn Ala Ala Arg Lys Gly Asp Glu Ile Ile His 10 Ser Ser Ile Phe Ala Asp Ile Thr Ser Ile Val Ala Glu Gly Ala Ala 20 25 3.0 Tyr Ala Val Ile Gly Ala Ala Val Gly Ala Ala Ala Thr Val Ala Ala 35 40 45 Pro Leu Leu Gly Ala Gly Ala Ala Ala Gly Val Ala Ala Ile Gly 50 55 60 Ser Ser Cys Leu Leu Ser Gly Ile Ile Gly Gly Val Leu Ala Asn Val 65 70 75 Ala Gly Ile Thr Asp Asp Ile Ser Asn Ala Ala Glu Gly Leu Gly Asn 85 90 Ala Leu Phe Pro Pro Ser Pro Ala Gly Lys Ile Thr Thr Gly Ser Asn 100 105 110 Asn Val Leu Thr Asn Ala Ile Pro Ala Ala Arg Ala Ala Gly Thr Leu 115 120 125 Thr Pro Ala Asp Thr Pro Ser Pro Glu Pro Gln Ser Pro Gly Ser Phe 130 135 140 Ala Asp Tyr Ala Gly Met Leu Leu Ser Ala Ala Gly Gln Phe Gly Ser 145 150 155 Glu Met Trp Gln Pro Ser Val Ala Ser Ala Ala Ala Gly Thr Ser Pro 165 170 175 Leu Glu Glu Asp Lys Val Ala Cys Glu Lys His Ser Gly Pro Gln Tyr 180 185 190 Leu Ala Glu Gly Ser Lys Ser Val Phe Ile Asn Gly Gln Pro Ala Val 195 200 205 Arg Ala Lys Asp Arg Thr Thr Cys Glu Gly Thr Val Ser Asp Asp Val 210 215 220 Ser Pro Asn Val Ile Ile Gly Gly Asp Thr Leu Thr Val Arg Asp Ile 225 230 235 Lys Ser Gly Lys Thr Pro Gly Leu Ala Leu Gly Met Ile Ala Leu Ser 245 250 255 Leu Leu Arg Gly Arg Pro Gly Lys Ile Leu Lys Asn Met Pro Cys Ala 265 270 Leu Ala Ala Ala Gly Gly Gly Met Leu Ala Asp Met Ala Val Asn Ala 275 280 285 Val Phe Gly Ser Ser His Pro Val His Ala Ala Thr Gly Val Lys Val 295 300 Leu Asn Asp Asp Asp Glu Leu Asp Phe Ser Leu Pro Gly Arg Phe Pro 305 310 315 Leu Arg Trp Gln Arg Ser Tyr Asn Ser Leu Thr Thr Arg Glu Gly Leu

330

345 350

Phe Gly Leu Gly Trp Ala Thr Thr Phe Asp Ser Tyr Leu Thr Leu Glu

Glu Asn Asn Ala Thr Trp Phe Asp Glu Thr Gly Arg Glu Leu Ser Phe

Glu Leu Pro Pro Val Asp Arg Ala Phe Tyr Ser Ile Ser Glu Gly Ile

325

360

340

335

375 Ile Ile Arg Arg Asn Glu Ser Gly Asp Val Ala Ile Ala Asp Asp Asp 395 390 Gly Ala Val Trp Arg Leu Tyr Lys Pro Thr Arg Ala Asn Pro Ser Ile 405 410 Leu Arg Leu Ala Ser Leu Ser Asp Glu Tyr Gly Asn Ala Leu Leu Thr 420 425 Ala Trp Asp Glu His Gly Arg Leu Val Gly Ile His Asp Glu Pro Arg 435 440 445 Ala Ile Asp Val Ser Leu Arg Tyr Asp Asp Glu Arg Phe Pro Gln Arg 450 455 460 Val Thr Ala Ala Ser His Phe Asp Gly Asn Gln Thr Trp Pro Leu Met 465 470 475 480 His Trp Gly Tyr Asp Ala Arg Gly Gln Leu Ala Ser Ala Thr Asp Ala 485 490 495 Ser Gly Val Val Thr Arg Glu Tyr Arg Tyr Asn Asp His Gly Leu Met 500 505 510 Val Trp His Arg Met Pro Gly Gly Leu Glu Ser Glu Tyr Arg Trp Gln 515 520 525 Lys Phe Asp His Trp Arg Val Val Glu Asn Arg Thr Ser Thr Gly Asp 530 535 540 Gly Cys Arg Phe Thr Tyr Asp Leu Ala Ala Gly Leu Thr Thr Val Glu 545 550 555 His Tyr Asp Gly Gln Thr Arg Lys His Tyr Trp Asn Ala Gln Asn Leu 565 570 575 Ile Val Arg Tyr Val Asp Glu Ser Gly Glu Asn Trp Arg Tyr Glu Trp 580 585 590 Asp Asp Asn Glu Leu Leu Thr Arg Arg Ile Asp Pro Leu Gly Asn Ala 600 605 595 Val Thr Phe Val Tyr Asp Asp Met Gly Asn Arg Val Gln Glu Ile Asp 610 615 620 Ala Asp Gly Asn Thr Arg Thr Thr Trp Leu Glu His Arg Ala Leu 625 630 635 Pro Ala Ala Ile Ile Glu Ala Asp Gly Asn Ala Thr Arg Phe Trp Tyr 645 650 Asp Glu His His Gly Leu Lys Arg Val Val Asp Pro Met Gly Gln Thr 660 665 Thr Leu Leu Arg Arg Asp Glu Phe Gly Gln Val Val Glu Glu Val Asp 680 675 Ala Ala Gly Asn Ser Arg Tyr Gln Glu Tyr Asn Glu Ala Gly Gln Met 695 Val Arg Ala Thr Asp Cys Ser Gly Arg Val Thr Gln Tyr Arg Tyr His 710 715 Pro Leu Gly Trp Leu Met Ala Glu Thr Ala Ala Asp Gly Glu Glu Thr 725 730 Arg Tvr Arg Tvr Asp Ala Ala Glv Arg Pro Val Gln Leu Asp Arg Pro 750 745 Glu Gly Trp Thr Glu Ser Leu Lys Trp Asn Glu Arg Gly Leu Pro Val 755 760 765 Lys His Ala Gly Ala Asp Gly Lys Glu Ser Glu Phe Arg Tyr Asp Glu 780 Ala Gly Arg Leu Thr Ala Thr Arg Asn Thr Gln Gly Glu Glu Val Arg 790 795 Arg Arg Trp Asp Ser Arg Gly Arg Leu Ile Ala Leu Glu Asn Glu Asn 810 805 Gly Glu Ala Tyr Gln Phe Arg Trp Gly Pro Asp Ser Leu Leu Leu Glu 825 830 820 Glu Val Gly Leu Asp Gly Val Ala Ser Gln Tyr Arg Tyr Asp Ala Cys 835 840 845 Gly Arg Thr Ile Ala Arg Thr Phe Ala Ala Gly His Pro Glu Ala Ile

Thr His Ala Phe Ala Trp Ser Ala Ser Gly Gln Leu Val Ala Arg Thr 870 875 Thr Pro Glu Gly Gln Thr Arg Tyr His Tyr Thr Pro Ser Gly Leu Leu 885 890 Ser Arg Ile Gly Leu His Pro Ala Leu Ser Ala Asp Ala Trp Ser Ala 900 905 910 Glu Ala Glu Gln Glu Leu Val Phe Glu Tyr Asp Ala Leu Gly Arg Val 915 920 925 Thr Arg Glu Thr Gly Glu His Gly Glu Leu Ala Trp Glu Tyr Asp Ala 930 935 940 Leu Gly Asn Arg Thr Ser Val Thr Leu Pro Asp Gly Arg Glu Leu Lys 950 955 Gln Phe Tyr Tyr Gly Ser Gly His Leu Leu Ser Ile Ala Leu Asp Lys 965 970 975 Leu Ser Val Ser Asp Phe Thr Arg Asp Glu Leu His Arg Glu Thr Ser 980 985 990 Arg Thr Gln Gly Leu Leu Thr Thr Arg Ser Glu Tyr Asp Arg Leu Gly 995 1000 1005 Arg Leu His Arg Arg Asp Val Phe Thr Gly Asn Ala Gln Arg Pro Ser 1010 1015 1020 Pro Arg Arg Trp Ser Arg Arg Trp Asp Tyr Asp Tyr Arg Asn Asn Leu 1025 1030 1035 1040 Val Arg Glu Glu Arg Asp Asp Asn Pro Phe Asn Trp Tyr Arg Trp Gln 1045 1050 1055 Tyr Asp Ser Ala Gly Arg Leu Leu Val Gln Asp Gly Thr Leu Pro Gly 1060 1065 1070 Gln Glu Gln Trp Arg Trp Asp Ala Ala Gly Asn Pro Leu Glu Gly Ser 1075 1080 1085 Val Glu Lys Val Thr His Asn Arg Leu Thr Gln Leu Asn Gly Ile Arg 1090 1095 1100 Trp Arg Tyr Asp Val His Gly Arg Thr Val Glu Lys Asp Asn Gly Gln 1110 1115 Thr Arg Trp His Tyr Arg Tyr Asp Gly Glu His Arg Leu Thr Glu Val 1125 1130 Ile Ser Gln Pro Arg Asp Arg Asn Arg Pro Gln Thr Gln Val Ser Phe 1140 1145 1150 Arg Tyr Asp Pro Leu Gly Arg Arg Ile Ser Lys Thr Arg Arg Gln Met 1155 1160 1165 Leu Gly Gly Gln Pro Ala Gly Lys Pro Val Thr Thr Arg Phe Val Trp 1170 1175 1180 Glu Gly Phe Arg Leu Leu Gln Glu Val His Gly Glu Val Pro Leu Thr 1190 1195 1200 Tyr Val Tyr Ser Asp Gln Asp Ser Tyr Asp Pro Leu Ala Arg Ile Asp 1205 1210 1215 Gly Val Asp Ala Pro Glu Ile Pne Trp Phe His Cys Gln Pro Asn Gly 1220 1225 1230 Thr Pro Glu Arg Met Thr Asp Ser Glu Gly Gln Val Arg Trp Val Gly 1235 1240 1245 Val Asn Ser Ala Trp Gly Lys Leu Leu Arg Glu Ser Glu Thr Gln Val 1250 1255 1260 Ser Gly Tyr Ser Gln Asn Leu Arg Met Gln Gly Gln Tyr Leu Asp Arg 1270 1275 Glu Thr Gly Leu His Tyr Asn Leu Phe Arg Tyr Tyr Asp Pro Asp Cys 1285 1290 1295 Gly Leu Phe Thr Gln Gln Asp Pro Ile Gly Leu Ala Gly Gly Ile Asn 1300 1305 1310 Leu Tyr Gln Tyr Ala Pro Asn Ala Leu Gly Trp Val Asp Pro Trp Gly 1315 1320 1325 Leu Lys Cys Gly Phe Ser Gln Lys Asp Arg Ile Thr Gln Arg Trp Val 1330 1335 1340

Asp Arg Leu Thr Gly Lys Lys Pro Ala Asp Val His Asn Ile Leu Thr

1350 1355 Ser Lys Gly Trp Thr Arg Thr Tyr Pro Gln Ala Asn Lys Pro Gly Ala 1365 1370 1375 Ile Gln His Ile Gln Tyr Val Lys Thr Thr Lys Ser Gly Thr Thr Tyr 1380 1385 1390 Lys Leu Asp Tyr His Pro Gly Gly Thr Pro Thr Gln Pro Asn Ile His 1395 1400 1405 Gly Asn Asp Tyr Trp Lys Val Tyr Arg Glu Val Asp Gly Ala Asp Val 1410 1415 1420 Val Tyr Gly Arg Ile Gly His Gly Glu Phe Lys Asn Tyr Asp Leu Ile 1425 1430 1435 1440 Thr Asp Ser Pro Val Tyr Val Asp Gly Val Leu Leu Asn Gly Gly Val 1450

<210> 6754 <211> 761 <212> PRT <213> Enterobacter cloacae <400> 6754 Asn Ala Thr Val Thr Cys Val Ser Ser Asn Ala Gln Thr Val Arg Arg 10 Leu Ser Lys Pro Cys Trp Val Ser Ile Lys Leu Asn Leu Gln Lys Gln 25 Leu Thr Gly Ser Tyr Arg Val Trp Asp Tyr Cys Val Gln Tyr Gln Glu 4.0 Ser Ser Leu Asp Phe Ile Ser Arg Leu Met Glu Leu Glu Gly Ile Ala 5.0 5.5 60 Tyr Tyr Phe Arg His Glu Ala Asp Lys His Thr Leu Val Leu Thr Asp 65 70 7.5 Ala Ala Thr Gln His Gln Pro Phe Ser Gly Tyr Glu Val Ile Pro Tyr 85 90 His Gln Thr Pro Ser Gly Gly Ser Thr Asp Glu Glu Gly Ile Ser Gln 100 105 110 Trp Ala Leu Glu Asp Cys Val Thr Pro Gly Ile Tyr Ser Leu Asp Asp 115 120 125 Tyr Asp Phe Arg Lys Pro Asn Ala Trp Leu Phe Gln Ala Gln Gln Asn 130 135 140 Pro Ala Ser Pro Lys Pro Gly Ser Ile Asp Val Tyr Asp Trp Pro Gly 150 155 Arg Phe Val Glu Thr Gly His Ala Glu Phe Tyr Ala Arg Ile Arg Gln 165 170 175 Glu Arg Trp Gln Val Glu His Gin Gln Ile Gln Ala Thr Ala Thr Ala 190 180 185 Ala Gly Ile Ala Pro Gly His Ile Phe Thr Leu Thr Asn Ala Pro Phe 195 200 205 Phe Ser Asp Asn Gly Glu Tyr Leu Val Thr Ala Ala Gly Tyr His Phe 210 215 220 Glu Glu Asn Arg Tyr Ala Ser Gly Glu Gly Glu Thr Ile His Arg Thr 230 235 Asp Phe Thr Val Ile Pro Ala Ser Val Ser Tyr Arg Pro Ala Gln Ser 245 250 Thr Ala Trp Pro Arg Thr Tyr Gly Pro Gln Thr Ala Lys Val Val Gly 260 265

Pro Gln Gly Glu Ser Ile Trp Thr Asp Lys Tyr Gly Arg Val Lys Val

Lys Phe His Trp Asp Arg Leu Ala Lys Gly Asp Asp Thr Ser Ser Cys

Trp Val Arg Val Ser Ser Ala Trp Ala Gly Gln Gly Tyr Gly Gly Val

295

285

300

280

275

```
310
Gln Ile Pro Arg Val Gly Asp Glu Val Val Val Asp Phe Ile Asn Gly
                 330
      325
Asp Pro Asp Arg Pro Ile Ile Thr Gly Arg Val Tyr Asn Asp Ala Ser
     340 345 350
Met Pro Pro Trp Ala Leu Pro Ala Ala Ala Thr Gln Met Gly Phe Met
355 360 365
Ser Arg Thr Lys Asp Gly Ser Val Asp Asn Ala Asn Ala Leu Arg Phe
370 375 380
Glu Asp Lys Ala Gly Ala Glu Gln Val Trp Ile Gln Ala Glu Arg Asn
385 390 395 400
Leu Asp Thr Ser Val Lys Asn Asp Glu Thr His Ser Val Gly Gly Ala
     405 410 415
Arg Ser His Tyr Val Lys Lys Asn Glu Leu His Arg Val Glu Ala Asn
     420 425 430
Gln Ile Gln Ala Val Lys Gly Gly Thr Glu Ile Leu Thr Gly Lys Gly
435 440 445
Lys Leu Asp Ala Ala Val Glu Gln Tyr Val Ile Ala Ser Gly Thr Lys
450 455 460
Leu Arg Leu Val Ser Gly Glu Ser Ala Ile Glu Leu Asn Ala Asn Gly
465 470 475 480
Lys Ile Asn Leu Ile Gly Lys Glu Phe Asn Phe Phe Val Glu Gly Asp
        485 490 495
Gly Tyr Ile Thr Thr Gly Gly Lys Leu His Leu Asn Thr Ser Gly Thr
     500 505 510
Lys Pro Gly Thr Thr Ala Pro Gly Ser Gly His Lys Gly Asp Ile Asp
515 520 525
Ala Ala Val Gln Glu Lys Phe Ser Pro Asn Lys Ser Ala Lys Asn Pro
530 535 540
Ala Pro Ala Ala Ser Ala Pro Ala Ala Thr Arg Pro Lys Pro Thr Thr
545 550 555
Lys Phe Ala Ser Ala Pro Pro Leu Lys Gly Ser Tyr Val Tyr Gln Asn
565 570 575
Asn Ser Tyr Asn Ser Asp Val Met Pro Phe Ser Glu Asp Val Val Lys
580 585 590
Glu Ile Asn Lys Ser Pro Thr Leu Gln Thr Gln Leu Lys Asp Leu Lys
595 600 605
Asp Lys Gly Trp Ala Ile Gln Pro Gly Ala Ala Gly Gly Gly Ser Tyr 610 620
Ala Asp Thr Asn Asn Lys Leu Ile Val Met Asp Pro Glu His Met Glu
625 630 635 640
Asp Thr Ala Thr Thr Val Gln Thr Leu Ala His Glu Ala Gly His Ala
      645 650 655
Thr Tyr Pro Val Ala Val Asp Ser Ser Ser Lys Glu Ser Phe Ile Asn
     660 665 670
Ser Gln Leu Met Asp Glu Gly Gly Ala Thr Leu Asn Asn Ile Lys Ile
675 680 685
Gln Arg Glu Ile Leu Ala Asn Gly Gly Ile Asp Ile Asp Ile Ala Gly
690 695 700
Ser Ala Glu Asn Leu Lys Ala Tyr Asn Ser Ala Tyr Asp Lys Met Val
705 710 715
Ser Gly Glu Leu Ser Arg Ile Asp Ala Ala Lys Ala Ile Gly Lys Val
                        730
Tyr Gly Lys Gly Glu Ile Ala Ser Gly Thr Asn Leu Asn Tyr Asn Asp
        740 745
Tyr Tyr Gly Gly Phe Tyr Gly Lys
                   760
```

<210> 6755 <211> 357 <212> PRT <213> Enterobacter cloacae

```
<400> 6755
Lys Pro Cys Ile Ile Gly Ser Thr Val Leu Phe Ile Ala Cys Ser Thr
                          10
Ala Ala Pro Ser Thr Leu Met Ala Thr Ser Ala Ala Pro Lys Leu Pro
      20
                25
                                   30
Pro Asn Thr Ile Ser Pro Arg Ala Asn Ile Ser Gly Glu Ala Asn His
 35
               40
                                   4.5
Ser Ala Thr Leu Arg Pro Ser Ile Pro Thr Thr Ala Gln His Met Val
              55
                     60
Val Arg Ile Thr Ala Arg Val Pro Lys Arg Phe Thr Ser Gln Ala Glu
        70 75
Gln Arg Met Pro Leu Ile Glu Pro Ile Asp Arg Pro Asn Ser Thr Ile
         85 90
Pro Ile Ser Ala Val Glu Thr Asp Ser Val Ser Arg Ile Ala Gly Val
      100 105
Arg Val Ala Gln Glu Ala Ile Ser Ser Pro Gly Met Lys Lys Asn Ile
115 120 125
Asn Ser Ala His Met Arg Arg Cys Arg Ala Leu Arg Gly Glu Val Ser
130 135 140
Val Ile Gly Ile Ser Thr Arg Ser Thr Thr Ile Ala Thr Thr Leu Ala
145 150 155
Thr Leu Cys Thr Phe Val His Lys Leu Asp Glu Asp Phe Met Ser Arg
         165 170 175
Pro Pro Asn Asp Pro Asn Arg Arg Glu Lys Ile Leu Gln Ala Thr Leu
                           190
     180
                     185
Asp Thr Ile Ala Glu His Gly Ile His Ala Val Thr His Arg Lys Ile
                    200 205
Ala Thr Cys Ala Gly Val Pro Leu Gly Ser Met Thr Tyr Tyr Phe Asp
210 215
Gly Met Glu Ser Leu Leu Glu Glu Ala Phe Thr Trp Phe Thr Gln Gln
225 230 235
Met Ser Gln Gln Tyr Arg Asp Phe Phe Ala Gly Val Thr Gly Arg Glu
           245
               250
Arg Ala Cys Glu Ala Ile Thr Tar Leu Ile Asn Ser Ser Ala Val Thr
        260 265 270
Thr Pro His Asn Met Ala Leu Met Tyr Gln Leu Tyr Ala Phe Met His
    275 280
                                 285
Arg Ser Ala Ala Leu Lys Thr Val Met Gln Asp Trp Met Lys Met Ser
 290 295 300
Gln Thr Thr Leu Glu Gln Trp Phe Asp Ser Ala Thr Ala Arg Ala Leu
              310
                             315
                                            320
Asp Ala Phe Ile Glu Gly Met Thr Leu His Phe Val Thr Asp Arg Ser
           325
                          330
Pro Leu Thr Arg Glu Glu Ile Arg Val Met Val Gly Arg Ile Ala Gly
        340
                       345
Glu Asp Thr Val
     355
```

<210> 6756 <211> 246 <212> PRT <213> Enterobacter cloacae

 $<\!400>6756$  Met Ser Thr Arg Lys Lys Leu Gly Leu Thr Asn Thr Thr Phe Lys Thr 1 5 10 15 Val His Gly Leu Asp Ala Pro Gly Gln Phe Ser Thr Ala Arg Asp Met 20 25 30 Ala Leu Leu Gly Lys Ala Leu Ile His Asp Val Pro Asp Glu Tyr Ala

40 Ile His Lys Glu Lys Glu Phe Thr Phe Asn Asn Ile Arg Gln Pro Asn 55 60 Arg Asn Arg Leu Leu Trp Ser Ser Asn Val Asn Val Asp Gly Met Lys 70 7.5 Thr Gly Thr Thr Ala Gly Ala Gly Tyr Asn Leu Val Ala Ser Ala Thr 90 95 8.5 Gln Gly Asp Met Arg Leu Ile Ser Val Val Leu Gly Thr Lys Thr Asp 100 105 110 Arg Ile Arg Phe Asn Glu Ser Glu Lys Leu Leu Thr Trp Gly Phe Arg 115 120 125 Phe Phe Glu Thr Val Thr Pro Ile Lys Pro Asp Ala Thr Phe Val Ser 130 135 140 Gln Arg Val Trp Phe Gly Asp Lys Ser Glu Val Asn Leu Gly Ala Gly 150 155 Glu Ala Gly Ser Val Thr Ile Pro Arg Gly Gln Leu Lys Asn Leu Lys 165 170 175 Ala Ser Tyr Thr Leu Thr Glu Pro Gln Leu Thr Ala Pro Leu Lys Lys 180 185 190 Gly Gln Val Val Gly Thr Ile Asp Phe Gln Leu Asn Gly Lys Ser Ile 205 195 200 Glu Gln Arg Pro Leu Val Val Met Glu Ala Val Glu Glu Gly Gly Phe 215 210 220 Phe Ser Arg Ile Trp Asp Phe Val Leu Met Lys Phe His Gly Trp Phe 230 235 Gly Ser Trp Phe Ser

<210> 6757 <211> 414 <212> PRT

<400> 6757

<213> Enterobacter cloacae

180

245

Arg Asp Cvs Met Ile Asn Arg Ser Ser Ser Gly Asn Arg Leu Gly Arg Gln Ala Leu Leu Phe Pro Leu Cys Leu Val Leu Tyr Glu Phe Ser Thr 25 20 Tyr Ile Gly Asn Asp Met Ile Gln Pro Gly Met Leu Ala Val Val Glu 35 40 4.5 Gln Tyr Asn Ala Gly Ile Glu Trp Val Pro Thr Ser Met Thr Ala Tyr 5.5 Leu Ala Gly Gly Met Phe Leu Gln Trp Leu Leu Gly Pro Leu Ser Asp 70 75 Arg Ile Gly Arg Arg Pro Val Met Leu Thr Gly Val Val Trp Phe Ile 85 Val Thr Cvs Leu Ala Thr Leu Leu Ala Gln Asn Ile Glu Gln Phe Thr 100 105 Leu Leu Arg Phe Leu Gln Gly Val Ser Leu Cys Phe Ile Gly Ala Val 120 115 Gly Tyr Ala Ala Ile Gln Glu Ser Phe Glu Glu Ala Val Cys Ile Lys 130 135 140 Ile Thr Ala Leu Met Ala Asn Val Ala Leu Ile Ala Pro Leu Leu Gly 150 155 160

Pro Leu Val Gly Ala Ala Trp Val His Val Ala Pro Trp Glu Gly Met

Phe Val Leu Phe Ala Ala Leu Ala Ala Ile Ser Phe Phe Gly Leu His

Arg Ala Met Pro Glu Thr Ala Thr Arg Leu Gly Glu Lys Leu Ser Leu

170

185

175

190

205

165

200 Lys Glu Leu Gly Arg Asp Tyr Lys Ala Val Leu Gln Asn Gly Arg Phe

```
215
Val Ala Gly Ala Leu Ala Thr Gly Phe Val Ser Leu Pro Leu Leu Ala
         230
                     235
Trp Ile Ala Gln Ser Pro Val Ile Ile Ile Ser Gly Glu Gln Leu Ser
           245 250 255
Ser Tyr Glu Tyr Gly Leu Leu Gln Val Pro Ile Phe Gly Ala Leu Ile
      260 265 270
Ile Gly Asn Leu Val Leu Ala Arg Leu Thr Ser Arg Arg Thr Val Arg
275 280 285
Ser Leu Ile Ile Met Gly Gly Trp Pro Ile Ala Ala Gly Leu Ile Ile
290 295 300
Ala Ala Val Ala Thr Val Ala Ser Ser His Ala Tyr Leu Trp Met Thr
305 310 315 320
Ala Gly Leu Ser Ile Tyr Ala Phe Gly Ile Gly Val Ala Asn Ala Gly
           325 330 335
Leu Val Arg Leu Thr Leu Phe Ala Ser Glu Met Ser Lys Gly Thr Val
       340 345 350
Ser Ala Ala Met Gly Met Leu Gln Met Leu Ile Phe Thr Val Gly Ile
355 360 365
Glu Val Ser Lys His Ala Tyr Ala Phe Giy Gly Asn Gly Leu Phe Ser
370 375 380
Leu Phe Asn Leu Ala Asn Gly Val Leu Trp Ile Ala Leu Met Val Val
385 390 395
Phe Leu Lys Asp Lys Arg Val Gly Asn Ala Leu Gln Pro
           405
```

<211> 163 <212> PRT <213> Enterobacter cloacae

<210> 6758

<400> 6758 Gly Asn Tyr Met Ser Thr Pro Ala His Leu Trp Leu Glu Asp Glu Asn 1.0 Gly Ser Pro Ile Ile Gly Ser Cys Met Met Pro Thr Arg Leu Gly Ser 20 25 3.0 Ile Glu Leu Lys Ser Phe Ser His Gly Val Thr Ile Pro Ala Asp Pro 4.5 35 40 Ser Trp Gly Lys Leu Thr Gly Thr Arg Val His Arg Pro Ile Thr Ile 55 50 60 Val Lys Glu Phe Asp Gln Thr Thr Pro Leu Leu Tyr Arg Ala Val Cys 70 75 Glu Gly Arg Val Met Lys Lys Gly Ile Ile Lys Met Tyr Arg Ile Leu 85 90 Glu Ser Gly Ile Glu Ala Glu Tyr Phe Asn Ile Val Met Glu Asn Val 100 110 Lys Phe Thr Thr Val Ala Pro Phe Met Thr Pro Asn Gly Met Ser Ser 120 125 115 Thr His Leu Glu Thr Leu Glu Leu Arg Tyr Glu Ala Ile Ser Trp Lys 135 140 Tyr Thr Glu Gly Asn Ile Ile Tyr Arg Asp Thr Trp Asn Asp Arg Cys 145 150 155 Cys Ala

<210> 6759 <211> 431 <212> PRT <213> Enterobacter cloacae

<400> 6759

```
Lys Met Phe Leu Ala Gly Ala Ile Phe Leu Phe Thr Leu Val Leu Val
                           10
Ile Trp Gln Pro Lys Gly Leu Ser Ile Gly Trp Ser Ala Thr Ile Gly
      20
                        2.5
Ala Val Leu Ala Leu Met Ser Gly Val Ile His Ile Asn Asp Ile Pro
    35
                     40
                                    45
Val Val Trp Asn Ile Val Trp Asn Ala Thr Ala Thr Phe Ile Ala Val
 50
       55
                                 60
Ile Ile Ile Ser Leu Leu Leu Asp Glu Ser Gly Phe Phe Glu Trp Ala
    70 75
Ala Leu His Val Ala Arg Trp Gly Asn Gly Arg Gly Arg Leu Leu Phe
        85 90
Thr Trp Ile Val Leu Leu Gly Ala Ala Val Ala Ala Leu Phe Ala Asn
      100 105 110
Asp Gly Ala Ala Leu Ile Leu Tor Pro Ile Val Ile Ala Met Leu Leu
    115 120
                         125
Ala Leu Gly Phe Ser Lys Gln Ala Thr Leu Ala Phe Val Met Ala Ala
                 135 140
Gly Phe Ile Ala Asp Thr Ala Ser Leu Pro Leu Ile Val Ser Asn Leu
    150 155
Val Asn Ile Val Ser Ala Asp Phe Phe Lys Leu Gly Phe Ser Glu Tyr
         165 170 175
Ala Ser Val Met Ile Pro Val Asp Ile Ala Ala Ile Ala Ala Thr Leu
        180 185 190
Val Met Leu His Leu Phe Phe Arg Asn Glu Ile Pro Pro Glu Tyr Asp
          200
195
                                    205
Leu Ala Lys Leu Arg Glu Pro Ala Leu Ala Ile His Asp Leu Pro Thr
210 215
                                 220
Phe Arg Thr Gly Trp IIe Val Leu Leu Leu Leu Val Gly Phe Phe
              230 235 240
Val Leu Glu Pro Leu Gly Ile Pro Val Ser Ala Ile Ala Thr Thr Gly
            245
                           250
Ala Leu Ile Leu Phe Ala Val Ala Lys Arg Gly His Ala Ile Asn Thr
        260
                        265
                                        270
Gly Lys Val Leu Arg Gly Ala Pro Trp Gln Ile Val Ile Phe Ser Leu
                     280
                                     285
Gly Met Tyr Leu Val Val Tyr Gly Leu Arg Asn Ala Gly Leu Thr Glu
                  295
                                 300
Ser Leu Ser Gly Val Leu Asp Tyr Leu Ala Gly Tyr Gly Leu Trp Val
              310
                              315
Thr Thr Leu Gly Thr Gly Phe Ile Thr Ala Phe Leu Ser Ser Ile Met
                           330
           325
Asn Asn Met Pro Thr Val Leu Ile Gly Ala Leu Ser Ile Glu Gly Ser
        340
                        345
                                        350
Ala Ala Thr Gly Leu Val Lys Glu Ala Met Ile Tyr Ala Asn Val Ile
     355
                    360
                                     365
Gly Cys Asp Leu Gly Pro Lys Ile Thr Pro Ile Gly Ser Leu Ala Thr
  370
                  375
                                  380
Leu Leu Trp Leu His Val Leu Ala Gln Lys Asn Met Thr Ile Thr Trp
               390
                              395
Gly Tyr Tyr Phe Arg Thr Gly Ile Ile Met Thr Leu Pro Val Leu Phe
         405 410
Val Thr Leu Ala Ala Leu Ala Leu Arg Leu Ser Phe Thr Leu
                      425
        420
```

<210> 6760

<sup>&</sup>lt;211> 147

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
Val Thr Asp Met Ser His Ile Thr Ile Tyr His Asn Pro Ala Cys Gly
                              1.0
Thr Ser Arg Asn Thr Leu Glu Met Ile Arg Asn Ser Gly Thr Glu Pro
         20
                           25
Glu Ile Ile Leu Tyr Leu Glu Asn Pro Pro Ser Arg Asp Glu Leu Thr
                      40
Arg Leu Ile Ala Asp Met Gly Ile Ser Ile Gly Asp Leu Leu Arg Lys
         55
Asn Val Glu Pro Tyr Glu Gln Leu Gly Leu Ser Gln Gly His Phe Thr
              70
                                7.5
Asp Asp Gln Leu Ile Asp Phe Met Leu Gln Tyr Pro Ile Leu Ile Asn
          85 90 95
Arg Pro Ile Val Val Thr Pro Leu Gly Thr Arg Leu Cys Arg Pro Ser
        100 105 110
Glu Val Val Leu Asp Ile Leu Pro Asp Ala Gln Lys Gly Ala Phe Thr
 115 120 125
Lys Glu Asp Gly Glu Val Val Val Asp Ala Asn Gly Lys Lys Ile Ser
130
                   135
Arg Gln
145
<210> 6761
<211> 459
<212> PRT
<213> Enterobacter cloacae
<400> 6761
Ile Pro Cys Ser Ala Met Val Ser Ser Val Ala Trp Ser Ile Phe Ser
                       10
Arg Arg Leu Gly Ser Phe Gly Gly Leu Leu Ile Lys Ser Ser Ser Ser
                       25
Leu Cys Thr Asn Val His Lys Val Ala Ser Val Val Ala Ile Val Val
                4.0
                           4.5
Leu Leu Val Leu Ile Pro Met Thr Leu Thr Ser Pro Arg Lys Ala Leu
                   55
                                    60
His Leu Arg Met Trp Ala Leu Phe Met Phe Phe Phe Ile Pro Gly Leu
             70 75
Leu Met Ala Ser Trp Ala Thr Arg Thr Pro Ala Ile Arg Asp Thr Leu
                90
Ser Val Ser Thr Ala Glu Met Gly Ile Val Leu Phe Gly Leu Ser Ile
       100 105 110
Gly Ser Met Ser Gly Ile Leu Cys Ser Ala Trp Leu Val Lys Arg Phe
     115
                      120
                                     125
Gly Thr Arg Ala Val Ile Arg Thr Thr Met Cys Cys Ala Val Val Gly
                   135
                                    140
Met Leu Gly Leu Ser Val Ala Leu Trp Phe Ala Ser Pro Leu Met Phe
145 150
                                155
Ala Leu Gly Leu Met Val Phe Gly Gly Ser Phe Gly Ala Ala Glu Val
            165
                 170
                                              175
Ala Ile Asn Val Glu Gly Ala Ala Val Glu Gln Ala Met Asn Lys Thr
                         185
         180
                                           190
Val Leu Pro Met Met His Gly Phe Tyr Ser Leu Gly Thr Leu Ala Gly
      195
                       200
                                        205
Ala Gly Val Gly Met Ala Leu Thr Ala Leu Gly Ile Ala Ala Asn Val
 210
                   215
                                    220
His Ile Leu Leu Ala Ala Leu Val Cys Ile Ile Pro Ile Leu Thr Gly
                230
Ile Arg Ala Ile Pro Ala Gly Thr Gly Gln His Ala Thr Asp Glu Gln
            245
                             250
                                              255
Lys Ser Ala Glu Lys Gly Leu Pro Phe Tyr Arg Asp Phe Gln Leu Met
                          265
```

```
Leu Ile Gly Val Val Val Leu Ala Met Ala Phe Ala Glu Gly Ser Ala
    275
                      280
Asn Asp Trp Leu Pro Leu Leu Met Val Asp Gly His Gly Phe Ser Pro
 290
              295
                                    300
Thr Ser Gly Ser Leu Ile Tyr Ala Gly Phe Thr Leu Gly Met Thr Val
305 310 315
Gly Arg Phe Thr Gly Gly Trp Phe Ile Asp Arg Tyr Ser Arg Val Ala 325 330 335
Val Val Arg Ala Ser Ala Leu Leu Gly Gly Leu Gly Ile Ala Met Ile
         340
                         345 350
Ile Phe Val Asp Val Asp Trp Ile Ala Gly Val Ser Val Ile Leu Trp
  355
          360 365
Gly Leu Gly Ala Ser Leu Gly Phe Pro Leu Thr Ile Ser Ala Ala Ser
 370 375 380
Asp Thr Gly Pro Asp Ala Pro Thr Arg Val Ser Val Val Ala Thr Thr
385 390 395 400
Gly Tyr Leu Ala Phe Leu Val Gly Pro Pro Leu Leu Gly Phe Leu Gly
            405 410 415
Glu His Tyr Gly Leu Arg Ser Ala Met Leu Val Val Leu Gly Leu Val
         420 425 430
Ile Ile Ala Ala Leu Val Ala Arg Ala Val Ala Lys Pro Glu Ala Glu
 435 440
Thr Thr Ser Met Glu Lys Gly Tyr Glu Arg
                455
<210> 6762
<211> 247
<212> PRT
<213> Enterobacter cloacae
<400> 6762
Trp Asp Ser Gly Arg Ser Cys Ala Ala Arg Ile Phe Ser Leu Thr Thr
Cys Gly Pro Gly Gly Gly Ser Gly Phe Pro Arg Cys Trp Phe Thr Gly
                    25
Trp Phe Pro Pro Gly Leu Leu Lys Ser Asn Glu Ile Met Leu Glu Asn
                   40
                                      45
Leu Asn Tyr Glu Leu Phe Tyr Leu Leu Asn Ala Thr Pro Ser Ser Pro
                   55
Glu Trp Met Ile Asp Leu Ala Thr Phe Ile Ala Lys Asp Val Ile Ser
              7.0
                                7.5
Ile Val Pro Ala Leu Ala Val Ile Leu Trp Leu Trp Gly Pro Arg Thr
            8.5
                            90
Gln Val Thr Ala Gln Arg His Leu Val Ile Lys Met Ala Met Ala Ile
         100
                         105
Gly Val Ser Val Leu Ala Ser Tyr Val Leu Gly His Ala Phe Pro His
    115
                      120
Asp Arg Pro Phe Val Asp Arg Val Gly Tyr Asn Phe Leu His His Ala
   130
                   135
                                   140
Pro Asp Asp Ser Phe Pro Ser Asp His Gly Thr Val Ile Phe Thr Phe
      150
145
                                155
Ala Leu Ala Phe Leu Phe Trp His Arq Leu Trp Ser Gly Val Val Leu
                             170
             165
Met Gly Val Ala Val Ala Ile Ala Trp Ser Arg Val Tyr Leu Gly Val
```

His Trp Pro Leu Asp Met Val Gly Gly Phe Leu Val Gly Leu Met Gly

Cys Val Ser Ala Ala Ile Leu Trp Ser Leu Phe Gly Pro Ala Leu Tyr

Arg Gly Leu Ser Gln Ala Tyr Arg Val Leu Phe Ala Leu Pro Ile Arg

200

215

230

190

240

205

220

235

180

195

Lys Gly Trp Ile Arg Asp 245

<210> 6763 <211> 143

<211> 143 <212> PRT

<213> Enterobacter cloacae

<400> 6763

Arg Val Leu Gln Ser Leu Phe Tyr Pro Ser Cys Tyr Leu Leu Leu Leu Leu 1 5 10 15 Ser Phe Thr Thr Ile Lys Tyr Asp Leu Met His Met Lys Gln Asn Ile 20 25 30

Gln Asp Asp Arg Met Leu His Pro Leu Gin Leu Phe Lys Thr Leu Ser 35 40 45

Asp Glu Thr Arg Leu Ser Ile Val Met Leu Leu Arg Glu Ala Gly Glu  $50 \ 60$  Leu Cys Val Cys Asp Leu Cys Ser Ala Thr Asn Glu Pro Gln Pro Lys

65 70 75 80 Val Ser Arg His Met Ala Leu Leu Arg Glu Ala Gly Leu Val Ile Asp

Arg Arg Glu Gly Lys Trp Ile Tyr Tyr Arg Leu Ser Pro Asn Met Pro

Ala Trp Ala Ala Thr Val Ile Asp Asn Ser Trp Asn Cys Leu Arg Glu 115 120 125

Glu Thr Arg Met Lys Leu Lys Asn Arg Leu Pro Gly Ser Cys 130 135 140

<210> 6764 <211> 295 <212> PRT

<213> Enterobacter cloacae

195

<400> 6764

Ser Leu Leu Pro Pro Trp Trp Arg Glu Arg Trp Gln Asn Arg Lys Gln 10 Lys Gln Arg Gln Trp Arg Arg Asp Met Ser Val Lys Leu Ile Ala Val 2.0 2.5 Asp Met Asp Gly Ser Phe Leu Ser Asp Ala Lys Thr Tyr Asn Arg Ala 4.0 Arg Phe Leu Ala Gln Tyr Ala Arg Met Lys Ala Gln Gly Ile Arg Phe 55 60 Val Val Ala Ser Gly Asn Gln Tyr Tyr Gln Leu Ile Ser Phe Phe Pro 70 75 Glu Ile Ala His Glu Ile Ala Phe Val Ala Glu Asn Gly Gly Trp Val 85 90 95 Val Asp Ala Gly Glu Asp Val Phe Asn Gly Glu Leu Ser Lys Glu His 100 105 110 Phe Leu Thr Val Ala Thr Leu Leu Asn Asp Val Pro Gly Ile Glu Ile 115 120 Ile Ala Cys Gly Lys Asn Ser Ala Tyr Thr Leu Lys Thr Tyr Asn Asp 130 135 140 Leu Phe Lys Glu Ile Ala Ala Lys Tyr Tyr His Arg Leu Glu Ser Val 155 160 Ser Ser Phe Asp Asn Leu Asn Asp Ile Phe Phe Lys Phe Gly Leu Asn 165 170 Val Ser Asp Asp Glu Ile Pro Arg Ile Gln Ala Leu Leu His Glu Lys

180 185 190 Leu Gly Asp Ile Met Val Pro Val Thr Thr Gly His Gly Ser Ile Asp

205

200

Leu Ile Ile Pro Gly Val His Lys Ala Asn Gly Leu Arg Ile Leu Gln

```
215
Ala Arg Trp Gly Ile Glu Asp Ser Glu Val Val Ala Phe Gly Asp Ser
               230
                             235
Gly Asn Asp Val Glu Met Leu Arg Gln Ala Gly Phe Gly Phe Ala Met
            245
                       250
Ala Asn Ala Arg Pro His Ile Lys Ala Val Ala Arg Tyr Glu Ala Pro
       260 265
                                  270
Asn Asn Asn Asp Glu Gly Val Leu Asp Val Ile Asp Arg Val Leu Asp
  275 280
Glv Glu Ala Pro Phe Asn
   290
<210> 6765
<211> 267
<212> PRT
<213> Enterobacter cloacae
<400> 6765
Ala Pro Ala Leu Arg Gly Leu Thr Phe Leu Ala Arg Gly Ser Met Glu
                        10
Thr Arg Arg Asp Asp Arg Ile Ala Gln Leu Leu Gln Ala Leu Lys Arg
                  25
Ser Asp Lys Leu His Leu Lys Glu Ala Ala Thr Leu Leu Gly Val Ser
35
                    40
                                       4.5
Glu Met Thr Ile Arg Arg Asp Leu Asn Asn Asp Ser Ala Pro Val Val
            55
Leu Leu Gly Gly Tyr Ile Val Leu Glu Pro Arg Ser Ala Ser His Tyr
                70
                                75
Leu Leu Ser Asp Gln Lys Thr Arg Leu Val Glu Glu Lys Arg Lys Ala
                             90
Ala Arg Leu Ala Ala Ser Leu Val Gln Pro His Gln Thr Leu Phe Phe
         100 105
Asp Cys Gly Thr Thr Thr Pro Trp Ile Ile Glu Ala Ile Asn Ser Thr
      115 120
                                       125
Val Pro Phe Thr Ala Val Cys Tyr Ser Leu Asn Thr Phe Leu Ala Leu
                135
                                    140
Gln Glu Lys Pro Ala Cys Arg Val Ile Leu Cys Gly Gly Glu Phe His
               150 155
Ala Ser Asn Ala Ile Phe Lys Pro Leu Asn Ile Gln Asp Thr Leu Ser
            165 170
                                 175
Asn Val Cys Pro Asp Ile Ala Pne Tyr Ser Ala Ala Gly Val Asn Val
         180 185 190
Lys Gln Gly Ala Thr Cys Phe Asn Leu Glu Glu Leu Pro Val Lys Gln
    195 200 205
Trp Ala Leu Asn Ala Ala Gln Gln His Val Leu Val Val Asp His Ser
  210
                   215
                                    220
Lys Phe Gly Lys Val Arg Pro Ala Arg Met Gly Glu Leu Ser Arg Phe
225
                230
                      235
Asp Ala Ile Val Ser Asp Cys Arg Pro Asp Asp Glu Leu Val Ala Tyr
            245
                 250
Ala Lys Ala Gln Gln Val Lys Leu Met Tyr
         260
                          265
<210> 6766
<211> 136
<212> PRT
<213> Enterobacter cloacae
<400> 6766
Gly Phe Thr Glu Lys Asp Lys Val Met Arg His Arg Lys Ser Gly Arg
```

```
2882
Gln Leu Asn Arg Asn Ser Ser His Arg Gln Ala Met Phe Arg Asn Met
       20
                           25
Ala Gly Ser Leu Val Arg His Glu Ile Ile Lys Thr Thr Leu Pro Lys
       35
                          40
                                             4.5
Ala Lys Glu Leu Arg Arg Val Val Glu Pro Leu Ile Thr Leu Ala Lys
                      55
Thr Asp Ser Val Ala Asn Arg Arg Leu Ala Phe Ala Arg Thr Arg Asp
                  7.0
                                     7.5
                                                        8.0
Asn Glu Ile Val Ala Lys Leu Phe Asn Glu Leu Gly Pro Arg Phe Ala
              8.5
                                 90
Ser Arg Ala Gly Gly Tyr Thr Arg Ile Leu Lys Cys Gly Phe Arg Ala
          100 105
Gly Asp Asn Ala Pro Met Ala Tyr Ile Glu Leu Val Asp Arg Ser Glu
    115 120
Lys Ala Glu Ala Ala Ala Glu
  130
<210> 6767
<211> 162
<212> PRT
<213> Enterobacter cloacae
<400> 6767
Gly Gly His Ala Met Phe Asp Val Leu Met Tyr Leu Phe Glu Thr Tyr
                                 10
Ile His Asn Glu Ala Glu Met Gln Val Asp Gln Asp Lys Leu Thr Arg
```

20 25 Asp Leu Thr Asp Ala Gly Phe Glu Arg Glu Asp Ile Tyr Asn Ala Leu 40 Met Trp Leu Asp Lys Leu Ala Asp Tyr Gln Asp Gly Leu Ala Glu Pro 55 Met Gln Leu Ala Ser Asp Pro Leu Ser Val Arg Ile Tyr Thr Ala Glu 7.0 75 Glu Cys Glu Arg Leu Asp Ala Ser Cys Arg Gly Phe Ile Leu Phe Leu 85 90 Glu Gln Ile Gln Val Leu Asn Leu Glu Thr Arg Glu Met Val Ile Glu 100 105 Arg Val Met Ala Leu Asp Thr Ala Glu Phe Glu Leu Glu Asp Leu Lys 120 125 Trp Val Ile Leu Met Val Leu Phe Asn Ile Pro Gly Cys Glu Asn Ala 135 140 Tyr Gln Gln Met Glu Glu Leu Leu Phe Glu Val Asn Glu Gly Met Leu 145 150 155 His

```
<210> 6768
<211> 209
<212> PRT
<213> Enterobacter cloacae
```

Ala Asn Tyr Ala Gln Leu Lys Pro Tyr Ile Asp Asp Ser Met Leu Thr 90 8.5 Pro Ala Gln Arg Glu Thr Ile Phe Ser Ala Trp Pro Gly Pro Val Thr 100 105 Phe Val Phe Pro Ala Gln Pro Thr Thr Pro Arg Trp Leu Thr Gly Arg 115 120 Phe Asp Ser Leu Ala Val Arg Val Thr Asp His Pro Leu Val Val Glu 130 135 140 Leu Cys Gln Ala Phe Gly Lys Pro Leu Val Ser Thr Ser Ala Asn Leu 150 155 Thr Gly Leu Pro Pro Cys Arg Thr Thr Glu Glu Val Leu Ala Gln Phe 165 170 175 Gly Ser Asp Phe Pro Val Ala Val Gly Glu Thr Gly Gly Arg Leu Asn 180 185 190 Pro Ser Glu Ile Arg Asp Ala Leu Thr Gly Glu Arg Phe Arg Gln Gly

<210> 6769 <211> 122 <212> PRT

<213> Enterobacter cloacae

<400> 6769 Glu Cys Ile Val Ala Arg Ile Ala Gly Ile Asn Ile Pro Asp Gln Lys 10 His Ala Val Ile Ala Leu Thr Ser Ile Tyr Gly Val Gly Lys Thr Arg 25 Ser Lys Ala Ile Leu Ala Ala Ala Gly Ile Ala Glu Asp Val Lys Ile 40 Ser Glu Leu Ser Glu Glu Gln Ile Asp Thr Leu Arg Asp Glu Val Ala 55 Lys Phe Val Val Glu Gly Asp Leu Arg Arg Glu Ile Ser Met Ser Ile 70 75 Lys Arg Leu Met Asp Leu Gly Cys Tyr Arg Gly Leu Arg His Arg Arg 85 90 Gly Leu Pro Val Arg Gly Gln Arg Thr Lys Thr Asn Ala Arg Thr Arg 100 105 Lys Gly Pro Arg Lys Pro Ile Lys Lys

<211> 208 <212> PRT <213> Enterobacter cloacae

<210> 6770

```
Gly Arg Leu Asp Asn Val Val Tyr Arg Met Gly Phe Gly Ala Thr Arg
       100
                      105
Ala Glu Ser Arg Gln Leu Val Ser His Lys Ala Ile Met Val Asn Gly
                        120
Arg Val Val Asn Ile Ala Ser Tyr Gln Val Lys Ala Asn Asp Val Val
 130
                    135
                                      140
Ser Ile Arg Glu Lys Ala Lys Lys Gln Ser Arg Val Lys Ala Ala Leu
                150
                                   155
Glu Leu Ala Glu Gln Arg Glu Lys Pro Thr Trp Leu Glu Val Asp Ala
                          170
        165
                                                 175
Gly Lys Met Glu Ser Thr Phe Lys Arg Gln Pro Glu Arg Pro Asp Leu
       180
                        185
                                      190
Ser Ala Asp Ile Asn Glu His Leu Ile Val Glu Leu Tyr Ser Lys
                       200
<210> 6771
<211> 153
<212> PRT
<213> Enterobacter cloacae
<400> 6771
Lys Val Asn Thr Lys Asn Lys Gln Gly Val Ala Met Tyr Arg Ile Gly
                              1.0
Glu Leu Ala Lys Leu Ala Asr Val Thr Pro Asp Thr Ile Arg Tyr Tyr
 20
                    25
                                             30
Glu Lys Gln Gln Met Ile Asp His Glu Val Arg Thr Glu Gly Gly Phe
                  40
                               45
Arg Leu Tyr Thr Asp Asn Asp Leu Gln Arg Leu Arg Phe Ile Arg Tyr
                 5.5
Ala Arg Gln Leu Gly Phe Thr Leu Glu Ser Ile Arg Glu Leu Leu Ser
           70
                            75
Ile Arg Ile Asp Pro Glu His His Thr Cys Gln Glu Ser Lys Ser Ile
            85
                             90
Val Gln Ala Arg Leu Asp Glu Val Glu Gly Arg Ile Gln Glu Leu Gln
       100 105 110
Ala Met Gln Arg Ser Leu Gln Arg Leu Asn Asp Pro Cys Cys Gly Thr
   115 120 125
Ala His Ser Ser Val Tyr Cys Ser Ile Leu Glu Ala Leu Glu Gln Gly
                  135
Ala Ser Ser Glu Ala Gln Gly Cys
<210> 6772
<211> 78
<212> PRT
<213> Enterobacter cloacae
<400> 6772
Leu Cys Ser Gly Glu Met Met Ser Arg Tyr Gln His Thr Lys Gly His
Ile Lys Asp Asn Ala Ile Glu Ala Leu Leu His Asp Pro Leu Phe Arg
                            25
                                             30
Gln Arg Val Glu Lys Asn Lys Lys Gly Lys Gly Ser Tyr Leu Arg Lys
      35
                        4.0
                                        45
Gly Lys His Ala Gln Arg Gly Lys Trp Glu Ala Ser Gly Lys Gln Ala
                    55
Asn Arg Phe Phe Thr Thr Gly Leu Ser Val Ser Val Ser
                 70
<210> 6773
<211> 102
```

<212> PRT <213> Enterobacter cloacae <400> 6773 Pro Ala Asn Val Phe Ala Arg Asp Asn Val Met Glu Thr Tyr Ala Val 10 Phe Gly Asn Pro Ile Ala His Ser Lys Ser Pro Leu Ile His Gln Leu Phe Ala Glu Gln Leu Gln Ile Asp His Pro Tyr Gly Arg Val Leu Ala 40 Pro Val Asp Ala Phe Leu Pro Thr Leu Asn Ser Phe Phe Val Ala Gly 60 Gly Lys Gly Ala Asn Val Thr Val Pro Phe Lys Glu Glu Ala Phe Gly 70 75 Arg Ala Asp Glu Leu Thr Glu Arg Ala Cys Leu Leu Pro Arg Gly Leu 90 8.5 Ala Gly Pro Leu Ile Glu 100 <210> 6774 <211> 131 <212> PRT <213> Enterobacter cloacae <400> 6774 Ile Met Ala Lys Ala Pro Val Arg Ala Arg Lys Arg Val Arg Lys Gln 10 Val Ser Asp Gly Val Ala His Ile His Ala Ser Phe Asn Asn Thr Ile 20 25 Val Thr Ile Thr Asp Arg Gln Gly Asn Ala Leu Gly Trp Ala Thr Ala 40 Gly Gly Ser Gly Phe Arg Gly Ser Arg Lys Ser Thr Pro Phe Ala Ala Gln Val Ala Ala Glu Arg Cys Ala Glu Ala Val Lys Glu Tyr Gly Ile 7.0 75 Lys Asn Leu Glu Val Met Val Lys Gly Pro Gly Pro Gly Arg Glu Ser 90 Thr Val Arg Ala Leu Asn Ala Ala Gly Phe Arg Ile Thr Asn Ile Thr 105 Asp Val Thr Pro Ile Pro His Asn Gly Cys Arg Pro Pro Lys Lys Arg Arg Val 130 <210> 6775 <211> 336 <212> PRT <213> Enterobacter cloacae <400> 6775 Tyr Gln Arg Glu Asp Thr Met Gln Gly Ser Val Thr Glu Phe Leu Lys Pro Arg Leu Val Asp Ile Glu Gln Val Ser Ser Thr His Ala Lys Val 25 Thr Leu Glu Pro Leu Glu Arg Gly Phe Gly His Thr Leu Gly Asn Ala 35 40 45 Leu Arg Arg Ile Leu Leu Ser Ser Met Pro Glv Cvs Ala Val Thr Glu 55 Val Glu Ile Asp Gly Val Leu His Glu Tyr Ser Thr Lys Glu Ser Val 75 Gln Glu Asp Ile Leu Glu Ile Leu Leu Asn Leu Lys Gly Leu Ala Val

```
Arg Val Gln Gly Lys Asp Glu Val Ile Leu Thr Leu Asn Lys Ser Gly
      100
                  105
                            110
Ile Gly Pro Val Thr Ala Ala Asp Ile Thr His Asp Gly Asp Val Glu
     115
           120
Ile Val Lys Pro Gln His Val Ile Cys His Leu Thr Asp Glu Asn Ala
130 135 140
Ala Ile Ser Met Arg Ile Lys Val Gln Arg Gly Arg Gly Tyr Val Pro
145 150 155
Ala Ser Ala Arg Ile His Ser Glu Glu Asp Glu Arg Pro Ile Gly Arg
      165 170 175
Leu Leu Val Asp Ala Cys Tyr Ser Pro Val Glu Arg Ile Ala Tyr Asn
  180 185 190
Val Glu Ala Ala Arg Val Glu Gln Arg Thr Asp Leu Asp Lys Leu Val
195 200 205
Ile Glu Met Glu Thr Asn Gly Thr Ile Asp Pro Glu Glu Ala Ile Arg
210 215 220
Arg Ala Ala Thr Ile Leu Ala Glu Gln Leu Glu Ala Phe Val Asp Leu
225 230 235
Arg Asp Val Arg Gln Pro Glu Val Lys Glu Glu Lys Pro Glu Phe Asp
          245 250 255
Pro Ile Leu Leu Arg Pro Val Asp Asp Leu Glu Leu Thr Val Arg Ser
       260 265 270
Ala Asn Cys Leu Lys Ala Glu Ala Ile His Tyr Ile Gly Asp Leu Val
275 280
Gln Arg Thr Glu Val Glu Leu Leu Lys Thr Pro Asn Leu Gly Lys Lys
290 295
                              300
Ser Leu Thr Glu Ile Lys Asp Val Leu Ala Ser Arg Gly Leu Ser Leu
           310 315 320
Gly Met Arg Leu Glu Asn Trp Pro Pro Ala Ser Ile Ala Asp Glu
```

<210> 6776 <211> 170 <212> PRT

<213> Enterobacter cloacae

165

<400> 6776 Ser Phe Arg Glu Ser Arg Ser Cys Cys Arg Val Ile Cys Ser Asn Val Lys Lys Pro Ala Ser Ala Gly Phe Phe Ile Ser Ala Glu Ser Pro Leu 25 Ile Tyr Asn Val Cys Ile Phe Ser Ala His Pro Leu Glu Phe Ile Met 35 40 4.5 Trp Leu Leu Asp Gln Trp Ser Glu Arg His Ile Cys Asp Ala Gln Asn 55 50 60 Lys Gly Glu Phe Glu Asn Leu Pro Gly Ser Gly Glu Pro Leu Ile Leu 75 65 70 Asp Asp Asp Ser His Ile Pro Pro Glu Leu Arg Ala Gly Tyr Arg Leu 90 8.5 Leu Lys Asn Ala Gly Cys Leu Pro Pro Glu Leu Gln Gln Arg Asn Glu 100 105 Ala Val Glu Leu Ala Asp Leu Leu Lys Gly Ile His Lys Asn Asp Pro 125 115 120 Arg Tyr Ser Glu Ile Ser Arg Arg Leu Ala Leu Ile Glu Leu Lys Leu 130 135 140 Arg Gln Thr Gly Met Asn Thr Asp Phe Leu His Gly Glu Tyr Ser Glu 150 Arg Leu Ile Gln Lys Ile Asn Lys Glu

```
<210> 6777
<211> 400
<212> PRT
<213> Enterobacter cloacae
<400> 6777
Thr Asn Pro Arg Ser Ile Asp Ser Ile Ser Asp Gln Ser Gln Arg Leu
                    10
Leu Arg Leu Leu Met Ala Gly Lys Arg Met Thr Ser Thr Glu Ile Trp
 20
                     25
                                       3.0
Leu Arg Leu Ile Asn Ile Gly Ser Leu Tyr Gly Asp Ala Met Leu Glu
 35 40
                         4.5
Ile Ala Gln Arg Leu Leu Arg Gln Ala Thr Val Asp Ala Glu Ala Val
50 55
                      60
Asn Ala Ala Gly Leu Ser Pro Lys His Ala Val Lys Phe Phe Ser Phe
              7.0
                   75
Ser Glu Ser Glu Leu Glu Arg Ser Leu Glu Trp Leu Glu His Thr Asp
           85 90
Asn His Leu Leu Thr Ala Asp Asp Pro Arg Phe Pro Pro Leu Leu Arg
      100 105 110
Ser Ile Pro Asp Phe Pro Gly Ala Leu Phe Val Arg Gly Arg Val Asp
115 120 125
Val Leu Asn Ser Met Gln Leu Ala Val Val Gly Ser Arg Ala Pro Ser
130 135 140
Trp Tyr Gly Glu Arg Trp Gly Lys Met Leu Ser Glu Gln Leu Ser Gln 145 150 150 160
Cys Gly Phe Thr Ile Thr Ser Gly Leu Ala Cys Gly Ile Asp Gly Val
      165 170 175
Ala His His Ala Ala Leu Ser Ala Lys Gly Arg Ser Val Ala Val Leu
       180 185 190
Gly Asn Gly Leu Phe Ser Leu Tyr Pro Arg Arg His His Ile Leu Ala
195 200 205
Glu Gln Leu Ile Ala Ser Glu Gly Ala Ile Val Ser Glu Phe Ser Leu
210 215 220
Ser Thr Ser Pro Arg Pro Gly Asn Phe Pro Arg Arg Asn Arg Ile Ile
225
            230
                            235
Ser Gly Leu Ser Gln Gly Val Leu Val Val Glu Ala Ala Ile Arg Ser
           245
                          250 255
Gly Ser Leu Val Thr Ala Arg Cys Ala Leu Glu Gln Gly Arg Glu Val
        260
                      265 270
Phe Ala Leu Pro Gly Pro Leu Gly Asn Pro Gly Cys Glu Gly Pro His
     275 280
                                  285
Trp Leu Ile Lys Gln Gly Ala Thr Leu Val Thr Cys Lys Glu Asp Ile
                 295
                                 300
Leu Glu Asn Leu Gln Tyr Gly Leu His Trp Leu Gln Asp Asp Leu Gln
              310
                              315
Lys Arg His Ile Ser Ser Asp Gln Glu Ala Val Ala Leu Pro Phe Pro
           325
                           330 335
Lys Leu Leu Ala Asn Val Gly Asp Glu Val Thr Pro Val Asp Val Val
        340
                       345 350
Ala Glu Arg Ala Gly Gln Pro Val Pro Val Thr Val Ala Gln Leu Leu
     355 360
                                    365
Glu Leu Glu Leu Ala Gly Trp Ile Ala Ala Val Pro Gly Gly Tyr Val
 370 375 380
Arg Leu Arg Arg Ala Cys His Val Arg Arg Thr Asp Val Phe Val
               390
                              395
                                             400
<210> 6778
<211> 199
<212> PRT
<213> Enterobacter cloacae
```

<400> 6778 Arg Tyr Ala Ala Leu Ile Leu Cys Ala Ala Thr Arg Val Val Met Ala 10 Lys Ser Ala Leu Phe Thr Val His Lys Asn Glu Pro Cys Pro Gln Cys 20 25 30 Gly Ala Glu Leu Val Ile Arg Ser Gly Lys His Gly Pro Phe Leu Gly 35 40 45 Cys Ser His Tyr Pro Glu Cys Asp Tyr Val Arg Ser Leu Lys Ser Gln 55 5.0 60 Ala Asp Gly His Ile Val Lys Ile Leu Glu Gly Gln Leu Cys Pro Leu 70 75 Cys Gly Gly Glu Leu Ala Leu Arg Gln Gly Arg Phe Gly Met Phe Ile 85 90 Gly Cys Ser Arg Tyr Pro Glu Cys Asp His Thr Glu Gln Ile Asp Lys 100 105 110 Pro Asp Glu Thr Ala Ile Ala Cys Pro Gln Cys Gln Arg Gly Gln Leu 115 120 125 Val Gln Arg Arg Ser Arg Tyr Gly Lys Thr Phe His Ser Cys Asp Arg 130 135 140 Tyr Pro Glu Cys Gln Phe Val Ile Asn Phe Lys Pro Val Ala Gly Val 145 150 150 155 160 Cys His Asn Cys Asp Tyr Pro Leu Leu Ile Glu Lys Lys Thr Ala Gln 165 170 175 Gly Leu Lys Arg Phe Cys Ala Ser Lys Gln Cys Gly Lys Pro Val Ser 180 185 Ala Asp Gln Ile Ser Glu

<211> 441 <212> PRT <213> Enterobacter cloacae

<210> 6779

<400> 6779 Gly Pro Val Phe Pro Gly Ile Phe Ile Phe Thr Val Met Lys Arg Gln 1 5 10 Asn Leu Arg Thr Met Ala Ala Gln Ala Val Glu Gln Val Ile Glu Gln 20 25 Gly Gln Ser Leu Ser Asn Val Leu Pro Pro Leu Gln Gln Lys Val Ser 35 4.0 Asp Lys Asp Lys Ala Leu Leu Gln Glu Leu Cys Phe Gly Val Leu Arg 55 Thr Leu Ser Gln Leu Glu Trp Leu Ile Asn Lys Leu Met Ser Arg Pro 70 75 Met Ser Gly Lys Gln Arg Thr Val His Tyr Leu Ile Met Val Gly Phe 85 90 Tyr Gln Leu Leu His Thr Arg Ile Pro Pro His Ala Ala Leu Ala Glu 105 100 Thr Val Glu Gly Ala Val Ala Ile Lys Arg Pro Gln Leu Lys Gly Leu 120 115 125 Ile Asn Gly Val Leu Arg Gln Phe Gln Arg Gln Gln Asp Glu Leu Leu 135 140 Ala Glu Phe Ala Gln Ser Glu Ala Arg Phe Leu His Pro Glu Trp Leu 150 155 145 160 Leu Asn Arg Leu Lys Lys Ala Tyr Pro Gln Gln Trp Gln Asp Ile Val 165 170 Asp Ala Asn Asn Gln Arg Pro Pro Met Trp Leu Arg Val Asn Arg Asn 180 185 190 His His Thr Arg Asp Ala Trp Leu Ala Leu Leu Glu Glu Thr Gly Met 200

```
Ser Gly Phe Thr His Ala Ala Tyr Pro Asp Ala Val Arg Leu Ala Ser
                 215
Pro Ala Pro Val His Ala Leu Pro Gly Phe Glu Glu Gly Trp Val Thr
                   235
             230
Val Gln Asp Ala Ser Ala Gln Gly Cys Met Ala Trp Leu Glu Pro Lys
         245 250 255
Asp Gly Glu Gln Ile Leu Asp Leu Cys Ala Ala Pro Gly Gly Lys Thr
260 265 270
Thr His Ile Leu Glu Val Ala Pro Gln Ala Cys Val Met Ala Val Asp
     275 280 285
Val Asp Glu Gln Arg Leu Ser Arg Val Tyr Asp Asn Leu Lys Arg Leu
 290 295 300
Gly Met Lys Ala Gln Val Lys Gln Gly Asp Gly Arg Lys Pro Ala Asp
305 310 315 320
Trp Cys Gly Asp Thr Arg Phe Asp Arg Ile Leu Leu Asp Ala Pro Cys
      325 330 335
Ser Ala Thr Gly Val Ile Arg Arg His Pro Asp Ile Lys Trp Leu Arg
   340 345 350
Arg Asp Arg Asp Ile Lys Glu Leu Ala Gln Leu Gln Ser Glu Ile Leu
355 360 365
Asp Ala Ile Trp Pro His Leu Lys Pro Gly Gly Thr Leu Val Tyr Ala
370 375 380
Thr Cys Ser Val Leu Pro Glu Glu Asn Ser Gln Gln Ile Ala Ala Phe
385 390 395
Leu Lys Arg Thr Pro Asp Ala Thr Leu His Asp Thr Gly Thr Pro Glu
        405 410 415
His Pro Gly Leu Gln Asn Leu Pro Gly Ala Glu Glu Gly Asp Gly Phe
 420 425
Phe Tyr Ala Lys Leu Ile Lys Glu
```

<212> PRT <213> Enterobacter cloacae

180

<210> 6780 <211> 470

<400> 6780 Ser Lys Ser Asp Val Glu Asn Arg Ser Arg Lys Met Lys Ile Ile Ile 10 Leu Gly Ala Gly Gln Val Gly Gly Thr Leu Ala Glu Asn Leu Val Gly 25 3.0 Glu Asn Asn Asp Ile Thr Ile Val Asp Thr Asn Gly Asp Arg Leu Arg 40 Val Leu Gln Asp Lys Phe Asp Leu Arg Val Val Gln Gly His Gly Ser 55 His Pro Arg Val Leu Arg Glu Ala Gly Ala Asp Asp Ala Asp Met Leu 70 75 Val Ala Val Thr Ser Ser Asp Glu Thr Asn Met Val Ala Cys Gln Val 8.5 90 Ala Tyr Ser Leu Phe Asn Thr Pro Asn Arg Ile Ala Arg Ile Arg Ser 105 100 Pro Asp Tyr Val Arg Asp Ala Glu Lys Leu Phe Asn Ser Glu Ala Val 115 120 125 Pro Ile Asp His Leu Ile Ala Pro Glu Gln Leu Val Ile Asp Ser Ile 130 135 140 Tyr Arg Leu Ile Glu Tyr Pro Gly Ala Leu Gln Val Val Asn Phe Ala 145 150 155 Glu Gly Lys Val Ser Leu Ala Val Val Lys Ala Tyr Tyr Gly Gly Pro  $165 \\ 170 \\ 175$ Leu Ile Gly Asn Ala Leu Ser Thr Met Arg Glu His Met Pro His Ile

```
Asp Thr Arg Val Ala Ala Ile Phe Arg His Asp Arg Pro Ile Arg Pro
   195
                       200
Gln Gly Ser Thr Ile Val Glu Ala Gly Asp Glu Val Phe Phe Ile Ala
 210
                 215
                                    220
Ala Ser Gln His Ile Arg Ala Val Met Ser Glu Leu Gln Arg Leu Glu
    230 235
Lys Pro Tyr Lys Arg Ile Met Leu Val Gly Gly Gly Asn Ile Gly Ala
          245 250 255
Gly Leu Ala Arg Arg Leu Glu Lys Asp Tyr Ser Val Lys Leu Ile Glu
         260 265 270
Arg Asp Gln Gln Arg Ala Ser Glu Leu Ala Glu Lys Leu Gln Asn Thr
     275 280 285
Ile Val Phe Tyr Gly Asp Ala Ser Asp Gln Glu Leu Leu Ala Glu Glu
 290 295 300
His Ile Asp Gln Val Asp Leu Phe Ile Ala Val Thr Asn Asp Asp Glu
       310
                                 315
Ala Asn Ile Met Ser Ala Met Leu Ala Lys Arg Met Gly Ala Lys Lys
            325
                             330 335
Val Met Val Leu Ile Gln Arg Lys Ala Tyr Val Asp Leu Val Gln Gly
                          345
Ser Val Ile Asp Ile Ala Ile Ser Pro Gln Gln Ala Thr Ile Ser Ala
      355
                       360
                                        365
Leu Leu Ser His Val Arg Lys Ala Asp Ile Val Gly Val Ser Ser Leu
                   375
                                     380
Arg Arg Gly Val Ala Glu Ala Ile Glu Ala Val Ala His Gly Asp Glu
                390
                                 395
Thr Thr Ser Arg Val Val Gly Arg Ala Ile Asp Glu Ile Lys Leu Pro
             405
                              410
                                              415
Pro Gly Thr Ile Ile Gly Ala Val Val Arg Gly Asn Asp Val Met Ile
         420
                          425
                                           430
Ala Asn Asp Asn Leu Arg Ile Glu Gln Gly Asp His Val Ile Met Phe
                      440
435
                              445
Leu Thr Asp Lys Lys Phe Ile Thr Asp Val Glu Arg Leu Phe Gln Pro
450
                   455
Ser Pro Phe Phe Leu
               470
<210> 6781
<211> 176
<212> PRT
<213> Enterobacter cloacae
<400> 6781
Thr Arg Leu Trp Lys Phe Met Ala Val Leu Gln Val Leu His Ile Pro
                                        15
Asp Glu Arg Leu Arg Ile Val Ala Glu Pro Val Lys Glu Val Asn Ala
          20
Glu Ile Gln Arg Ile Val Asp Asp Met Phe Asp Thr Met Tyr Ala Glu
                       40
Glu Gly Ile Gly Leu Ala Ala Thr Gln Val Asp Ile His Lys Arg Ile
 50
                 5.5
Ile Val Ile Asp Val Ser Glu Asn Arg Asp Glu Arg Leu Val Leu Ile
                70
Asn Pro Glu Leu Leu Glu Lys Ser Gly Glu Thr Gly Ile Glu Glu Gly
                              90
Cys Leu Ser Ile Pro Glu Gin Arg Ala Leu Val Pro Arg Ala Glu Lys
         100
                          105
Val Lys Ile Arg Ala Leu Asp Arg Asp Gly Asn Pro Phe Glu Leu Glu
                       120
      115
                                        125
Ala Asp Asp Leu Leu Ala Ile Cys Ile Gln His Glu Met Asp His Leu
```

Val Gly Lys Leu Phe Ile Asp Tyr Leu Ser Pro Leu Lys Gln Gln Arg 155 160 145 150 Ile Arg Gln Lys Val Glu Lys Leu Asp Arg Leu Arg Ser Arg Ala 170 165 <210> 6782 <211> 324 <212> PRT <213> Enterobacter cloacae <400> 6782 Arg Pro Pro Asp Thr Arg Asn Asn Val Ser Thr Ser Leu Arg Ile Ile 10 Phe Ala Gly Thr Pro Asp Phe Ala Ala Arg His Leu Asp Ala Leu Leu 20 25 30 Ser Ser Gly His Gln Ile Val Gly Val Phe Thr Gln Pro Asp Arg Pro 35 4.0 4.5 Ala Gly Arg Gly Lys Lys Leu Met Pro Gly Pro Val Lys Val Leu Ala 5.5 60 Glu Thr His Gly Leu Pro Val Phe Gln Pro Ala Ser Leu Arg Pro Glu 7.0 75 Glu Asn Gln Gln Leu Val Ala Asp Leu Asn Ala Asp Val Met Val Val 90 95 85 Val Ala Tyr Gly Leu Ile Leu Pro Lys Ala Val Leu Asp Met Pro Arg 100 105 110 Leu Gly Cys Val Asn Val His Gly Ser Leu Leu Pro Arg Trp Arg Gly 120 125 Ala Ala Pro Ile Gln Arg Ala Leu Trp Ala Gly Asp Ala Glu Thr Gly 135 140 Val Thr Ile Met Lys Met Asp Val Gly Leu Asp Thr Gly Asp Met Leu 150 155 Tyr Lys Leu Ala Cys Pro Ile Tar Ala Glu Asp Thr Ser Ala Thr Leu 165 170 175 Tyr Asp Lys Leu Ala Asp Leu Gly Pro Gln Gly Leu Ile Glu Thr Leu 180 185 190 Gin Gin Leu Ala Asp Asn Thr Ala Thr Pro Glu Val Gin Asp Glu Ala 200 205 Gln Val Thr Tyr Ala Glu Lys Lec Ser Lys Glu Glu Ala Arg Ile Asp 215 220 210 Trp Ser Leu Ser Ala Ala Gln Leu Glu Arg Cys Ile Arg Ala Phe Asn 230 235 240 225 Pro Trp Pro Met Ser Trp Leu Met Ile Asp Glu Gln Pro Val Lys Val 245 250 Trp Lys Ala Ser Val Ile Asn Gly Asn Thr Ser Ala Glu Pro Gly Thr 265 270 260 Ile Ile Asp Ala Ser Lys Asn Gly Ile Gln Val Ala Thr Gly Glu Gly 275 280 Ile Leu Asn Leu Glu Ser Leu Gln Pro Ala Gly Lys Lys Ala Met Ser 295 300 290 Ala Gln Asp Leu Leu Asn Ser Arg Arg Glu Trp Phe Ile Pro Gly Asn 315

```
<210> 6783
<211> 153
<212> PRT
<213> Enterobacter cloacae
```

310

<400> 6783

305

Arg Leu Ala

Ser Phe Val Lys Leu Ile Gly Val Ser Trp His Lys Glu Asn Ile Met

```
Ser Phe Ile Lys Glu Phe Arg Glu Phe Ala Met Arg Gly Asn Val Val
                              25
Asp Leu Ala Val Gly Val Ile Ile Gly Ala Ala Phe Gly Lys Ile Val
Ser Ser Leu Val Ala Asp Ile Ile Met Pro Pro Leu Gly Leu Leu Ile
Gly Gly Ile Asp Phe Lys Gln Phe Ala Phe Thr Leu Arg Glu Ala Gln
            70
                                    75
Gly Asp Ile Pro Ala Val Val Met His Tyr Gly Val Phe Ile Gln Asn
            8.5
                                 90
Val Phe Asp Phe Val Ile Val Ala Phe Ala Ile Phe Met Ala Ile Lys
         100 105
Leu Ile Asn Arg Leu Asn Arg Lys Lys Glu Glu Pro Ala Ala Ala Pro
     115 120
                                  125
Pro Ala Pro Thr Lys Glu Glu Val Leu Leu Thr Glu Ile Arg Asp Leu
 130 135
Leu Lys Glu Gln Asn Asn Arg Val
<210> 6784
<211> 136
<212> PRT
<213> Enterobacter cloacae
<400> 6784
Gln Glu Val Ile Met Ala Gln Ile Pro Ala Gly Ala Asp Cys Pro Gly
Gln Leu Ser Arg Lys Gln Thr Gly Asp Ala Trp Glu Leu Lys Ala Arg
Arg Trp Leu Glu Gly Lys Gly Leu Arg Phe Val Ala Ala Asn Val Arg
                        40
Gly Arg Gly Glu Ile Asp Lea Ile Met Lys Asp Gly Gln Thr Ile
                     55
Val Phe Val Glu Val Arg Tyr Arg Gln Ser Ser Arg Phe Gly Gly Ala
                  70
                                     75
Ala Ala Ser Val Thr Leu Ala Lys Gln Gln Lys Leu Leu Gln Thr Ala
                                 90
              8.5
His Leu Trp Leu Ala Arg His Asn Gly Ser Phe Asp Thr Val Asp Cys
          100
                             105
Arg Phe Asp Val Val Ala Phe Thr Gly Asn Ala Ile Asp Trp Leu Lys
 115 120
Asn Ala Phe Gly Glu Asp Ala
 130
                     135
<210> 6785
<211> 200
<212> PRT
<213> Enterobacter cloacae
<400> 6785
Arg Asp Thr Val Leu Glu Arg Ile Lys Val Cys Phe Thr Glu Ser Ile
Gln Thr Gln Ile Ala Ala Ala Glu Ala Leu Pro Asp Ala Ile Ser Arg
         20
                             25
                                                30
Ala Ala Met Thr Leu Val Gln Ser Leu Leu Asn Gly Asn Lys Ile Leu
                         4.0
Cys Cys Gly Asn Gly Thr Ser Aia Ala Asn Ala Gln His Phe Ala Ala
 50
Ser Met Ile Asn Arg Phe Glu Thr Glu Arg Pro Ser Leu Pro Ala Ile
```

```
Ala Leu Asn Thr Asp Asn Val Val Leu Thr Ala Ile Ala Asn Asp Arq
              85
                                 90
Leu His Asp Glu Ile Tyr Ala Lys Gln Val Arg Ala Leu Gly His Ala
           100
                             105
Gly Asp Val Leu Leu Ala Ile Ser Thr Arg Gly Asn Ser Arg Asp Ile
       115
                         120
Val Lys Ala Val Giu Ala Ala Val Thr Arg Asp Met Thr Ile Val Ala
  130
                      135
                                        140
Leu Thr Gly Tyr Asp Gly Gly Glu Leu Ala Gly Leu Leu Gly Pro Gln
              150
                                  155
Asp Val Glu Ile Arg Ile Pro Ser His Arg Ser Ala Arg Ile Gln Glu
                    170
                                                175
             165
Met His Met Leu Thr Val Asn Cys Leu Cys Asp Leu Ile Asp Asn Thr
                185
         180
Leu Phe Pro His Gln Asp Asp
      195
<210> 6786
<211> 195
<212> PRT
<213> Enterobacter cloacae
<400> 6786
Gly Val Leu Met Lys Val Leu Ser Ala Leu Ala Val Val Met Ser Ala
                                 10
Leu Leu Gln Gly Cys Ile Ala Ala Ala Val Val Gly Thr Ala Ala
                            2.5
         20
                                                30
Val Gly Thr Lys Ala Ala Thr Asp Pro Arg Thr Val Gly Thr Gln Val
                         4.0
Asp Asp Gly Thr Leu Glu Leu Arg Val Asn Ser Ala Leu Ser Lys Asp
              55
Glu Gln Ile Lys Lys Glu Ala Arg Ile Asn Val Thr Ala Tyr Gln Gly
                 70
                              75
Lys Val Leu Leu Ala Gly Gln Ala Pro Asn Pro Glu Leu Ala Ser Arg
                                 90
Ala Lys Gln Ile Ala Met Gly Val Glu Gly Thr Ala Glu Val Tyr Asn
                             105
          100
Glu Ile Arg Gln Gly Gln Pro Ile Gly Leu Gly Thr Ala Ser Ser Asp
                       120
                                            125
Thr Trp Ile Thr Thr Lys Val Arg Ser Gln Leu Leu Gly Thr Asp Gln
                      135
Val Lys Ser Ser Asn Val Lys Val Thr Tnr Glu Asn Gly Glu Val Phe
                 150
                                    155
Leu Leu Gly Leu Val Thr Glu Arg Glu Gly Lys Ala Ala Ala Asp Ile
                   170
              165
Ala Ser Arg Val Ser Gly Val Lys His Val Thr Thr Ala Phe Thr Tyr
                             185
Ile Lys
       195
<210> 6787
<211> 391
<212> PRT
<213> Enterobacter cloacae
<400> 6787
Gly Gly Gly Ile Pro Asn Arg Gly Arg Arg Ala Met Phe Arg Arg Gln
                                 10
Cys Gly Arg Gly Ser Ser Pro Asn Phe Val His Glu Arg Phe Gln Asp
```

Thr Val Leu His Asp Ala Phe Ala Phe Phe Ser Gly Ile Arq Ile Val

30

```
40
Pro Ile Val Thr Ala Leu Thr Leu Ser Leu Val Gly Leu Phe Ile Pro
                  5.5
                                  60
Leu Leu Trp Glu Tyr Val Ala Met Gly Ile Ala Gly Ile Gly His Ile
               70
                               75
Ile Gln Ser Thr Ser Val Phe Gly Pro Phe Leu Tyr Gly Val Gly Val
                            90
Leu Leu Leu Lys Pro Phe Gly Leu His His Ile Leu Leu Ala Met Val
       100
                        105
Arg Phe Thr Pro Ala Gly Gly Ile Glu Met Val Asn Gly Gln Glu Val
 115 120
                          125
Ala Gly Ala Leu Asn Ile Phe Tyr Ala Glu Leu Lys Ala Gly Leu Pro
                135
                       140
Phe Ser Pro His Val Thr Ala Phe Leu Ser Gln Gly Phe Met Pro Thr
145 150 155 160
Phe Ile Phe Gly Leu Pro Ala Val Ala Tyr Ala Ile Tyr Arg Thr Ala
         165 170 175
Arg Pro Glu Asn Arg Pro Val Ile Lys Gly Leu Leu Leu Ser Gly Val
  180 185 190
Leu Val Ser Val Val Thr Gly Ile Ser Glu Pro Ile Glu Phe Leu Phe
195 200 205
Leu Phe Ile Ala Pro Val Leu Tyr Ala Phe His Ile Val Met Ser Gly
210 215
                       220
Leu Ala Leu Met Val Met Ala Leu Leu Gly Val Thr Ile Gly Asn Thr
225 230 235
Asp Gly Gly Ile Leu Asp Leu Leu Ile Phe Gly Val Met Gln Gly Met
          245 250 255
Ser Thr Lys Trp Tyr Leu Leu Phe Pro Val Gly Met Ala Trp Phe Ala
             265 270
Ile Tyr Phe Phe Val Phe Arg Trp Tyr Ile Leu Arg His Asp Ile Lys
   275 280
Thr Pro Gly Arg Glu Val Asp Ala Gln Gly Ala Leu Gln Ala Val Glu
 290 295
                                 300
Ala Asn Thr Arg Ala Arg Gly Lys Ser Lys Tyr Asp His Gly Leu Ile
            310
                             315
Leu Arg Ala Leu Gly Gly Lys Glu Asn Ile Glu Ser Leu Asp Asn Cys
           325
                           330 335
Ile Thr Arg Leu Arg Leu Val Val Lys Asp Met Gly Leu Ile Asp Gln
             345
Gln Ala Leu Lys Ala Ala Gly Ala Leu Ser Val Val Val Leu Asp Ala
     355 360 365
His Ser Val Gln Val Ile Ile Gly Pro Gln Val Gln Ser Val Lys Ser
                  375
Gly Ile Glu Ala Leu Ile
<210> 6788
<211> 395
<212> PRT
<213> Enterobacter cloacae
<400> 6788
Gln Gly Asp Val Val Phe Asp Phe Asp Arg Ile Ile Glu Arg Lys Ser
                            10
Asp Lys Cys Arg Lys Trp Asp His Ala Phe Val Cys Ser Arg Phe Gly
        20
                         25
                                         30
Asp Val Pro Glu Gly Phe Ile Pro Leu Trp Ile Ala Asp Met Asp Phe
      35
                     40
Thr Ser Pro Pro Ala Val Ile Glu Gly Phe Gln Arg Ile Val Glu His
Gly Thr Phe Gly Tyr Thr Trp Cys Phe Asp Glu Phe Tyr Asp Ala Val
```

```
Ile Ala Phe Gln Arg Thr Arg His Gln Val Glu Val His Lys Ser Trp
          8.5
                          90
Ile Thr Leu Thr Tyr Gly Thr Val Ser Thr Leu His Tyr Thr Val Gln
                     105
Ala Phe Cys Lys Pro Gly Asp Cys Val Met Met Asn Thr Pro Val Tyr
   115
          120
Asp Pro Phe Ala Met Ala Thr Gln Arg Gln Gly Val Arg Val Leu Ala
 130 135 140
Asn Pro Leu Ser Val Lys Glu Asn Arg Tyr His Leu Asp Phe Asn Leu
   150 155 160
Ile Glu Val Gln Leu Lys Thr His Arg Pro Lys Leu Trp Phe Phe Cys
        165 170 175
Ser Pro His Asn Pro Ser Gly Arg Ile Trp Arg Ala Asp Glu Ile Arg
    180 185 190
Gln Val Ser Asp Leu Cys Lys Arg Tyr Gly Thr Ile Leu Val Val Asp
 195 200 205
Glu Val His Ala Glu His Ile Leu Asp Gly Thr Phe Val Ser Cys Leu
 210 215 220
Thr Ser Gly Cys Ala Ala Gln Asp Asn Leu Ile Val Leu Thr Ser Pro
225 230 235
Asn Lys Ala Phe Asn Leu Gly Gly Leu Lys Thr Ser Tyr Ser Ile Ile
      245 250
Pro Asp Asp Ser Leu Arg Gln Arg Phe Arg Gln Gln Leu Glu Lys Asn
      260 265 270
Ser Ile Thr Ser Pro Asn Ile Phe Gly Val Trp Gly Ile Ile Leu Ala
   275 280 285
Tyr Gln Gln Gly Leu Pro Trp Leu Asp Ala Leu Asn Gly Tyr Leu Arg
290 295 300
Gly Asn Ala Arg Tyr Leu Ala Asp Ala Ile Gln Thr His Phe Pro Ala
305 310
                             315
Trp Lys Met Met Asn Pro Glu Ser Ser Tyr Leu Ala Trp Ile Asp Val
         325 330
Ser Ala Asp Asp Arg Ser Ala Thr Ala Leu Thr Gln His Phe Ala Lys
       340 345
Gln Ala Gly Val Val Ile Glu Asp Gly Ser His Tyr Val Gln Asn Gly
    355 360
                                   365
Glu Asn Tyr Leu Arg Ile Asn Phe Gly Thr Gln Arg Tyr Trp Leu Glu
      375
Gln Ser Ile Asn Arg Met Leu Lys His Tyr
               390
<210> 6789
<211> 723
<212> PRT
<213> Enterobacter cloacae
<400> 6789
```

105 Leu Leu Ser Ala Glu Leu Lys Val Ala Gln Lys Asp Tyr Asp Gly Ala 120 115 Lys Lys Ile Leu Gly Thr Ile Asp Leu Ser Thr Leu Asp Lys Asn Glr 135 130 140 Gln Thr Arg Phe Trp Gln Ala Gly Ile Thr Ala Glu Gln Gly Arg Thr 150 155 Ser Leu Thr Leu Leu Arg Ala Leu Ile Ala Gln Glu Pro Leu Leu Ala 165 170 Gly Ala Asp Lys Gln Lys Asn Ile Asp Ala Thr Trp Gln Ala Leu Ala 180 185 190 Ser Met Thr Gln Asp Gln Ala Lys Ala Leu Val Ile Asn Ala Asp Glu 195 200 205 Asn Val Leu Gln Gly Trp Leu Asp Leu Gln Gln Met Trp Phe Asn Asn 210 215 220 Arg Ser Asp Pro Asn Met Leu Lys Ala Gly Ile Thr Asp Trp Gln Lys 225 230 235 240 Arg Tyr Pro Gln Asn Pro Gly Ala Lys Met Leu Pro Thr Gln Leu Val 245 250 255 Asn Val Gln Asn Phe Lys Pro Ala Ser Thr Ser Lys Ile Ala Leu Leu 260 265 270 Leu Pro Leu Asn Gly Gln Ala Ala Val Phe Gly Arg Ala Ile Gln Gln 275 280 285 Gly Phe Glu Ala Ala Lys Asn Gly Thr Thr Ala Val Ser Gly Ser Ala 290 295 300 Val Pro Thr Gln Ala Ala Gln Ala Ala Asn Val Asn Asp Val Val Ser 305 310 315 320 Pro Ser Ala Ala Glu Thr Ser Asp Leu Thr Thr Ala Gln Thr Pro Ala 325 330 335 Gln Gly Thr Met Gln Asn Pro Val Tnr Ala Pro Thr Thr Gln Pro Ala 340 345 350 Pro Pro Ala Pro Ala Ala Thr Gln Ala Pro Ala Glu Thr Pro Ala Pro 355 360 365 Ala Thr Ala Glu Gln Pro Gln Pro Gln Thr Glu Gln Pro Glu Gln Gln 370 375 380 Pro Ala Thr Gln Pro Gin Ala Val Ala Thr Thr Ser Ala Asn Pro Gly 385 390 395 400 Ala Glu Leu Lys Ile Tyr Asp Thr Ser Ala Gln Pro Leu Asp Gln Val 405 410 415 Leu Ala Gln Val Gln Gln Asp Gly Ala Ser Ile Val Val Gly Pro Leu 420 425 430 Leu Lys Asn Asn Val Glu Ala Leu Met Lys Ser Asn Thr Thr Leu Asn 435 440 445 Val Leu Ala Leu Asn Gln Pro Glu Gln Val Gln Asn Arg Ala Asn Ile 450 455 460 Cys Tyr Phe Ala Leu Ser Pro Glu Asp Glu Ala Arg Asp Ala Ala Arg 465 470 475 His Ile His Glu Gln Gly Lys Gln Ala Pro Leu Leu Ile Pro Arg 485 490 495 Ser Thr Leu Gly Asp Arg Val Ala Asn Ala Phe Ala Gln Glu Trp Gln 500 505 510 Thr Leu Gly Gly Gly Val Val Leu Gln Gln Lys Phe Gly Ser Ala Ala 515 520 525 Glu Leu Arg Ala Gly Val Asn Gly Gly Ala Gly Ile Ala Leu Asn Gly 530 535 540 Ser Pro Val Ser Ala Ser Leu Pro Gln Gln Gln Ser Val Thr Ile Gly 545 550 555 Gly Leu Thr Ile Pro Ala Pro Pro Thr Asp Ala Gln Ile Ser Gly Gly 565 570 575 Gly Lys Val Asp Ser Ala Tyr Ile Val Ala Thr Pro Glu Glu Ile Ala 585

Phe Ile Lys Pro Met Ile Ala Met Arg Asn Gly Ser Gln Ser Gly Ala 595 600 Thr Leu Tyr Ala Ser Ser Arg Ser Ala Gln Gly Thr Ala Gly Pro Asp 610 615 620 Phe Arg Leu Glu Met Glu Gly Leu Gln Tyr Ser Glu Ile Pro Met Leu 625 630 635 Ala Gly Ser Asn Pro Gln Leu Met Gln Gln Ala Leu Gly Ala Val Arg 645 650 655 Asn Asp Tyr Ser Leu Ala Arg Leu Tyr Ala Met Gly Val Asp Ala Trp 660 665 670 Ala Leu Ala Asn His Phe Thr Gln Met Arg Gln Val Pro Gly Phe Glu 675 680 685 Leu Asn Gly Asn Thr Gly Asp Leu Thr Ala Asp Gln Asp Cys Val Ile 690 695 700 Asn Arg Lys Leu Ser Trp Leu Lys Tyr Gln Gln Gly Gln Ile Val Pro 710 715 Ala Ser

<210> 6790 <211> 295 <212> PRT

<213> Enterobacter cloacae

<400> 6790 Ile Gly Asn Thr Asp Glu Thr Met Lys Gln His Glu Thr Ala Asp Asn 10 Ser Gln Gly Gln Leu Tyr Ile Val Pro Thr Pro Ile Gly Asn Leu Ser 20 25 Asp Ile Thr Gln Arg Ala Leu Thr Val Leu Gln Ala Val Asp Leu Ile 35 40 Ala Ala Glu Asp Thr Arg His Thr Gly Leu Leu Gln His Phe Ala 55 Ile Asn Ala Arg Leu Phe Ala Leu His Asp His Asn Glu Gln Gln Lys 70 75 Ala Glu Thr Leu Val Ala Lys Leu Lys Glu Gly Gln Asn Ile Ala Leu 85 90 Val Ser Asp Ala Gly Thr Pro Leu Ile Asn Asp Pro Gly Tyr His Leu 100 105 Val Arg Thr Cys Arg Glu Ala Gly Ile Arg Val Val Pro Leu Pro Gly 120 125 115 Pro Cys Ala Ala Ile Ala Ala Leu Ser Ala Ala Gly Leu Pro Ser Asp 140 135 130 Arg Phe Cys Tyr Glu Gly Phe Leu Pro Ala Lys Ser Lys Gly Arg Arg 150 155 145 Asp Val Leu Glu Asp Leu Glu Ala Glu Pro Arg Thr Leu Ile Phe Tyr 170 165 Glu Ser Thr His Arg Leu Leu Glu Ser Leu Glu Asp Met Val Thr Val 185 190 180 Trp Gly Glu Gly Arg Tyr Vai Val Leu Ala Arg Glu Leu Thr Lys Thr 200 205 195 Trp Glu Thr Ile His Gly Ala Pro Val Gly Glu Leu Leu Ala Trp Val 215 220 Lys Glu Asp Glu Asn Arg Arg Lys Gly Glu Met Val Leu Ile Val Glu 230 235 Gly His Lys Ala Gln Glu Asp Ala Leu Pro Ala Asp Ala Leu Arg Thr 245 250 255 Leu Ala Leu Leu Gln Ala Glu Leu Pro Leu Lys Lys Ala Ala Ala Leu 260 265 270 Ala Ala Glu Ile His Gly Val Lys Lys Asn Ala Leu Tyr Lys Tyr Ala 275 280 285

2898 Leu Glu Gln Gln Gly Glu 290 <210> 6791 <211> 113 <212> PRT <213> Enterobacter cloacae <400> 6791 Lys Tyr Ile Leu Ala Val Leu Val Leu Gly Ala Ala Arg Val Trp Leu Phe Pro His Ala Asp Gly Ala Ile Asp Asn Thr Leu Met Trp Val Ile 20 25 30 Ala Met Ala Val Ala Gly Cys Leu Phe Val Ile Pro Thr Ala Ala Glu 4.5 35 4 0 Ile Pro Ile Ile Gln Thr Met Met Met Ala Gly Met Gly Thr Ala Pro 55 60 Ala Leu Ala Leu Leu Ile Tar Leu Pro Ala Val Ser Leu Pro Ser Leu 75 7.0 Ile Met Leu Arg Lys Ser Phe Pro Ala Lys Ala Leu Trp Leu Thr Ala 90 Gly Leu Val Ala Leu Ser Gly Val Ile Val Gly Ser Met Ala Leu Val <210> 6792 <211> 97 <212> PRT <213> Enterobacter cloacae <400> 6792 Gly Glu Ala Val Leu His Pro Ala Val Lys Thr Trp Val Val Glu Gly 1.0 Ser Lys Lys Arg Leu Gln Ala Phe Glu Gly Val Val Ile Ala Ile Arg 25 Asn Arg Gly Leu His Ser Ala Phe Thr Val Arg Lys Ile Ser Asn Gly 35 4.0 Glu Gly Val Glu Arg Val Phe Gln Thr His Ser Pro Val Val Asp Ser 55 60 Ile Ala Val Lys Arg Arg Gly Ala Val Arg Lys Ala Lys Leu Tyr Tyr 70 Leu Arg Glu Arg Thr Gly Lys Ser Ala Arg Ile Lys Glu Arg Leu Asn 8.5 <210> 6793 <211> 332 <212> PRT <213> Enterobacter cloacae <400> 6793 Thr Lys Lys Gln Phe Met Ala Gln Arq Val Glu Leu Thr Ala Thr Val

Phe Gly Gly Glu Ala Val Ala Ile Asn Ala Glu Ile Glu Glu Glu Ile 70 Arg Phe Glu Pro Gln Asp Ile Pro Leu Asp Ile Val Tyr Glu Asp Asp 8.5 90 Asp Ile Leu Val Ile Asn Lys Pro Arg Asp Phe Val Val His Pro Gly 100 105 Ala Gly Asn Pro Asp Gly Thr Val Leu Asn Ala Leu Leu His Tyr Tyr 120 115 125 Pro Pro Ile Ala Asp Val Pro Arg Ala Gly Ile Val His Arg Leu Asp 135 140 Lys Asp Thr Thr Gly Leu Met Val Val Ala Lys Thr Ile Pro Ala Gln 145 150 155 160 Thr Arg Leu Val Glu Ser Leu Gln Leu Arg Glu Ile Thr Arg Glu Tyr 165 170 175 Glu Ala Val Ala Ile Gly His Met Thr Ser Gly Gly Thr Val Glu Glu 180 185 190 Pro Ile Ser Arg His Pro Thr Lys Arg Thr His Met Ser Val His Pro 195 200 205 Met Gly Lys Pro Ala Val Thr His Tyr Arg Ile Met Glu His Phe Arg 210 215 220 Ile His Thr Arg Leu Arg Leu Arg Leu Glu Thr Gly Arg Thr His Gln 225 230 235 Ile Arg Val His Met Ala His Ile Thr His Pro Leu Val Gly Asp Pro 245 250 255 Val Tyr Gly Gly Arg Pro Arg Pro Pro Lys Gly Ala Ser Asp Glu Phe 260 265 Ile Ser Val Leu Arg Lys Phe Asp Arg Gln Ala Leu His Ala Thr Met 275 280 Leu Arg Leu Tyr His Pro Ile Thr Gly Ile Gln Met Glu Trp His Ala 290 295 300 Pro Ile Pro Gln Asp Met Val Glu Leu Ile Asp Ala Met Arg Ala Asp 305 310 315 Phe Glu Glu His Lys Asp His Val Asp Trp Leu

<210> 6794 <211> 378 <212> PRT <213> Enterobacter cloacae

325

<213> Enterob:

Tyr Arg Cys Val Thr Ser Ser Arg Lys Thr Thr Ile Ala Asn Glu Phe 10 Asp Arg Ile Ala Ile Met Gln Lys Asp Ala Leu Asn Asn Val His Ile 25 Thr Asp Glu Gln Val Leu Ile Thr Pro Asp Gln Leu Lys Ala Glu Phe 35 40 45 Pro Leu Ser Val Ala Gln Glu Ala Gln Ile Glu His Ser Arg Gln Thr 5.5 Ile Ser Asp Ile Ile Ala Gly Arg Asp Pro Arg Leu Leu Val Val Cys 70 75 80 Gly Pro Cys Ser Ile His Asp Pro Glu Thr Ala Ile Glu Tyr Ala Arg 8.5 90 Arg Phe Lys Ala Leu Ala Glu Glu Val Ser Asp Ser Leu Tyr Leu Val 100 105 110 Met Arg Val Tyr Phe Glu Lys Pro Arg Thr Thr Val Gly Trp Lys Gly 115 120 Leu Ile Asn Asp Pro His Met Asp Gly Ser Phe Asp Val Glu Ala Gly 130 140 Leu Lys Ile Ala Arg Arg Leu Leu Val Glu Leu Val Ser Met Gly Leu 150 155

```
Pro Leu Ala Thr Glu Ala Leu Asp Pro Asn Ser Pro Gln Tyr Leu Gly
                          170
           165
Asp Leu Phe Ser Trp Ser Ala Ile Gly Ala Arg Thr Thr Glu Ser Gln
        180
                       185
                                       190
Thr His Arg Glu Met Ala Ser Gly Leu Ser Met Pro Val Gly Phe Lys
     195 200
                        205
Asn Gly Thr Asp Gly Ser Leu Ala Thr Ala Ile Asn Ala Met Arg Ala
210
      215
                               220
Ala Ala Met Pro His Arg Phe Val Gly Ile Asn Gln Ala Gly Gln Val
225 230 235
Cys Leu Leu Gln Thr Gln Gly Asn Pro Asp Gly His Val Ile Leu Arg
     245 250 255
Gly Gly Lys Ala Pro Asn Tyr Ser Pro Ala Asp Val Ala Gln Cys Glu
       260 265 270
Lys Glu Met Glu Gln Ala Gly Leu Arg Pro Ala Leu Met Val Asp Cys
 275 280 285
Ser His Gly Asn Ser Asn Lys Asp Tyr Arg Arg Gln Pro Ala Val Ala
290 295 300
Glu Ser Val Ile Ala Gln Ile Lys Asp Gly Asn Arg Ser Ile Ile Gly
              310 315
Leu Met Ile Glu Ser Tyr Ile His Glu Gly Asn Gln Ser Ser Glu Gln
           325
                          330 335
Pro Arg Ile Ala Met Lys Pro Gly Val Ser Val Thr Asp Ala Cys Ile
        340 345 350
Ser Trp Glu Thr Thr Asp Ala Leu Leu Arg Glu Ile His Lys Asp Leu
355 360
Asn Gly Gln Leu Ala Thr Arg Leu Ala
 370
                 375
```

<212> PRT <213> Enterobacter cloacae

<400> 6795

<210> 6795

<211> 129

Pro Ile Thr Ala Ser Trp Asn Ile Ser Val Phe Ile Pro Ala Cys Val 10 Cys Ala Trp Lys Pro Gly Val Leu Thr Arg Ser Ala Cys Thr Trp Arg 20 25 Ile Leu Pro Ile Arg Trp Trp Val Thr Arg Phe Thr Ala Val Val Arg 40 35 Val His Gln Arg Ala His Arg Met Asn Ser Ser Pro Cys Cys Val Asn 55 60 Ser Ile Ala Arg Arg Cys Met Arg Arg Cys Cys Val Phe Thr Thr Gln 7.5 70 Ser Pro Glu Phe Arg Trp Asn Gly Met Arg Arg Ser His Arg Ile Trp 90 85 Trp Asn Leu Ser Thr Arg Cys Ala Gln Ile Ser Lys Asn Ile Arg Ile 100 105 Thr Trp Thr Gly Tyr Asp Gln Thr Asp Cys Pro Gly Val Ala Thr Ala 115 120 125

<210> 6796 <211> 518 <212> PRT <213> Enterobacter cloacae

<400> 6796

Thr Lys Arg Arg Tyr Ile Ala Ile Leu Arg Gly Leu Lys Glu Arg

Tyr Glu Leu His His His Val Gln Ile Thr Asp Pro Ala Ile Val Ala 25 Ala Ala Thr Leu Ser His Arg Tyr Ile Ala Asp Arg Gln Leu Pro Asp Lys Ala Ile Asp Leu Ile Asp Glu Ala Ala Ser Ser Ile Arg Met Gln 55 Ile Asp Ser Lys Pro Glu Glu Leu Asp Arg Leu Asp Arg Arg Ile Ile 70 7.5 Gln Leu Lys Leu Glu Gln Gln Ala Leu Asn Lys Glu Ser Asp Glu Ala 8.5 90 Ser Lys Lys Arg Leu Asp Met Leu Asn Glu Glu Leu Asp Glu Lys Glu 100 105 Arg Gln Tyr Ser Glu Leu Glu Glu Glu Trp Lys Ala Glu Lys Ala Ser 115 120 125 Leu Ser Gly Thr Gln Thr Ile Lys Ala Glu Leu Glu Gln Ala Lys Ile 130 135 140 Ala Ile Glu Gln Ala Arg Arg Val Gly Asp Leu Ala Arg Met Ser Glu 150 155 Leu Gln Tyr Gly Lys Ile Pro Glu Leu Glu Lys Gln Leu Glu Ile Ala 165 170 175 Thr Gln Ser Glu Gly Lys Thr Met Arg Leu Leu Arg Asn Lys Val Thr 180 185 190 Asp Ala Glu Ile Ala Glu Val Leu Ala Arg Trp Thr Gly Ile Pro Val 200 205 195 Ala Arg Met Met Glu Ser Glu Arg Glu Lys Leu Leu Arg Met Glu Gln 220 210 215 Asp Leu His Gln Arg Val Ile Gly Gln Asn Glu Ala Val Glu Ala Val 225 230 235 Ser Asn Ala Ile Arg Arg Ser Arg Ala Gly Leu Ser Asp Pro Asn Arg 245 250 255 Pro Ile Gly Ser Phe Leu Phe Leu Gly Pro Thr Gly Val Gly Lys Thr 260 265 Glu Leu Cys Lys Ala Leu Ala Asn Phe Met Phe Asp Ser Asp Asp Ala 275 280 285 Met Val Arg Ile Asp Met Ser Glu Phe Met Glu Lys His Ala Val Ser 295 300 Arg Leu Val Gly Ala Pro Pro Gly Tyr Val Gly Tyr Glu Glu Gly Gly 310 315 Tyr Leu Thr Glu Ala Val Arg Arg Arg Pro Tyr Ser Val Ile Leu Leu 325 330 Asp Glu Val Glu Lys Ala His Pro Asp Val Phe Asn Ile Leu Leu Gln 340 345 Val Leu Asp Asp Gly Arg Leu Thr Asp Gly Gln Gly Arg Thr Val Asp 360 365 355 Phe Arg Asn Thr Val Val Ile Met Thr Ser Asn Leu Gly Ser Asp Leu 370 375 380 Ile Gln Glu Arg Phe Gly Glu Leu Asp Tyr Ser His Met Lys Asp Leu 390 395 400 Val Leu Gly Val Val Ser Gln Asn Phe Arg Pro Glu Phe Ile Asn Arg 410 405 Ile Asp Glu Val Val Val Phe His Pro Leu Gly Glu Lys His Ile Ala 420 425 Ser Ile Ala Gln Ile Gln Leu Gln Arg Leu Tyr Lys Arg Leu Glu Glu 440 445 Arg Gly Tyr Glu Ile His Ile Ser Asp Asp Ala Leu Lys Leu Leu Ser 455 460 Glu Asn Gly Tyr Asp Pro Val Tyr Gly Ala Arg Pro Leu Lys Arg Ala 470 475 Ile Gln Gln Gln Ile Glu Asn Pro Leu Ala Gln Gln Ile Leu Ser Gly 485 490

390

```
Glu Leu Val Pro Gly Lys Val Ile Arg Leu Glu Ala Asn Glu Asp Arg
                      505
      500
Ile Val Ala Val Gln
     515
<210> 6797
<211> 533
<212> PRT
<213> Enterobacter cloacae
<400> 6797
Ser Met Arg Leu Leu Arg Ala Val Ser Ala Cys Thr Gly Arg Asp Ala
Gly Ala Tyr Arg Ser Ala Gln Arg Gly Val Ala Ala Ala Ala Arg Glu
       20
                       2.5
Ala Ala Ser Ser Gly Gly Gln Pro Leu Ala Leu Phe Pro Leu Ala Leu
 35
                 4.0
Pro Arg Tyr Pro Arg Ala Ala Ala Ser Val Cys Phe Leu Pro Leu Lys
                     60
50 55
Gln Asn His Ser Leu Phe Ala Leu Lys Arg Lys Ser Met Thr Thr Cys
65 70 75
Thr Pro Arg Ala Ala Trp Gly Asn Leu Leu Arg Arg Leu His Phe Tyr
               90 95
         8.5
Ile Gly Leu Phe Val Gly Pro Phe Ile Phe Phe Ala Ala Leu Thr Gly
      100 105 110
Thr Leu Tyr Val Ala Thr Pro Gln Leu Glu Asn Ala Leu Tyr His Tyr
115 120 125
Ala Leu His Thr Asp Ala Val Gly Glu Ala Gln Pro Leu Ala Lys Gln
 130 135 140
Ile Thr Val Ala Glu Lys Ala Val Gly Ser Ala Leu Arg Leu His Ala
145 150 155 160
Val Arg Pro Gly Leu Glu Glu Gly Glu Thr Thr Arg Val Met Phe Ala
          165 170
Asp Pro Ala Leu Gly Pro Ser Glu His Arg Ala Ile Phe Ile Asp Pro
   180 185 190
Ala Ser Leu Glu Val Arg Gly Asp Met Thr Val Tyr Gly Thr Ser Gly
     195 200 205
Ile Leu Pro Leu Arg Gln Thr Ile Asp Tyr Leu His Thr Ser Leu Met
               215 220
Leu Gly Asn Ile Gly Arg Leu Tyr Ser Glu Leu Ala Ala Ser Trp Met
225 230 235 240
Trp Val Ala Ala Leu Gly Gly Ile Ala Leu Trp Phe Tyr Thr Arg Pro
           245 250 255
Lys Arg Arg Ile Asn Asn Arg Phe Gln Asn Arg Arg Arg Leu His Val
        260 265 270
Ile Leu Gly Trp Thr Leu Leu Thr Gly Met Leu Leu Phe Ser Val Thr
      275 280 285
Gly Leu Thr Trp Ser Gln Trp Ala Gly Gly Asn Val Asp Lys Leu Arg
      295 300
Ala Glu Met Asn Trp Leu Thr Pro Gln Val Asn Thr Thr Leu Ser Gly
305 310
                             315
Ala Pro Glu Met Arg Asp Glu His Ala Glu His Arg Gly His His Gly
           325
                          330
Gly Met Thr Met Pro Glu Met Pro Val Glu Leu Ser Leu Phe Asp Ser
        340
                       345 350
Val Leu Gln Ala Ala Arg Gln Ser Gly Ile Asp Ala Lys Lys Val Glu
                          365
                    360
     355
Ile Arg Pro Ala Ser Arg Asp Asp Gln Ala Trp Thr Val Thr Glu Ile
                 375 380
 370
Asp Arg Arg Trp Pro Thr Gln Val Asp Ala Val Ala Val Asp Pro His
```

```
Ser Leu Lys Val Leu Asp Ser Thr Arg Phe Gly Asp Phe Pro Leu Met
           405
                          410
Ala Lys Leu Tar Arg Trp Gly Val Asp Phe His Met Gly Ile Leu Phe
                     425
                                       430
Gly Leu Ala Asn Gln Leu Leu Ile Ala Phe Gly Val Ala Leu Cys
                                   445
          440
Val Leu Ile Ile Trp Gly Tyr Arg Met Trp Trp Met Arg Arg Pro Ala
 450 455
                                460
Thr Ser Ala Ala Asn Pro Val Gln Thr Leu Cys Gln Ser Trp Leu Ala
465 470
                             475
Leu Pro Leu Trp Gly Arg Gly Val Thr Phe Leu Ile Ser Leu Leu Leu
      485 490 495
Gly Leu Ala Leu Pro Val Met Gly Val Ser Leu Val Val Phe Ile Val
   500 505 510
Ile Asp Trp Leu Arg Trp Arg Ala Val Ser Gly Val Ser Leu Ala Gly
  515 520 525
Thr Ser Val Lys
  530
<210> 6798
<211> 387
<212> PRT
<213> Enterobacter cloacae
<400> 6798
Thr Ala Ser Trp Arg Arg Val Trp His Lys Arg Ile Val Met Val Ala
                    10
Glu Leu Thr Ala Leu Arg Asp Gln Ile Asp Glu Val Asp Lys Ala Leu
                                      30
              2.5
Leu Asp Leu Leu Ala Arg Arg Met Ala Leu Val Ala Glu Val Gly Glu
                   4.0
                                 45
Val Lys Ser Lys Tyr Gly Leu Pro Ile Tyr Val Pro Glu Arg Glu Ala
50
              55 60
Ser Met Leu Ala Ser Arg Arg Lys Glu Ala Gln Ala Leu Gly Val Ser
              70 75
Pro Asp Leu Ile Glu Asp Val Leu Arg Arg Val Met Arg Glu Ser Tyr
           85 90 95
Ser Ser Glu Asn Asp Lys Gly Phe Lys Thr Leu Cys Pro Ser Leu Arg
       100 105 110
Pro Val Val Ile Val Gly Gly Gly Gly Gln Met Gly Arg Leu Phe Glu
                    120 125
115
Lys Met Leu Thr Leu Ser Gly Tyr Gln Val Arg Ile Leu Glu Lys Glu
 130 135 140
Asp Trp Pro His Ala Pro Glu Leu Met Lys Asp Ala Gly Met Val Ile
              150 155
145
Val Ser Val Pro Ile His Val Thr Glu Gln Ile Ile Ala Lys Leu Pro
                      170
            165
Pro Leu Pro Glu Asp Cys Ile Leu Val Asp Leu Ala Ser Val Lys Asn
                       185 190
    180
Gly Pro Leu Gln Ala Met Leu Ala Ala His Thr Gly Pro Val Leu Gly
                   200
                                   205
      195
Leu His Pro Met Phe Gly Pro Asp Ser Gly Ser Leu Ala Lys Gln Val
 210 215
Val Val Tyr Cys Asp Gly Arg Gln Pro Glu Ala Tyr Gln Trp Phe Leu
              230 235
Glu Gln Ile Gln Val Trp Gly Ala Arg Leu His Arg Ile Ser Ala Val
                           250 255
            245
Glu His Asp Gln Asn Met Ala Phe Ile Gln Ala Leu Arg His Phe Ala
        260 265 270
Thr Phe Ala Tyr Gly Leu His Leu Ala Glu Glu Asn Val Gln Leu Glu
```

280

```
Gln Leu Leu Ala Leu Ser Ser Pro Ile Tyr Arg Leu Glu Leu Ala Met
           295
                                300
  290
Val Gly Arg Leu Phe Ala Gln Asp Pro Gln Leu Tyr Ala Asp Ile Ile
                             315
            310
Met Ser Ser Glu Asn Asn Leu Ala Leu Ile Lys Arg Tyr Tyr Gln Arg
         325
                          330
Phe Gly Glu Ala Ile Thr Leu Leu Glu His Gly Asp Lys Gln Ala Phe
                       345
                                      350
        340
Ile Asp Ser Phe Arg Lys Val Glu His Trp Phe Gly Asp Tyr Ala Thr
   355 360
                        365
Arg Phe Gln Ser Glu Ser Arg Thr Leu Leu Arg Gln Ala Asn Asp Ser
370 375 380
Arg Gln
385
<210> 6799
<211> 311
<212> PRT
<213> Enterobacter cloacae
<400> 6799
Cvs Asn Asp Val Tvr Thr Glu Ser Gln His Cvs Trp Leu Phe Ser Phe
                          10
1 5
Trp Gly Thr Val Met Ala Glu Pro Gln Leu Leu Leu Asn Tyr Thr Gly
      20 25
                                      3.0
His Leu Pro Glu Cys Pro Thr Trp Ser Ala Glu Glu Lys Ala Leu Tyr
     35 40 45
Trp Ala Asp Ile Leu Glu Gly Glu Ile His Arg Tyr His Leu Pro Thr
                                60
      55
Ala Glu His Ser Val Leu Ser Phe His Glu Glu Val Gly Cys Phe Ala
65 70 75
Leu Arg Glu Arg Gly Gly Phe Ile Val Ala Met Arg Asn Ala Ile Trp
          85 90 95
Leu Thr Asp Lys His Gly Leu Leu Gln Arg Lys Val Cys Asp Asn Pro
       100 105 110
Ser Asn Pro Gln Leu Ala Arg Pne Asn Asp Gly Gly Thr Asp His Gln
   115 120
                                   125
Gly Arg Phe Tyr Ala Gly Thr Phe Trp Gly Pro Gly Asp Tyr Asn Gly
 130 135 140
Ala Met Leu Met Arg Ile Asp Asn Asp Leu Thr Pro Lys Val Ile Gln
              150 155 160
Cys Asp Ile His Gly His Asn Gly Leu Ala Phe Ser Pro Asp Lys Arg
           165 170 175
Trp Met Phe Thr Ser Asp Thr Pro Asn Gly Val Ile Tyr Arg Thr Pro
        180 185 190
Leu Asp Glu Gln Gly Glu Pro Gly Lys Arg Glu Glu Phe Arg Arg Phe
                  200 205
     195
Ser Glu Gly Asp Gly Ile Pro Asp Gly Ala Ala Met Asp Glu Glu Gly
                 215 220
 210
Cys Tyr Trp Ser Ala Leu Phe Asp Gly Trp Arg Ile Ala Arg Phe Ser
               230
                            235
Pro Gln Gly Glu Gln Leu Glu Glu His Arg Leu Pro Val Arg Cys Pro
               250
            245
Thr Met Val Cys Phe Gly Gly Asp Asp Met Lys Thr Leu Phe Ile Thr
                       265 270
         260
Thr Thr Arg Glu Asn Met Glu Ala Glu Glu Leu Ala Lys Tyr Pro Leu
      275
                    280 285
Ser Gly Ala Ile Phe Thr Leu Pro Val Asn Val Ala Gly Met Lys Lys
                  295
   290
Ser Arg Phe Ile Glu His
```

```
<210> 6800
<211> 250
<212> PRT
<213> Enterobacter cloacae
<400> 6800
Gly Ser Arg Gly Leu Val Met Thr Lys Leu Ile Val Pro Glu Trp Pro
                                10
Leu Pro Glu Gly Val Ala Ala Cys Ser Ser Thr Arg Ile Gly Gly Val
           20
                             25
                                               30
Ser Gln Gly Ala Trp Glu Ser Leu Asn Leu Gly Ala His Cys Gly Asp
                         40
      3.5
Asn Leu Glu His Val Glu Glu Asn Arg Lys Arg Leu Phe Ala Ala Gly
  50
                     5.5
Asn Leu Pro Ser Lys Pro Val Trp Leu Glu Gln Val His Gly Lys Ala
                  7.0
                                    75
Val Leu Lys Leu Thr Gly Glu Pro Tyr Ala Ser Lys Arg Ala Asp Ala
                                90
             8.5
Ser Tyr Ser Asn Thr Pro Gly Thr Val Cys Ala Val Met Thr Ala Asp
                          105
                                               110
          100
Cys Leu Pro Val Leu Phe Cys Asn Gln Ala Gly Thr Glu Val Ala Ala
                       120
                                           125
      115
Ala His Ala Gly Trp Arg Gly Leu Cys Glu Gly Val Leu Glu Glu Thr
                                       140
                     135
Val Ala Cys Phe Gln Asp Asp Ser Ala Asn Leu Ile Ala Trp Leu Gly
               150
                                    155
                                                     160
Pro Ala Ile Gly Pro Gln Ala Phe Glu Val Gly Pro Glu Val Arg Asp
                   170
                                                 175
              165
Ala Phe Met Glu Lys Asp Pro Gin Ala Val Glu Ala Phe Val Ala Ser
                185 190
Gly Asp Lys Tyr Leu Ala Asp Ile Tyr Gln Leu Ala Arg Gln Arg Leu
                              205
       195
                        200
Asn Asn Val Gly Val Thr Gln Ile Phe Gly Gly Asp Arg Cys Thr Phe
 210
                      215 220
Thr Glu Lys Gly Asp Phe Phe Ser Tyr Arg Arg Asp Lys Thr Thr Gly
                                     235
                  230
225
Arg Met Ala Ser Phe Ile Trp Leu Ile
<210> 6801
<211> 359
<212> PRT
<213> Enterobacter cloacae
<2200S
<221>UNSURE
<222>(343)
<400> 6801
Pro Val Met Gly Gly Val Met Arg Leu Asp Arg Leu Thr Asn Lys Phe
                                 1.0
Gln Leu Ala Leu Ala Asp Ala Gln Ser Leu Ala Leu Gly His Asp Asn
                             25
Gln Phe Ile Glu Pro Leu His Leu Met Ser Ala Leu Leu Asn Gln Glu
        35
                          40
                                            45
Gly Gly Ser Val Arg Pro Leu Leu Thr Ser Ala Gly Ile Asn Ala Gly
                      55
                                        60
    5.0
Gln Leu Arg Thr Ala Ile Asp Gln Ala Leu Ser Arg Leu Pro Gln Val
                   70
                                    7.5
Glu Gly Thr Gly Gly Asp Val Gln Pro Ser Gln Asp Leu Val Arg Val
```

```
90
Leu Asn Leu Cys Asp Lys Leu Ala Gln Lys Arg Gly Asp Asn Phe Ile
                                          110
                         105
Ser Ser Glu Leu Phe Val Leu Ala Ala Leu Glu Ser Arg Gly Thr Leu
      115
                      120
Thr Asp Leu Leu Lys Ser Ala Gly Ala Thr Thr Ala Asn Val Thr Gln
 130
       135
                                    140
Ala Ile Glu Lys Met Arg Gly Gly Glu Ser Val Asn Asp Gln Gly Ala
145 150
                                155
Glu Asp Gln Arg Gln Ala Leu Lys Lys Phe Thr Val Asp Leu Thr Glu
            165 170
Arg Ala Glu Gln Gly Lys Leu Asp Pro Val Ile Gly Arg Asp Glu Glu
                         185
    180
Ile Arg Arg Thr Ile Gln Val Leu Gln Arg Arg Thr Lys Asn Asn Pro
                              205
                200
     195
Val Leu Ile Gly Glu Pro Gly Val Gly Lys Thr Ala Ile Val Glu Gly
                                  220
Leu Ala Gln Arg Ile Val Asn Gly Glu Val Pro Glu Gly Leu Lys Gly
                                235
             230
Arg Arg Val Leu Ala Leu Asp Met Gly Ala Leu Val Ala Gly Ala Lys
                  250
             245
Tyr Arg Gly Glu Phe Glu Glu Arg Leu Lys Gly Val Leu Asn Asp Leu
        260 265
                               270
Ala Lys Gln Glu Gly Asn Val Ile Leu Phe Ile Asp Glu Leu His Thr
                           285
           280
Met Val Gly Ala Gly Lys Ala Asp Gly Ala Met Asp Ala Gly Asn Met
              295 300
Leu Lys Pro Ala Leu Ala Arg Gly Glu Leu His Cys Val Gly Ala Thr
              310
                     315
Thr Leu Asp Glu Tyr Arg Gln Tyr Ile Glu Lys Asp Ala Ala Leu Glu
            325
                          330
Arg His Phe Gln Lys Val Xaa Val Ala Glu Pro Ser Val Glu Asp Thr
    340
                          345
Ser Pro Phe Cys Val Val
      355
```

<210> 6802 <211> 233 <212> PRT <213> Enterobacter cloacae

<400> 6802

Ala Trp Leu Trp Trp Ala Ala Pro Val Trp Asn Glu Gln Val Pro Asp 10 Asn Pro Pro Asn Glu Ile Tyr Ala Thr Ala Gln Gln Lys Leu Gln Asp 20 25 Gly Asn Trp Lys Gln Ala Ile Thr Gln Leu Glu Ala Leu Asp Asn Arg 35 40 Tyr Pro Phe Gly Pro Tyr Ser Gln Gln Val Gln Leu Asp Leu Ile Tyr 55 Ala Tyr Tyr Lys Asn Ala Asp Leu Pro Leu Ala Gln Ala Thr Ile Asp 70 7.5 Arg Phe Met Arg Leu Asn Pro Thr His Pro Asn Ile Asp Tyr Val Met 90 85 Tyr Met Arg Gly Leu Thr Asn Met Ala Leu Asp Asp Ser Ala Leu Gln 105 110 100 Gly Phe Phe Gly Val Asp Arg Ser Asp Arg Asp Pro Gln His Ala Arg 125 120

Asp Ala Phe Asn Asp Phe Ser Lys Leu Val Arg Ser Tyr Pro Asn Ser 130 Gln Tyr Ile Thr Asp Ala Thr Lys Arg Leu Val Phe Leu Lys Asp Arg

150 Leu Ala Lys Tyr Glu Tyr Ser Val Ala Glu Tyr Tyr Thr Arg Arg Gly 165 Ala Trp Val Ala Val Val Asn Arg Val Glu Gly Met Leu Arg Asp Tyr 180 185 190 Pro Asp Thr Gln Ala Thr Arg Asp Gly Leu Lys Leu Met Glu Asn Ala 195 200 205 Tyr Arg Gln Met Gln Met Thr Ala Gln Ala Asp Lys Val Ala Lys Ile 210 215 Ile Ala Ala Asn Ser Ser Asn Thr 230 <210> 6803 <211> 132 <212> PRT <213> Enterobacter cloacae <400> 6803 His Trp Val Gly Tyr Ala Gly Ile Thr Lys Thr Glu Arg Gln Glu Val 10 Lys Phe Met Thr Met Asn Ile Thr Ser Lys Gln Met Glu Ile Thr Pro 25 3.0 Ala Ile Arg Gln His Val Ala Asp Arg Leu Ala Lys Leu Asp Lys Trp 40 45 Gln Thr His Leu Ile Asn Pro His Ile Ile Leu Ser Lys Glu Pro Gln 5.5 Gly Phe Ile Ala Asp Ala Thr Ile Asn Thr Pro Asn Gly His Leu Val 70 75 Ala Ser Ala Lys His Glu Asp Met Tyr Thr Ala Ile Asn Asp Leu Ile 8.5 90 Asn Lys Leu Glu Arg Gln Leu Asn Lys Val Gln His Lys Gly Glu Ala 100 105 110 Arg Arg Ala Ala Thr Ser Val Lys Asp Ala Ser Phe Ala Glu Glu Val 120 115 Glu Glu Glu 130 <210> 6804 <211> 143 <212> PRT <213> Enterobacter cloacae <400> 6804 Asn Tyr Thr Arg Thr Leu Val Ser Gln Ala Met Leu Thr Lys Arg Arg 10 Ile Ala Met Arg Ser Ile Thr Leu Met Leu Leu Ser Leu Ile Leu Ser 20 25 Gly Cys Gln Ile Asn Pro Tyr Ala Phe Gln Pro Gly Trp Thr Ser Pro 35 40 4.5 Asp Trp Phe Thr Ala Gly Lys Glu Asp Ala Met Asn Gly Val Pro Val Lys Asp Asn Gln Ala Leu Ala Asp Ser Phe Asn Asp Pro Gln Val Asp 65 7.0 Arg Gly Glu Tyr Leu Arg Gly Tyr Ala Asp Gly Gln Lys Lys Ile Cys 90 85 Glu Glu Gly Phe Ile His Ala Trp Gly Leu Ala Gly Lys Ser Phe Pro 110 105 Ala Ser Cys Asp Thr Thr Glu Asn Ala Val Lys Leu Tyr Glu Ser Trp 115 120 Gln Gln Gly Met Asp Glu Ser Met Arg Ser Ser Arg Leu Asn 130 140

```
<210> 6805
<211> 200
<212> PRT
<213> Enterobacter cloacae
<400> 6805
Thr Met Val Phe Cys Arg Gln Phe Leu Arg Thr Ser Ile Ser Gly Ala
                               10
Val Trp Arg Ile Leu Met Arg Asn Ala Ile Leu Ile Ala Leu Leu Arg
                         25
          20
Leu Pro Leu Ala Leu Met Leu Phe Ile Leu Val Ala Pro Ala Lys Ala
                  40
Gly Ser Phe Thr Glu Thr Asp Lys Ser Val Arg Ser Ile Val Ser Gly
                  55
                                   60
Ile Val Ser Tyr Thr Arg Trp Pro Ala Leu Ser Gly Gln Pro Lys Leu
                      7.5
           70
Cys Ile Tyr Ala Ser Ser His Tyr Arg Gln Ala Leu Ser Ser Glu Asp
                               90
             8.5
Glu His Asn Pro Leu Pro Tyr Ser Pro Val Ile Val His Ser Asp Arg
                           105 110
       100
Glu Ala Leu Thr Ala Arg Cys Asp Ala Leu Tyr Phe Gly Ser Glu Ser
                             125
                        120
      115
Pro Ala Lys Gln Gln Glu Ile Ile Asn Gln Tyr Gln Gly Gln Ala Leu
                         140
  130
                  135
Leu Leu Met Ser Glu Gln Asn Pro Glu Cys Val Ile Gly Ser Ala Phe
145 150
                                 155
Cys Leu Ile Ile Glu His Asn Gln Val Arg Phe Ser Val Asn Leu Asp
            165 170 175
Ala Leu Ala Arg Ser Gly Val Arg Val Asn Pro Asp Val Leu Met Leu
         180
                            185
Ala Arg Asn Lys Lys His Glu
       195
<210> 6806
<211> 393
<212> PRT
<213> Enterobacter cloacae
<400> 6806
Asn Glu Thr Asp Asn Thr Met Thr Pro Glu Asn Pro Leu Leu Asp Leu
Arg Val Lys Ile Ser Ala Leu Asp Glu Lys Leu Leu Ala Leu Leu Ala
           20
Glu Arg Arg Ala Leu Ala Val Glu Val Gly Lys Ala Lys Leu Glu Ser
                         4.0
       35
 His Arg Pro Val Arg Asp Ile Asp Arg Glu Arg Asp Leu Leu Glu Arg
   50
                     55
 Leu Ile Gln Leu Gly Lys Ala His His Leu Asp Ala His Tyr Ile Thr
                  70
                                   75
Arg Leu Phe Gln Leu Ile Ile Glu Asp Ser Val Leu Thr Gln Gln Ala
                                9.0
              8.5
Leu His Gln Gln His Leu Asn Lys Thr Asn Pro His Ser Ala Arg Ile
                            105
           100
 Ala Phe Leu Gly Pro Lys Gly Ser Tyr Ser His Leu Ala Ala Arg Gln
                         120
       115
 Tyr Ala Ala Arg His Phe Glu Glu Phe Ile Glu Ser Gly Cys Ala Lys
                     135
                                       140
 Phe Ala Asp Ile Phe Asn Gln Val Glu Thr Gly Gln Ala Asp Tyr Ala
                  150
                                   155
```

Val Val Pro Ile Glu Asn Thr Ser Ser Gly Ala Ile Asn Asp Val Tyr

```
165
Asp Leu Leu Gln His Thr Ser Leu Ser Leu Val Gly Glu Leu Thr Ile
                        185
        180
Pro Ile Asp His Cys Val Leu Val Ser Gly Ser Thr Asp Leu Asn Gln
                  200
    195
Ile Glu Thr Val Tyr Ser His Pro Gln Pro Phe Gln Gln Cys Ser Gln
                         220
          215
Phe Leu Asn Arg Tyr Pro His Trp Lys Ile Glu Tyr Thr Glu Ser Thr
                      235
225 230
Ser Ala Ala Met Glu Lys Val Ala Gln Ala Asn Ser Pro Ala Val Ala
                   250 255
         245
Ala Leu Gly Ser Glu Ala Gly Gly Ala Leu Tyr Gly Leu Gln Val Leu
     260 265
Glu Arg Asn Leu Ala Asn Gln Thr Gln Asn Ile Thr Arg Phe Val Val
     275 280
                          285
Leu Ala Arg Lys Ala Ile Asn Val Ser Asp Gln Val Pro Ala Lys Thr
                               300
 290 295
Thr Leu Leu Met Ala Thr Gly Gln Gln Ala Gly Ala Leu Val Glu Ala
305 310 315
Leu Leu Val Leu Arg Asn His Asn Leu Ile Met Thr Lys Leu Glu Ser
          325 330
                                   335
Arg Pro Ile His Gly Asn Pro Trp Glu Glu Met Phe Tyr Leu Asp Val
      340 345 350
Gln Ala Asn Leu Glu Ser Ala Ser Met Gln Lys Ala Leu Arg Glu Leu
 355 360 365
Gly Glu Ile Thr Arg Ser Met Lys Val Leu Gly Cys Tyr Pro Ser Glu
 370 375
Thr Val Val Pro Val Asp Pro Ala
               390
<210> 6807
<211> 414
<212> PRT
<213> Enterobacter cloacae
<400> 6807
Cys Ser His Gly Ile Arg Ser Met Asn Lys Glu Val Val Pro Thr Pro
                      10
Arg Pro Thr Phe Lys Arg Thr Leu Arg Arg Ile Ser Met Ile Ser Val
                        2.5
Ile Ile Thr Met Thr Phe Ile Trp Leu Leu Cys Phe Ala Ser Val
               4.0
                             4.5
Val Thr Leu Lys Gln Tyr Ala Gln Lys Asn Leu Glu Leu Thr Gly Ala
                 55
                                  60
Thr Met Ser His Ser Leu Glu Ala Ser Leu Val Phe Asn Asp Ala Val
                             75
             7.0
Ala Ala Asn Glu Thr Leu Ala Thr Leu Gly Lys Gln Gly Gln Phe Ala
           85
                            90
Val Ala Glu Val Leu Asn Ala His His Lys Arg Phe Ala Trp Trp Ser
         100
                         105 110
Trp Asn Pro Ala Asp Asn Thr Asp Thr Leu Gly Ala Leu Val Asn Arg
                      120 125
Trp Leu Phe Pro Val Pro Val Ala Gln Pro Ile Ile His Asn Gly Asn
       135 140
   130
Val Ile Gly Glu Ile Arg Leu Thr Ala Arg Asp Ser Leu Ile Ser His
                150 155
 Phe Ile Trp Leu Ser Phe Ala Val Leu Thr Gly Cys Ile Leu Phe Ala
            165 170 175
 Ser Ala Val Ala Leu Thr Ile Tnr Arg Ser Leu His His Gly Met Val
                   185
```

Val Glu Met Gln Asn Ile Thr Asp Val Val His Asp Val Arg Thr Asn

```
200
Arg Asn Phe Ser Arg Arg Val Thr Glu Gly Arg Ile Glu Glu Phe His
                  215
                            220
Gln Phe Gly Glu Asp Phe Asn Ser Leu Leu Asp Glu Met Glu Glu Trp
               230
                             235
Gln Leu Lys Leu Gln Ala Lys Asn Ala Gln Leu Leu Arg Thr Ala Met
                           250
         245
His Asp Pro Leu Thr Gly Leu Ala Asn Arg Ala Ala Phe Arg Asn Asn
       260
               265
Ile Ala Ala Leu Met Asn Asp Ala Ser Ala Lys Thr Asn Ser Ala Leu
     275
                     280
                                      285
Leu Phe Leu Asp Gly Asp Asn Phe Lys Phe Ile Asn Asp Thr Trp Gly
                  295
                                  300
His Ala Ala Gly Asp Cys Val Leu Ile Glu Ala Ala Lys Arg Met Val
               310
                           315
Glu Phe Gly Glu Lys Arg His Gln Ser Tyr Arg Leu Gly Gly Asp Glu
          325 330 335
Phe Ala Met Ile Leu Tyr Gly Val His Thr Ala Arg Glu Val Glu Tyr
   340 345
                             350
Ile Cys Ala Ala Leu Ser Gln Gln Phe Ile Arg Pro Phe Asp Leu His
355 360 365
Asn Gly His Thr Ala Ser Met Ser Leu Ser Ile Gly Phe Ala Leu Ala
370 375 380
Trp Glu Asn Ala Ser Val Glu Ala Leu Leu Glu Gln Ala Asp Arg Asn
385 390 395
Met Tyr Leu Val Lys Asn Gln Arg Ser Lys Thr Ile Ser
           405
```

<210> 6808 <211> 166 <212> PRT

<213> Enterobacter cloacae

<400> 6808 Lys Glu Asp Asp Met Leu Lys Arg Tyr Phe Ala Pro Leu Leu Leu Ala 5 10 Ser Leu Ala Met Ser Gly Cys Gln Ser Ser Pro Glu Gly Lys Phe Thr 20 25 Pro Glu Gln Ile Ala Ala Met Lys Ser Tyr Gly Phe Asn Glu Leu Asn 40 Gly Asp Trp Ser Leu Gly Leu Ser Asp Lys Ile Leu Phe Asp Lys Asn 50 55 Asp Ala Arg Leu Arg Pro Glu Ser Gln Thr Gln Ile Gln Thr Met Ala 70 75 80 Ser Arg Leu Ala Ala Thr Gly Leu Asn His Ala Arg Met Asp Gly His 8.5 90 Thr Asp Asn Tyr Gly Glu Glu Ser Tyr Asn Glu Ala Leu Ser Leu Lys 100 105 110 Arg Ala Asn Val Val Ala Asp Ala Trp Ala Lys Gly Ala Asn Ile Pro 120 Arg Ser Asn Leu Thr Thr Arg Gly Leu Gly Lys Lys Tyr Pro Val Ser 135 140 Ser Asn Arg Thr Ala Gln Gly Arg Ala Glu Asn Arg Arg Val Ala Val 155 Val Ile Ser Thr Pro

<210> 6809 <211> 272

<212> PRT <213> Enterobacter cloacae

```
<400> 6809
Leu Ala Ala Leu Glu Pro Gly Leu His Arg Ser Gly Gly Glu Ser Met
                     10
Asn Thr Ala Arg Leu Asn Gln Gly Thr Pro Leu Leu Leu Asn Gly Val
      20
                      25
Thr Lys Arg Tyr Gly Asp Asn Thr Ile Leu Asn Ala Leu Asp Leu His
                 40
Ile Pro Ala Gly Gln Phe Val Ala Val Val Gly Arg Ser Gly Gly Gly
            5.5
                         60
Lys Ser Thr Leu Leu Arg Leu Leu Ala Gly Leu Glu Ala Pro Asn Ser
65 70 75
Gly Asp Ile Leu Ala Gly Thr Thr Pro Leu Ala Thr Ile Gln Asp Asp
        8.5
                       90 95
Thr Arg Met Met Phe Gln Asp Ala Arg Leu Leu Pro Trp Lys Thr Val
   100 105 110
Met Asp Asn Val Gly Leu Gly Leu Lys Gly Ser Trp Arg Glu Asp Ala
    115
                   120 125
Arg Gln Ala Leu Ala Ala Val Gly Leu Glu Asn Arg Ala Gly Glu Trp
130 135 140
Pro Ala Ala Leu Ser Gly Gly Gln Lys Gln Arg Val Ala Leu Ala Arg
145 150 155
Ala Leu Ile His Arg Pro Gly Leu Leu Leu Asp Glu Pro Leu Gly
        165 170 175
Ala Leu Asp Ala Leu Thr Arg Ile Glu Met Gln Asp Leu Ile Glu Thr
       180 185 190
Leu Trp Gln Thr His Gly Phe Thr Val Leu Leu Val Thr His Asp Val
   195 200 205
Ser Glu Ala Val Ala Met Ala Asp Arg Val Leu Leu Ile Glu Glu Gly
210 215 220
Lys Ile Gly Leu Asp Leu Thr Val Asp Ile Pro Arg Pro Arg Arg Val
225 230
                            235
Gly Ser Ala Arg Leu Gly Glu Leu Glu Ala Glu Val Leu Asp Arg Val
      245 250 255
Met Lys Arg Gly Val Ser Glu Arg Val Leu Ile Lys Ala Asn Ala
                      265
```

```
<210> 6810
<211> 83
<212> PRT
```

<213> Enterobacter cloacae

<400> 6810 Thr Gly Tyr Thr Pro Glu Leu Pae Ile Val Leu Asn Ala Pro Val Arg 10 Gly Cys Tyr Ser Ala Pro Met Thr Gln Phe Ala Ser Pro Val Leu His 20 25 30 Thr Leu Leu Asp Thr Asp Ala Tyr Lys Leu His Met Gln Gln Ala Val 35 40 45 Phe His His Tyr His Asp Val His Val Ala Ala Glu Phe Arg Cys Arg 55 60 Gly Asp Asp Leu Leu Gly Ile Tyr Ala Asp Ser Ile Arg Ala Thr Gly 65 70 7.5 8.0 Leu His

<210> 6811 <211> 195 <212> PRT

<213> Enterobacter cloacae

<400> 6811 Gly Ala Thr Met Arg Val Ile Thr Leu Ala Gly Ser Pro Arg Phe Pro Ser Arg Ser Ser Ala Leu Leu Glu Tyr Ala Arg Glu Lys Leu Asn Ala 20 Leu Asp Val Glu Val Cys His Trp Asn Leu His Asn Phe Ala Pro Glu 40 Asp Leu Leu Tyr Ala Arg Phe Asp Ser Pro Ala Leu Lys Thr Leu Ile 50 55 60 Glu Gln Leu Lys Ser Ala Asp Gly Leu Val Val Ala Thr Pro Ile Tyr 70 75 80 Lys Ala Ser Phe Ser Gly Ala Leu Lys Thr Leu Leu Asp Leu Leu Pro 8.5 90 Glu Arg Ala Leu Asp Gly Lys Val Val Leu Pro Leu Ala Thr Gly Gly 100 105 110 Thr Val Ala His Leu Leu Ala Val Asp Tyr Ala Leu Lys Pro Val Leu 115 120 Asn Ala Leu Lys Ala Gln Glu Ile Leu His Gly Val Phe Ala Asp Asp 130 135 140 Ser Gln Val Ile Asp Tyr Gln His Lys Pro His Phe Thr Pro Asn Leu 150 155 Gln Thr Arg Leu Asp Ser Ala Leu Glu Thr Phe Trp His Ala Leu Asn 165 170 175 Arg Arg Asp Arg His Ala Ala Ala Phe His Gln Ser Gln Gly Val Ala 180 185

His Val

<210> 6812 <211> 386

<212> PRT

<213> Enterobacter cloacae

<400> 6812 Arg Lys Lys Ile Met Ser Leu Asn Leu Phe Trp Phe Leu Pro Thr His 10 Gly Asp Gly His Tyr Leu Gly Thr Glu Glu Gly Ala Arg Pro Val Asp 2.5 His Gly Tyr Leu Gln Gln Ile Ala Gln Ala Ala Asp Arg Ile Gly Phe 35 40 Thr Gly Val Leu Ile Pro Thr Gly Arg Ser Cys Glu Asp Ala Trp Leu 5.5 Val Ala Ala Ser Met Ile Pro Val Thr Gln Arg Leu Lys Phe Leu Val 7.0 7.5 8.0 Ala Leu Arg Pro Ser Val Val Ser Pro Thr Val Ala Ala Arg Gln Ala 8.5 90 Ala Thr Leu Asp Arg Leu Ser Asn Gly Arg Ala Leu Phe Asn Leu Val 100 105 Thr Gly Ser Asp Pro Gln Glu Leu Ala Gly Asp Gly Val Phe Leu Asp 115 120 125 His Thr Glu Arg Tyr Glu Ala Ser Ala Glu Phe Thr Arg Val Trp Arg 130 135 140 Arg Leu Leu Glu Gly Glu Thr Val Thr Phe Glu Gly Lys His Ile His 150 155 Val Arg Asp Ala Gln Leu Tyr Phe Pro Pro Leu Gln Gln Pro Arg Pro 165 170 Pro Leu Tyr Phe Gly Gly Ser Ser Asp Val Ala Gln Glu Leu Ala Ala 185 180 190 Glu Gln Val Asp Leu Tyr Leu Thr Trp Gly Glu Pro Pro Glu Leu Val 195 200 205 Lys Glu Lys Ile Ala Gln Val Arg Ala Lys Ala Ala Glu His Gly Arg

```
Thr Val Arg Phe Gly Ile Arg Leu His Val Ile Val Arg Glu Thr Asn
                       235
               230
Asp Glu Ala Trp Gln Ala Ala Asp Arg Leu Ile Ala His Leu Asp Asp
            245
                            250
Asp Thr Ile Ala Lys Ala Gln Ala Ala Phe Ala Lys Thr Asp Ser Val
         260
                265
Gly Gln His Arg Met Ala Ser Leu His Asn Gly Lys Arg Glu Asn Leu
      275
               280
                                285
Glu Ile Ser Pro Asn Leu Trp Ala Gly Val Gly Leu Val Arg Gly Gly
                295
                                  300
Ala Gly Thr Ala Leu Val Gly Asp Gly Pro Thr Val Ala Ala Arg Ile
      310 315
Asn Glu Tyr Ala Ala Leu Gly Ile Asp Ser Phe Ile Leu Ser Gly Tyr
          325 330 335
Pro His Leu Glu Glu Ala Tyr Lys Val Gly Glu Leu Leu Phe Pro His
      340 345 350
Leu Asp Val Ala Ile Pro Glu Ile Pro Gln Pro Arg Gln Leu Gln Leu
 355 360 365
Gln Gly Glu Ala Val Ala Asn Ala Phe Ile Pro Arg Lys Val Ala Gln
370 375
Ser
385
<210> 6813
<211> 267
<212> PRT
<213> Enterobacter cloacae
<400> 6813
Gly Ala Thr Met Ser Ala Thr Ala Gln Lys Trp Leu Leu Arg Ala Ala
                            10
Pro Trp Phe Leu Pro Val Gly Ile Val Leu Val Trp Gln Leu Ala Ser
20 25
Ser Thr Gly Trp Leu Ser Ser Arg Ile Leu Pro Ser Pro Glu Gly Val
35 40
Val Glu Ala Phe Trp Ser Leu Ser Ala Ser Gly Glu Leu Trp Gln His
50 55
Leu Ala Ile Ser Ser Trp Arg Ala Val Ile Gly Phe Ser Ile Gly Gly
             70
                               75
Ser Ile Gly Leu Thr Leu Gly Leu Ile Ser Gly Leu Ser Arg Trp Gly
           85
                            90
Glu Arg Leu Leu Asp Thr Ser Val Gln Met Leu Arg Asn Val Pro His
                         105
                                         110
Leu Ala Leu Ile Pro Leu Val Ile Leu Trp Phe Gly Ile Asp Glu Ser
                     120
                                     125
Ala Lys Ile Phe Leu Val Ala Leu Gly Thr Leu Phe Pro Ile Tyr Ile
                  135
                                  140
Asn Thr Trp His Gly Ile Arg Asn Ile Asp Arg Gly Leu Val Glu Met
               150 155
Ala Arg Ser Tyr Gly Leu Ser Gly Phe Ala Leu Phe Thr His Val Ile
            165
                            170 175
Leu Pro Gly Ala Leu Pro Ser Ile Met Val Gly Val Arg Phe Ala Leu
        180
                         185
                                         190
Gly Leu Met Trp Leu Thr Leu Ile Val Ala Glu Thr Ile Ser Ala Asn
      195
                     200
Ser Gly Ile Gly Tyr Leu Ala Met Asn Ala Arg Glu Phe Leu Gln Thr
                215
                                  220
Asp Val Val Val Val Ala Ile Val Leu Tyr Ala Leu Leu Gly Lys Leu
               230
                       235
Ala Asp Val Ser Ala Gin Trp Leu Glu Arg Ser Trp Leu Arg Trp Asn
```

<400> 6815

2914 245 255 Pro Ala Tyr Thr Ala Gln Glu Ala Lys Ala 260 <210> 6814 <211> 338 <212> PRT <213> Enterobacter cloacae <400> 6814 Thr Val Gly Ile Ala Thr Arg Arg His Phe Ile Asn His Lys Glu Trp 10 Arg Met Phe Lys Thr Val Thr Arg Ile Gly Leu Ala Gly Leu Leu Ala 20 30 2.5 Val Ala Ser Leu Ala Gln Ala Thr Glu Lys Ala Pro Glu Ser Leu Arg 35 40 4.5 Ile Gly Tyr Gln Lys Gly Ser Val Ser Met Val Leu Ala Lys Ser His 50 55 60 Ala Leu Leu Glu Lys Arg Phe Pro Glu Thr Lys Phe Ser Trp Val Glu 65 70 75 Phe Pro Ala Gly Pro Gln Met Leu Glu Ala Leu Asn Val Gly Ser Ile 85 90 Asp Leu Gly Ser Thr Gly Asp Ile Pro Pro Ile Phe Ala Gln Ala Ala 100 105 110 Gly Ala Asp Leu Val Tyr Val Gly Val Glu Pro Ala Lys Pro Lys Ala 115 120 125 Glu Val Ile Leu Val Pro Glu Asn Ser Glu Ile Lys Ser Val Ala Asp 130 135 140 Leu Lys Gly His Lys Val Ala Phe Gln Lys Gly Ser Ser Ser His Asn 145 150 155 160 Leu Leu Leu Arg Ala Leu Gln Glu Ala Gly Leu Lys Phe Thr Asp Ile 165 170 175 Gln Pro Val Tyr Leu Thr Pro Ala Asp Ala Arg Ala Ala Phe Gln Gln 180 185 190 Lys Asn Val Asp Ala Trp Ala Ile Trp Asp Pro Tyr Tyr Ser Ala Ala 195 200 205 Leu Leu Gln Gly Gly Val Arg Val Leu Lys Asp Gly Thr Thr Leu Lys 210 215 220 Gln Thr Gly Ser Phe Tyr Leu Ala Ala Arg Pro Tyr Ala Glu Lys Asn 225 230 235 Gly Ala Phe Ile Gln Gln Val Leu Asp Thr Phe Ser Gln Ala Asp Ala 245 250 255 Leu Thr Gln Ser Gln Arg Gln Gln Ser Ile Thr Leu Leu Ala Lys Thr 260 265 270 Met Gly Leu Pro Glu Pro Val Ile Ala Thr Tyr Leu Asp His Arg Pro 275 280 285 Pro Thr Thr Ile Ala Pro Val Asp Ala His Val Ala Ala Leu Gln Gln 290 295 300 Gln Thr Ala Asp Leu Phe Tyr Gln Asn Arg Leu Val Pro Lys Gln Val 305 310 315 320 Asn Ile Arg Glu Arg Ile Trp Gln Pro Ala Gly Ile Glu Gly Lys Lys 325 330 335 Ser <210> 6815 <211> 102 <212> PRT <213> Enterobacter cloacae

<210> 6816 <211> 906 <212> PRT <213> Enterobacter cloacae

<400> 6816 Leu Lys Arg Ala Leu Cys Leu Lys Arg Arg Thr Phe Cys Ile Ala Arg 10 Phe Thr Gln Glu Tyr Ile Glu Ser Leu Leu Asp Lys Arg Cys Ile 20 25 Arg Phe Ser Met Thr Gln Gln Pro Gln Ala Lys Tyr Arg His Asp Tyr 35 40 Arg Ala Pro Glu Tyr Leu Ile Ser Asp Ile Asp Leu Thr Phe Asp Leu 5.5 Asp Ala Thr Lys Thr Val Val Thr Ala Val Ser Gln Val Thr Arg Gln 65 70 75 Ser Ala Thr Ala Val Ser Leu Arg Leu Asp Gly Glu Asp Leu Thr Leu 85 90 Val Ser Leu His Ile Asn Asp Glu Ala Trp Ser Asp Tyr Lys Glu Glu 100 105 110 Gly Asn Gln Leu Val Ile Asp Asn Leu Pro Glu Arg Phe Thr Leu Arg 115 120 Ile Val Asn Glu Ile Ser Pro Ala Ala Asn Thr Ala Leu Glu Gly Leu 130 135 140 Tyr Gln Ser Gly Val Ala Leu Cys Thr Gln Cys Glu Ala Glu Gly Phe 145 150 155 160 Arg His Ile Thr Trp Tyr Leu Asp Arg Pro Asp Val Leu Ala Arg Phe 165 170 Thr Thr Lys Ile Ile Ala Asp Lys Thr Leu Tyr Pro Tyr Leu Leu Ser 180 185 Asn Gly Asn Arg Ile Gly Glu Gly Glu Leu Glu Asn Gly Arg His Trp 200 205 Val Gln Trp Gln Asp Pro Phe Pro Lys Pro Cys Tyr Leu Phe Ala Leu 210 215 220 Val Ala Gly Asp Phe Asp Val Leu Arg Asp Thr Phe Lys Thr Arg Ser 225 230 235 Gly Arg Glu Val Ala Leu Glu Leu Phe Val Asp Arg Gly Asn Leu Asp 245 250 Arg Ala Pro Trp Ala Met Thr Ser Leu Ile Asn Ser Met Lys Trp Asp 270 260 265 Glu Thr Arg Phe Gly Leu Glu Tyr Asp Leu Asp Ile Tyr Met Ile Val 280 285 Ala Val Asp Phe Phe Asn Met Gly Ala Met Glu Asn Lys Gly Leu Asn 290 295 300 Ile Phe Asn Ser Lys Tyr Val Leu Ala Arg Thr Asp Thr Ala Thr Asp 310 315

Lys Asp Tyr Leu Asp Ile Glu Arg Val Ile Gly His Glu Tyr Phe His 325 330 Asn Trp Thr Gly Asn Arg Val Thr Cys Arg Asp Trp Phe Gln Leu Ser 340 345 350 Leu Lys Glu Gly Leu Thr Val Phe Arg Asp Gln Glu Phe Ser Ser Asp 355 360 Leu Gly Ser Arg Ala Val Asn Arg Ile Asn Asn Val Arg Thr Met Arg 375 380 Gly Leu Gln Phe Ala Glu Asp Ala Ser Pro Met Ala His Pro Ile Arg 390 395 400 Pro Asp Lys Val Ile Glu Met Asn Asn Phe Tyr Thr Leu Thr Val Tyr 405 410 415 Glu Lys Gly Ala Glu Ile Ile Arg Met Ile His Thr Leu Leu Gly Glu 420 425 430 Glu Asn Phe Gln Lys Gly Met Gln Leu Tyr Phe Glu Arg His Asp Gly 435 440 445 Ser Ala Ala Thr Cys Asp Asp Phe Val Gln Ala Met Glu Asp Ala Ser 450 455 460 Asn Val Asp Leu Ser His Phe Arg Arg Trp Tyr Ser Gln Ala Gly Thr 465 470 475 Pro Ile Val Thr Val Lys Asp Asp Tyr Asn Pro Glu Thr Glu Gln Tyr 485 490 495 Thr Leu Thr Ile Ser Gln Arg Thr Pro Pro Thr Ala Glu Gln Glu Glu 500 505 510 Lys His Pro Leu His Ile Pro Phe Ser Val Glu Leu Tyr Asp Asn Glu 515 520 525 Gly Asn Val Ile Pro Leu Gln Lys Gly Gly His Pro Val His Asn Val 530 535 540 Leu Asn Val Thr Gln Ala Glu Gln Thr Phe Ile Phe Asp Asn Val Tyr 545 550 555 Phe Gln Pro Val Pro Ala Leu Leu Cys Glu Phe Ser Ala Pro Val Lys 565 570 575 Leu Glu Tyr Lys Trp Ser Asp Gln Gln Leu Thr Phe Leu Met Arg His 580 585 590 Ala Arg Asn Asp Phe Ser Arg Trp Asp Ala Ala Gln Ser Leu Leu Ala 595 600 605 Thr Tyr Ile Lys Leu Asn Val Asn Arg Tyr Gln Gln Gly Gln Pro Leu 610 615 620 Thr Leu Pro Val His Val Ala Asp Ala Phe Arg Ala Ile Leu Leu Asp 630 635 640 Glu Asn Ile Asp Pro Ala Leu Ala Ala Glu Ile Leu Thr Leu Pro Ser 645Ala Thr Glu Ile Ala Glu Leu Phe Asp Ile Ile Asp Pro Ile Ala Ile 665 670 Val Ala Val Arg Glu Ala Leu Thr Arg Thr Leu Val Thr Glu Leu Ala 680 685 Asp Glu Phe Leu Ala Ile Tyr Asn Ala Asn Lys Leu Asp Ala Tyr Arg 695 700 Val Glu His Ala Asp Ile Gly Lys Arg Ser Leu Arg Asn Thr Cys Leu 710 715 Arg Tyr Leu Ala Phe Gly Glu Ala Glu Leu Ala Asn Thr Leu Val Ser 725 730 Lys Gln Tyr His Glu Ala Asp Asn Met Thr Asp Ala Leu Ala Ala Leu 740 745 750 Ala Ala Ser Val Ala Ala Glu Leu Pro Cys Arg Asp Ala Leu Met Gln 760 755 765 Glu Tyr Asp Asp Lys Trp Tyr Gln Asp Gly Leu Val Met Asp Lys Trp 775 780 Phe Ile Leu Gln Ala Thr Ser Pro Ala Ala Asp Val Leu Ser Lys Val 790 795 Arg Ser Leu Leu Lys His Arg Ser Phe Thr Met Ser Asn Pro Asn Arg

810 Val Arg Ser Leu Ile Gly Ala Phe Ala Ser Ser Asn Pro Ala Ala Phe 820 825 His Ala Glu Asp Gly Ser Gly Tyr Gln Phe Met Val Glu Met Leu Thr 835 840 845 Glu Leu Asn Ser Arg Asn Pro Gln Val Ala Ser Arg Leu Ile Glu Pro 855 860 Leu Ile Arg Leu Lys Arg Tyr Asp Ala Gln Arg Gln Ala Lys Met Arg 870 875 880 Ala Ala Leu Glu Gln Leu Lys Gly Leu Glu Asn Leu Ser Gly Asp Leu 885 890 Tyr Glu Lys Ile Ala Lys Ala Leu Ala

<210> 6817 <211> 350 <212> PRT

<213> Enterobacter cloacae

<400> 6817 Ser Pro Pro Gly Leu His Thr Gly Asn Pro Gly Glu Phe Met Tyr Tyr 10 Pro Phe Val Arg Lys Ala Leu Phe Gln Leu Asp Pro Glu Arg Ala His 20 25 Glu Phe Thr Phe Gln Gln Leu Arg Arg Ile Thr Gly Thr Pro Leu Ala 35 40 Ala Leu Val His Gln Asn Val Pro Glu Lys Pro Val Gln Cys Met Gly 50 55 Leu Thr Phe Lys Asn Pro Leu Gly Leu Ala Ala Gly Leu Asp Lys Asn 70 7.5 Gly Glu Cys Ile Asp Ala Leu Gly Ala Met Gly Phe Gly Ser Ile Glu 85 90 Ile Gly Thr Val Thr Pro Arg Pro Gln Pro Gly Asn Asp Lys Pro Arg 100 105 110 Leu Phe Arg Leu Val Glu Ala Glu Gly Leu Ile Asn Arg Met Gly Phe 115 120 Asn Asn Leu Gly Val Asp His Leu Val Glu Asn Val Lys Lys Ala His 130 135 140 Phe Asp Gly Val Leu Gly Ile Asn Ile Gly Lys Asn Lys Asp Thr Pro 150 155 Val Glu Gln Gly Lys Asp Asp Tyr Leu Ile Cys Met Glu Lys Val Tyr 165 170 175 Ala Tyr Ala Gly Tyr Ile Ala Val Asn Ile Ser Ser Pro Asn Thr Pro 185 180 Gly Leu Arg Ser Leu Gln Tyr Gly Glu Ala Leu Asp Asp Leu Leu Ser 200 205 Ala Ile Lys Asn Lys Gln Thr Ala Leu Gln Ala Ile His His Lys Tyr 210 215 220 Val Pro Val Ala Val Lys Ile Ala Pro Asp Leu Ser Ala Glu Glu Leu 225 230 235 Ile Gln Val Ala Asp Ser Leu Val Arg His Asn Ile Asp Gly Val Ile 245 250 Ala Thr Asn Thr Thr Leu Asp Arg Ser Leu Val Gln Gly Met Lys Asn 260 265 270 Cys Asp Glu Ala Gly Gly Leu Ser Gly Arg Pro Val Gln Leu Lys Ser 280 Thr Glu Ile Ile Arg Ala Leu Ser Ala Glu Leu Lys Gly Gln Leu Pro 295 300 Ile Ile Gly Val Gly Gly Ile Asp Ser Val Ile Ala Ala Arg Glu Lys 310 315 Met Ala Ala Gly Ala Ser Leu Val Gln Ile Tyr Ser Gly Phe Ile Phe

```
Lys Gly Pro Pro Leu Ile Lys Glu Ile Val Thr His Ile
        340
                345
<210> 6818
<211> 468
<212> PRT
<213> Enterobacter cloacae
<400> 6818
Leu Ala Asp Leu Glu Phe Asp Pro Ala His Met Leu Ser Ser Gln Ser
                     10
Pro Ser Ile Tyr Thr Val Ser Arg Leu Asn Gln Thr Val Arg Leu Leu
         20
                        25
                                        3.0
Leu Glu Gln Glu Met Gly Gln Val Trp Ile Ser Gly Glu Ile Ser Asn
 35
                  40
                                    4.5
Phe Thr Gln Pro Ala Ser Gly His Trp Tyr Phe Thr Leu Lys Asp Asp
               55
                         60
Thr Ala Gln Val Arg Cys Ala Met Phe Arg Asn Ser Asn Arg Arg Val
               70
                              75
Thr Phe Arg Pro Gln His Gly Gin Gln Val Leu Val Arg Ala Asn Ile
     85 90 95
Thr Leu Tyr Glu Pro Arg Gly Asp Tyr Gln Ile Ile Val Glu Ser Met
100 105
Gln Pro Ala Gly Glu Gly Leu Leu Gln Gln Lys Tyr Glu Gln Leu Lys
115 120 125
Ala Met Leu Ser Ala Glu Gly Leu Phe Asp Gln Gln Phe Lys Lys Pro
130 135 140
Leu Pro Ser Pro Ala His Cys Val Gly Val Ile Thr Ser Lys Thr Gly
145 150 155
Ala Ala Leu His Asp Ile Leu His Val Leu Lys Arg Arg Asp Pro Ser
     165 170 175
Leu Pro Val Ile Ile Tyr Pro Thr Ala Val Gln Gly Asp Asp Ala Pro
        180 185 190
Gly Gln Ile Val Arg Ala Ile Glu Leu Ala Asn Ala Arg Gln Glu Cys
 195 200 205
Asp Val Leu Ile Val Gly Arg Gly Gly Gly Ser Leu Glu Asp Leu Trp
 210 215
                                 220
Ser Phe Asn Asp Glu Arg Val Ala Arg Ala Ile Phe Ala Ser Leu Ile
225 230 235
Pro Val Val Ser Ala Val Gly His Glu Thr Asp Val Thr Ile Ala Asp
           245 250
Phe Val Ala Asp Leu Arg Ala Pro Thr Pro Ser Ala Ala Ala Glu Val
                        265
                                        270
Val Ser Arg Asn Gln Gln Glu Leu Leu Arg Gln Ile Gln Asn Gly Gln
                     280
                                     285
Gln Arg Leu Glu Met Ala Met Asp Tyr Phe Leu Ala Asn Arg Thr Arg
                 295
                                 300
Arg Phe Thr Gln Leu His His Arg Leu Gln Gln Gln His Pro Gln Leu
              310
                               315
Arg Leu Ala Arg Gln Gln Thr Val Leu Glu Arg Leu Arg Gln Arg Met
           325
                           330 335
Asn Phe Ala Leu Asp Asn Gln Leu Lys Arg Ala Val Ser Arg Gln Gln
         340
                        345
                                        350
Arg Met Thr Gln Arg Leu Asn Gln Gln Asn Pro Gln Pro Lys Val Tyr
                     360
                                     365
Arg Ala Gln Thr Arg Ile Gln Gln Leu Glu Tyr Arg Leu Ala Glu Asn
                375
                                 380
Ile Arg Ser Arg Leu Ser Ala Thr Arg Glu Arg Phe Gly Asn Ala Val
              390
                              395
Thr His Leu Glu Ala Val Ser Pro Leu Ser Thr Leu Ala Arg Gly Tyr
```

410 Ser Val Thr Thr Ala Thr Asp Gly Lys Val Leu Lys Gln Thr Lys Gln 425 420 Val Lys Ala Gly Asp Val Leu Thr Thr Arg Leu Ser Asp Gly Trp Val 435 440 445 Glu Ser Glu Val Lys Glu Ile Lys Pro Val Lys Lys Thr Arg Gln Arg 450 Lvs Ser Glv 465 <210> 6819 <211> 369 <212> PRT <213> Enterobacter cloacae <400> 6819 Lys Lys Arg Ala Ser Val Lys Ala Asp Lys Ser Ser Pro Val Thr Asn 1.0 Tyr Thr Ala Ala Ile Ala Phe Phe Asp Lys Glu Ser Ser Met Pro His 20 25 Leu His Ser Val Ile Pro Pro Tyr Ile Leu Arg Arg Ile Ile Glu Ser 35 40 Gly Ser Glu Pro Gln Gln Arg Cys Ala Arg Gln Thr Leu Thr His Val 55 Gln Thr Leu Met Ala His Met Pro Gly Lys Pro Ala Ala Pro His Val 7.0 7.5 Asn Lys Ala Gly Gln Leu Glu Arg Asp Ile Tyr Asp Ala Lys Gln Thr 85 90 Gin Glu Leu Pro Gly Ser Gln Val Arg Tyr Glu Gly Gln Pro Ser Asn 100 105 110 Gly Asp Val Ala Val Asp Glu Ala Tyr Asp Tyr Leu Gly Ile Thr His 115 120 125 Asp Phe Phe Trp Lys Glu Tyr Gln Arg Asp Ser Leu Asp Asn Lys Gly 130 135 140 Leu Ile Leu Thr Gly Thr Val His Tyr Gly Arg Glu Tyr Gln Asn Ala 145 150 155 Phe Trp Asn Gly Gln Gln Met Val Phe Gly Asp Gly Asp Gly Glu Ile 165 170 175 Phe Asn Arg Phe Thr Ile Ala Ile Asp Val Val Ala His Glu Leu Ser 180 185 190 His Gly Val Thr Glu Thr Glu Ala Gly Leu Ile Tyr Phe Glu Gln Ser 195 200 205 Gly Ala Leu Asn Glu Ser Leu Ser Asp Val Phe Gly Ser Leu Val Lys 210 215 220 Gln Tyr Tyr Leu Lys Gln Thr Ala Asp Gln Ala Asp Trp Leu Ile Gly 230 235 Glu Gly Leu Leu Ala Ala Gly Ile Asn Gly Lys Gly Leu Arg Ser Met 245 250 Ser Glu Pro Gly Thr Ala Tyr Asp Asp Pro Leu Leu Gly Lys Asp Pro 260 265 270 Gln Pro Ala His Met Lys Asp Phe Ile Lys Thr Arg Glu Asp Asn Gly 275 280 285 Gly Val His Leu Asn Ser Gly Ile Pro Asn Arg Ala Phe Tyr Leu Ala 290 295 300 Ala Thr Ala Ile Gly Gly Tyr Ala Trp Glu Lys Ala Gly Tyr Ala Trp 310 315 Tyr Asp Thr Val Cys Asp Arg Asn Leu Ala Gln Asp Ala Asp Phe Asp 325 330 335

Ala Phe Ala Lys Leu Thr Ile Ala His Gly Glu Lys Arg Ser Gly Ser

345 Asp Val Gly Ala Ala Ile Lys Gln Ala Trp Glu Gln Val Gly Val Leu

```
the first first the first flag. It has been seen that the first flag for the first flag.
```

<210> 6820 <211> 145 <212> PRT

<213> Enterobacter cloacae

<400> 6820

Asn Phe Ala Arg Val His Phe Ile Ser Ala Leu His Gly Ser Gly Val 1 5 10 15 Gly Asn Leu Phe Glu Ser Val Arg Glu Ala Tyr Asp Ser Ser Thr Arg

20 25 30 Arg Gln Ser Thr Ala Met Leu Thr Arg Ile Met Asn Met Ala Ala Glu

Arg Gin Ser Thr Ala Met Leu Thr Arg lie Met Ash Met Ala Ala Glu 35 40 45 Asp His Gln Pro Pro Leu Val Arg Gly Arg Arg Val Lys Leu Lys Tyr

50 55 60 Ala His Ala Gly Gly Tyr Asn Pro Pro Ile Val Val Ile His Gly Asn

65 70 75 80 Gln Val Lys Asp Leu Pro Asp Ser Tyr Lys Arg Tyr Leu Met Asn Tyr

85 90 95
Phe Arg Lys Ser Leu Asp Val Met Gly Thr Pro Ile Arg Ile Gln Phe

100 105 110 Lys Glu Glu Asn Pro Phe Ala Asn Lys Arg Asn Thr Leu Thr Pro 115 120 125

Asn Gln Met Arg Lys Arg Lys Arg Leu Ile Lys His Ile Lys Lys Ser 130 135 140

Lys 145

<210> 6821

<211> 533 <212> PRT

<213> Enterobacter cloacae

<400> 6821

Pro Phe Gly Val His Ala Gly Val Tyr Lys His Asp Thr Tyr Leu Phe  $1 \\ 5 \\ 10 \\ 15$  Gly Arg Ile Met Gln Ser Ser Val Asn Gln Lys Glu Ser Arg Thr Phe  $20 \\ 20 \\ 25$ 

Phe Gly His Pro Tyr Pro Leu Gly Ser Leu Phe Phe Thr Glu Met Trp 35 40 45

Glu Arg Phe Ser Phe Tyr Gly Ile Arg Pro Leu Leu Ile Leu Phe Met 50 55 60

Ala Ala Thr Val Tyr Asp Gly Gly Met Gly Leu Ala Arg Glu Asn Ala 65 75 80 Ser Ala Ile Val Gly Ile Phe Ala Gly Thr Met Tyr Leu Ala Ala Leu

85 90 95
Pro Gly Gly Trp Leu Ala Asp Asn Trp Leu Gly Gln Gln Arg Ala Val

100 105 110 Trp Tyr Gly Ser Ile Leu Ile Ala Leu Gly His Leu Ser Ile Ala Leu 115 120 125

Ser Ala Ile Met Gly Asp Asn Leu Phe Phe Ile Gly Leu Met Phe Ile 130 140

Val Leu Gly Ser Gly Leu Phe Lys Thr Cys Ile Ser Val Met Val Gly
145 150 155 160

Thr Leu Tyr Lys Lys Gly Asp Ala Arg Arg Asp Gly Gly Phe Ser Leu 165 170 175 Phe Tyr Met Gly 11e Asn Met Gly Ser Phe Ile Ala Pro Leu Ile Ser

Gly He Asn Met Gly Ser Phe He Ala Pro Leu II 180 185 190

```
Gly Trp Leu Ile Lys Thr His Gly Trp His Trp Gly Phe Gly Ile Gly
                   200
     195
Gly Ile Gly Met Leu Val Ala Leu Ile Ile Phe Arg Val Phe Ala Val
 210
                 215
                               220
Pro Ala Met Lys Arg Tyr Asp Ser Glu Val Gly Leu Asp Ser Thr Trp
              230 235 240
Asn Ser Pro Val Val Lys Arg Asn Gly Val Gly Ala Trp Leu Leu Ala
           245
               250 255
Leu Ala Val Gly Val Ala Ile Ile Val Thr Leu Ile Ala Gln Gly Val
        260 265 270
Ile Val Ile Asn Pro Val Ala Val Ala Ser Val Leu Val Tyr Val Ile
   275 280 285
Ala Ala Ser Val Ala Leu Tyr Phe Ile Tyr Leu Phe Ile Phe Ala Gly
 290 295 300
Leu Asn Arg Lys Glu Arg Ala Arg Leu Leu Val Cys Phe Ile Leu Leu
305 310 315 320
Val Ser Ala Ala Phe Phe Trp Ser Ala Phe Glu Gln Lys Pro Thr Ser
   325 330 335
Phe Asn Leu Phe Ala Asn Asp Tyr Thr Asn Arg Met Ile Gly Asp Phe
 340 345 350
Glu Ile Pro Ala Val Trp Phe Gin Ser Ile Asn Ala Leu Phe Ile Ile
355 360 365
Leu Leu Ala Pro Val Phe Ser Trp Ala Trp Pro Lys Leu Ala Ser Lys
370 375 380
Asn Ile Arg Pro Ser Ser Ile Thr Lys Phe Val Ile Gly Ile Leu Cys
385 390 395 400
Ala Ala Ala Gly Phe Gly Leu Met Met Leu Ala Ala Gln Asn Val Leu
          405 410 415
Leu Met Leu Thr Leu Gly Glu Leu Cys Leu Ser Pro Ile Gly Leu Ala
435 440 445
Thr Met Thr Leu Leu Ala Pro Glu Arg Met Arg Gly Gln Met Met Gly
450 455 460
Leu Trp Phe Cys Ala Ser Ala Leu Gly Asn Leu Ala Ala Gly Leu Ile
465 470 475 480
Gly Gly His Val Lys Ala Asp Gln Leu Asp Met Leu Pro Asp Leu Phe
      485 490 495
Ala Arg Cys Ser Ile Ala Leu Leu Ile Cys Ala Ala Val Leu Ile Val
       500 505 510
Leu Ile Val Pro Val Arg Arg Met Leu Glu Asn Ala Gln Thr Lys Pro
            520
Ala Thr Glu Ala
 530
<210> 6822
<211> 497
<212> PRT
<213> Enterobacter cloacae
<400> 6822
Pro Pro Arg Ser Glu Ile Leu Pro Met Leu Arg Ile Ala Lys Glu Ala
                       10
                                       1.5
Leu Thr Phe Asp Asp Val Leu Leu Val Pro Ala His Ser Thr Val Leu
        20
                    2.5
Pro Asn Thr Ala Asp Leu Ser Thr Gln Leu Thr Lys Thr Ile Arg Leu
                   4.0
Asn Ile Pro Met Leu Ser Ala Ala Met Asp Thr Val Thr Glu Ala Arg
               55
Leu Ala Ile Ala Leu Ala Gln Glu Gly Gly Ile Gly Phe Ile His Lys
                            75
```

Asn Met Ser Ile Glu Arg Gln Ala Glu Glu Val Arg Arg Val Lys Lys His Glu Ser Gly Ile Val Ser Asp Pro Gln Thr Val Leu Pro Thr Thr 105 Thr Leu His Glu Val Lys Ala Leu Thr Glu Arg Asn Gly Phe Ala Gly 120 115 125 Tyr Pro Val Val Thr Glu Asp Asn Glu Leu Val Gly Ile Ile Thr Gly 135 140 Arg Asp Val Arg Phe Val Thr Asp Leu Asn Gln Pro Val Ser Val Tyr 150 155 160 Met Thr Pro Lys Glu Arg Leu Val Thr Val Arg Glu Gly Glu Thr Arg 165 170 175 Asp Val Val Leu Ala Lys Met His Glu Lys Arg Val Glu Lys Ala Leu 180 185 190 Val Val Asp Ala Asn Phe His Leu Arg Gly Met Ile Thr Val Lys Asp 195 200 205 Phe Gln Lys Ala Glu Arg Lys Pro Asn Ala Cys Lys Asp Glu His Gly 210 215 220 Arg Leu Arg Val Gly Ala Ala Val Gly Ala Gly Ala Gly Asn Glu Gln 225 230 235 Arg Val Asp Ala Leu Val Ala Ala Gly Val Asp Val Leu Leu Ile Asp 245 250 255 Ser Ser His Gly His Ser Glu Gly Val Leu Gln Arg Ile Arg Glu Thr 260 265 270 Arg Ala Lys Tyr Pro Asp Leu Glr Ile Ile Gly Gly Asn Val Ala Thr 275 280 285 Gly Ala Gly Ala Arg Ala Leu Ala Glu Ala Gly Cys Ser Ala Val Lys 290 295 300 Val Gly Ile Gly Pro Gly Ser Ile Cys Thr Thr Arg Ile Val Thr Gly 305 310 315 Val Gly Val Pro Gln Ile Thr Ala Val Ser Asp Ala Val Glu Ala Leu 325 330 335 Glu Gly Thr Gly Ile Pro Val Ile Ala Asp Gly Gly Ile Arg Phe Ser 340 345 350 Gly Asp Ile Ala Lys Ala Ile Ala Ala Gly Ala Ala Ala Val Met Val 355 360 365 Gly Ser Met Leu Ala Gly Thr Glu Glu Ser Pro Gly Glu Ile Glu Leu 370 375 380 Tyr Gln Gly Arg Ser Tyr Lys Ser Tyr Arg Gly Met Gly Ser Leu Gly 385 390 395 Ala Met Ser Lys Gly Ser Ser Asp Arg Tyr Phe Gln Thr Asp Asn Ala 405 410 Ala Asp Lys Leu Val Pro Glu Gly Ile Glu Gly Arg Val Ala Tyr Lys 420 425 430 Gly Arg Leu Lys Glu Ile Ile His Gln Gln Met Gly Gly Leu Arg Ser 440 445 Cys Met Gly Leu Thr Gly Cys Gly Thr Ile Asp Leu Leu Arg Thr Lys 455 460 Ala Glu Phe Val Arg Ile Ser Gly Ala Gly Ile Gln Glu Ser His Val 465 470 475 His Asp Val Thr Ile Thr Lys Glu Ser Pro Asn Tyr Arg Leu Gly Ser

490

<sup>&</sup>lt;210> 6823 <211> 116

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;400> 6823

Ser Ser Ser Leu Phe Arg Tyr Val Ala Cys Trp Lys Met Arg Lys Leu Asn Arg Leu Pro Lys Pro Asp Thr Ile Gln Ser Ala Gly Ala Val 25 Leu Ser Arg Pro Asn Ser Thr Gly Glu Ser Met Ser Ile Thr Cys Pro 35 40 Asp Cys His Ala Ala Leu Glu Pro Gln Asn Gly Ile Ala His Cys Asp 55 60 Ser Cys Asn Lys Asp Ile Pro Leu Glu Ala Arg Cys Pro Asp Cys His 7.0 7.5 Gln Pro Leu Gln Val Leu Lys Ala Cys Gly Ala Val Asp Tyr Phe Cys 85 90 95 Gln Asn Gly His Gly Leu Ile Ser Lys Lys Arg Val Glu Phe Val Arg 100 105 110 Ala Gly Ala

<210> 6824 <211> 562 <212> PRT

<213> Enterobacter cloacae

<400> 6824 Arg Ser Pro Lys Ser Pro Arg Thr Thr Val Trp Ala Pro Asp Lys Phe 10 Pro Arg Pro Ala Gln Cys Arg Ala Leu Cys Phe Val Ser Leu Ala Ser 20 25 Glu Leu Ala Ser Met Thr Glu Asn Ile His Lys His Arg Ile Leu Ile 35 40 Leu Asp Phe Gly Ser Gln Tyr Thr Gln Leu Val Ala Arg Arg Val Arg 50 55 Glu Leu Gly Val Tyr Cys Glu Leu Trp Ala Trp Asp Val Thr Glu Ala 65 70 75 Gln Ile Arg Glu Phe Asn Pro Ser Gly Ile Ile Leu Ser Gly Gly Pro 85 90 Glu Ser Thr Thr Glu Glu Asn Ser Pro Arg Ala Pro Gln Tyr Val Phe 100 105 110 Glu Ala Gly Val Pro Val Phe Gly Val Cys Tyr Gly Met Gln Thr Met 115 120 Ala Met Gln Leu Gly Gly His Val Glu Gly Ser Asn Glu Arg Glu Phe 135 140 Gly Tyr Ala Gln Val Glu Val Val Thr Asp Ser Ala Leu Val Arg Gly 145 150 155 160 Ile Glu Asp Ser Leu Thr Ala Asp Gly Lys Pro Leu Leu Asp Val Trp 165 170 175 Met Ser His Gly Asp Lys Val Thr Ala Ile Pro Ser Asp Phe Val Thr 180 185 190 Val Ala Ser Thr Glu Ser Cys Pro Phe Ala Ile Met Ala Asn Glu Glu 195 200 205 Lys Arg Phe Tyr Gly Val Gln Phe His Pro Glu Val Thr His Thr Arg 210 215 220 Gln Gly Met Arg Met Leu Glu Arg Phe Val Arg Asp Ile Cys Gln Cys 230 235 Glu Ala Leu Trp Thr Pro Ala Lys Ile Ile Asp Asp Ala Val Glu Arg 245 250 255 Ile Arg Gln Gln Val Gly Asp Asp Lys Val Ile Leu Gly Leu Ser Gly 260 265 270 Gly Val Asp Ser Ser Val Thr Ala Met Leu Leu His Arg Ala Ile Gly 280 285 Lys Asn Leu Thr Cys Val Phe Val Asp Asn Gly Leu Leu Arg Leu Asn

295

```
Glu Ala Lys Gln Val Met Asp Met Phe Gly Asp His Phe Gly Leu Asn
               310
                     315
Ile Val His Val Glu Gly Glu Gln Arg Phe Leu Asp Ala Leu Lys Gly
            325
                            330
Glu Asn Asp Pro Glu Ala Lys Arg Lys Ile Ile Gly Arg Val Phe Val
         340
                         345
                                         350
Glu Val Phe Asp Glu Glu Ala Leu Lys Leu Glu Asp Val Lys Trp Leu
      355
                      360
                                     365
Ala Gln Gly Thr Ile Tyr Pro Asp Val Ile Glu Ser Ala Ala Ser Ala
  370
                  375
                                  380
Thr Gly Lys Ala His Val Ile Lys Ser His His Asn Val Gly Gly Leu
       390
385
                    395
Pro Lys Glu Met Lys Met Gly Leu Val Glu Pro Leu Arg Glu Leu Phe
            405 410 415
Lys Asp Glu Val Arg Lys Ile Gly Leu Glu Leu Gly Leu Pro Tyr Asp
             425 430
         420
Met Leu Tyr Arg His Pro Phe Pro Gly Pro Gly Leu Gly Val Arg Val
     435
          440 445
Leu Gly Glu Val Lys Lys Glu Tyr Cys Asp Leu Leu Arg Arg Ala Asp
 450 455 460
Ala Ile Phe Ile Glu Glu Leu His Lys Ala Asp Leu Tyr Asn Lys Val
   470 475
Ser Gln Ala Phe Thr Val Phe Leu Pro Val Arg Ser Val Gly Val Met
       485 490 495
Gly Asp Gly Arg Lys Tyr Asp Trp Val Val Ser Leu Arg Ala Val Glu
        500 505 510
Thr Ile Asp Phe Met Thr Ala His Trp Ala His Leu Pro Tyr Asp Phe
 515 520 525
Leu Gly Arg Val Ser Asn Arg Ile Ile Asn Glu Val Asn Gly Ile Ser
530 535 540
Arg Val Val Tyr Asp Ile Ser Gly Lys Pro Pro Ala Thr Ile Glu Trp
545
   550
                              555
Glu
<210> 6825
<211> 170
<212> PRT
<213> Enterobacter cloacae
<400> 6825
Thr Tyr Ser Ala Asp Leu Pro Ser Tyr Phe Cys Met Gly Cys Val Val
1 5
                         10
Glu Met Phe Ala Leu Thr Tyr Thr Leu Lys Lys Thr Arg Arg His Ser
      20
                        25
Met Lys Glu Asn Asp Ile Val Glu Ile Leu Thr Thr Thr Arg Ser Ile
               40
Ala Leu Val Gly Ala Ser Asp Lys Pro Asp Arg Pro Ser Tyr Arg Val
                  55
                      60
Met Lys Tyr Leu Leu Asp Gln Gly Tyr His Val Ile Pro Val Ser Pro
                             75
Lys Val Ala Gly Lys Thr Leu Leu Gly Gln Gln Gly Tyr Ala Thr Leu
                           90
Ala Asp Val Pro Glu Lys Val Asp Met Val Asp Val Phe Arg Asn Ser
                       105
Glu Ala Ala Trp Gly Val Ala Gln Glu Ala Ile Ala Ile Gly Ala Lys
                     120
Thr Leu Trp Met Gln Leu Gly Val Ile Asn Glu Gln Ala Ala Val Leu
               135
                      140
```

Ala Arg Asp Ala Gly Leu Lys Val Val Met Asp Arg Cys Pro Ala Ile

155

```
2925
Asp Ile Pro Arg Leu Gly Leu Ala Lys
             165
<210> 6826
<211> 234
<212> PRT
<213> Enterobacter cloacae
<400> 6826
Val Ala Tyr Phe Pro Ala Asn Gly Ser Val Ser Lys Lys Tyr Arg Gly
                              10
Tyr Cys Met Ile Phe Asn Gly Ile Ile Met Lys Lys Ile Ser Tyr Glu
         20
                        25
Arg Ile Tyr Gln Ser Gln Glu Tyr Leu Ser Pro Leu Gly Glu Ile His
      35
                       4.0
His Arg Ala Leu Phe Gly Gly Tyr Thr Leu Ala Val Asp Glu Ala Val
                   5.5
Phe Ala Met Val Ser Asp Gly Glu Leu Tyr Leu Arg Ala Cys Glu Gln
               70 75
Ser Ala Lys Tyr Cys Val Lys Asn Ala Ser Ser Phe Leu Thr Leu Met
            85
                     90
Lys Arg Gly Arg Pro Val Leu Leu Asn Tyr Tyr Arg Val Asp Glu Gly
         100 105 110
Leu Trp Gln Asn Arg Glu Lys Leu Leu Gln Leu Ser Ser Phe Ala Leu
 115 120 125
Asp Ala Ala Arg Lys Glu Arg Tyr Gln Arg His Gln Arg Asn Arg Leu
 130 135
                                    140
Lys Asp Leu Pro Asn Leu Thr Phe Gln Ile Glu Val Leu Leu Met Glu
145 150 155
Ala Gly Ile Thr Asn Glu Glu Thr Leu Arg Gln Leu Gly Ala Lys Thr
            165 170
Ser Trp Leu Lys Met Arg Ser Lys Asn Lys Ala Leu Ser Ile Arg Val
      180 185
Leu Phe Ala Leu Glu Gly Ala Ile Glu Gly Leu His Glu Ala Ala Leu
195 200 205
Pro Ala Asp Ile Arg Arg Glu Leu Thr Glu Trp Phe Asn Ala Leu Pro
210 215
Glu Ser Gln Gly His His Ser Ala Arq
<210> 6827
<211> 692
<212> PRT
<213> Enterobacter cloacae
<400> 6827
Pro Arg Gly Ser Arg Gln Asp Met Glu Leu Lys Ala Thr Ser Met Gly
                              10
Lys Arg Leu Ala Gln His Pro Tyr Asp Lys Val Val Leu Leu Asn Ala
                                           30
Gly Val Lys Val Ser Gly Glu Arg His Glu Tyr Leu Ile Pro Phe Asn
                       4.0
Gln Leu Leu Ala Ile His Cys Lys Arg Gly Leu Val Trp Gly Glu Leu
 5.0
Glu Phe Val Leu Pro Ala Asp Lys Val Val Arg Leu His Gly Thr Glu
                7.0
                                 75
Trp Ala Glu Thr Gln Arg Phe His Tyr His Leu Asn Thr Arg Trp Gln
            85
                              90
                                              95
Gin Trp Ser Gln Glu Met Ser Val Ile Ala Ala Gln Val Leu Gln Gln
         100
                          105
```

Val Leu Asp Asp Ile Ala Leu Ser Asn Thr Gln Gln Lys Trp Leu Thr

120 Arg Gln Gln Thr Ala Gly Leu Gln His Lys Ile Ala Gln Ala Leu Thr 135 Ala Leu Pro Leu Pro Val Ala Arg Leu Glu Glu Phe Asp Asn Cys Arg 150 155 Asp Ala Trp Arg Lys Cys Gln Ala Trp Leu Asn Asp Ile Glu Lys Ser 165 170 175 Arg Leu Ala His Asn Gln Ala Trp Thr Glu Ala Met Leu Thr Gln Tyr 180 185 190 Ala Asp Phe Phe Ser Thr Val Glu Ser Ser Pro Leu Asn Pro Ala Gln 195 200 205 Ala Arg Ala Val Val Asn Gly Glu Gln Ser Leu Leu Val Leu Ala Gly 215 220 Ala Gly Ser Gly Lys Thr Ser Val Leu Val Ala Arg Ala Gly Trp Leu 230 235 Leu Thr Thr Gly Glu Ala Val Ala Asp Gln Ile Leu Leu Ala Phe 245 250 255 Gly Arg Lys Ala Ala Gln Glu Met Asp Glu Arg Ile Gln Ala Arg Leu 260 265 270 His Thr Gln Asp Ile Ser Ala Arg Thr Phe His Ser Leu Ala Leu His 275 280 285 Ile Ile Gln Gln Gly Ser Lys Lys Val Pro Val Val Ser Lys Leu Glu 290 295 300 Asn Asp Ala Gln Ala Arg Gln Thr Leu Phe Ile Lys Ala Trp Arg Gln 305 310 315 Gln Cys Ser Glu Lys Lys Ala Gln Ala Lys Gly Trp Arg Gln Trp Leu 325 330 335 Glu Glu Glu Leu Asn Trp Glu Val Pro Glu Gly Ser Phe Trp Gln Asp 340 345 350 Glu Lys Leu Ala Arg Arg Leu Gly Ser Arg Leu Asp Arg Trp Val Ser 355 360 365 Leu Met Arg Met His Gly Gly Ser Gln Ala Glu Met Ile Glu Ser Ala 370 375 380 Pro Glu Ser Ile Arg Ala Val Phe Ser Lys Arg Val Lys Leu Met Ala 385 390 395 Pro Met Leu Lys Ala Trp Lys Thr Ala Leu Lys Asp Glu Asn Ala Val 405 410 Asp Phe Ser Gly Leu Ile His Gln Ala Ile Ile Ile Leu Glu Lys Gly 420 425 Arg Phe Val Ser Pro Trp Lys His Ile Leu Val Asp Glu Phe Gln Asp 435 440 445 Ile Ser Pro Gln Arg Ala Ala Leu Leu Ser Ala Leu Arg Ala Gln Asn 450 455 460 Lys His Thr Ser Leu Phe Ala Val Gly Asp Asp Trp Gln Ala Ile Tyr 465 470 475 Arg Phe Ser Gly Ala Gln Leu Ser Leu Thr Thr Ala Phe His His Tyr 485 490 495 Phe Gly Glu Gly Asp Arg Ser Asp Leu Asp Thr Thr Tyr Arg Phe Asn 500 505 Ser Arg Ile Gly Glu Ile Ala Asn Arg Phe Ile Gln Gln Asn Pro His 515 520 525 Gln Leu Ser Lys Pro Leu Asn Ser Leu Arg Ser Gly Asp Lys Lys Ala 530 535 540 Val Thr Leu Leu Ala Asp Asp Gln Leu Glu Pro Leu Leu Asp Lys Leu 545 550 555 Ser Gly Tyr Ala Lys Pro Asp Glu Arg Ile Leu Val Leu Ala Arg Tyr 565 570 575 His His Leu Lys Pro Thr Ala Leu Glu Lys Ala Ala Thr Arg Trp Pro 585 580 Lys Leu Gln Leu Asp Phe Met Thr Ile His Ala Ser Lys Gly Gln Gln 600

```
Ala Asp Tyr Val Ile Val Val Gly Leu Lys Glu Gly Ser Asp Gly Phe
 61.0
                615
Pro Ala Pro Ala Arg Glu Ser Val Met Glu Glu Ala Leu Leu Pro Val
               630
                               635
Pro Glu Asp Phe Pro Asp Ala Glu Glu Arg Arg Leu Leu Tyr Val Ala
            645
                   650 655
Ile Thr Arg Ala Arg His Arg Val Trp Leu Leu Phe Asn Lys Glu Glu
         660
                         665
                              670
Pro Ser Val Phe Val Asp Ile Leu Lys Ser Ile Asp Val Pro Val Ala
   675
             680
Arg Lys Pro
   690
<210> 6828
<211> 253
<212> PRT
<213> Enterobacter cloacae
<400> 6828
Gly Gln Ile Gly Arg Ile Cys Leu Tyr Val Ser Lys Arg Val Tyr Arg
                          1.0
Lys Ile Leu Ile His Ser Tyr Arg Val Val Cys Leu Gln Glu Ser Ala
      20
                         25
Met Lys Thr Gly Ile Ala Trp Ala Val Val Ala Leu Ile Met Pro Val
 35
                   40
                            4.5
Cys Val Phe Ala Thr Thr Leu Arg Leu Thr Thr Asp Ile Asp Leu Leu
 50
                 5.5
Val Leu Asp Gly Lys Lys Val Ser Ser Ser Leu Leu Arg Gly Ala Asp
               70 75
Ser Ile Glu Leu Asp Asn Gly Pro His Gln Leu Val Phe Arg Val Glu
          85
                 90
Lys Thr Ile Arg Leu Ala Asp Asp Glu Gln Gln Val Tyr Ile Ser Pro
       100 105
                                      110
Pro Leu Val Val Ser Phe Asn Thr Gln Arg Ile Ser Gln Val Asn Phe
 115 120
                                    125
Arg Leu Pro Arg Leu Glu Thr Glu Lys Glu Ser Leu Ala Phe Asp Ala
 130 135 140
Ser Pro Arg Ile Glu Leu Val Asp Gly Asp Ser Met Pro Ile Pro Val
145 150 155
Lys Leu Asp Ile Leu Ala Leu Thr Lys Arg Pro Lys Gly Thr Asp Tyr
         165 170 175
Glu Ala Asp Thr Glu Thr Tyr Asn Arg Ala Ser Arg Arg Ala Ser Leu
        180 185
Pro Gln Phe Ala Thr Met Met Ala Asp Asp Ser Thr Leu Leu Ser Gly
     195 200
                                     205
Val Ser Glu Leu Asp Val Leu Pro Pro Gln Ser Gln Thr Leu Thr Glu
 210 215 220
Gln Arg Leu Lys Phe Trp Phe Gln Asn Ala Asp Pro Asp Thr Arg Ala
225 230 235
Arg Phe Leu Gln Trp Ala Lys Gln Gln Pro Ser Ser
            245
<210> 6829
<211> 85
<212> PRT
<213> Enterobacter cloacae
<400> 6829
Cys Val Lys Arg Gly Ser Gly Thr Cys Ala Pro Arg Tyr Pro Gly Tyr
                            10
Ala Asn Ala Pro Glu Cys Ala His Pro Ser Pro Ala Pro Pro Cys Asp
```

2928 25 Gln Arg Pro Ala Ala Lys Ser Gly Arg Gln Pro Pro Arg Pro Leu Ser 40 Glu Ala Ser Pro Arg Val Pro Pro Ala Pro Thr Phe Cys Arg Ser Arg 55 60 Arg Leu Pro Ala Leu Lys Glu Thr Ala Arg His Ser Pro Arg Arg Ala Pro Gly Gln Asp <210> 6830 <211> 399 <212> PRT <213> Enterobacter cloacae <400> 6830 Gln Ile Met Ser Val Arg Leu Val Leu Ala Lys Gly Arg Glu Lys Ser 10 Leu Leu Arg Arg His Pro Trp Val Phe Ser Gly Ala Val Ala Arg Met 2.0 25 Glu Gly Lys Ala Ser Leu Gly Glu Thr Ile Asp Ile Val Asp His Gln 35 4.0 4.5 Gly Lys Trp Leu Ala Arg Gly Ala Tyr Ser Pro Ala Ser Gln Ile Arg 55 60 Ala Arg Val Trp Thr Phe Asp Lys Glu Glu Ala Ile Asp Ile Asp Phe 65 70 75 Phe Val Arg Arg Leu Gln Gln Ala Gln Gln Trp Arg Glu Trp Leu Ala 85 90 Lys Arg Asp Gly Leu Asp Ser Tyr Arg Leu Ile Ala Gly Glu Ser Asp 100 105 110 Gly Leu Pro Gly Val Thr Ile Asp Arg Phe Gly Asn Phe Leu Val Leu 115 120 125 Gln Leu Leu Ser Ala Gly Ala Glu Tyr Gln Arg Ala Ala Leu Ile Ser 130 135 140 Ala Leu Gln Thr Leu Phe Pro Glu Cys Ala Ile Tyr Asp Arg Ser Asp

145 150 155 Val Ala Val Arg Lys Lys Glu Gly Met Glu Leu Thr Gln Gly Pro Val 165 170 Thr Gly Glu Leu Pro Pro Ala Leu Leu Pro Ile Glu Glu His Gly Met 180 185 Lys Leu Leu Val Asp Ile Gln Gly Gly His Lys Thr Gly Tyr Tyr Leu 195 200 205 Asp Gln Arg Asp Ser Arg Leu Ala Thr Arg Gln Tyr Val Ala Asp Arg 210 215 220 Arg Val Leu Asn Cys Phe Ser Tyr Thr Gly Gly Phe Ala Val Ser Ala 230 235 Leu Met Gly Gly Cys Ala Gln Val Val Ser Val Asp Thr Ser Gln Glu 245 250 Ala Leu Asp Val Ala Lys Gln Asn Val Glu Leu Asn Lys Leu Asp Leu 265 Ser Lys Ala Glu Phe Val Arg Asp Asp Val Phe Lys Leu Leu Arg Lys 275 280 285 Tyr Arg Asp Gln Gly Glu Lys Phe Asp Val Ile Val Met Asp Pro Pro 290 295 300 Lys Phe Val Glu Asn Lys Ser Gin Leu Met Gly Ala Cys Arg Gly Tyr 310 315 Lys Asp Ile Asn Met Leu Ala Ile Gln Leu Leu Asn Pro Gly Gly Val 325 330 335 Leu Leu Thr Phe Ser Cys Ser Gly Leu Met Thr Thr Asp Leu Phe Gln 340 345

Lys Ile Ile Ala Asp Ala Ala Ile Asp Ala Gly Arg Asp Val Gln Phe

```
360
Ile Glu Gln Phe Arg Gln Ala Ala Asp His Pro Val Ile Ala Thr Tyr
          375
                              380
Pro Glu Gly Leu Tyr Leu Lys Gly Phe Ala Cys Arg Val Met
                390
<210> 6831
<211> 116
<212> PRT
<213> Enterobacter cloacae
<400> 6831
Cys Val Cys Asn Val Ser Arg Glu Val Thr Met Ile Ala Ser Lys Phe
                             1.0
Gly Ile Gly Gln Gln Val Arg His Thr Leu Leu Gly Tyr Leu Gly Val
                          25
Val Val Asp Ile Asp Pro Glu Tyr Ser Leu Asp Glu Pro Ser Ala Asp
                                 4.5
                       4.0
Asp Leu Ala Val Asp Ala Glu Leu Arg Ala Ala Pro Trp Tyr His Val
                 5.5
                           60
Val Met Glu Gly Asp Asp Gly Gln Pro Val His Thr Tyr Leu Ala Glu
                70
                        75 80
Ala Gln Leu Ser Gly Glu Leu Gln Asp Glu His Pro Glu Gln Pro Thr
    85
                90 95
Met Asp Glu Leu Ala Gln Thr Ile Arg Lys Gln Leu Gln Ala Pro Arg
                 105
Leu Arg Asn
 115
<210> 6832
<211> 151
<212> PRT
<213> Enterobacter cloacae
<400> 6832
Gly Phe Met Arg Thr Val Leu Asn Val Leu Asn Phe Val Leu Gly Gly
                 10
Phe Ala Thr Thr Leu Ser Trp Leu Phe Ala Thr Leu Val Ser Ile Val
       20 25
Leu Ile Phe Thr Leu Pro Leu Thr Arg Ser Cys Trp Glu Ile Thr Lys
35
                40
                                      4.5
Leu Ser Leu Val Pro Tyr Gly Asn Glu Ala Val His Val Asp Glu Leu
50
                  55
Glu Pro Glu Arg Lys Asn Ala Leu Met Asn Thr Gly Gly Thr Leu Leu
               7.0
                              75
Asn Ile Leu Trp Leu Ile Phe Phe Gly Trp Trp Leu Cys Leu Met His
            85
                              90
Ile Phe Ala Gly Ile Ala Gln Cys Ile Thr Ile Ile Gly Ile Pro Val
        100 105
                               110
Gly Ile Ala Asn Phe Lys Ile Ala Thr Ile Ala Leu Trp Pro Val Gly
     115
          120
                              125
Arg Arg Val Val Pro Val Glu Val Ala Gln Ala Ala Arg Glu Ala Asn
Ala Arg Arg Arg Phe Gln
<210> 6833
<211> 726
<212> PRT
```

<213> Enterobacter cloacae

<400> 6833 Gly Leu Ala Ala Leu Met Leu Ser Pro Leu Leu Arg Arg Tyr Thr Trp 10 Asn Ser Asn Trp Leu Tyr Asn Val Arg Ile Phe Ile Ala Leu Cys Gly 20 25 Thr Val Ala Leu Pro Trp Trp Leu Asn Asp Val Lys Leu Thr Ile Pro 40 Leu Thr Leu Gly Val Val Ala Gly Ala Leu Ala Asp Leu Asp Asp Arg 5.5 60 Leu Ala Gly Arg Leu Arg Asn Leu Val Ile Thr Leu Val Cys Phe Phe 70 75 Ile Ala Ser Ala Ser Val Glu Leu Leu Phe Pro Trp Pro Trp Leu Phe 85 90 Ala Leu Gly Leu Thr Val Ser Thr Ser Gly Phe Ile Leu Leu Gly Gly 100 105 110 Leu Gly Gln Arg Tyr Ala Thr Ile Ala Phe Gly Ala Leu Leu Ile Ala 115 120 125 Ile Tyr Thr Met Leu Gly Val Ser Leu Tyr Glu Gln Trp Tyr Gln Gln 130 135 140 Pro Val Leu Leu Met Leu Gly Ala Ile Trp Tyr Asn Leu Leu Thr Leu 145 150 155 Thr Gly His Leu Ile Phe Pro Val Arg Ala Leu Gln Asp Asn Ile Ala 165 170 175 Arg Ser Tyr Glu Gln Leu Ala His Tyr Leu Glu Leu Lys Ser Arg Leu 180 185 190 Phe Asp Pro Asp Ile Glu Glu Asp Ser Gln Ala Pro Leu Tyr Asp Leu 195 200 205 Ala Leu Ala Asn Gly Gln Leu Val Ala Thr Leu Asn Gln Thr Lys Ala 210 215 220 Ser Leu Leu Thr Arg Leu Arg Gly Asp Arg Gly Gln Arg Gly Thr Arg 225 230 235 Arg Thr Leu His Tyr Tyr Phe Val Ala Glh Asp Ile His Glu Arg Ala 245 250 255 Ser Ser Ser His Val Gln Tyr Ala Asp Leu Arg Glu Lys Phe Arg Tyr 260 265 270 Ser Asp Val Met Phe Arg Phe Gln Arg Leu Leu Ser Met Gln Ser Gln 285 275 280 Ala Cys Gln Gln Leu Ala Arg Ser Ile Leu Leu Arg Thr Pro Tyr Gln 290 295 300 His Asp Pro Cys Phe Glu Arg Ala Phe Ser His Leu Asp Ala Ala Leu 305 310 315 Asp Arg Val Gln Ala Ser Gly Thr Ser Pro Glu Gln Phe Lys Ala Leu 325 330 Gly Phe Leu Leu Asn Asn Leu Arg Ala Ile Asp Ala Gln Leu Ala Thr 340 345 Ile Glu Ser Glu Gln Ala Met Ala Met Pro Gly Asn Asp Ala Asp Asn 355 360 365 Gln Leu Ala Asp Asp Ser Leu Asn Gly Phe Ser Asp Met Trp Leu Arg 375 380 Leu Ser Arg His Phe Thr Pro Glu Ser Ala Leu Phe Arg His Ala Val 390 395 Arg Met Ser Leu Val Leu Cys Val Gly Tyr Ala Phe Ile Gln Ile Thr 405 410 Gly Leu His His Gly Tvr Tro Ile Leu Leu Thr Ser Leu Phe Val Cvs 425 Gln Pro Asn Tyr Asn Ala Thr Arg His Arg Leu Ala Leu Arg Ile Val 440 Gly Thr Leu Val Gly Val Ala Ile Gly Leu Pro Val Leu Tyr Phe Val 455 460 Pro Ser Val Glu Gly Gln Leu Leu Ile Val Ile Thr Gly Val Leu 470

Phe Phe Ala Phe Arg Asn Val Gln Tyr Ala His Ala Thr Met Phe Ile 485 490 Thr Leu Leu Val Leu Leu Cys Phe Asn Leu Leu Gly Glu Gly Phe Glu 500 505 Val Ala Leu Pro Arg Val Ile Asp Thr Leu Ile Gly Cys Ala Ile Ala 515 520 525 Trp Ala Ala Val Ser Phe Ile Trp Pro Asp Trp Arg Phe Arg Asn Leu 530 535 540 Pro Arg Val Ser Asp Arg Ala Met Asn Ala Asn Cys Arg Tyr Leu Asp 550 555 560 Ala Ile Leu Glu Gln Tyr His Gln Gly Arg Asp Asn Arg Leu Ala Tyr 565 570 575 Arg Ile Ala Arg Arg Asp Ala His Asn Thr Asp Ala Glu Leu Ala Ser 580 585 590 Val Val Ser Asn Met Ser Thr Glu Pro Arg Ala Thr Ala Glu Ile Arg 595 600 605 Glu Thr Ala Phe Arg Leu Leu Cys Leu Asn His Thr Phe Thr Ser Tyr 610 615 620 Ile Ser Thr Leu Gly Ala His Arg Glu Lys Leu Thr Asn Pro Asp Ile 625 630 635 640 Leu Ala Leu Leu Asp Asp Ala Val Cys Tyr Val Asp Asp Ala Leu His 645 650 655 His Gln Pro Ala Asp Glu Pro Arg Val His Gln Ala Leu Asp Glu Leu 660 665 670 Val Gln Arg Ile Ala His Leu Asp Pro Gly Thr Asp Asn Lys Ala Pro 675 680 685 Leu Val Leu Gln Gln Ile Gly Leu Leu Ile Ala Leu Leu Pro Glu Ile 690 695 700 Cys Arg Leu Arg Gln Gln Ile Ala Thr Trp Arg Asn Asp Gly Pro Ala 715 Thr Gln Ala Ala His

<210> 6834 <211> 161 <212> PRT <213> Enterobacter cloacae

<400> 6834

Arg Gly Asn Leu Thr Asp Lys Ile Met Glu Leu Thr Thr Arg Thr Leu 10 Pro Ala Arg Lys His Ile Ala Leu Val Ala His Asp His Cys Lys Gln 25 30 Met Leu Leu Asn Trp Val Arg Arg His Gln Pro Leu Leu Gln His His 40 Ala Leu Ser Ala Thr Gly Thr Thr Gly Asn Leu Ile His Arg Glu Thr 50 55 Gly Leu Glu Val Asn Ala Met Leu Ser Gly Pro Met Gly Gly Asp Gln 75 70 Gln Val Gly Ala Gln Ile Ser Glu Gly Lys Ile Asp Val Leu Ile Phe 85 90 Phe Trp Asp Pro Leu Asn Ala Val Pro His Asp Pro Asp Val Lys Ala 100 105 Leu Leu Arg Leu Ala Thr Val Trp Asn Ile Pro Val Ala Thr Asn Leu 115 120 125 Ser Thr Ala Asp Phe Ile Ile Glu Ser Pro Gln Phe Asn Asp Pro Val 135 140 Glu Ile Leu Ile Pro Asp Tyr Gln Arg Tyr Leu Ala Glu Arg Leu Lys 150 155

```
<210> 6835
<211> 224
<212> PRT
<213> Enterobacter cloacae
<400> 6835
Gly Asn Lys Met Lys Lys Arg Val Leu Val Ile Ala Ala Leu Val Ser
Gly Ala Leu Ala Val Ser Gly Cys Thr Thr Asn Pro Tyr Thr Gly Glu
         20
                          2.5
                                            30
Arg Glu Ala Gly Lys Ser Gly Ile Gly Ala Gly Ile Gly Ser Leu Val
      35
                      40
Gly Ala Gly Val Gly Val Leu Ser Ser Ser Lys Lys Asp Arg Gly Lys
                  55
Gly Ala Leu Ile Gly Ala Ala Ala Gly Ala Ala Leu Gly Gly Gly Val
             70
                           75
Gly Tyr Tyr Met Asp Val Gln Glu Ala Lys Leu Arg Asp Lys Met Lys
                 90
          85
Gly Thr Gly Val Ser Val Thr Arg Ser Gly Asp Asn Ile Ile Leu Asn
         100 105 110
Met Pro Asn Asn Val Thr Phe Asp Ser Ser Ser Ala Thr Leu Lys Pro
   115 120 125
Ala Gly Ala Asn Thr Leu Thr Gly Val Ala Ala Val Leu Lys Glu Tyr
130 135
Asn Lys Thr Ala Val Asn Val Ile Gly Tyr Thr Asp Ser Thr Gly Ser
145 150
                               155
Gln Asp Leu Asn Met Arg Leu Ser Gln Gln Arg Ala Asp Ser Val Ala
            165 170
Ser Ser Leu Ile Thr Gln Gly Val Glu Ala Asn Arg Ile Arg Thr Ser
       180 185
Gly Met Gly Pro Ala Asn Pro Ile Ala Ser Asn Ser Thr Ala Glu Gly
  195 200 205
Lys Ala Gln Asn Arg Arg Val Glu Ile Thr Leu Ser Pro Val Gln
  210
<210> 6836
<211> 195
<212> PRT
<213> Enterobacter cloacae
<400> 6836
Pro Met Gln Arg Cys Gly Trp Val Ser Gln Asp Gln Leu Tyr Ile Asp
                              1.0
Tyr His Asp Lys Glu Trp Gly Val Pro Glu Thr Asp Gly Lys Lys Leu
      2.0
                           25
                                            30
Phe Glu Met Ile Cys Leu Glu Gly Gln Gln Ala Gly Leu Ser Trp Ile
Thr Val Leu Lys Lys Arg Glu Asn Tyr Arg Lys Ala Phe His Gln Phe
                   5.5
                                     60
Asp Pro Ala Ala Val Ala Ala Met Tor Asp Asp Asp Val Glo Lys Leu
                7.0
                                 75
Val Leu Asp Thr Gly Ile Ile Arg His Arg Gly Lys Ile Gln Ala Ile
             85
                              90
Ile Gly Asn Ala Arg Ala Tyr Leu Ala Met Glu Gln Asn Gly Glu Pro
         100
                          105
                                           110
Phe Ser Ala Phe Val Trp Ser Phe Val Asp Asn Glu Pro Lys Val Thr
     115
                       120
                                        125
Gln Ala Ala Thr Leu Ala Glu Ile Pro Thr Ser Thr Pro Ala Ser Asp
                   135
                                     140
Ala Leu Ser Lys Ala Leu Lys Lys Arg Gly Phe Lys Phe Val Gly Thr
```

150 Thr Ile Cys Tyr Ser Phe Met Gln Ala Cys Gly Leu Val Asn Asp His 165 170 175 Ile Thr Gly Cys Phe Cys His Pro Glu Gly His His Asp Pro Gln Met 180 185 Ala Lys 195 <210> 6837 <211> 390 <212> PRT <213> Enterobacter cloacae <400> 6837 Lys Gln Asn Gly Asn Pro Val Ala Val Leu Val Phe Ala Pro Ser Pro 1.0 Val Gly Glu Gly Trp Gly Glu Gly Ile Arg Pro Pro Pro Gly Lys Leu 20 25 Leu Asp Ser Pro Asp Phe Pro Ala Lys Val Phe Ser Leu Asn Ser Gly 35 40 Lys Ser Ala Met Ile Lys Pro Thr Arg Ala Thr Ile Ser Asp Val Ala 50 5.5 Lys Ala Ala Lys Thr Gly Lys Thr Ser Ile Ser Arg Tyr Leu Asn Gly 70 7.5 Glu Lys His Leu Leu Ser Asp Ala Leu Leu Ala Arg Ile Glu Gln Ala 85 90 Ile Ala Asp Leu Asp Tyr Arg Pro Ser Leu Met Ala Arg Gly Leu Lys 100 105 110 Arg Gly Arg Thr Arg Leu Ile Gly Leu Ile Ile Ala Asp Ile Thr Asn 115 120 125 Pro Tyr Ser Val Asn Val Leu Ser Gly Ile Glu Ala Ala Cys Arg Glu 130 135 140 Lys Gly Phe Thr Pro Leu Val Cys Asn Thr Asn Asn Glu Val Asp Gln 145 150 155 Glu Leu His Tyr Leu Asp Leu Leu Arg Ser Tyr Gln Val Glu Gly Ile 165 170 175 Val Val Asn Ala Val Gly Met Arg Glu Glu Gly Leu Asn Arg Leu Gln 180 185 190 Gln Ser Ser Leu Pro Met Val Leu Ile Asp Arg Lys Ile Pro Glu Phe 195 200 205 Ala Cys Asp Val Val Gly Leu Asp Asn Thr Gln Ala Ala Thr Thr Ala 210 215 220 Thr Glu His Leu Ile Glu Gln Gly Phe Glu Ala Ile Leu Phe Leu Ser 230 235 Glu Pro Leu Gly Met Val Asn Thr Arg Arg Asp Arg Leu Ala Ala Phe 245 250 Arg Ala Thr Leu Ala Arg Tyr Pro Gly Val Ile Ala Glu Asn Ala Glu 265 270 Ile Pro Leu His Glu Ala Gly Gln Leu Asp Asn Thr Leu Arg Gln Phe 280 285 His Thr Arg His Arg Gly Met Arg Lys Ala Val Ile Ser Ala Asn Gly 295 300 Ala Leu Thr Leu Gln Val Ala Arg Ser Leu Lys Arg Ile Gly Leu His 310 315 Trp Gly Ser Asp Ile Gly Leu Leu Gly Phe Asp Glu Leu Glu Trp Ala

330

345

Glu Leu Ala Gly Val Gly Ile Thr Thr Leu Lys Gln Pro Thr Trp Gln

Ile Gly Tyr Ala Ala Val Glu Gln Val Val Arg Arg Ile Glu Gly Thr 355 365 Arg Asp Ala Val Arg Glu Gln Val Phe Ser Gly Glu Leu Tle Val Arg

325

```
370
                  375
                                  380
Gly Ser Thr Ala Arg
385
<210> 6838
<211> 314
<212> PRT
<213> Enterobacter cloacae
<400> 6838
Thr Met His Lys Thr Leu Asp Val Ile Thr Ile Gly Glu Ala Met Ala
                            10
Met Phe Val Ala Thr Glu Thr Gly Glu Leu Ser Ala Val Glu His Phe
       20
                         25
                                         3.0
Ile Lys Arg Val Ala Gly Ala Glu Leu Asn Val Ala Thr Gly Leu Ala
     35
                     40
                                     4.5
Arg Leu Gly Leu Asn Val Gly Trp Val Ser Arg Val Gly Asn Asp Ser
 50 55
                                  60
Phe Gly His Phe Val Leu Asp Ser Leu Lys Lys Glu Gly Ile Asp Ala
       70
                               75
Ala Gly Val Thr Leu Asp Gly Arg Phe Pro Thr Gly Phe Gln Leu Lys
          85 90
Ser Lys Val Glu Asn Gly Thr Asp Pro Ile Val Glu Tyr Phe Arg Lys
 100 105
                                        110
Gly Ser Ala Ala Ser His Leu Ser Val Asp Asp Tyr His Ala Ala Tyr
115 120
                                     125
Phe Ser Ser Ala Arg His Leu His Leu Ser Gly Val Ala Ala Ala Leu
130 135
Ser Ala Ser Ser Tyr Asp Leu Leu Asp His Ala Ala Ser Ala Met Lys
145 150 155 160
Ala Gln Gly Lys Thr Ile Ser Phe Asp Pro Asn Leu Arg Pro Val Leu
           165
                           170 175
Trp Lys Ser Glu Ala Glu Met Ala Glu Lys Leu Asn Arg Leu Ala Phe
                        185 190
Gln Ala Asp Trp Val Leu Pro Gly Ile Lys Glu Gly Met Ile Leu Thr
 195 200 205
Gly Glu Ser Thr Pro Glu Gly Ile Ala Asp Phe Tyr Leu Asn Arg Gly
 210 215 220
Val Lys Ala Val Val Leu Lys Thr Gly Ala Asp Gly Ala Trp Phe Lys
               230
                               235
Thr Ala Asp Gly Glu Gln Gly Ala Val Ala Ala Val Lys Val Asp Asn
          245
                           250 255
Val Ile Asp Thr Val Gly Ala Gly Asp Gly Phe Ala Val Gly Val Ile
         260 265
                                        270
Ser Ala Leu Leu Glu Gly Lys Pro Leu Ser Gln Ala Val Ala Arg Gly
     275 280
                                     285
Asn Lys Ile Gly Ser Leu Ala Ile Gln Val Gln Gly Asp Ser Glu Gly
 290 295
Leu Pro Thr Arg Ala Glu Leu Gly Val
<210> 6839
<211> 446
<212> PRT
<213> Enterobacter cloacae
<400> 6839
Ala Thr Val Tyr Pro Thr Asp Asn Gly Gly Asn Asn Leu Asn Asn Arg
          5
Gly Lys Pro Met Asn Ser Ser Thr Asn Ala Val Lys Arg Trp Trp Tyr
                         25
                                        3.0
```

```
Ile Met Pro Ile Val Phe Ile Thr Tyr Ser Leu Ala Tyr Leu Asp Arg
                     4.0
Ala Asn Phe Ser Phe Ala Ser Ala Ala Gly Ile Asn Glu Asp Leu Gly
                  55
Ile Thr Lys Gly Val Ser Ser Leu Leu Gly Ala Leu Phe Phe Leu Gly
               70
Tyr Phe Phe Phe Gln Ile Pro Gly Ala Ile Tyr Ala Glu Arg Arg Ser
Val Arg Lys Leu Ile Phe Ile Cys Leu Ile Leu Trp Gly Ala Cys Ala
             105 110
        100
Ser Leu Thr Gly Val Val Asn Asn Ile Pro Ala Leu Ala Ala Ile Arg
                        125
     115
Phe Ile Leu Gly Val Val Glu Ala Ala Val Met Pro Ala Met Leu Ile
 130
       135 140
Tyr Ile Ser Asn Trp Phe Thr Lys Ser Glu Arg Ser Arg Ala Asn Thr
     150 155 160
145
Phe Leu Ile Leu Gly Asn Pro Val Thr Val Leu Trp Met Ser Val Val
      165 170 175
Ser Gly Tyr Leu Ile Gln Ser Phe Gly Trp Arg Glu Met Phe Ile Ile
       180 185 190
Glu Gly Val Pro Ala Ile Ile Trp Ala Phe Cys Trp Trp Val Leu Val
195 200 205
Lys Asp Lys Pro Ala Gln Ala Lys Trp Leu Ser Glu Asp Glu Lys Ala
210 215
                                220
Ala Leu Gln Ala Gln Leu Asp Lys Glu Gln Gln Gly Leu Lys Ala Val
225 230 235
Arg Asn Tyr Gly Glu Ala Phe Arg Ser Arg Asn Val Ile Leu Leu Cys
     245 250
Ala Gln Tyr Phe Thr Trp Ser Ile Gly Val Tyr Gly Phe Val Leu Trp
 260 265
                                    270
Leu Pro Ser Ile Ile Arg Ser Gly Gly Glu Asn Leu Gly Met Val Glu
275 280 285
Val Gly Trp Leu Ser Ser Val Pro Tyr Leu Ala Ala Thr Ile Ala Met
290 295
                                300
Ile Ile Val Ser Trp Ala Ser Asp Lys Leu Gln Asn Arg Lys Leu Phe
305 310
                             315
Val Trp Pro Leu Leu Ile Ala Ala Phe Ala Phe Ile Gly Ser Trp
      325
                          330 335
Ala Val Gly Ala Asn His Phe Trp Val Ser Tyr Thr Leu Leu Val Ile
        340
                       345
                                      350
Ala Gly Ala Ala Met Tyr Ala Pro Tyr Gly Pro Phe Phe Ala Ile Ile
                    360
                                   365
Pro Glu Met Leu Pro Arg Asn Val Ala Gly Gly Ala Met Ala Leu Ile
 370 375
                                380
Asn Ser Met Gly Ala Leu Gly Ser Phe Phe Gly Ser Trp Phe Val Gly
              390 395
Tyr Leu Asn Gly Ala Thr Gly Ser Pro Ser Ala Ser Tyr Ile Phe Met
           405
                          410
Gly Val Ala Leu Phe Ala Ser Val Trp Leu Thr Leu Ile Val Lys Pro
       420
                     425 430
Ala Asn Asn Gln Gln Leu Pro Val Gly Ala Arg His Ala
                    440
<210> 6840
<211> 334
<212> PRT
<213> Enterobacter cloacae
<400> 6840
Ile Leu Leu Lys Ser Thr Glu Ile Ser Met Lys Pro Ser Val Ile Leu
```

1.0

```
Tyr Lys Ala Leu Pro Glu Asp Leu Gln Lys Arg Leu Glu Glu His Phe
        20
                      25
Thr Val Thr Arg Val Lys Asn Leu Ser Pro Glu Thr Val Ala Gln His
Ala Asp Ala Phe Ala Ser Ala Glu Gly Leu Leu Gly Ser Ser Glu Lys
                 55
Val Asp Ala Ala Leu Leu Glu Lys Met Pro Lys Leu Arg Ala Thr Ser
                            75
Thr Val Ser Val Gly Tyr Asp Asn Phe Asp Val Asp Ala Leu Asn Ala
           85
                       90
Pro Asn Ile Leu Leu Met His Thr Pro His Ala Leu Thr Glu Thr Val
        100
            105 110
Ala Asp Thr Leu Asn Ala Leu Val Leu Asn Thr Ala Arg Pro Val Met
 115 120 125
Glu Ile Gly Glu Arg Val Lys Ala Gly Glu Trp Thr Lys Ser Ile Gly
      135 140
 130
Pro Asp Trp Phe Gly Val Asp Val His Gly Lys Thr Leu Gly Ile Val
145 150 155
Gly Met Gly Arg Ile Gly Leu Ala Leu Ala Gln Arg Ala His Phe Gly
    165 170 175
Phe Asn Met Pro Ile Leu Tyr Asn Ala Arg Arg His His Ser Glu Ala
 180 185 190
Glu Glu Arg Phe Asn Ala Leu Tyr Cys Glu Leu Asp Thr Leu Leu Arg
195 200 205
Glu Ala Asp Phe Val Cys Leu Ile Leu Pro Leu Thr Asp Glu Thr Arg
210 215 220
His Leu Ile Gly Lys Ala Ala Phe Glu Lys Met Lys Lys Ser Ala Ile
225 230
                            235
Phe Ile Asn Ala Gly Arg Gly Pro Val Val Asp Glu Lys Ala Leu Ile
   245 250 255
Glu Ala Leu Gln Asn Gly Glu Ile His Ala Ala Gly Leu Asp Val Phe
260
                     265 270
Glu Gln Glu Pro Leu Pro Val Asp Ser Pro Leu Leu Thr Met Pro Asn
275
                   280
                                285
Val Val Ala Leu Pro His Ile Gly Ser Ala Thr His Glu Thr Arg Tyr
290 295
                               300
Asn Met Ala Ala Thr Ala Val Asp Asn Leu Ile Ala Ala Leu Gly Gly
305 310 315
Lys Val Asp Lys Asn Cys Val Asn Pro Gln Ile Gln Gln
          325
```

```
<210> 6841
```

<sup>&</sup>lt;211> 169 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;400> 6841 Leu Phe His Leu Arg Glu Gln Gln His Val Ile Asn Val Leu Ser Ala Val Thr Arg Leu Gly Ala Asn Leu Leu Ala Val Gly Asp Val Ile Arg 20 25 30 His Gly Val Gly Val Glu Pro His Leu Thr Leu His Gly Glu Gln Ile 4.5 40 Gly Ala Lys Ser Lys Leu Leu Gln Asn Ser Lys His Val Leu Leu Phe 55 50 Glu Ser Ala Leu Arg Ile Ile Thr Arg Thr Ala Leu Thr Asn Lys His 7.0 75 Thr Ala Gln Arg Glu Leu Arg Gly Gly Ile Ala Gly Val Ala Ala Val 8.5 90 Ser Tyr Lys Ile Leu Phe Leu Arg Gln Phe Arg Gly Gly Ile Ala Val 100 105

```
Ile Thr Glu Asp Thr His Met Ile Pro Ala Arg Arg Phe Ala Asp Asn
    115
                        120
Glu Asp His Val Ser Ile Ile Gln Pro Val Ser Arg Ser Leu Val Gly
 130
                                  140
Glu Leu Phe Gly Trp Val Asn Gln Arg Phe His Ile Ala Gly Phe Val
145
                150 155
Arg Leu Ser Pro Gly Ile Lys Thr
             165
<210> 6842
<211> 184
<212> PRT
<213> Enterobacter cloacae
<400> 6842
Lys Asn Ala Ala Leu Ser Leu Trp Ala Pro Pro Ser Val Thr Pro Leu
                              10
Cys Arg Pro Ala Gly Trp Ser Met Thr Thr Leu Arg Ala Ala Ser Ala
      20
                        25
Ile Arg Arg Ala Thr Met Ile Arg Lys Trp Gln Ser Glu Asn Thr Ala
 35
                       40
Pro Leu Ser Leu Trp Leu Glu Ser Thr Thr Glu Ala His Pro Phe
 50
                    55 60
Ile Asp Ala Ser Tyr Trp Gln Ala Asn Glu Ala Val Val Arg Asp Glu
               70
                     75
Tyr Leu Pro Ala Ala Glu Thr Trp Val Trp Glu Glu Asn Gly Thr Leu
           85
                           90
Cys Gly Phe Ile Ser Val Met Gln Phe Gln Phe Val Gly Ala Leu Phe
       100
                        105 110
Val Ala Pro Ala Phe Ile Gly Lys Gly Ile Gly Arg Ala Leu Leu Asn
 115 120
                                        125
His Val Gln Gln His Tyr Pro Tyr Leu Thr Leu Glu Val Tyr Gln Lys
 130 135
                                     140
Asn Val Arg Ala Val Asn Phe Tyr His Ala Gln Gly Phe Arg Ile Glu
145 150 155
                                                   160
Asp Ser Ala Trp Gln Asp Asp Thr Gln His Pro Thr Trp Ile Met Ser
            165
                              170
Trp Gln Ala Asp Gln Thr Pro
         180
<210> 6843
<211> 77
<212> PRT
<213> Enterobacter cloacae
<400> 6843
Val Thr Gly Ser Ala Leu Ala Phe Ser Ala Phe Ile Arg Ala His Gly
                              10
Arg Ile Trp Arg Trp Lys Glu Gly Gly Ile Cys Lys Asn Gly Ala Leu
                          2.5
Asn Val Leu Thr Gln Asp Leu Pro Ser Ser Lys Leu Gly Asn Gly Cys
                      40
Ala Gly Asn Thr Ala Leu Ala Trp Val Glu Lys Tyr Glu Gly Pro Ala
                   55
Leu Thr Leu Thr Ala Phe Asp Pro Pro Ala Ser Ser
                 7.0
<210> 6844
<211> 125
<212> PRT
```

<213> Enterobacter cloacae

```
<400> 6844
His Ile Ser Pro Asn Ser Ala Leu Ser Gly Val Ala Leu Met Met Ile
                                  10
Lys Lys Ile Ser Gly Arg His Ala Ala Ser Gly Leu Val Gly Val Ser
Val Cys Leu Leu Phe Cys His Thr Ala Phe Ala Trp Gln Gln Glu Tyr
                          40
Ile Val Ser Asp Ala Gln Ser Asn Thr Thr Glu Arg Tyr Thr Trp Asp
                                         60
Ala Asp His Gln Pro Arg Tyr Glu Asp Ile Leu Ala Glu Arg Ile Asn
                   7.0
                                      75
Arg Thr Gln Asn Ala Tyr Gly Val Tyr Pro Glu Arg Ser Leu Arg Phe
              85
                                90
Gly Cys Gly Asn Arg Ser Glu Arg Trp Leu Glu Phe Ser Arg Gly Gly
                       105
          100
Thr Phe His His Arg Ala Arg His Gly Val Ala His
                          120
<210> 6845
<211> 108
<212> PRT
<213> Enterobacter cloacae
<400> 6845
Asp Pro Tyr Leu Ala Arg Leu Glu Lys Thr Lys Gln Gly Gln Asp Leu
              5
                                10
Lys Pro Val Tyr Asp Gln Val Tyr Glu Lys Val Val Thr Lys Pro Ser
           20
                            25
Asn Ala Leu Gln Pro Leu Ile Pro Ala Ala Gln Val Phe Thr Gln Gln
 35
                       40
Leu Val Gln Val Gly Asp Phe Ile Ser Glu Gln Gly Thr Gln Val Ser
                      55
Phe Val Ser Asn Gly Ile Gln Phe Pro Thr Ser Gln Gln Ala Ser Gln
                  70
                                    7.5
Tyr Asn Ala Leu Ile Gly Pro Leu Ala Ser Gln His Gln Ala Phe Ser
           85
Gln Ala Trp Ser Ala Ala Val Ala Ala Thr Glu
           100
<210> 6846
<211> 98
<212> PRT
<213> Enterobacter cloacae
<400> 6846
Pro Phe Leu His Arg Leu Lys Ile Cys Asn Ala Ile His Gln Ala Gly
                                 10
Arg His Asn Ile Phe Val Asn Lys Val Ile Ser Met Ser Ala Lys Met
                              2.5
Thr Gly Leu Val Lys Trp Phe Asn Ala Asp Lys Gly Phe Gly Phe Ile
                          4.0
                                             45
Thr Pro Asp Asp Gly Ser Lys Asp Val Phe Val His Phe Ser Ala Ile
                      55
Gln Asn Asp Gly Tyr Lys Ser Leu Asp Glu Gly Gln Lys Val Ser Phe
                  70
Thr Ile Glu Ser Gly Ala Lys Gly Pro Ala Ala Gly Asn Val Val Ser
                                  90
Leu
```

<212> PRT

<213> Enterobacter cloacae

```
<210> 6847
<211> 178
<212> PRT
<213> Enterobacter cloacae
<400> 6847
Lys Lys Ser Val Val Ala Met Leu Leu Leu Ala Trp Trp Val Phe Gln
Ser Ala Cys Phe Phe Val Thr Pro Leu Leu Arg Gly Asn Arg Asn Ile
                                        30
Ser Phe Gln Met His Lys Val Ile Arg Arg Asn Val Ile His Gly Thr
                     40
                                    45
Pro Ile Thr Asn Leu Val Met Lys Ile Phe Ser Arg Ser Val Leu Thr
                  55
                           60
Ala Pro Arg Met Pro Thr Gly Phe Thr Leu Asn Asp Pro Ser Gly Ser
               70
                            75
Asp Ala Glu Thr Val Leu Ser Val Gly Trp Asn Phe Pro Val Ala Gly
          85 90 95
His Phe Thr Thr Gly Pro Val Met Ala Trp Arg Thr Asp Gly Ala Pro
       100 105 110
Pro Val Thr Val Asn Ala Phe Glu Asp Thr Thr Thr Thr Gln Ser Leu
 115 120 125
Thr Asp Pro Leu Trp His Ala Ser Val Asn Ser Leu Gly Trp Arg Val
130 135 140
Asp Thr Gln Tyr Gly Asp Leu His Pro Trp Ala Lys Ile Ser Tyr Asn
145 150 155 160
Gln Gln Thr Glu Glu Glu Tyr Leu Tyr Thr Leu Gly Leu Ser Ala Lys
     165 170
Phe
<210> 6848
<211> 429
```

<400> 6848 Asp Ser Ala Gly Leu Tyr Thr Pro Ser Pro Arg Val Val Cys Met Lys 10 Tyr Ile Arg Ser Leu Thr Gln Gln Arg Leu Cys Leu Met Leu Ala Val 20 25 3.0 Tyr Ile Gly Leu Phe Leu Asn Gly Ala Val Leu Phe Arg Arg Val Glu 35 40 45 Gly Tyr Phe Glu His Leu Thr Val Arg Asn Gly Ile Phe Ala Ala Ile 50 55 Glu Val Phe Gly Ser Ile Leu Ala Thr Phe Phe Leu Leu Arg Leu Leu 70 75 Ser Leu Phe Gly Arg Arg Thr Trp Gln Val Leu Ala Ser Leu Val Val 85 90 95 Ile Ile Ser Ala Ala Ala Ser Tyr Tyr Met Thr Phe Met Asn Val Val 100 105 110 Ile Gly Tyr Gly Ile Val Ala Ser Val Met Thr Thr Asp Ile Asp Leu 120 125 Ser Lys Glu Val Val Gly Gln Gly Phe Ile Leu Trp Thr Ile Leu Thr 130 135 140 Cys Leu Ile Pro Leu Phe Phe Ile Trp Ser Asn Thr Cys Arg Tyr Thr 145 150 155 Leu Leu Arg Gln Leu Arg Thr Arg Gly Gln Arg Ile Arg Asn Val Ala 165 170 175 Val Val Leu Leu Ala Gly Leu Leu Val Trp Ala Pro Ile Arg Leu Met 185 190

```
Glu Lys Gln Gln Lys Arg Ile Glu Lys Ala Thr Gly Val Asp Met Pro
 195
                     200
Ser Tyr Gly Gly Val Val Ala Asn Ser Tyr Leu Pro Ser Asn Trp Leu
 210
                  215
Ser Ala Leu Gly Leu Tyr Ala Trp Ala Gln Ala Asp Glu Ser Ser Asp
            230
                              235
Val Lys Ser Leu Ile Asn Pro Thr Lys Lys Phe Thr Tyr Gln Ala Pro
           245
                           250
Ala Asp Gly Leu Asp Asp Thr Tyr Val Val Phe Val Ile Gly Glu Thr
                      265
Thr Arg Trp Asp His Met Gly Ile Leu Gly Tyr Asp Arg Asp Thr Thr
         280
     275
                         285
Pro Lys Leu Ala Gln Glu Lys Asn Leu Val Ala Tyr Arg Gly Tyr Ser
      295 300
Cys Asp Thr Ala Thr Lys Leu Ser Leu Arg Cys Met Phe Val Arg Glu
    310 315
Gly Gly Ala Ser Asp Asn Pro Gln Arg Thr Leu Lys Glu Gln Asn Val
        325 330 335
Phe Ala Val Leu Lys Gln Leu Gly Phe Ser Ser Asp Leu Phe Ala Met
 340 345 350
Gln Ser Glu Met Trp Phe Tyr Thr Asn Thr Met Ala Asp Asn Ile Ala
355 360 365
Tyr Arg Glu Gln Ile Gly Ala Glu Pro Arg Asn Arg Gly Lys Asn Val_{\rm 370} _{\rm 375} _{\rm 380}
Asp Asp Met Leu Leu Ser Glu Met Glu Gln Ser Leu Lys Asn His
385 390 395 400
Pro Gln Gly Lys His Leu Ile Val Leu His Thr Lys Gly Ser His Tyr
 405 410
Ser Leu His Ala Arg Gly Arg Gly Tyr Arg Ala Met Arg
               425
```

<210> 6849 <211> 744 <212> PRT

<213> Enterobacter cloacae

<400> 6849 Ile Ala Ser Met Lys Gly Arg Asn Thr Cys Thr Gln Pro Gly Ala His 10 15 Ala Leu Ser Thr Ser Thr Lys Thr Ile Leu Thr Ala Ala His Trp Gly 25 Pro Met Leu Val Glu Thr Asp Gly Asp Thr Val Leu Ser Ser Arg Gly 4.5 Ala Leu Pro Ser Arg His Leu Asn Ser Leu Gln Thr Val Val Arg Asp Gln Val His Ser Lys Thr Arg Val Arg Trp Pro Met Val Arg Lys Gly 70 75 Phe Leu Ala Ser Pro Asp Lys Pro Gln Gly Ile Arg Gly Gln Asp Glu 8.5 90 Phe Val Arg Val Ser Trp Asp Asp Ala Leu Ala Leu Ile His Thr Gln 100 105 His Lys Arg Ile Arg Asp Ser Tyr Gly Pro Ser Ser Ile Phe Ala Gly 115 120 125 Ser Tyr Gly Trp Arg Ser Asn Gly Val Leu His Lys Ala Ala Thr Leu 130 135 140 Leu Gln Arg Tyr Met Ser Leu Ala Gly Gly Tyr Thr Gly His Leu Gly 145 150 Asp Tyr Ser Thr Gly Ala Ala Gln Ala Ile Met Pro Tyr Val Val Gly 170 165 Gly Asn Glu Val Tyr Gln Gln Gln Thr Ser Trp Pro Leu Val Leu Glu

185

His Thr Glu Val Val Leu Trp Ser Ala Asn Pro Leu Asn Thr Leu 195 200 Lys Ile Ala Trp Asn Ala Ser Asp Glu Gln Gly Val Ser Tyr Phe Asp 210 215 Ala Leu Arg Lys Ser Gly Lys Arg Ile Ile Cys Ile Asp Pro Met Arg 230 235 Ser Glu Thr Leu Asp Phe Phe Gly Asn Ser Ala Glu Trp Ile Ala Pro 250 255 245 His Met Gly Thr Asp Val Ala Met Met Leu Gly Ile Ala His Thr Leu 265 270 260 Val Glu Asn Gly Trp His Asp Thr Glu Phe Leu Ala Arg Cys Thr Thr 280 285 275 Gly Phe Asp Lys Phe Ala Asp Tyr Leu Thr Gly Gln Ser Asp Gly Ile 295 300 Ala Lys Thr Ala Glu Trp Ala Ala Ala Ile Cys Gly Val Asn Ala Val 310 315 320 Lys Ile Arg Glu Leu Ala Ala Leu Phe His Ser His Val Thr Met Leu 325 330 Met Thr Gly Trp Gly Met Gln Arg Gln Gln Phe Gly Glu Gln Lys His 340 345 350 Trp Met Leu Leu Thr Leu Ala Ala Met Leu Gly Gln Ile Gly Thr Pro 355 360 365 Gly Gly Gly Phe Gly Leu Ser Tyr His Phe Ala Asn Gly Gly Asn Pro 370 375 380 Thr Arg Lys Ala Ala Val Leu Ala Ser Met Gln Gly Ser Val Gln Gly 390 395 400 Gly Val Asp Ala Val Asp Lys Ile Pro Val Ala Arg Ile Val Glu Ala 405 410 Leu Glu Asn Pro Gly Gly Pne Tyr Gln His Asn Gly Gln Asp Arg His 420 425 Phe Pro Asp Ile Lys Phe Ile Trp Trp Ala Gly Gly Ala Asm Phe Thr 435 440 445 His His Gln Asp Thr Asn Arg Leu Ile Arg Ala Trp Gln Lys Pro Glu 450 455 460 Leu Val Val Ile Ser Glu Cys Phe Trp Thr Ala Ser Ala Lys His Ala 465 470 475 Asp Ile Val Leu Pro Ala Thr Thr Ser Phe Glu Arg Asn Asp Leu Thr 485 490 495 Met Thr Gly Asp Tyr Ser Asn Gln His Met Val Pro Met Lys Arg Val 500 505 510 Val Ala Pro Arg Asp Glu Ala Arg Asp Asp Phe Asp Val Phe Ala Asp 515 520 525 Leu Ser Glu Met Trp Glu Ala Gly Gly Arg Glu Arg Phe Thr Glu Gly 530 535 540 Lys Thr Asp Leu Gln Trp Leu Glu Thr Phe Tyr Gln Ile Ala Ser Gln 550 555 Arg Gly Ala Ala Gln Gly Val Ser Leu Pro Pro Phe Ala Glu Phe Trp 565 570 Glu Ala Asn Gln Leu Phe Glu Met Pro Glu Ser Glu Gln Asn Ala Arg 585 590 Phe Val Arg Phe Ala Asp Phe Arg Arg Asp Pro Glu Asn His Pro Leu 600 605 Lys Thr Glu Ser Gly Lys Ile Val Ile Tyr Ser Glu Arg Ile Ala Ser 610 615 620 Phe Gly Tyr Ala Asp Cys Pro Pro His Pro Ala Trp Leu Glu Pro Asp 630 635 Glu Trp His Gly Asn Ala Gln Pro Gly Gln Leu Gln Leu Leu Ser Ala 645 650 His Pro Ala His Arg Leu His Ser Gln Leu Asn Tyr Ser Ala Leu Arg 665 Glu Gln Tyr Ala Val Ala Gly Arg Glu Pro Ile Ala Leu Asn Ser Asp

680 Asp Ala Lys Ala Arg Gly Ile Asn Asp Gly Asp Leu Val Arg Val Trp 695 700 Asn Ala Arg Gly Gln Val Leu Ala Gly Ala Val Val Ser Asp Gly Ile 710 715 Arg Pro Gly Val Phe Cys Ile His Gln Gly Ala Trp Pro Asp Leu Ala 725 730 Leu Glu Gly Gly Arg Tyr Leu 740 <210> 6850 <211> 408 <212> PRT <213> Enterobacter cloacae <400> 6850 Phe Ile Leu Gln Asp Thr Ala Met Asn Thr Ser Thr Tyr Asn Arg Thr 1 5 1.0 Arg Trp Leu Thr Leu Phe Gly Thr Ile Val Thr Gln Phe Ala Leu Gly 20 25 Ser Val Tyr Thr Trp Ser Leu Phe Asn Ser Ala Leu Ser Asp Lys Leu 35 40 Gly Ala Pro Ile Ser Gln Val Ala Phe Ser Phe Gly Leu Leu Ser Leu 50 55 60 Gly Leu Ala Ile Ser Ser Ser Val Ala Gly Lys Leu Gln Glu Arg Phe 65 70 75 80Gly Val Lys Arg Val Thr Met Ala Ser Gly Ile Leu Leu Gly Leu Gly 85 90 Phe Phe Leu Thr Ala Tyr Ser Asn Asn Leu Met Met Leu Trp Leu Ser 100 105 110 Ala Gly Val Leu Val Gly Leu Ala Asp Gly Ala Gly Tyr Leu Leu Thr 115 120 125 Leu Ser Asn Cys Val Lys Trp Phe Pro Glu Arg Lys Gly Leu Ile Ser 130 135 140 Ala Phe Ala Ile Gly Ser Tyr Gly Leu Gly Ser Leu Gly Phe Lys Phe 145 150 155 Ile Asp Ala His Leu Leu Ala Ser Val Gly Leu Glu Lys Thr Phe Met 165 170 175 Ile Trp Gly Val Ile Val Leu Val Met Ile Leu Phe Gly Ala Thr Leu  $180 \hspace{1.5cm} 180 \hspace{1.5cm} 185 \hspace{1.5cm} 190 \hspace{1.5cm}$ Met Lys Asp Ala Pro Gln Gln Glu Val Lys Thr Val Asn Gly Val Val 195 200 205 Glu Asn Asp Phe Thr Leu Ala Gln Ser Met Arg Lys Pro Gln Tyr Trp 210 215 220 Met Leu Ala Val Met Phe Leu Thr Ala Cys Met Ser Gly Leu Tyr Val 225 230 235 Ile Gly Val Ala Lys Asp Ile Ala Gln Gly Met Val Lys Leu Asp Ala 245 250 255 Ala Thr Ala Ala Asn Ala Val Thr Val Ile Ser Ile Ala Asn Leu Ser 265 270 Gly Arg Leu Val Leu Gly Ile Leu Ser Asp Lys Ile Ala Arg Ile Arg 280 285 Val Ile Thr Leu Gly Gln Val Ile Ser Leu Val Gly Met Ala Ala Leu 290 295 300 Leu Phe Ala Pro Leu Asn Glu Ala Thr Phe Phe Ala Ala Ile Ala Cys 305 310 315 Val Ala Phe Asn Phe Gly Gly Thr Ile Thr Val Phe Pro Ser Leu Val 325 330 335 Ser Glu Phe Phe Gly Leu Asn Asn Leu Ala Lys Asn Tyr Gly Val Ile 345 Tyr Leu Gly Phe Gly Ile Gly Ser Ile Cys Gly Ser Leu Ile Ala Ser

360 365 Leu Phe Gly Gly Phe Tyr Val Thr Phe Cys Val Ile Phe Ala Leu Leu 370 375 380 Ile Ile Ser Leu Ala Leu Ser Thr Thr Ile Arg Gln Pro Gln Arg Glu 390 395 Val Tyr Lys Glu Ala His Ala 405 <210> 6851 <211> 398 <212> PRT <213> Enterobacter cloacae <400> 6851 Lys Cys Ala Thr Met Leu Thr Thr Leu Ile Tyr Arg Ser His Leu Arg 10 Ala Asp Ala Pro Ile Gln Ser Ile Ile Asp Met Val Ser Glu Ala Asn 20 25 Ser Arg Asn Glu Arg Ala Gly Val Thr Gly Val Leu Leu Phe Asn Gly 35 40 Ile His Phe Leu Gln Leu Leu Glu Gly Asp Glu Ala Ala Val Met Gln 50 55 60 Ile Tyr Glu Lys Ile Cys Leu Asp Thr Leu His Phe Asn Ile Val Glu 65 70 75 Leu Leu Ser Asp Tyr Ala Pro Tyr Arg Arg Phe Gly Arg Ser Gly Met 85 90 Glu Leu Ile Asp Ile Arg Leu Phe Ser Lys Glu Glu Cys Leu Asp Arg 100 105 110 Val Leu Gln Arg Gly Thr Thr Gln His Lys Met Leu Tyr Asn Asp Arg 120 125 Ala Leu Arg Phe Phe Arg Thr Phe Ile Asp Ser Ala Glu Thr Asp Asn 130 135 140 Tyr Tyr Glu Leu Pro Asp Arg Phe Ser Trp Phe Phe Ser Ser Asp Gln 145 150 155 160Ile Asp Val Ser Ser Val Asp Pro Ala Ile Ile Glu Asp Met Tyr Ala 165 170 175 Val Ile Asp Pro Leu Ala Ala Gln Ile His Ser Phe Val Leu Asn Ala 180 185 190 Lys Ser Asp Asn Asp Val Ile Lys Val Asn Asn Leu Leu Phe Asp Leu 195 200 205 Glu Ser Lys Lys Asp Leu Leu Lys Ile Ala Gly Gly Phe Ile Thr Ser 210 215 220 Ser Gln Arg Val Ser Ile Thr Leu Leu Pro Leu Thr Leu Leu Arg Val 235 230 Pro Asn Ala Ile Glu Ile Leu Leu Asp Tyr Ile Arg Glu Ser Asn Leu 245 250 His Pro Glu Gln Val Leu Val Glu Phe Ser Glu Ser Glu Ile Ile Pro 260 265 270 Glu Ile Asp Glu Phe Ala His Ser Val Gln Ile Leu Lys Ser Cys Gly 275 280 285 Leu Ser Val Ala Ile Asn Asp Phe Gly Val Gly Asn Ala Gly Leu Leu 290 295 300 Phe Leu Ser Lys Phe Gln Pro Glu Lys Leu Lys Ile His Pro Gln Leu 310 315 Ile His Asn Ile His Lys Asp Gly Ser Lys Gln Ala Ile Leu Gln Ser 325 330 Leu Ile Arg Cys Gly Glu Leu Leu Glu Ile Arg Ile Cys Ala Thr Gly 340 345 Val Glu Gln Pro Glu Glu Trp Met Trp Leu Glu Ser Ala Gly Ile Phe 360 Cys Phe Gln Gly Asn Leu Phe Ser Lys Tyr Asp Lys Asn Gly Tyr Leu

```
37.5
Lys Ile Phe Trp Pro Glu Ser Asn Glu Phe Ile Gln Cys
385
                390
<210> 6852
<211> 286
<212> PRT
<213> Enterobacter cloacae
<400> 6852
Gly Arg Glu Val Arg Thr His His Tyr Arg Val Gly Glu Arg Met Asn
                             10
Leu Glu Asn Thr Leu Lys Tyr His Phe Ala Lys Ser Thr Met Ile Ser
 20
                          2.5
Asp Ser Pro Arg Ala Thr Ala Ser Asp Ser Leu Ser Gly Thr Asp Ile
                      40
Met Ala Ala Met Gly Met Thr Gln Glu Arg Ala Ala Leu Gly Tyr Ser
                 5.5
Ala Phe Leu Gly Lys Met Gly Ile Ser Asn Asn Asp Arg Glu Arg Ala
              70
                                75
Ile Glu Leu Leu Ala Gln Tyr Ala Leu Thr Lys Cys Asp Arg Val Ala
           8.5
                             90
Ala Leu Arg Lys Leu Asp Ala Arg Val Lys Pro Leu Val Met His Gln
        100 105
                              110
Leu Ala Ser Phe Ala Phe Glu Asp Tyr Ser Arg Ser Ala Ala Ser Val
                            125
   115 120
Lys Gln Cys Asp Cys Cys Ser Gly Gln Gly Phe Ile Glu Ala Asp Val
 130 135 140
Phe Thr Met Lys Ser His Tyr Thr Met Lys Leu Pro Gln Trp Ala Lys
145 150 155
Asp Leu Lys Gln Ser Pro Ser Tyr Phe Glu Val Lys Arg Gln Val Lys
         165 170 175
Glu Val Ala Lys Val Leu Cys Ser Thr Cys Lys Gly Lys Lys Val Val
         180
                         185
                               190
Ser Cys Ala Cys Lys Asp Cys His Gly Arg Gly Lys Ala Val Asn Gln
    195
                       200
Asp Leu Thr Glu Lys Gln Gly Val Pro Val Leu Ala Asp Cys Lys Arg
 210
       215
                                    220
Cys Gly Gly Arg Gly Tyr Glu Arg Ile Pro Ser Thr Glu Ala Tyr Ala
                230
                                 235
Ala Val Arg Gln Ile Thr Asp Thr Ile Ser Leu Asp Thr Trp Lys Lys
            245
                             250 255
Ser Val Lys Pro Phe Tyr Asp Gln Leu Ile Thr Lys Phe Asp Ile Glu
         260 265
Glu Ala Trp Ala Asp Ala Gln Leu Lys Gln Ile Thr Lys
                      280
<210> 6853
<211> 233
<212> PRT
<213> Enterobacter cloacae
<400> 6853
Arg Gly Ala Gly Met Lys Asn Leu Ala Glu Ser Ile Arg Asn Phe Asp
                             10
Arg Glu Gln Ala Cys Arg Val Ala His Asn Leu Pro Glu Gln Tyr Thr
         20
                         25
Glu Arg Glu Gln Thr Gln Gln Val Ala Gln Ile Ile Asn Gly Leu Phe
     35
                    40
                                       45
Val Gln Leu Ala Ala Ala Phe Pro Ala Ser Leu Val Asn Arg Ser Gln
```

```
the first first term was proved to the first term one can great the first term of th
```

```
Asp Asp Val Asp Glu Ile Arg Arg Gln Trp Val Leu Ala Phe Lys Glu
65
                                   75
Asn Gly Ile Asn Thr Met Glu Gln Val Glu Ala Gly Met Arg Met Val
                               90
Arg Arg Gln Glu Arg Pro Phe Leu Pro Ser Pro Gly Gln Phe Ile Lys
                         105
                                             110
         100
Trp Cys Arg Glu Gly Arg Cys Val Leu Gly Val Thr Thr Ala Asp Val
                       120
      115
Met Ala Glu Tyr Trp Lys Trp Arg Lys Leu Val Phe Arg Tyr Pro Ser
                    135
                                      140
   130
Ser Glu Gln Tyr Pro Trp Pro Lys Pro Val Tyr Tyr His Ile Cys Leu
                 150 155
145
Glu Leu Arg Arg Arg Gly Thr Asp Gly Gln Leu Ser His Lys Glu Leu
             165
                               170 175
Glu Arg Glu Ala Gly Asp Ile Leu Asp Arg Trp Glu Lys Arg Val Leu
                            185
                                 190
         180
Ala Gly Lys Pro Ile Pro Pro Ile Arg Arg Ala Leu Ala Ala Pro Val
      195
                       200
                               205
Ala Pro Lys Gly Pro Thr Pro Ala Glu Leu Leu Lys Thr Lys Tyr Gln
210 215
                                      220
Arg Met Lys Ala Asp Gly Arg Ala
                230
<210> 6854
<211> 104
<212> PRT
<213> Enterobacter cloacae
<400> 6854
Arg Ser Cys Glu Ala Ser Phe Tyr Phe Lys Arg Leu Lys Lys Val Glu
                         10
Ile Thr Met Lys Arg Pro Asn Trp Phe Gln Val Ser Asp Lys Gly Gly
       20
                    25
Lys Ala Ile Ala Ala Leu His His Tyr Ala Thr Thr Gly Thr Gly Leu
    35
                  40
                                    45
Pro Ala Glu Leu Ile His Leu Ile Phe Leu Arg Val Ser Gln Ile Asn
 5.0
                 55
Gly Cys Ala His Cys Ile Asp Ile His Thr Arg Asp Leu Ile Lys Ser
               70
                                75
Gly Met Ser Val Glu Lys Ile Val Leu Cys Leu Phe Trp Arg Glu Pro
          85
Ser Tyr Phe Ile Leu Arg Ile
         100
<210> 6855
<211> 162
<212> PRT
<213> Enterobacter cloacae
<400> 6855
Asp Gly Asp Ser Gly Asp Ser Gln Arg Ile Ser Leu Met Lys Glu Ile
Asp Val Gly Phe Thr His Val Ala Phe Val Val Arg Asp Leu Asp Lys
                            25
Ser Ile Asp Phe Tyr Gly Arg Tyr Ala Gly Met Glu Val Val His Arg
Arg Glu Pro Asp Leu Pro Glu Ala Arg Lys Val Ala Trp Leu Ser Asp
                    55
   50
                                       60
Leu Thr Arg Pro Phe Ala Leu Val Leu Val Gln Val Asp Ala Val Thr
               7.0
                                   75
Asp Thr Pro Leu Gly Asn Phe Gly His Leu Gly Val Ala Cys Ser Ser
```

85 90 95

Ile Glu Glu Ile Asp Asn Lys Ile Ala Met Ala Arg Met Glu Gly Ile
100 105 110

Leu Arg Lys Glu Pro Val Gln Thr Gly Glu Pro Val Gly Tyr Tyr Val
115 120 125

Phe Phe Ala Asp Pro Asp Gly Asn Thr Leu Glu Leu Ser Tyr Gly Gln
130 135 140

Lys Val Gly Ile Glu Ala Phe Arg His Tyr Asp Thr Val Pro Ala Ser
145 150 150 160

Ghn

<210> 6856 <211> 158 <212> PRT

<213> Enterobacter cloacae

<400> 6856

Ala Gln Pro Lys Pro Gly Leu Arg Asp Leu Asp Cys Lys Cys Ile Leu 10 Ala Asp Leu Lys Tyr Thr Ser Ala Pro Gly Gln Pro Leu Ala Lys Pro 20 2.5 Asp Val Gly Val Asn Val Lys Thr Tyr Gln Ile Thr Leu Pro Trp Pro 4.0 Pro Ser Asn Asn Arg Tyr Tyr Arg His Asn Arg Gly Arg Thr His Ile 5.5 60 Ser Ala Asp Gly Val Ala Tyr Arg Tyr Ala Val Ala Ser Val Ile Arg 70 75 Ser Ala Arg Leu Asn Ile Arg Thr Ala Ala Pro Leu Lys Ile Arg Ile 90 95 85 Glu Cys His Met Pro Asp Arg Arg Arg Arg Asp Leu Asp Asn Leu Gln 100 105 110 Lys Ala Ala Phe Asp Ala Leu Thr Lys Ala Arg Phe Trp Leu Asp Asp 115 120 125 Cys Gln Val Val Asp Tyr Arg Val Val Lys Met Pro Val Val Lys Gly 130 135 140 Gly Lys Leu Glu Leu Thr Ile Thr Glu Leu Glu Asn Ala

<210> 6857 <211> 298 <212> PRT

<213> Enterobacter cloacae

115

145 150

<400> 6857

Arg Gly Ala Ser Gly Gly Ser Trp Ala Lys Val Leu Thr Thr Asp Gln Lys Arg Glu Ala Val Met Leu Met Cys Asp Ala Thr Gly Leu Ser Gln 20 25 Arg Arg Ala Cys Arg Leu Thr Gly Leu Ser Leu Ser Thr Cys Arg Tyr 35 40 Glu Ala His Arg Pro Ala Ala Asp Ala His Leu Ser Gly Arg Ile Thr 55 Glu Leu Ala Leu Glu Arg Arg Phe Gly Tyr Arg Arg Ile Trp Gln 75 Leu Leu Arg Arg Glu Gly Leu His Val Asn His Lys Arg Val Tyr Arg 85 90 Leu Tyr His Leu Ser Gly Leu Gly Val Lys Arg Arg Arg Arg Lys 100 105 Gly Leu Ala Thr Glu Arg Leu Pro Leu Leu Arg Pro Ala Ala Pro Asn

```
Leu Thr Trp Ser Met Asp Pne Val Met Asp Ala Leu Ser Thr Gly Arg
                                      140
Arg Ile Lys Cys Leu Thr Cys Val Asp Asp Phe Thr Lys Glu Cys Leu
                                  155
               150
Thr Val Thr Val Ala Phe Gly Ile Ser Gly Val Gln Val Thr Arg Ile
                               170
           165
Leu Asp Ser Ile Ala Leu Phe Arg Gly Tyr Pro Ala Thr Ile Arg Thr
       180
                           185
                                             190
Asp Gln Gly Pro Glu Phe Thr Cys Arg Ala Leu Asp Gln Trp Ala Phe
      195 200
                                          205
Glu His Gly Val Glu Leu Arg Leu Ile Gln Pro Gly Lys Pro Thr Gln
   210 215
                                      220
Asn Gly Phe Ile Glu Ser Phe Asn Gly Arg Phe Arg Asp Glu Cys Leu
225 230 235
Asn Glu His Trp Phe Ser Asp Ile Val His Ala Arg Lys Ile Ile Asn
             245 250
                                                255
Asp Trp Arg Gln Asp Tyr Asn Glu Cys Arg Pro His Ser Thr Leu Asn
              265
                                             270
          260
Tyr Gln Thr Pro Ser Glu Phe Ala Ala Gly Trp Arg Lys Gly His Ser
                              285
  275 280
Glu Asn Glu Asp Ser Asp Val Thr Asn
                     295
   290
<210> 6858
<211> 153
<212> PRT
<213> Enterobacter cloacae
<400> 6858
Ala Lys Tyr Gly Ser Ala Phe Pro Gly Met Gly Arg His Pro Glu Gly
                              10
Gly Leu Ser Val Ala Ile Ser Asn Pro Arg Lys Pro Ala Glu Glu Leu
                           25
                                             3.0
           20
Gln Val Val Gly Val Asp Phe Ser Gly Gln Ala Asp Val Trp Asn Val
                      40
                                   4.5
Lys Leu Phe Arg Trp Val Asp Asn Lys Glu Asp Ser Ala Ser Tyr Arg
                     55
                                      60
 50
Lys Asn Val Glu Gln Leu Val Pro Ala Ile Ile Tyr Val Leu Pro Leu
                                  75
                                                    8.0
                7.0
Arg Tyr Arg Asp Arg Val Val Lys Tyr Asp Ser Phe Ala Tyr Arg Met
              85
                                90
Ala Arg Leu Glu Lys Glu Val Ser Glu Ala Lys Gln Ala Leu Met Leu
                                      110
                            105
         100
Asp Ala Pro Lys Lys Val Lys Leu Lys Glu Leu Gly Glu Gly Ile Phe
                        120 125
       115
 Glu Met Phe Arg Val Asp Pro Asp Val Thr Ala Pro Leu Leu Ala Met
                      135
 Val Thr Thr Met Leu Gly Ala Met
                  150
<210> 6859
 <211> 330
 <212> PRT
 <213> Enterobacter cloacae
 <400> 6859
 Arg Arg Lys Pro Val Cys Val Asn Arg Thr Asp Phe Gln Val Gln Lys
                               10
 Arg Ser Val Ile Ala Glu Leu Ser Met Ser Asn Thr Ala Glu Ile Ile
                             25
 Asn Phe Pro His Arg Thr Glu Gln Pro Gly Gly Arg Met Ala Asp Leu
```

```
Ser Asn Gly Tyr Thr Lys Val Ala Asn Glu Ile Gln Gln Leu Lys Pro
                                  60
                  55
Arg Leu Arg Met Ser Gly Arg Glu Trp Gln Cys Phe Glu Ala Val Ile
               70
Trp Leu Thr Tyr Gly Trp Asn Lys Lys Gln Asp Arg Val Thr Asn Thr
           85
                           90
Val Ile Ala Glu Leu Thr Gly Leu Ser Asp Ser His Val Ser Asp Ala
                  105
                                         110
      100
Leu Lys Ser Leu Ala Glu Arg Lys Ile Ile Phe Ser Gln Lys Gln Gly
                     120
                                     125
Val Met Lys Thr Val Gly Ile Asn Thr Asp Leu Ser Ala Trp Ile Leu
 130 135
                          140
Asp Lys Pro Lys Thr Gly Lys Val Phe Pro Lys Ser Gly Lys Val Leu
                   155
145 150
Pro Lys Thr Gly Lys Thr Phe Pro Glu Thr Val Asp Thr Gln Asp Tyr
           165 170 175
Asn Lys Asn Asn Ile Lys Arg Ser Ser Ser Arg Asn Ser Asp Glu Ser
             185 190
Arg Asn Gln Lys Thr Gln Lys Phe Leu Ser Arg His Pro Glu Ala Ala
 195 200 205
Asp Gly Ile Tyr Thr Pro Ala Gly Lys Ser Trp Gly Ser Ala Asp Asp
 210 215 220
Leu Lys Ala Ala Arg Trp Ile Tyr Asp Arg Leu Leu Thr Val Asn Ala
            230 235
Ser Leu Ser Glu Pro Asn Trp Ala Glu Trp Ala Asn Thr Ile Arg Leu
                 250 255
            245
Met Arg Val Gln Asp Lys Arg Thr His Tyr Glu Ile Cys Asp Leu Phe
                        265 270
         260
Gln Trp Ala Asn Arg Asp Glu Phe Trp Lys Asp Asn Ile Leu Ser Pro
                           285
                     280
Ser Ser Leu Arg Lys Gln Trp Asp Gln Leu Thr Thr Lys Arg Leu Arg
                 295 300
 290
Ala Thr Gly Thr Ala Lys Pro Ser Arg Ser Gly Ile Asp Leu Leu Asn
                310
                                315
Thr Asp Trp Ile Asp Gly Val Leu Glu
```

<210> 6860 <211> 89

<212> PRT <213> Enterobacter cloacae

325

<400> 6860 Ile Tyr Cys Ile Cys Ile Gln Leu Phe Ile Ala Glu Gly Lys Met Lys 10 Ile Glu Leu Thr Ile Asp Arg Met Lys Lys Leu Pro Val Gly Ala Ile 30 20 Pro Ala Leu Glu Ser Glu Leu Leu Lys Arg Leu Ser Lys Gln Phe Asp 4.0 Gly Cys Gln Ile Thr Ile Lys Arg Ala Ser Asn Asp Gly Leu Thr Val 60 55 Phe Gly Gly Asp Lys Lys Glu Val Glu His Ile Val Gln Glu Thr Trp 70 Glu Ser Ala Asp Glu Trp Phe Tyr 8.5

<210> 6861 <211> 98

<212> PRT

<213> Enterobacter cloacae

<210> 6862

<211> 261 <212> PRT

<400> 6861 Cys Leu His Lys Pro His Glu Asp Ile Pro Met Lys Lys Arg Phe Ser 5 10 Asp Glu Gln Ile Ile Ser Ile Leu Arg Glu Ala Glu Ala Gly Val Pro 20 25 Ala Arg Glu Leu Cys Arg Lys His Ala Ile Ser Asp Ala Thr Phe Tyr 4.0 4.5 Ile Trp Arg Lys Lys Tyr Gly Gly Met Glu Val Pro Glu Val Lys Arg 50 . 55 60 Leu Lys Ser Leu Glu Glu Glu Asn Ala Arg Leu Lys Lys Leu Leu Ala 70 75 Glu Ala Met Leu Asp Lys Glu Ala Leu Gln Val Ala Leu Gly Arg Lys 85 9.0 Tyr

<213> Enterobacter cloacae <400> 6862 Tyr Trp Pro Lys Asn Lys Pro Glu Ala Gln Phe Gln Leu Met Asn Leu 10 15 Leu Ser Leu Leu Pro Val Gly Cys Asp Ile Phe Val Val Gly Glu Asn 25 20 30 Arg Ser Gly Val Arg Ser Ala Glu Gln Met Leu Glu Ala Trp Ala Pro 35 40 45 Leu Thr Lys Ile Asp Ser Ala Arg Arg Cys Gly Leu Tyr His Gly Arg 55 50 Leu Glu Lys Gln Thr Thr Phe Asp Ala Asp Ala Phe Trp Asp Glu Tyr 70 75 Gln Leu Glu Gly Leu Thr Ile Lys Thr Leu Pro Gly Val Phe Ser Arg 90 8.5 Asp Ala Leu Asp Thr Gly Ser Lys Leu Leu Ser Thr Leu Thr Pro 100 105 His Thr Lys Gly Lys Val Leu Asp Val Gly Cys Gly Ala Gly Val Leu 115 120 125 Ser Thr Val Leu Ala Ser His Ser Pro Lys Val Arg Leu Thr Leu Cys 130 135 140 Asp Val Ser Ala Pro Ala Val Glu Ala Ser Arq Ala Thr Leu Ala Ala 150 145 155 160 Asn Gly Ile Glu Gly Asp Val Ile Ala Ser Asn Val Phe Ser Asp Val 165 170 175 Thr Gly Arg Phe Asp Met Ile Met Ser Asn Pro Pro Phe His Asp Gly 180 185 190

Met Glu Thr Ser Leu Glu Ala Ala Gln Thr Leu Ile Arg Gly Ala Thr

Arg His Leu Asn Ser Gly Gly Glu Leu Arg Ile Val Ala Asn Ala Phe

Leu Ala Tyr Pro Lys Val Leu Asp Glu Thr Phe Gly Phe His Glu Val

235 Ile Ala Gln Thr Gly Arg Phe Lys Val Tyr Arg Thr Val Met Thr Arg 250

2.05

220

200

215

230

<210> 6863 <211> 313 <212> PRT

195

210

Gin Ala Lys Lys 260 <213> Enterobacter cloacae

```
<400> 6863
Tyr Arg Lys Pro Phe Ser Gln Leu Lys Glu Val Met Pro Thr Met Thr
                          10
Gln Val Ala Lys Lys Ile Leu Val Thr Cys Ala Leu Pro Tyr Ala Asn
      20
               25
                                    30
Gly Ser Ile His Leu Gly His Met Leu Glu His Ile Gln Ala Asp Val
            40
Trp Val Arg Tyr Gln Arg Met Arg Gly His Glu Val Asn Phe Ile Cys
            55
Ala Asp Asp Ala His Gly Thr Pro Ile Met Leu Lys Ala Gln Gln Leu
            7.0
                           7.5
Gly Ile Ser Pro Glu Gln Met Ile Ala Glu Met Ser Gln Glu His Gln
           85
                           90 95
Thr Asp Phe Ala Gly Phe Asp Ile Ser Tyr Asp Asn Tyr His Ser Thr
      100
                     105 110
His Ser Asp Glu Asn Arg Glu Leu Ser Glu Leu Ile Tyr Thr Arg Leu
115 120 125
Lys Glu Asn Gly Phe Ile Lys Asn Arg Thr Ile Ser Gln Leu Tyr Asp
130 135 140
Pro Glu Lys Gly Met Phe Leu Pro Asp Arg Phe Val Lys Gly Thr Cys
145 150 155
Pro Lys Cys Lys Ser Pro Asp Gln Tyr Gly Asp Asn Cys Glu Val Cys
         165 170 175
Gly Ala Thr Tyr Ser Pro Thr Glu Leu Ile Glu Pro Lys Ser Val Val
      180 185 190
Ser Gly Ala Thr Pro Val Met Arg Asp Ser Glu His Phe Phe Asp
195 200 205
Leu Pro Ser Phe Ser Glu Met Leu Lys Ala Trp Thr Arg Ser Gly Ala
210 215 220
Leu Gln Glu Gln Val Ala Asn Lys Met Gln Glu Trp Phe Glu Ser Gly
225 230 235 240
Leu Gln Gln Trp Asp Ile Ser Arg Asp Ala Pro Tyr Phe Gly Phe Glu
           245 250 255
Ile Pro Asn Ala Pro Gly Lys Tyr Phe Tyr Val Trp Leu Asp Ala Pro
   260 265 270
Ile Gly Tyr Met Gly Ser Phe Lys Asn Leu Cys Asp Lys Arg Gly Asp
275 280 285
Thr Val Ser Phe Asp Glu Tyr Trp Lys Lys Asp Ser Asp Ala Glu Leu
 290 295
                                300
Tyr His Phe Ile Gly Lys Asp Ile Val
```

<210> 6864 <211> 367

<212> PRT

<213> Enterobacter cloacae

310

## <400> 6864

Met Lys Ser Met Asn Lys Asn Phe Thr Ala Ile Phe Val Met Gly Ile 10 Val Leu Ala Gly Thr Met Ser Gln Ala Glu Ala Ala Asn Thr Val Trp 20 25 30 Asp Asp Gln Gln Ile Thr Asn Ile Val Asn Asp His Gln Asp Gln Ile 35 40 Thr Gln Asn Asn Ala Asp Ser Ile Asn Arg Asp Ser Ala Thr Asp Asn 5.5 60 Arg Leu Thr Gln Val Asn Asp Asp Leu Gln Ser Thr Lys Leu Gly Val 75 70 Leu Val Val Asp Lys Met Ala Asn Asp Ala His Gln Lys Ala Leu Leu

```
90
Ala Gly Ala Leu Ala Asp Thr Ala Ser Leu Lys Ser Glu Thr Ala Leu
                       105
        100
Gln Gly Val Ala Thr Asn Gly Thr Ala Ile Ile Asn Leu Gln His Val
     115
                     120
Asp Asn Ile Gln Asp Ser Arg Leu Thr Ala Leu Glu Asn Ala Pro Lys
                               140
               135
Pro Ile Asn Gly Ala Asp Gly Ala Lys Gly Asp Lys Gly Asp Thr Gly
145 150
Ala Thr Gly Ala Lys Gly Asp Lys Gly Asp Thr Gly Ala Thr Gly Ala
         165
                           170
Lys Gly Asp Lys Gly Asp Thr Gly Val Thr Gly Ala Lys Gly Glu Lys
       180 185
                                       190
Gly Asp Ala Gly Ala Thr Gly Met Lys Gly Asp Lys Gly Asp Thr Gly
                                   205
     195 200
Ala Gln Gly Ile Ala Gly Arg Asn Gly Arg Asp Gly Ala Asp Gly His
 210 215 220
Asn Gly Lys Asp Gly Val Thr Thr Thr Val Thr Gln Arg Gln Leu Asp
225 230 235
Thr Ala Thr Gln Ala Lys Val Ala Lys Asn Ser Met Ala Val Thr Ala
        245 250 255
Ala Thr Gln Asp Leu Gln Ala Thr Arg Gln Ser Leu Gln Ala Met Asn
       260 265 270
Thr Asn Thr Ser Gln Gln Phe Lys Ser Leu Arg Asp Glu Val Asp Asn
 275 280 285
Asn Lys Lys Gln Ala Asn Ala Gly Ile Ser Gly Ala Met Ala Met Ala
 290 295 300
Gly Leu Pro Gln Val Gin Thr Asn Gln Arg Val Met Ser Ser Ala Gly
305 310 315
Gly Ala Thr Tyr Asn Gly Glu Ser Ala Leu Ala Val Gly Ala Ser Val
325 330 335
Asn Phe Asn Ser His Val Ile Ala Lys Val Ser Phe Ser Asp Asp Thr
   340 345 350
Ala Asn Asn Met Gly Ala Ser Val Gly Ile Gly Met Gly Phe
      355
```

<210> 6865 <211> 467 <212> PRT <213> Enterobacter cloacae

<400> 6865
Arg Ser Gly Gly Cys Arg Ser Asp Met Met Thr Asp Lys Val Arg Ile 1
5 10 15
Asp Thr Val Asp Ala His Lys Ser Asn Glu Thr Tyr Leu Ala Arg Gln 20 25 30
Ala Gly Phe Gly Ser Asn Val Arg Ser Tyr Pro Arg Lys Leu Pro Leu

Ala Glu Phe Glu Ser Asn Val Arg Ser Tyr Pro Arg Lys Leu Pro Leu 40 35 Ala Ile Thr Lys Ala Glu Gly Val Trp Ile Thr Asp Ala Asp Asn Lys 55 Glu Tyr Leu Asp Cys Leu Ala Gly Ala Gly Thr Leu Ala Leu Gly His 70 75 Asn His Pro Asp Val Leu Lys Ser Ile Gln Asn Val Ile Thr Ser Gly 90 85 Leu Pro Leu His Thr Leu Asp Leu Thr Thr Pro Leu Lys Asp Ala Phe 105 100 Ser Glu Tyr Leu Leu Ser Leu Leu Pro Gly Gln Gly Lys Glu Tyr Cys 120 115

Leu Gln Phe Thr Gly Pro Ser Gly Ala Asp Ala Val Glu Ala Ala Leu 130 135 140 Lys Leu Ala Lys Lys Val Thr Gly Arg Ser Gly Ile Ile Ser Phe Ser

```
155
Gly Gly Tyr His Gly Met Thr His Gly Ala Leu Ser Val Thr Gly Asn
                          170
           165
Leu Ser Pro Lys Glu Ala Val Asp Gly Met Met Pro Glu Val Gln Phe
                              190
        180
                       185
Met Pro Tyr Pro His Glu Tyr Arg Cys Pro Leu Gly Ile Gly Glu
                                    205
     195
                    200
Ala Gly Val Lys Ala Leu Thr Tyr Tyr Phe Glu Asn Leu Ile Asn Asp
 210 215
                          220
Val Glu Ser Gly Val Arg Lys Pro Ala Ala Val Ile Leu Glu Ala Val
225 230
                             235
Gln Gly Glu Gly Val Asn Pro Ala Pro Val Glu Trp Leu Gln Arg
           245 250 255
Ile Arg Lys Val Thr Gln Glu His Gly Ile Leu Leu Ile Leu Asp Glu
                                 270
        260
             265
Val Gln Ala Gly Phe Ala Arg Thr Gly Lys Phe Phe Ala Phe Glu His
    275 280
                         285
Ala Gly Ile Glu Pro Asp Ile Ile Val Met Ser Lys Ala Val Gly Gly
                      300
 290 295
Gly Leu Pro Leu Ala Val Leu Gly Ile Lys Lys Gln Phe Asp Ala Trp
    310 315
Ala Pro Gly His His Thr Gly Thr Phe Arg Gly Asn Gln Leu Ala Met
           325 330 335
Ala Thr Gly Leu Thr Thr Leu Lys Ile Leu Lys Asp Gln Asn Ile Ala
               345 350
       340
Gly Lys Val Ala Ala Gln Gly Glu Trp Leu Lys Gly Gln Leu Lys Glu
                         365
      355 360
Met Ala Lys Arg Tyr Pro Val Ile Gly His Val Arg Gly Leu Gly Met
                      380
 370
                 375
Met Ile Gly Ile Glu Ile Val Lys Pro His Glu Ala Ala Asp His Met
              390 395
Gly Cys Phe Pro Gly Asp Gly Glu Leu Ser Ala Leu Ile Gln Lys Lys
         405 410 415
Cys Phe Glu Ala Gly Leu Ile Leu Glu Arg Gly Gly Arg Asn Gly Ile
        420
                       425 430
Val Leu Arg Leu Leu Pro Ser Leu Leu Ile Ser Asp Asp Glu Leu Lys
      435 440
                          445
Val Phe Leu Asp Lys Phe Glu Gln Ala Leu Leu Ala Ala Gly Val Ser
                  455
 450
Pro Ala
465
<210> 6866
```

<210> 6866 <211> 495 <212> PRT

<213> Enterobacter cloacae

<400> 6866

Pro Glu Leu Leu Ile Thr Met Ser Asp Ser Asn Pro Ile Leu Phe Ser 1.0 Ser Ala Gln Ser Ile Glu Ala Tyr Gln Gln Ala Ile Glu Gln Ser Thr 25 20 Gln Ala Val Met Gln Trp Leu Lys Gln Pro Glu Met Tyr Gln Gly Lys 4.5 40 Thr Val Ala Glu Leu Arg Asp Arg Ile Lys Leu Asp Phe Asn Pro Lys 55 60 Gly Leu Gly Asn Glu Ala Ala Ile Glu Arg Ala Val Glu Phe Phe Leu 75 70 Lys Asp Ser Leu Ser Val His His Pro Gln Cys Val Ala His Leu His 90 85 Cys Pro Ser Leu Val Val Ser Gln Ala Ala Glu Val Leu Ile Asn Ala

```
105
Thr Asn Gln Ser Met Asp Ser Trp Asp Gln Ser Pro Ser Ala Thr Ile
                          125
                120
   115
Ile Glu Ile Lys Leu Ile Glu Trp Leu Arg Thr Arg Val Gly Tyr Gln
                135
                            140
Ala Gly Aso Ala Gly Val Phe Thr Ser Gly Gly Thr Gln Ser Asn Leu
      150
                            155
Met Gly Leu Met Leu Ala Arg Asp Ala Phe Phe Ala Arg Gln Gly His
      165
               170 175
Ser Val Gln Gln Asp Gly Leu Thr Gly Asp Leu Arg Lys Ile Arg Val
      180 185
                             190
Leu Cys Ser Glu Asn Ala His Phe Ser Val Gln Lys Asn Met Ala Leu
   195 200
                          205
Met Gly Leu Gly Tyr Gln Ser Val Val Gln Val Lys Thr Asp Glu Phe
 210 215 220
Ser Arg Met Asp Leu Thr Asp Leu Ala Ala Lys Ile Glu Gln Cys Asn
225 230 235
Ala Asn Gly Glu Gln Ile Leu Ala Ile Val Ala Thr Ala Gly Thr Thr
        245 250 255
Asp Ala Gly Ala Ile Asp Pro Leu Arg Ala Ile Ala Glu Leu Ala Ala
      260 265 270
Lys Gln Asn Ile Trp Val His Val Asp Ala Ala Trp Gly Gly Ala Leu
275 280 285
Leu Met Ser Glu Gln Tyr Arg His Tyr Leu Asp Gly Ile Glu Leu Val
290 295 300
Asp Ser Val Thr Leu Asp Pne His Lys Gln Phe Phe Gln Thr Ile Ser
305 310 315
Cys Gly Ala Phe Leu Leu Lys Glu Ala Arg His Tyr Glu Leu Met Arg
         325 330 335
Tyr Gln Ala Ala Tyr Leu Asn Ser Glu Phe Asp Glu Glu Ala Gly Val
       340 345 350
Pro Asn Leu Val Ser Lys Ser Leu Gln Thr Thr Arg Arg Phe Asp Ala
 355 360 365
Leu Lys Leu Trp Met Ser Leu Glu Ala Leu Gly Gln Glu Gln Tyr Ala
370 375 380
Ala Ile Ile Asp His Gly Val Thr Leu Ala Gln Gln Val Ala Ala Tyr
385 390 395 400
Val Lys Glu Gln Ser Ala Leu Glu Leu Val Met Gln Pro Gln Leu Ala
           405 410 415
Ser Val Leu Phe Arg Phe Arg Pro Gln Ala Gln Met Asp Asp Ala Gly
       420 425 430
Ile Ala Leu Leu Asn Gln Lys Ile Gly Asp Ala Leu Leu Glu Ser Gly
     435 440 445
Arg Ala Asn Val Gly Val Thr Glu His Asn Gly Ile Thr Cys Leu Lys
      455 460
 450
Leu Thr Leu Leu Asn Pro Thr Val Thr Leu Glu Asp Val Lys Ile Leu
465 470 475
Leu Ser Leu Val Glu Arg Thr Ala Gln Glu Val Met Ala Lys
           485
<210> 6867
<211> 133
<212> PRT
<213> Enterobacter cloacae
<400> 6867
```

Thr Val Cys His Pro Phe Ala Asp Leu His Thr Lys Ser Ile Ser Asn 10 Asp Met Thr Gly Glu Lys Met Ala Lys Arg Lys Leu Leu Leu Gly 25 Val Leu Val Ser Leu Ala Gly Ala Ala His Ala Ala Pro Gln Ala Ser Thr Ala Pro Ser Gly Ile Lys Ala Tyr Glu Glu Glu Glu Phe Ile Ala Asp Phe Thr Lys Phe Lys Ile Gly Asp Thr Ala Pro Ala Gln Tyr Gln 7.5 70 Thr Pro Glu Tyr Thr Ile Lys Gln Tyr Gln Leu Arg Asn Leu Pro Ala 90 Pro Asp Ala Gly Thr His Trp Thr Tyr Met Gly Glu Asn Tyr Val Leu 100 105 Ile Gly Asp Ala Asp Gly Lys Ile Tyr Lys Ala Tyr Asn Gly Asp Ile 115 120 Phe Tyr His Arg 130 <210> 6868 <211> 164 <212> PRT <213> Enterobacter cloacae <400> 6868 Leu Ala Met Pro Met Ala Lys Ser Thr Lys Pro Ile Thr Glu Ile Phe 10 Ser Ile Thr Ala Asp Thr Ile Leu Ile Arg Pro Trp Gln Glu Ser Asp 25 30 20 Arg Pro Phe Leu Arg Thr Leu Phe Leu His Ala Arg Arg Glu Ala Trp 4.0 4.5 Pro Trp Leu Asp Ser Ser Ala Trp Gln Leu Glu Asp Phe Asp Ala Ala 55 60 Thr Leu Asp Glu Glu Ile Trp Val Ala Glu Gln Asp Gly His Arg Leu 75 70 Gly Phe Ala Ser Val Trp Thr Asn Asp Asn Phe Leu His Asn Leu Phe 90 8.5 Val Asp Pro Gln Tyr Gln Arg Leu Gly Val Gly His Leu Leu Glu 100 105 Gln Val Gln Lys Thr Phe Thr Asn Thr Gly Ala Leu Lys Cys Leu Val 125 120 Lys Asn Glu Arg Ala Ile Ala Phe Tyr His Arg His Gly Trp His Ile 140 135 Glu Ala Thr Gly Asp Ser Pro Asp Gly Glu Tyr Tyr Leu Met His Tyr 145 Arg Leu Gly

<210> 6869 <211> 750 <212> PRT <213> Enterobacter cloacae

<400> 6869 Ser Gln Pro Gly Met Gly Thr Ser Phe Arg Ser Glu Arg Asn Glu Ala 10 Leu Met Ser Ser Tyr Thr Thr Asp Asn Tyr Gly Ala Ala Ala Pro Gln 20 25 Gln His Glu Val Asp Leu Val Arg Leu Leu Val Glu Met Ile Asp His 40 35 Arg Thr Met Ile Leu Cys Val Thr Phe Leu Phe Thr Leu Cys Ala Gly 55 Leu Tyr Ala Trp Val Thr Pro Pro Val Tyr Gln Ala Asp Ala Met Val 75 70 Gln Ile Glu Ser Lys Gln Asp Asn Ser Leu Leu Lys Gly Leu Ser Gln 85

Leu Gly Thr Asp Val Ser Pro Asp Val Ala Pro Glu Ile Leu Leu Leu 105 100 Lys Ser Arg Met Ile Leu Gly Glu Thr Val Asp Lys Leu Gly Leu Thr 120 115 Gln Gln Ala Lys Gln Arg Val Leu Pro Val Val Gly Arg Leu Trp Gln 135 140 Arg Leu Gln Gly Arg Gly Gln Gly Lys Ile Thr Leu Gly Glu Leu Gln 150 Ile Pro Gln Val Glu Gly Lys Ala Gln Glu Leu Thr Leu Thr Val Gln 170 165 Glu Ala Gly Lys Tyr His Leu Lys Gly Glu Asn Ile Lys Ala Glu Gly 185 180 Arg Val Gly Lys Thr Leu Val Thr Gln Gly Ile Val Leu Leu Val Thr 195 200 205 Ser Ile Glu Ala Thr Pro Gly Thr Gln Phe Ser Leu Lys Ser Leu Thr 210 215 220 Arg Leu Glu Thr Ile Asn Ala Leu Lys Lys Ser Leu Thr Val Thr Glu 230 235 225 Ser Glu Lys Gln Ser Gly Ile Val Thr Leu Thr Leu Thr Gly Glu Asp 245 250 255 Pro Asp Asn Ile Ala Arg Val Leu Asn Ala Ile Ala Asp Asn Tyr Leu 260 265 270 Gln Gln Asn Ile Ala Arg Gln Glu Ala Gln Asp Ser Arg Ser Leu Asp 275 280 285 Phe Leu Gln Glu Gln Leu Pro Lys Ile Arg Ala Asp Leu Asp Gln Ala 295 300 Glu Ala Arg Leu Asn Ala Tyr Arg Ala Gln Arg Asp Ser Val Asp Leu 315 305 310 Ser Leu Glu Ala Lys Ser Val Leu Asp Gln Val Val Asn Val Glu Asn 325 330 335 Gln Leu Asn Glu Leu Thr Phe Arg Glu Ala Glu Ile Ser Gln Leu Phe 340 345 350 Lys Lys Ser His Pro Thr Tyr Arg Ala Leu His Glu Lys Arg Gln Thr 355 360 365 Leu Glu Arg Glu Arg Asp Arg Leu Asn Asn Arg Val Ser Ala Met Pro 375 380 370 Ser Thr Gln Gln Glu Ile Leu Arg Leu Ser Arg Asp Val Glu Ser Gly 390 395 400 Arg Thr Ile Tyr Leu Gln Leu Leu Thr Arg Gln Gln Glu Leu Asn Ile 405 410 415 Ser Arg Ser Ser Ala Val Gly Asn Val Arg Ile Ile Asp Glu Ala Val 425 420 Thr His Pro Asp Pro Ile Lys Pro Arg Lys Ala Leu Ile Ile Leu 435 440 445 Gly Ala Leu Phe Gly Leu Met Leu Ala Met Gly Thr Val Leu Val Arg 455 460 Gln Ala Phe Lys Arg Gly Ile Thr Leu Ser Glu Gln Leu Glu Ala Gln 470 475 Gly Leu Pro Val Leu Ala Thr Leu Pro Arg Ser Gln Trp Leu Trp Ser 485 490 495 Lys Thr His Leu Arg Arg Lys Asn Pro Phe Ser Arg Arg Trp Lys His 505 510 Lys Thr Ser Asp Val Pro Phe Leu Pro Val Asp Arg Pro Ala Asp Met 525 520 515 Phe Val Glu Ala Val Arg Gly Leu Arg Thr Ser Leu Tyr Phe Ala Met 535 540 Met Glu Ala Glu Asn Arg Ile Val Met Ile Ser Gly Pro Thr Gln Asp 555 550 Cys Gly Lys Thr Leu Val Ala Thr Asn Leu Ala Ala Val Ala Gly Gln 575 565 570 Ser Gly Gln Arq Val Leu Phe Ile Asp Ala Asp Met Arg Gln Gly Tyr

```
580
                        585
Val His Asn Ile Phe Gly Leu Glu Asn Arg Tyr Gly Leu Ser Cys Leu
                               605
     595 600
Leu Glu Gly Lys Cys Asp Phe Thr Glu Val Ile Gln His Ala Glu Lys
  610 615 620
Ala Gly Ile Asp Val Ile Thr Cys Gly Pro Glu Pro Leu Arg Pro Leu
      630 635
Glu Leu Leu Ser Glu Arg Phe Leu Asp Ile Met Ser Trp Val Asn
      645 650 655
Glu Gln Tyr Asp Ile Val Ile Ile Asp Thr Pro Pro Val Leu Ala Val
       660 665
Thr Asp Ala Ser Leu Val Ala Arg Ala Ala Gly Thr Thr Leu Met Val
                    680 685
Ala Arg Phe Asp Lys Thr Ser Val Lys Glu Met Glu Asn Thr Val Lys
                 695 700
Arg Leu Gln His Val Gly Val Lys Val Ser Gly Thr Ile Leu Asn Asp
705 710 715 720
Ile Val Lys Ser Ala Ala Leu Phe Tyr Ser Ser Gly Tyr Ser Gln Cys
         725 730
Asp Tyr Gly Tyr Ala Ser Arg Lys Lys Gly Asp Arg Arg
<210> 6870
<211> 168
<212> PRT
<213> Enterobacter cloacae
<400> 6870
Cys Gln Arg Arg Glu Val Arg Cys Leu Pro Gly His Arg Phe Phe Thr
                       10
His Gly Arg Ser Glu Thr Met Gln Pro Asp Leu Leu Asp Ser His Val
20 25
                                      3.0
Leu His Gln Phe Arg Thr Arg Ser Pro Leu Thr His Cys Met Thr Asn
                    40
                                   4.5
Asp Val Val Gln Thr Phe Thr Ala Asn Val Leu Leu Ala Leu Gly Ala
               55
                              60
Ser Pro Ala Met Val Ile Glu Ala Glu Glu Ala Glu Gln Phe Ala Ala
              70
                             75
Leu Ala Asp Ala Leu Leu Ile Asn Val Gly Thr Leu Thr Ala Pro Arg
         8.5
                          90
                                        95
Ala Gln Ser Met Arg Arg Ala Ile Glu Ser Ala Val Ala Ala Gly Thr
        100
                      105 110
Pro Trp Val Leu Asp Pro Val Ala Val Gly Ala Leu Ala Phe Arg Thr
   115 120 125
Arg Phe Cys Gln Gln Ile Leu Ser Leu Lys Pro Ala Ala Ile Arg Gly
 130 135 140
Asn Ala Ser Glu Ile Leu Ala Leu Ala Gly Met Ser Ala Gly Gly Arg
                   155
145
            150
Gly Val Asp Ser Thr Asp Thr Ala
           165
<210> 6871
<211> 164
<212> PRT
<213> Enterobacter cloacae
```

<400> 6871

Pro Tyr Arg Asn Gly Ser Leu His Gln Ile Val Ala Ala Ile Met Phe Lys Ser Ile Leu Val Val Cys Thr Gly Asn Ile Cys Arg Ser Pro Ile 25

Gly Glu Arg Leu Leu Arg Gln His Leu Pro Asp Arg His Ile Ala Ser Ala Gly Ile Tyr Gly Leu Glu Gly Cys Pro Ala Asp Asp Ser Ala Gln Asp Val Ala Trp Arg His Gly Ile Ser Leu Asp Gly His Val Ala Arg 70 Arg Leu Thr Arg Asn Leu Met Gln Gly Ser Asp Leu Ile Leu Val Met 8.5 Glu Pro Glu His Leu Arg Phe Ile Ala Ala Met Ala Pro Glu Ser Arg 100 105 Gly Lys Ser Leu Leu Phe Gly Gln Trp Leu Glu Pro Gln Asp Ile Pro 115 120 125 Asp Pro Tyr Arg Lys Ser Arg Glu Ala Phe Glu Tyr Val Phe Gly Leu 130 135 140 Leu Gly Lys Ala Ser Gln Glu Trp Ala Arg Arg Leu Gly Gln Lys Gly 145 150 155 Met Lys His

<210> 6872 <211> 380 <212> PRT

<213> Enterobacter cloacae

260

275

<400> 6872 Gly Leu Ile His Lys Asn Lys Gly Val Gly Met Ser Ser Gln Ser Gln 10 Ala Lys Ser Pro Glu Ala Leu Arg Ala Met Val Ala Gly Thr Leu Ala 25 3.0 Asn Phe Gln His Pro Thr Leu Lys His Asn Leu Thr Thr Leu Lys Ala 40 45 Leu His His Val Ala Trp Leu Asp Asp Thr Leu His Ile Glu Leu Gln 55 60 Met Pro Phe Val Trp Thr Ser Ala Pne Asp Ala Leu Lys Glu Gln Thr 70 75 Ser Ser Glu Leu Leu Arg Ile Thr Gly Ala Lys Ala Ile Asp Trp Lys 90 Leu Ser His Ser Ile Ala Thr Leu Lys Arg Val Lys Asn Gln Pro Gly 100 105 110 Val Asn Gly Val Lys Asn Ile Ile Ala Val Ser Ser Gly Lys Gly Gly 120 125 115 Val Gly Lys Ser Ser Thr Ala Val Asn Leu Ala Leu Ala Leu Ala Ala 130 135 140 Glu Gly Ala Lys Val Gly Ile Leu Asp Ala Asp Ile Tyr Gly Pro Ser 150 155 Ile Pro Asn Met Leu Gly Ala Glu Asn Gln Arg Pro Thr Ser Pro Asp 165 170 Gly Thr His Met Ala Pro Ile Val Ala His Gly Leu Ala Thr Asn Ser 180 185 190 Ile Gly Tyr Leu Val Thr Asp Asp Asn Ala Met Val Trp Arg Gly Pro 195 200 205 Met Ala Ser Lys Ala Leu Leu Gln Met Leu Gln Glu Thr Met Trp Pro 215 210 Asp Leu Asp Tyr Leu Val Leu Asp Met Pro Pro Gly Thr Gly Asp Ile 230 235 225 Gln Leu Thr Leu Ala Gln Asn Ile Pro Val Thr Gly Ala Val Val 250 245 Thr Thr Pro Gln Asp Ile Ala Leu Ile Asp Ala Lys Lys Gly Ile Val 270

265 Met Phe Glu Lys Val Lys Val Pro Val Leu Gly Ile Val Glu Asn Met

285

```
Ser Met His Ile Cys Ser Asn Cys Gly His His Glu Pro Ile Phe Gly
                                300
                295
Thr Gly Gly Ala Glu Lys Leu Ala Ala Gln Tyr His Thr Gln Leu Leu
305
           310
                   315
Gly Gln Met Pro Leu His Ile Ser Leu Arg Glu Asp Leu Asp Ser Gly
         325 330
Lys Pro Thr Val Val Ser Arg Pro Asp Ser Glu Phe Ala Gln Met Tyr
   340 345 350
Arg Gln Leu Ala Gly Arg Val Ala Ala Gln Leu Tyr Trp Gln Gly Glu
   355 360
Val Ile Pro Gly Glu Ile Ala Phe Arg Ala Val
                 375
<210> 6873
<211> 401
<212> PRT
<213> Enterobacter cloacae
<400> 6873
Asn Gly Lys Asn His Phe Gly Thr Tyr Ser Ile Ile Asn Thr Ile Lys
         5
                          1.0
Arg Tyr Phe Tyr Ser Met Lys Asn Thr Thr Val Phe Ser Ile Leu Phe
                    2.5
                                30
      20
Leu Ile Ile Thr Pro Leu Ser Gly Cys Val Phe Ser Pro Gly Gln His
                         45
35
                  40
Leu Asp Leu Ala Gly Lys Gln Val Met Thr Thr Glu Asn Ala Asn Asp
                        60
50
                55
Arg Leu Glu Lys Arg Ile Asp Val Tyr Pro Leu Thr Pro Ser Leu Ile
               70
                   75 80
Glu Lys Leu Arg Pro Ser Ala Leu Lys Ser Gln Ala Asn Pro Lys Leu
           85 90 95
Asp Glu Gln Val Lys Asn Trp Glu Tyr Arg Ile Gly Val Gly Asp Ile
              105 110
      100
Leu Thr Val Thr Val Trp Asp His Pro Glu Leu Thr Thr Pro Ala Gly
115 120 125
Gln Tyr Arg Ser Ala Ser Asp Thr Gly Asn Trp Val Asn Ala Asp Gly
               135
                                140
 130
Thr Leu Phe Tyr Pro Tyr Val Gly Lys Leu Gln Val Ala Gly Lys Thr
            150 155 160
145
Val Ala Arg Val Arg Glu Glu Ile Thr Ala Arg Leu Asn Asn Val Ile
           165 170 175
Glu Ser Pro Gln Val Asp Val Ser Val Ala Ser Phe Arg Ser Gln Lys
                      185
                                      190
         180
Ala Tyr Val Thr Gly Glu Val Val Lys Ser Gly Gln Gln Ala Ile Thr
                     200 205
      195
Asn Ile Pro Leu Thr Val Met Asp Ala Val Asn Ala Ala Gly Gly Leu
                 215 220
Ser Ala Asp Ala Asp Trp Arg Asn Val Val Leu Thr His Asn Gly Lys
            230 235
Asp Met Arg Leu Ser Leu Tyr Ala Leu Met Gln His Gly Asp Leu Thr
            245 250 255
Gln Asn Lys Leu Leu Tyr Pro Gly Asp Ile Leu Phe Val Pro Arg Asn
                        265 270
        260
Asp Ala Leu Lys Val Phe Val Met Gly Glu Val Val Lys Gln Ser Thr
                     280
                                    285
Leu Lys Met Asp Arg Ser Gly Met Thr Leu Ala Glu Ala Leu Gly Asn
                                 300
  290
                  295
Ala Gly Gly Leu Asn Gln Asn Met Ala Asp Ala Thr Gly Ile Phe Val
          310
                              315 320
Ile Arg Ser Leu Pro Lys Ser Glu Arg Ser Glu Lys Ile Ala Asn Ile
```

330

```
Tyr Gln Leu Asn Ala Gln Asp Ala Ser Ala Met Val Leu Gly Thr Glu
                         345
Phe Gln Leu Glu Pro Tyr Asp Ile Val Tyr Val Thr Thr Ala Pro Leu
                                    365
   355
                      360
Ser Arg Trp Asn Arg Val Ile Ser Gln Leu Val Pro Thr Ile Ser Gly
                  375
                                    380
Val His Asp Leu Thr Glu Thr Val Arg Tyr Ile Arg Ser Trp Pro Gln
                                395
<210> 6874
<211> 280
<212> PRT
<213> Enterobacter cloacae
<400> 6874
Ala Ile Thr Asp Ala Gln Met Lys Asp Ser Ile Ser Asn Tyr Ile Leu
                         10
Ser Trp Val Glu Glu Asn Asn Phe Thr Ile Leu His Ile Gly Asp Leu
                25
Val Ala Asp Ile Gly Tyr Ser Arg Arg Thr Ile Glu Thr Trp Phe Lys
                             4.5
                   40
Glu Lys Tyr Arg Leu Ser Leu Gly Glu Tyr Ile Leu Arg Arg Arg Leu
               55
                                 60
5.0
Ser Arg Ala Ala Ile Met Leu Arg Met Thr Ser Ile Pro Val Thr Asp
                    75
                7.0
Ile Ala Tyr Leu Phe His Tyr Gln Ser Ser Gln Gly Phe Ser Arg Ala
            85
                    90
Phe Lys Lys Met Met Gly Leu Thr Pro Ser Glu Tyr Arg Cys Ala Arg
         100 105 110
Gly Trp Asn Phe Asp Ile Leu Gln Pro Ser Phe Leu Leu Ser Glu His
      115 120 125
Glu Thr Pro Glu Leu Glu Val Cys Tyr Leu Asp Glu Thr Phe Ile Tyr
                   135 140
 130
Thr His Glu Phe Ile Glu His Asp His Leu Phe Asp Thr Ser Val His
                150 155
Asp Ile Thr Lys Lys Ile Lys Lys Leu Leu Thr Glu Asn Arg His Asp
             165 170 175
Ile Asp Lys Ile Ile Leu Met Pro Arg Arg Pro Glu Leu Gly Lys Ser
                        185 190
          180
Arg Ser Tyr Leu Val Glu Val Leu Ile Ser Tyr Ala Leu Gln Ser Asp
                       200 205
      195
Thr Val Thr Asn Lys Lys Ser Cys Ile Val Arg Gly Arg Tyr Ala Arg
                   215
                                   220
Met Pro Phe Ser Gly Ser Trp Glu Ile Tyr Ser Ala Phe Asn Lys Ile
                               235
225
                230
Ala Phe Val Lys Ala Met Val Asn Gln Arg Leu Thr Leu Arg Asp Gly
             245 250 255
Ile Tyr Leu Met Lys Ile Asn Gly Tyr Ser Asp Glu Cys Val Asp Phe
          260
Asp Val Phe Ile Pro Ile Leu
<210> 6875
<211> 254
<212> PRT
```

<213> Enterobacter cloacae

<400> 6875

Met Asp Ala Met Asn Ser Arg Gln Gln Ile Ile Leu Gln Met Val Ile

```
10
Asp Gln Gly Arg Val Ser Val Val Asp Leu Ala Lys Ala Thr Gly Val
                          25
Ser Glu Val Thr Ile Arg Gln Asp Leu Asn Leu Leu Glu Lys Gln Ser
                      4.0
Tyr Leu Arg Arg Ala His Gly Tyr Ala Val Pro Leu Asp Ser Asp Asp
Val Glu Thr Arg Met Met Asn Asn Tyr Ala Leu Lys Arg Glu Leu Ala
                70
                                 75
Glu Phe Ala Ala Ser Leu Val Asn Asn Gly Glu Thr Val Phe Ile Glu
                                              95
            85
                             90
Asn Gly Ser Ser Asn Ala Leu Leu Ala Arg Thr Leu Ala Asp Gln Lys
                        105
        100
Asp Val Thr Ile Ile Thr Val Ser Ser Tyr Ile Ala His Leu Leu Lys
    115
                     120
                                       125
Asp Thr Arg Cys Glu Val Ile Leu Leu Gly Gly Ile Tyr Gln Lys Lys
 130 135
                                    140
Ser Glu Ser Met Val Gly Pro Leu Thr Arg Gln Tyr Val Gln Gln Val
145 150 155
His Phe Ser Lys Ala Phe Ile Gly Ile Asp Gly Trp Gln Pro Asp Thr
       165 170
                                      175
Gly Phe Thr Gly Arg Asp Met Met Arg Ser Asp Val Val Asn Ala Val
       180 185 190
Leu Ala Lys Glu Cys Glu Ala Ile Val Leu Thr Asp Ser Ser Lys Phe
195 200
                           205
Gly Ala Val His Pro Tyr Thr Met Gly Pro Ala Ser Arg Phe Ser Arg
210 215 220
Val Ile Thr Asp Glu Arg Leu Arg Asp Glu Tyr Arg Gln Gln Leu Glu
225 230 235
Gln Asp Gly Leu Thr Val Asp Ile Val Lys Lys Thr Ala
             245
<210> 6876
<211> 81
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(53)
<400> 6876
Gln Val Ala Leu Asp Asn Leu Arg Ala Thr Leu Ala Ala Ala Gly Cys
                             10
Thr Phe Asp Asp Leu Ile Asp Val Lys Thr Phe His Thr Asp Pro Glu
      2.0
                           25
                                           3.0
Asn Gln Phe Pro Ala Ile Met Glu Ala Lys Lys Leu Ala Phe Pro His
```

40

55

Pro Pro Tyr Pro Xaa Trp Thr Ala Ile Gly Val Asn Trp Leu Ala Gly

Phe Asp Phe Glu Ile Lys Val Ile Ala Arg Ile Pro Thr Pro Ala Asn

60

75

```
<210> 6877
<211> 334
<212> PRT
```

<sup>&</sup>lt;213> Enterobacter cloacae

```
Asp Gln Gly Thr Pro Met Gla Gln Arg Arg Phe Ser Gly Lys Gly His
Trp Tyr His Glu Thr Gln Ser Asn His Ser Gln Thr Asp Val Leu Pro
                                         30
        20
                         25
Leu Val Pro Glu Ala Ala Asn Val Asp Asp Arg Phe Leu Leu Asp Leu
                     4.0
     3.5
Ala Leu Pro Asp Asp Ile Leu Ala Ser Cys Ala Gly Trp Leu Ala Pro
  50 55
Ala Arg Thr Leu Cys His Leu Leu Phe Pro Leu Asp Thr Pro Val Ser
      70
Arg Leu His Thr Leu Ser Ala Tyr Asp Arg Leu Ser Thr Ala Leu Thr
                            90
          85
Val Ala Gln Ala Cys Gly Val Gln Arg Leu Cys Asn His Tyr Ala Ala
             105
       1.00
Leu Leu Ala Pro Leu Pro Gly Pro Asp Ser Ser Arg Glu Ser Asn Arg
                      120 125
      115
Arg Leu Ala Glu Ile Thr Gln Tyr Ala Arg Gln Leu Ala Ser Ser Pro
                  135
                       140
  130
Asp Val Ile Asp Asp Lys Ala Gln Asn Gln Leu Asp Glu Val Gly Leu
      150 155
145
Thr Thr Tyr Asp Ile Val Leu Ile Asn Gln Ile Ile Gly Phe Val Gly
            165 170 175
Phe Gln Ala Arg Val Val Ala Val Phe Gln Ala Leu Leu Gly His Pro
                         185 190
         180
Val Arg Trp Leu Pro Gly His His Ile Gln Pro His Thr Leu Pro Val
                      200 205
      195
Ser Phe Ser Arg Trp Thr Ala Tnr Leu Pro Ala Val Glu Leu Lys Tyr
                  215
                                  220
Ala Ser Ala Leu Gln Leu Glu Ala Leu Ser Arg Trp Gln Ala Glu Pro
                230
                               235
225
Ala Leu Glu Ala Leu Thr Pro Val Leu Cys His Glu Pro Met Leu Leu
                 250 255
            245
Asn Leu Thr Gly Glu Ile Leu Leu Asn His Pro Leu Ser Glu Gly Pro
                         265 270
         260
Ala Ser Ser Met Ile Ser Ala Ala Leu Ala Leu Leu Val Ala Ser Pro
                      280 285
 275
Asp Arg Phe Ser Ala Thr Gln Leu Thr Pro Leu Thr Gly Ser Gly Leu
                   295 300
  290
Ser Pro Glu Lys Ala Ile Asn Leu Leu Thr Arg Asp Ala Phe Tyr Gly
                     315
               310
Tro Leu Asn Arg Leu Arg Val Ala Leu Gly Lys Glu Glu
```

<210> 6878 <211> 271 <212> PRT

<213> Enterobacter cloacae

325

<400> 6878 Ala Met Asn Ile Arg Ile Lys Ala Met Gly Phe Leu Ser Gly Lys Arg Ile Leu Val Thr Gly Val Ala Ser Lys Leu Ser Ile Ala Tyr Gly Ile 30 25 Ala Gln Ala Met His Arg Glu Gly Ala Glu Leu Ala Phe Thr Tyr Gln 45 35 40 Asn Asp Lys Leu Lys Gly Arg Val Glu Glu Phe Ala Ala Gln Leu Gly 55 Ser Ser Ile Val Leu Glu Cys Asp Val Ala Gln Asp Glu Ser Ile Asp 7.5 70 Gly Met Phe Ala Glu Leu Ala Lys Ala Trp Pro Lys Phe Asp Gly Phe 90

```
Val His Ser Ile Gly Phe Ala Pro Gly Asp Gln Leu Asp Gly Asp Tyr
               105
        100
Val Asn Ala Val Thr Arg Asp Gly Phe Lys Ile Ala His Asp Ile Ser
   115
                    120
Ser Tyr Ser Phe Val Ala Met Ala Lys Ser Cys Arg Ala Met Leu Asn
 130 135 140
Pro Gly Ala Ala Leu Leu Thr Leu Ser Tyr Leu Gly Ala Glu Arg Ala
145 150
Ile Pro Asn Tyr Asn Val Met Gly Leu Ala Lys Ala Ser Leu Glu Ala
    165 170
Asn Val Arg Tyr Met Ala Asn Ala Met Gly Pro Glu Gly Val Arg Val
                            190
        180 185
Asn Ala Ile Ser Ala Gly Pro Ile Arg Thr Leu Ala Ala Ser Gly Ile
 195 200
                                   205
Lys Asp Phe Arg Lys Met Leu Ala His Cys Glu Ala Val Thr Pro Ile
 210 215 220
Arg Arg Thr Val Thr Ile Glu Asp Val Gly Asn Ser Ala Ala Phe Leu
225 230 235
Cys Ser Asp Leu Ser Ala Gly Ile Ser Gly Glu Val Val His Val Asp
  245 250 255
Gly Gly Phe Asn Ile Ala Ala Met Asn Glu Leu Glu Ile Lys
               265
<210> 6879
<211> 647
<212> PRT
<213> Enterobacter cloacae
<400> 6879
Asn Ile Met Phe Gln Asp Asn Pro Leu Leu Ala Gln Leu Lys Gln Gln
                   10
Leu His Ser Gln Thr Pro Arg Ala Glu Gly Val Val Lys Ala Thr Glu
20
                       25
Lys Gly Phe Gly Phe Leu Glu Val Asp Gly Gln Lys Ser Tyr Phe Ile
                         45
 35
Pro Pro Pro Gln Met Lys Lys Val Met His Gly Asp Arg Ile Ser Ala
Val Ile His Thr Glu Lys Glu Arg Glu Ser Ala Glu Pro Glu Ala Leu
            70
                             75
Ile Glu Pro Phe Leu Thr Arg Phe Val Gly Lys Val His Lys Lys Asp
                90
          85
Asp Arg Leu Ser Val Val Pro Asp His Pro Leu Leu Lys Asp Ala Ile
       100 105 110
Pro Cys Arg Ala Ala Arg Gly Val Glu His Asp Phe Val Glu Gly Asp
                   120 125
     115
Trp Ala Val Ala Glu Met Arg Arg His Pro Leu Lys Gly Asp Arg Gly
                  135 140
Phe Tyr Ala Glu Leu Thr Gln Tyr Ile Thr Phe Gly Asp Asp His Phe
                   155 160
     150
Val Pro Trp Trp Val Thr Leu Ala Arg His Asn Leu Glu Lys Glu Ala
                          170 175
            165
Pro Asp Gly Val Ala Thr Glu Met Gln Asp Glu Gly Leu Glu Arg Arg
                        185 190
         180
Asp Leu Thr Ala Leu Asp Phe Val Thr Ile Asp Ser Ala Ser Thr Glu
                   200
   195
Asp Met Asp Asp Ala Leu Tyr Ala Glu Glu Thr Ala Asp Gly Lys Leu
                 215 220
His Leu Thr Val Ala Ile Ala Asp Pro Thr Ala Trp Ile Val Glu Gly
               230 235 240
```

Ser Lys Leu Asp Glu Met Ala Lys Val Arg Ser Phe Thr Asn Tyr Leu

250

```
Pro Gly Phe Asn Ile Pro Met Leu Pro Arg Glu Leu Ser Asp Asp Leu
    260 265
Cys Ser Leu Arg Ala His Glu Val Arg Pro Val Leu Ala Cys Arg Met
                    280
Thr Ile Ala Ala Asp Gly Thr Ile Glu Glu Asp Ile Glu Phe Phe Ala
                                300
                 295
Ala Thr Ile Glu Ser Lys Ala Lys Leu Ala Tyr Asp Asp Val Ser Asp
              310
                             315
Trp Leu Glu Asn Thr Gly Asn Trp Lys Pro Glu Ser Asp Asn Ile Ala
        325
                          330
Ala Gln Ile Arg Leu Leu His Arg Val Cys Leu Ser Arg Ser Glu Trp
                                      350
                       345
        340
Arg Gln Thr His Ala Leu Val Phe Lys Asp Arg Pro Asp Tyr Arg Phe
                    360
                                365
355
Val Leu Gly Glu Lys Gly Glu Val Leu Asn Ile Val Ala Glu Pro Arg
                 375
                                380
Arg Ile Ala Asn Arg Ile Vai Glu Glu Ala Met Ile Ser Ala Asn Ile
   390 395
Cys Ala Ala Arg Val Leu Arg Asp Lys Leu Gly Phe Gly Ile Tyr Asn
     405 410
Val His Thr Gly Phe Asp Pro Ala Asn Thr Glu Ala Leu Ala Ala Leu
 420 425
                                      430
Leu Lys Thr His Asp Val His Val Asp Pro Glu Glu Val Leu Thr Leu
   435 440 445
Gln Gly Phe Cys Lys Leu Arg Arg Glu Leu Asp Ala Gln Pro Ser Gly
 450 455 460
Phe Leu Asp Ser Arg Ile Arg Arg Phe Gln Ser Phe Ala Glu Ile Ser
465 470 475
Thr Glu Pro Gly Pro His Phe Gly Leu Gly Leu Glu Ala Tyr Ala Thr
          485 490 495
Trp Thr Ser Pro Ile Arg Lys Tyr Gly Asp Met Val Asn His Arg Leu
        500 505 510
Leu Lys Ala Ile Ile Lys Gly Glu Ser Val Ala Arg Pro Gln Asp Gly
   515 520 525
Thr Thr Leu Gln Met Ala Glu Arg Arg Arg Leu Asn Arg Met Ala Glu
 530 535 540
Arg Asp Val Gly Asp Trp Leu Tyr Ala Arg Phe Leu Asn Asp Lys Ala
            550 555 560
545
Gly Thr Asp Thr Arg Phe Pro Ala Glu Ile Ile Asp Ile Ser Arg Gly
           565 570 575
Gly Met Arg Val Arg Leu Val Asp Asn Gly Ala Val Ala Phe Ile Pro
        580 585 590
Ala Pro Phe Leu His Ala Val Arg Asp Glu Leu Val Cys Ser Gln Glu
                    600 605
     595
Asn Gly Thr Val Gln Ile Lys Gly Glu Thr Val Tyr Lys Val Thr Asp
                 615 620
 610
Val Ile Asp Val Thr Ile Ala Glu Val Arg Met Glu Thr Arg Ser Ile
            630
                             635
Ile Ala Arg Pro Val Ala
            645
```

<210> 6880 <211> 675

<212> PRT

<213> Enterobacter cloacae

<400> 6880

Phe Val Arg Tyr Ser Ala Ala Ala Gly Glu Asn Val Met Asp Asp Leu

1 5 10 15

Glu Gln Asn Leu Leu Phe Arg Tyr Met Gly Thr His Ser Pro Trp Trp

20 25 30

Arg Leu Thr Ala Asp Ser Asn Ala Leu His Leu Ala Ala Ser Glu Ser 40 4.5 Ala Asp Ile Ile Gln Val Val Ala Leu Asp Asp Glu Gln Ala Ala Leu 60 Ile Arg Gln Leu Thr Val Ile Thr Ser Ser Ile Ala Met Thr Leu Pro 70 Leu Tyr Gly Val Asp Val Pro Val His Leu Val Gly Arg Lys Ile Asn 90 8.5 Lys Asn Glu Trp Ala Gly Thr Ala Ser Ala Trp Asn Asp Thr Pro Ser 100 105 110 Val Ala Arg Asp Leu Ala Gln Gly Leu Ser Phe Ala Glu Gln Val Val 115 120 Ser Glu Ala Asn Ser Val Ile Val Ile Leu Asp Gln Asn Gly Asn Ile 130 135 140 Gln Arg Phe Asn Arg Leu Ser Glu Glu Tyr Thr Gly Leu Lys Glu Gln 150 155 Glu Val Ile Gly Gln Asn Val Phe Lys Leu Phe Met Ser Arg Ser Glu 165 170 175 Ala Ala Ala Ser Lys Arg Asn Ile Thr Gly Phe Phe Arg Asn Gly Ser 180 185 190 Ser Tyr Glu Val Glu Arg Trp Ile Lys Thr Arg Lys Gly Gln Arg Leu 195 200 205 Phe Leu Phe Arg Asn Lys Phe Val His Ser Gly Ser Gly Lys Asn Glu 210 215 220 Ile Phe Leu Ile Cys Ser Gly Thr Asp Ile Thr Glu Glu Arg Arg Ala 225 230 235 Gln Glu Arg Leu Arg Val Leu Ala Asn Thr Asp Thr Ile Thr Gly Leu  $245 \hspace{1.5cm} 255 \hspace{1.5cm}$ Pro Asn Arg Asn Ala Ile His Glu Leu Ile Ser Asp Ala Ile Thr Ala 260 265 270 Arg Gly Asp Thr Gln Val Gly Val Val Tyr Leu Asp Leu Asp Asn Phe 275 280 285 Lys Lys Val Asn Asp Ala Tyr Gly His Met Phe Gly Asp Gln Leu Leu 290 295 300 Gln Ala Val Ala Leu Ala Ile Leu Ser Cys Leu Asp Glu Gly Gln Thr 305 \$310\$ 315 320Leu Ala Arg Leu Gly Gly Asp Glu Phe Ile Val Met Ala Thr Asp Thr 325 330 335 Ser Gln Gly Ala Leu Glu Ala Met Ala Ser Arg Ile Leu Thr Arg Leu 340 345 350 Arg Gln Pro Phe Arg Ile Gly Leu Ile Glu Val Tyr Thr Gly Cys Ser 355 360 365 Leu Gly Ile Ala Leu Ala Pro Gln His Gly Asn Asp Arg Glu Ser Val 370 375 380 Ile Arg Asn Ala Asp Thr Ala Met Tyr Thr Ala Lys Glu Asn Gly Arg 390 395 Gly Lys Phe Cys Val Phe Ser Pro Glu Met Asn Gln Arg Val Phe Glu 405 410 415 Tyr Leu Trp Leu Asp Thr Asn Leu Arg Lys Ala Leu Asp Asn Asp Gln 420 425 430 Leu Leu Ile His Tyr Gln Pro Lys Met Thr Trp Arg Gly Glu Val Arg 440 445 Ser Leu Glu Ala Leu Val Arg Trp Gln Ser Pro Glu Arg Gly Leu Ile 460 455 450 Pro Pro Met Glu Phe Ile Ser Tyr Ala Glu Glu Ser Gly Leu Ile Val 470 475 Pro Leu Gly Arg Trp Val Met Leu Asp Val Val Arg Gln Val Ala Lys 485 490 495 Trp Arg Asp Lys Gly Ile Asn Met Arg Val Ala Val Asn Val Ser Ala 505 510 500 Arg Gln Leu Ala Asp Gln Thr Ile Phe Ser Asp Leu Lys Gln Ala Leu

<210> 6882 <211> 117

```
2965
                                         525
                        520
      515
Lys Asp Leu Asn Phe Glu Tyr Cys Pro Ile Asp Val Glu Leu Thr Glu
                              540
             535
Ser Cys Leu Ile Glu Asn Glu Glu Leu Ala Leu Ser Val Ile Gln Gln
                                  555
                550
Phe Ser Arg Leu Gly Ala Gln Ile His Leu Asp Asp Phe Gly Thr Gly
                              570
            565
Tyr Ser Ser Leu Ser Gln Leu Ala Arg Phe Pro Ile Asp Ala Ile Lys
                  585 590
         580
Leu Asp Gln Ser Phe Val Arg Asp Ile His Lys Gln Ser Ile Ser Gln
                                     605
      595
                       600
Ser Leu Val Arg Ala Ile Val Ala Val Ala Gln Ala Leu Asn Leu Gln
                  615
                                     620
Val Ile Ala Glu Gly Val Glu Ser Ala Lys Glu Asp Ala Phe Leu Thr
                                 635
       630
Lys Asn Gly Val Asn Glu Arg Gln Gly Tyr Leu Phe Ala Lys Pro Met
           645 650 655
Pro Ala Ala Ala Phe Glu Arg Trp Leu Lys Arg Tyr Gln Thr Arg Asn
                           665
Val Arg
       675
<210> 6881
<211> 81
<212> PRT
<213> Enterobacter cloacae
<400> 6881
```

```
<212> PRT
<213> Enterobacter cloacae
<400> 6882
Cys Ile Thr Glu Lys Gly Gly Ile Met Arg Asp Ala Asn Ser Arg Leu
                                   10
Val Tyr Ser Thr Asp Thr Gly Arg Ile Glu Glu Pro Lys Glu Lys Ala
                                                 30
                               25
        20
Glu Arg Pro Lys Gly Asp Gly Ile Val Arg Ile Gln Arg Gln Thr Ser
                                         4.5
                           4 ∩
        35
Gly Arg Lys Gly Lys Gly Val Cys Leu Val Thr Gly Ile Asp Leu Asp
                       5.5
Asp Ala Asp Leu Val Lys Leu Ala Ala Glu Leu Lys Lys Lys Cys Gly
                                       7.5
                   70
Cys Gly Gly Ala Val Lys Asp Gly Ile Ile Glu Ile Gln Gly Asp Lys
                                   90
               8.5
Arq Asp Leu Ile Lys Thr Leu Leu Glu Ala Lys Gly Met Lys Val Lys
```

Leu Ala Gly Gly 115

<210> 6883 <211> 290

<212> PRT <213> Enterobacter cloacae

<400> 6883 Gly Gly Gly Arg Leu Phe Phe Ile Pro Ala Val Lys Thr Phe Asp Ser 10 Val His Leu Pro Arg Gly Gln Val Glu Cys Thr Pro Phe Ile Cys Ser 2.0 25 Ala Pro Leu Arg Ala His Arg Arg Lys Gly Leu Val Met Thr Ser Val 40 4.5 Thr Ser Ser Thr Ser Arg Val Val Thr Asp Ser Pro Val Val Val Ala 55 Leu Asp Tyr Asn Asn Arg Asp Ala Ala Leu Ala Phe Val Asp Gly Ile 70 Asp Pro Arg Asp Cys Arg Leu Lys Val Gly Lys Glu Met Phe Thr Leu 90 Phe Gly Pro Gln Ile Val Arg Asp Leu His Gln Arg Gly Phe Asp Val 105 100 Phe Leu Asp Leu Lys Phe His Asp Ile Pro Asn Thr Thr Ala His Ala 115 120 125 Val Ala Ala Ala Glu Leu Gly Val Trp Met Val Asn Val His Ala 130 135 140 Ser Gly Gly Ala Arg Met Met Thr Ala Ala Arg Glu Ala Leu Val Pro 150 155 Phe Gly Asn Asp Ala Pro Leu Leu Ile Ala Val Thr Val Leu Thr Ser 165 170 Met Asp Glu Ser Asp Leu Arg Asp Leu Gly Val Thr Leu Ser Pro Ala 180 185 Glu His Ala Glu Arg Leu Ala Arg Leu Thr Gln Gln Cys Gly Leu Asp 200 205 195 Gly Val Phe Cys Ser Ala Gln Glu Ala Val Arg Phe Lys Ser Glu Leu 215 210 Gly Arg Asp Phe Lys Leu Val Thr Pro Gly Ile Arg Pro Ala Gly Ser 225 230 235 Glu Ser Gly Asp Gln Arg Arg Ile Met Thr Pro Glu Gln Ala Leu Ser 250 245 Ala Gly Val Asp Tyr Met Val Ile Gly Arg Pro Val Thr Gln Ser Ala

290

<210> 6884 <211> 469

<212> PRT <213> Enterobacter cloacae

260

<400> 6884

Asn Cys Ala Arg Val Asp Asn Gly Tyr Ala Ile Leu Arg Leu Tyr Leu 10 Cys Ala Val Arg Arg Lys Met Lys Asn Ile Thr Leu Ala Glu Lys Leu 3.0 25 Ile Met Leu Ser Gly Ala Ala Leu Phe Ala Leu Ile Ile Ala Val Asn 40

Ser Phe Cys Val Asn Asp Asn Pro Gly Phe Arg Val Pro Met Thr Thr

265

285

His Pro Ala Glu Thr Leu Lys Ala Ile Asn Ala Ser Leu Lys Lys Gly 280

```
Tyr Leu Ile Val Met Ile Ala Leu Phe Phe Leu Asp Thr Ile Ile Phe
         70
                    75
Ile Phe Ile Gln Met Leu Tyr Ala Ser Asp Arg Ser Arg Phe Ser Leu
          85 90 95
Phe Ile Leu Ser Leu Ala Phe Leu Ser Gly Leu Val Tyr Phe Ile Glu
        100 105 110
Thr Ile Ile Val Ile Gln Leu Pro Glu His Ala Gly Phe Thr Gln Ala
     115 120 125
Ala Lys Thr Asn Asp Thr Ala Val Phe Tyr Phe Phe Arg Gln Leu Ser
130 135 140
Phe Ile Val Leu Leu Ala Leu Ala Val Arg Val Glu Lys Ile Thr Arg
            150 155
Arg Ser Thr Leu Arg Phe Arg Asn Lys Ile Ser Met Thr Leu Ala Leu
            165 170 175
Met Met Thr Leu Val Met Phe Pro Met Leu Ala His Tyr Leu Ser Ser
         180 185 190
Tyr His Pro Ala Trp Thr Leu Thr Ile Ala Ala Tyr Glu Asp Glu His
                  200
                        205
  195
His Tyr Pro Val Trp Asp Ile Arg Tyr Leu Asn Val Leu Ile Leu Leu
                  215 220
210
Trp Ser Ala Leu Leu Cys Tyr Met Ile Ser Val Thr Arg Leu Ala Ser
225 230
                             235
Gly Ile Trp Asn Ser Ile Ile Val Val Cys Leu Ser Ala Ile Val Tyr
                          250
          245
Asn Phe Phe Leu Leu Leu Asp Thr Tyr Asn Leu Ser Leu Trp Tyr
        260
                        265
Ile Ser Arg Ala Val Glu Val Leu Ser Lys Leu Phe Val Ile Cys Thr
                     280
                         285
      275
Leu Met Phe His Val Phe Asn Leu Leu Lys Ile Phe Gly Asp Arg Val
                  295
                                 300
Asp Arg Asp Pro Leu Thr Gln Ile Tyr Asn Arg Lys Tyr Phe Tyr Glu
                           315
305
               310
Ala Leu Pro Arg Val Arg Ser Leu Arg Thr Glu Lys Gly Thr Ser Ile
           325
                                          335
Met Met Leu Asp Ile Asp Asn Phe Lys Ser Ile Asn Asp Asn Trp Gly
                      345
         340
His Leu Val Gly Asp Arg Val Ile Leu Ala Val Val Asp Ile Ile Lys
                                    365
     355
                    360
Asp Ser Ile Arg Asp Asn Asp Ile Phe Ala Arg Leu Gly Gly Glu Glu
              375
                                 380
   370
Phe Gly Leu Leu Pro Asp Thr Asp Gly Lys Gln Ala Met Ala Val
             390
                              395
385
Ala Glu Arg Ile Arg Gln Asn Val Gln Gln Arg Thr Gly Pro Gly Tyr
            405 410
                                          415
His Tyr Ala Leu Pro Val Lys Val Thr Leu Ser Ile Gly Val Cys Ser
                                       430
        420
                        425
Ala Ile Gln Asn Asn Val Asn Gly Asn Asp Ile Met Arg Asp Val Asp
                  440 445
Glu Ala Leu Tyr Glu Ala Lys His Asn Gly Lys Asn Arg Ile Val Thr
Arg Gln Ala Glu
465
<210> 6885
<211> 305
```

<400> 6885

<213> Enterobacter cloacae

Ser Lys Thr Ala Arg Asn Ala Leu Phe Tyr Lys Arg Asn Ser Thr Met

Thr Val Ile Asn Gln Thr Thr Cys Thr Leu Phe Thr Asp Ala Glu Arg Phe Thr Gln Leu Ala Ala Tyr Tyr Glu Ala Glu Arg Arg Thr Val Trp Met Met Leu Arg Ala Thr Pro Arg Pro Cys Phe Asn His Ala Leu Ile 5.5 60 Glu Glu Ile Met Asn Leu Ser Trp Leu Val Arg Gln Ser Gly Phe Val 7.0 75 Val Asp Phe Trp Val Thr Gly Ser Leu Val Pro Asp Ile Tyr Asn Thr 8.5 90 Gly Gly Asp Leu Gln Phe Phe Val Glu Cys Ile Lys Asn Asn Arg Arg 100 105 Glu Ala Leu Arg Ala Tyr Ala Arg Ala Cys Val Asp Cys Val His Ala 125 115 120 Ala Ser Arg Gly Phe Asp Thr Gly Ala Val Thr Leu Ala Met Val Glu 135 Gly Ser Ala Leu Gly Gly Gly Phe Glu Ala Ala Leu Ala His His Phe 150 155 Ile Leu Ala Gln Arg Asp Ala Arg Leu Gly Phe Pro Glu Ile Ala Phe 1.65 170 Asn Leu Phe Pro Gly Met Gly Gly Tyr Ser Leu Val Ala Arg Arg Ala 180 185 190 Gly Met Lys Met Ala Glu Ala Leu Ile Tyr Lys Gly Glu Thr His Thr 195 200 Ala Glu Trp Tyr Glu Gln His Gly Leu Val Asp Leu Leu Phe Glu Pro 215 220 Leu Gln Ser Tyr Val Ser Val Arg Thr Phe Ile Asp Thr Leu Gln Pro 230 235 Lys Leu Asn Gly Val Arg Ala Met Leu Arg Ala Arg Thr Arg Val Leu 245 250 Pro Leu Pro Arg Ser Glu Leu Met Asp Ile Thr Glu Asp Trp Val Asp 260 265 Ala Ala Phe Cys Leu Glu Pro Lys Asp Ile Ala Tyr Met Glu Arg Leu 275 280 Val Met Leu Gln Asn Arg His Gln Ala Thr Gly Leu Arg Lys Ala Ser

305

<210> 6886 <211> 441 <212> PRT

<213> Enterobacter cloacae

<400> 6886

Asn Ser Leu Leu Asn Leu Phe Leu Arg Thr Arg Asn Asp Ala Met Ser Lys Ser Glu Asn Leu Tyr Ser Ala Ala Arg Glu Leu Ile Pro Gly Gly 25 Val Asn Ser Pro Val Arg Ala Phe Thr Gly Val Gly. Gly Thr Pro Leu 35 40 Phe Ile Glu Arg Ala Asp Gly Ala Tyr Leu Tyr Asp Val Asp Gly Lys Ala Tyr Val Asp Tyr Val Gly Ser Trp Gly Pro Met Val Leu Gly His 70 75 Asn His Pro Ala Ile Arg Asn Ala Val Ile Glu Ala Ala Gln Arg Gly 8.5 90 Leu Ser Phe Gly Ala Pro Thr Glu Met Glu Val Lys Met Ala Glu Leu 100 105

Val Thr Glu Leu Val Pro Thr Met Asp Met Val Arg Met Val Asn Ser

```
115
                   120
Gly Thr Glu Ala Thr Met Ser Ala Ile Arg Leu Ala Arg Gly Phe Thr
 130 135
                       140
Gly Arg Asp Lys Ile Ile Lys Phe Glu Gly Cys Tyr His Gly His Ala
145 150 155
Asp Cys Leu Leu Val Lys Ala Gly Ser Gly Ala Leu Thr Leu Gly Gln
      165 170 175
Pro Asn Ser Pro Gly Val Pro Ala Asp Phe Ala Lys His Thr Leu Thr
  180 185 190
Cys Thr Tyr Asn Asp Leu Asp Thr Val Arg Ala Ala Phe Glu Gln Tyr
195 200 205
Pro Gln Glu Ile Ala Cys Ile Ile Val Glu Pro Val Ala Gly Asn Met
 210 215 220
Asn Cys Ile Pro Pro Gln Pro Asp Phe Leu Pro Gly Leu Arg Ala Leu
225 230 235 240
Cys Asp Glu Phe Gly Ala Leu Leu Ile Ile Asp Glu Val Met Thr Gly
        245 250 255
Phe Arg Val Ala Leu Ala Gly Ala Gln Ser Tyr Tyr Gly Val Glu Pro
      260 265 270
Asp Leu Thr Cys Leu Gly Lys Ile Ile Gly Gly Gly Met Pro Val Gly 275 280 285
Ala Phe Gly Gly Arg Lys Asp Val Met Asp Ala Leu Ala Pro Thr Gly
      295 300
290
Pro Val Tyr Gln Ala Gly Thr Leu Ser Gly Asn Pro Ile Ala Met Ala
305 310 315 320
Ala Gly Phe Ala Cys Leu Thr Glu Val Ala Gln Pro Gly Ile His Gln
          325 330
Thr Leu Thr Asp Arg Thr Thr Gln Leu Ala Asn Gly Leu Leu Glu Ala
  340
                     345 350
Ala Glu Asp Ala Gly Ile Pro Leu Val Val Asn His Val Gly Gly Met
355
                   360
Phe Gly Ile Phe Phe Thr Glu Ala Lys Thr Val Thr Cys Tyr Gln Asp
      375 380
370
Val Val Lys Cys Asp Val Glu Arg Phe Lys Arg Phe Phe His Leu Met
   390 395
Leu Glu Glu Gly Val Tyr Leu Ala Pro Ser Ala Phe Glu Ala Gly Phe
           405 410 415
Met Ser Val Ala His Ser Glu Glu Asp Ile Asn Asn Thr Ile Asp Ala
        420 425
Ala Arg Lys Val Phe Ala Lys Leu
```

<210> 6887 <211> 195 <212> PRT

<213> Enterobacter cloacae

435

## <400> 6887

Met Leu Tyr Gln Ser Phe Pro Gln Ala Glu Arg Ala Val Pro Ala Gln 1.0 Ala Ala Tyr Met Thr Leu Trp Thr Met Gln Gln Val Val Gln Arg Gly 25 30 20 Thr Gly Arg Gln Leu Gly Ala Lys Tyr Pro Gly Leu His Leu Ala Gly 40 4.5 35 Lys Thr Gly Thr Thr Asn Asn Asn Val Asp Thr Trp Phe Ala Gly Ile 5.5 Asp Gly Arg Glu Val Val Ile Thr Trp Val Gly Arg Asp Asn Asn Gln 75 70 Pro Thr Lys Leu Tyr Gly Ala Ser Gly Ala Met Ser Ile Tyr Gln Arg 90 85

Tyr Leu Ala Asn Gln Ser Pro Val Pro Leu Asn Leu Val Ala Pro Glu

105 100 Asp Ile Val Asp Met Gly Val Asp Ser Ser Gly Asn Phe Ile Cys Gly 115 120 125 Gly Gly Val Arg Thr Leu Pro Val Trp Thr Thr Asn Pro Asp Ala Leu 130 135 140 Cys Gln Gln Ser Gln Pro Glu Glu Pro Thr Gly Asn Pro Phe Asp Gln 145 150 155 160 Ser Ser Gln Pro Gln Gln Pro Gln Gln Gln Pro Gln Gln Gln Glu 165 170 175 Glu Lys Lys Asp Ser Asp Gly Val Ala Gly Trp Ile Lys Asp Met Phe 185 Gly Gly Asn 195 <210> 6888 <211> 778 <212> PRT <213> Enterobacter cloacae <400> 6888 Thr Leu Asn Ser Cys Arg Ala Ala Tyr Arg Leu Leu Cys Arg Gln Arg Phe Ala Tyr Tyr Ser Ala Val Ile Ile Ile Ile Leu Val Tyr Val Ile 20 30 Ile His Leu Phe His Gln Arg Ser Ile Met Ala Leu Ser Asn Thr Ala 35 40 4.5 Gln Pro Ile Asn Thr Ser Leu Arg Lys Leu Ala Val Val Val Ala Thr 55 60 Ala Val Ala Gly Met Ser Ala Tyr Ala Gln Ala Ala Glu Thr Pro Lys 70 75 Lys Glu Glu Thr Ile Thr Val Thr Ala Ala Pro Ala Ala Gln Glu Ser 85 90 Ala Trp Gly Pro Ala Pro Thr Ile Ala Ala Lys Arg Thr Ala Thr Ala 100 105 Thr Lys Thr Asp Thr Pro Ile Glu Lys Thr Pro Gln Ser Ile Ser Val 115 120 Val Thr Arg Glu Glu Met Asp Met Lys Gln Pro Gly Thr Val Lys Gln 135 130 140 Ala Leu Ala Tyr Thr Pro Ser Val Phe Ala Thr Arg Gly Ala Ser Thr 145 150 155 Thr Tyr Asp Val Val Ser Ile Arg Gly Phe Thr Thr Ser Ser Thr Val 165 170 Asn Thr Asn Gln Tyr Leu Asp Gly Met Lys Leu Gln Gly Asp Asn Tyr 185 190 180 Ser Glu Ala Ser Met Asp Pro Tyr Phe Leu Glu Arg Val Glu Leu Leu 195 200 205 Arg Gly Pro Thr Ser Val Leu Tyr Gly Lys Ser His Pro Gly Gly Val 210 215 220 Val Ser Met Val Ser Lys Arg Pro Thr Thr Glu Pro Leu Lys Glu Ile 230 235 Gln Phe Lys Met Gly Thr Asp Asn Leu Trp Gln Thr Gly Phe Asp Phe 245 250 Ser Asp Ala Ile Asp Asp Asp Gly Val Trp Ser Tyr Arg Leu Thr Gly 260 265 270 Leu Gly Arg Ser Glu Asn Ala Gin Glu Met Val Lys Ser Thr Arg 275 280 285 Tyr Ala Ile Ala Pro Ser Phe Ser Trp Arg Pro Asp Asp Lys Thr Asp 290 295 300 Phe Thr Phe Leu Ser Asn Phe Gln Ser Asp Pro Asp Ala Gly Tyr Tyr 310 31.5

Gly Trp Leu Pro Arg Glu Gly Thr Val Val Pro Tyr Tyr Asp Ala Asn

330 Gly Lys Ala His Lys Leu Pro Thr Asp Phe Asn Glu Gly Asp Glu Asp 350 340 345 Asn Lys Ile Ser Arg Arg Gln Lys Met Val Gly Tyr Ser Phe Ala His 355 360 365 Glu Phe Asn Asp Thr Phe Thr Val Arg Gln Asn Leu Arg Tyr Thr Lys 370 375 380 Ile Asn Thr Leu Tyr Arg Ser Val Tyr Gly Asn Gly Tyr Ile Ala Pro 390 395 400 Ala Gln Ile Ser Arg Ala Tyr Val Arg Ser Asp Glu Asp Leu Asn Ser 405 410 415 Phe Thr Val Asp Thr Gln Leu Gln Ser Lys Phe Ala Thr Gly Ala Val 420 425 430 Asp His Thr Leu Leu Thr Gly Val Asp Tyr Leu Arg Met Arg Asn Asp 435 440 445 Ile Asp Ala Asp Tyr Gly Thr Ala Asp Pro Ile Ser Met Asn Asn Pro 450 455 460 Gln His Gly Asn Ala Asn Val Asn Val Asn Phe Pro Tyr Ala Met Leu 465 470 475 480 Asn Arg Gln Glu Gln Thr Gly Leu Tyr Ala Gln Asp Gln Ala Glu Trp 485 490 495 Asp Lys Trp Val Leu Thr Leu Gly Gly Arg Tyr Asp Phe Ala Lys Thr 500 505 510Ser Ala Phe Asn Arg Asn Asn Gly Thr Thr Ala Glu Ile Asn Asp Gln 515 520 525 Ala Phe Thr Trp Arg Gly Gly Ile Asn Tyr Leu Phe Asp Asn Gly Ile 530 535 540 Thr Pro Tyr Phe Ser Tyr Ser Glu Ser Phe Glu Pro Leu Ser Gly Thr 545 550 555 Thr Gln Gly Gly Lys Pro Phe Asp Pro Ala Arg Gly Lys Gln Tyr Glu 565 570 575 Ala Gly Val Lys Tyr Val Pro Lys Asp Leu Pro Val Val Val Thr Ala 580 585 590 Ala Val Tyr Gln Leu Thr Lys Asn Asn Asn Leu Thr Ala Asp Pro Ala 595 600 605 Asn Pro Thr Ser Gly Phe Ser Val Gln Gly Gly Glu Ile Arg Ser Arg 610 615 620 Gly Phe Glu Leu Glu Ala Lys Ala Ala Val Ser Ala Asn Val Asn Val 625 630 635 640 Thr Ala Ala Tyr Ser Tyr Thr Asp Ala Glu Tyr Thr His Asp Thr Trp 645 650 Tyr Glu Gly Arg Arg Pro Ala Glu Val Pro Arg Asn Met Ala Ser Leu 660 665 Trp Ala Asp Tyr Thr Phe His Glu Thr Ala Leu Ser Gly Leu Thr Val 675 680 685 Gly Ala Gly Ala Arg Tyr Ile Gly Asn Thr Val Thr Tyr Tyr Ser Ser 690 695 700 Ala Ser Pro Lys Ala Tyr Glu Ser Phe Asn Val Ala Gly Tyr Ala Leu 705 710 715 Ala Asp Ala Thr Val Lys Tyr Asp Leu Ala Arg Phe Gly Leu Pro Gly 725 730 735 Ser Ser Val Gly Val Asn Val Asn Asn Ile Phe Asp Arg Glu Tyr Val 740 745 Ser Ser Cys Tyr Ser Glu Tyr Ala Cys Tyr Trp Gly Ala Gly Arg Gln 755 760 Val Val Ala Thr Ala Thr Phe Arg Phe

<210> 6889 <211> 714 <212> PRT

## <213> Enterobacter cloacae

```
<400> 6889
Ala Arg Asp Ala Asn Pro Asp Gly Asp Ser Ala Leu Ala Gly Asn Ala
                           10
Val Arg Pro Arg Ala Ala Leu Pro Ala Arg Ala Ser Gly Met Val Leu
       20
                  25
Arg Arg Asp Ala Val Gly His Ala Phe Cys Pro Arg Ala Gly Gln Cys
    35 40
                         4.5
Thr Gly Arg Gln Gly Met Ser Thr Arg Met Ala Arg Phe Pro Met Leu
         55 60
Leu Leu Ala Ile Ile Phe Leu Ala Ala Leu Ala Leu Thr Gly Phe Asn
    70 75
Leu Thr Thr Ala Leu Pro Arg Glu Gln Trp Ala Ala Ala Phe Ala Ala
                90
           8.5
Pro Asp Ile Asp Asn Ile Gln Gln Met Leu Phe His Tyr Ser Leu Leu
   100 105
                                        110
Pro Arg Leu Ala Ile Ser Leu Leu Val Gly Ala Gly Leu Gly Leu Val
 115 120 125
Gly Val Leu Phe Gln Gln Val Leu Arg Asn Pro Leu Ala Glu Pro Thr
130 135 140
Thr Leu Gly Val Ala Thr Gly Ala Gln Leu Gly Ile Thr Ile Thr Thr
             150 155
Leu Trp Thr Leu Pro Gly Ala Leu Thr Ser Gln Phe Ala Ala Leu Ala
           165 170
Gly Ala Cys Val Val Gly Ala Leu Val Phe Gly Val Ala Trp Gly Lys
       180 185
                                        190
Arg Leu Ser Pro Val Thr Leu Ile Leu Ala Gly Leu Val Val Ser Leu
   195 200 205
Tyr Cys Gly Ala Ile Asn Gln Leu Leu Val Leu Phe His His Asp Gln
 210 215
                                 220
Leu Gln Ser Met Phe Met Trp Ser Thr Gly Thr Leu Thr Gln Thr Asp
   230
                              235
Trp Ser Ile Val Gln Arg Leu Trp Pro Gln Leu Phe Gly Gly Val Val
           245
                           250
Leu Thr Leu Leu Leu Arg Pro Leu Thr Leu Met Gly Leu Asp Asp
                        265
Gly Val Ala Arg Asn Leu Gly Leu Ala Leu Ser Leu Ala Arg Leu Ala
     275 280
                         285
Ala Leu Thr Leu Ala Ile Val Leu Ser Ala Leu Leu Val Asn Ala Val
  290 295 300
Gly Ile Ile Gly Phe Ile Gly Leu Phe Ala Pro Leu Leu Ala Lys Met
     310
                              315
                                              320
Leu Gly Ala Arg Arg Leu Leu Ala Arg Leu Met Leu Ala Pro Leu Ile
            325
                           330
                                           335
Gly Ala Leu Ile Leu Trp Leu Ser Asp Gln Leu Ile Leu Trp Leu Thr
        340
                        345
Arg Val Trp Met Glu Val Ser Thr Gly Ser Val Thr Ala Leu Ile Gly
     355
                     360
                                    365
Ala Pro Leu Leu Trp Leu Leu Pro Arg Leu Arg Ser Ile Ser Ala
                  375
                                 380
Pro Ala Met Asp Ala Gly Asp Lys Val His Ala Glu Arg Gln Ser Val
              390
                              395
Val Trp Phe Ser Leu Ala Gly Leu Ala Val Leu Val Ile Ala Ser Phe
           405
                           410
Ala Ala Leu Ser Leu Gly Arg Asp Ala Thr Gly Trp His Trp Ala Thr
       420
                        425
Gly Asp Leu Leu His Glu Leu Met Gln Trp Arg Trp Pro Arg Ile Phe
     435 440
Ser Ala Leu Ile Ala Gly Val Met Leu Ala Val Ala Gly Cys Ile Ile
                  455
```

```
Gln Arg Leu Thr Gly Asn Pro Met Ala Ser Pro Glu Val Leu Gly Ile
        470
                 475
Ser Ser Gly Ala Ala Phe Gly Val Val Leu Met Leu Phe Leu Val Pro
        485 490 495
Gly Asn Ala Phe Gly Trp Leu Met Pro Ala Gly Ser Ile Gly Ala Ala
   500 505 510
Val Thr Leu Met Ile Ile Leu Ile Ala Ser Gly Arg Gly Gly Phe Ser
 515 520 525
Pro His Arg Met Leu Leu Ala Gly Met Ala Leu Ser Thr Ala Phe Thr
530 535 540
Met Leu Leu Met Met Leu Gln Ala Ser Gly Asp Pro Arg Met Ala Gln
545 550 555 560
Ile Leu Thr Trp Ile Ser Gly Ser Thr Tyr Asn Ala Thr Gly Ser Gln
     565 570
Val Val His Thr Gly Ile Val Met Ile Val Leu Leu Ala Ile Val Pro
       580 585
Leu Cys Arg Arg Trp Met Thr Ile Leu Pro Leu Gly Gly Asp Thr Ala
595 600 605
Arg Ala Val Gly Leu Ala Leu Tnr Pro Thr Arg Ile Ala Leu Leu Leu
610 615 620
Leu Ala Ala Cys Leu Thr Ala Thr Ala Thr Met Thr Ile Gly Pro Leu
625 630
                          635
Ser Phe Val Gly Leu Met Ala Pro His Ile Ala Arg Met Met Gly Phe
          645
                        650 655
Arg Arg Thr Leu Pro His Ile Ala Ile Ser Ala Leu Thr Gly Gly Ala
       660
                     665
                                   670
Ile Leu Val Phe Ala Asp Trp Cys Gly Arg Met Val Leu Phe Pro Tyr
   675 680 685
Gln Ile Pro Ala Gly Leu Leu Ser Thr Phe Ile Gly Ala Pro Tyr Phe
690 695
                             700
Ile Tyr Leu Leu Arg Lys Gln Ser Arg
```

<210> 6890 <211> 275 <212> PRT <213> Enterobacter cloacae

165

<400> 6890

Asn Pro Cys Gly His Leu Tyr Asp Glu Thr Glu Gln Val Met Asn Glu 10 Asn Thr Pro Ser Phe Glu Gln Gln Gln Phe Thr Arg Ala Lys Arg Arg 25 Val Ser Ile Arg Arg Leu Leu Asn Arg Asp Lys Thr Pro Leu Ala Ile 40 Leu Leu Ala Ala Ala Val Val Gly Thr Leu Ala Gly Leu Val Gly Val 5.5 60 Ala Phe Glu Lys Ala Val Asn Ala Val Leu Asn Trp Arg Ile Gly Thr 65 7.0 Val Ala Ser Phe Ala Asp Arg Glu Trp Leu Val Trp Val Trp Ala Phe 85 90 Gly Leu Ser Ala Leu Phe Ala Met Val Gly Tyr Phe Leu Val Arg Lys 110 105 100 Phe Ala Pro Glu Ala Gly Gly Ser Gly Ile Pro Glu Ile Glu Gly Ala 115 120 Leu Glu Glu Leu Arg Pro Val Arg Trp Trp Arg Val Leu Pro Val Lys 135 140 Phe Ile Gly Gly Met Gly Thr Leu Gly Ala Gly Met Val Leu Gly Arg 150 155 Glu Gly Pro Thr Val Gln Leu Gly Gly Asn Val Gly Arg Met Val Gly

```
Asp Leu Phe Arg Met Arg Ser Ala Glu Ala Arg His Thr Leu Leu Ala
                             190
        180
                   185
Thr Gly Ala Ala Ala Gly Leu Ser Ala Ala Phe Asn Ala Pro Leu Ala
      195
               200 205
Gly Ile Leu Phe Ile Ile Glu Glu Met Arg Ala Gln Phe Arg Tyr Asn
 210 215 220
Leu Ile Ser Ile Lys Ala Val Phe Asn Gly Val Ile Met Ser Ser Ile
    230 235 240
Val Phe Arg Val Phe Asn Gly Glu Gly Ala Val Ile Glu Val Gly Lys
     245 250 255
Leu Thr Asn Ala Pro Val Ile Leu His Tyr Asp Ala Ala Asp Ala Thr
   260 265
Tyr Pro His
  275
<210> 6891
<211> 325
<212> PRT
<213> Enterobacter cloacae
<400> 6891
Arg Asn Ala Gly Thr Tyr Lea Arg Tyr Ser Tyr Gly His Pro Ala Ser
                           10
Pro Gly Arg Gly Cys Thr Arg Glu Leu Cys Leu Leu Met Leu Asp Ser
         20
                      25
                                       3.0
Thr Phe IIe Ser Arg Arg Arg Leu Leu Thr Ala Met Ala Leu Ser Pro
                   40
                         4.5
Leu Leu Lys Met Gly Pro Ala Arg Ala Ala Ala Ile Asp Pro His
                                 60
Arg Ile Val Ala Leu Glu Trp Leu Pro Val Glu Leu Met Met Ala Leu
             70
                            75
Gly Val Thr Pro Tyr Gly Val Ala Asp Ile Pro Asn Tyr Thr Leu Trp
           85
                9.0
Val Asn Glu Pro Lys Leu Pro Asp Ser Val Ile Asp Ile Gly Leu Arg
      100 105 110
Thr Glu Pro Asn Leu Glu Leu Leu Thr Gln Met Lys Pro Ser Tyr Leu
   115 120
                                  125
Phe Trp Ser Ala Gly Tyr Gly Pro Ser Glu Glu Thr Met Ala Lys Ile
                135
                                 140
Ala Pro Gly Arg Gly Phe Ser Phe Ser Asp Gly Lys Lys Pro Leu Thr
145 150 155
Met Ala Lys Asn Ser Ile His Glu Met Ala Gln Phe Leu Asn Arg Glu
           165
                           170
Ala Glu Ala Lys Lys His Leu Asp Glu Phe Asp Ala Leu Ile Asp Ser
        180
                        185 190
Leu Lys Pro Arg Phe Ala His Arg Gly Asp Arg Pro Leu Leu Met Val
     195
                     200
                                     205
Thr Leu Leu Asp Ala Arg His Met Leu Val Phe Gly Asn Asn Cys Leu
                 215
                                 220
Phe Gln Glu Val Leu Asp Ser Phe Gly Ile Arg Asn Ala Trp Glu Gly
            230
                               235
                                             240
Glu Met Thr Phe Trp Gly Ser Thr Ala Val Gly Ile Asp Arg Leu Ala
           245
                           250
Ala Phe Arg Asp Val Asp Val Leu Cys Phe Asp His Gly Asn Glu Arg
            265
         260
```

Glu Met Gln Thr Leu Met Ala Thr Pro Leu Trp Gln Ala Met Pro Phe

315

280 Val Arg Glu Gln Arg Phe Leu Arg Ala Pro Ala Val Trp Phe Tyr Gly 295 300 Ala Thr Leu Ser Ala Met His Phe Ala Arg Val Leu Asp Asn Ala Leu

310

Gly Gly Lys Ala <210> 6892 <211> 311 <212> PRT <213> Enterobacter cloacae <400> 6892 Ile Arg Leu Gln Leu Leu Gln Arg Val Cys Met Leu Leu Gly Ser Arg 10 Thr Pro Gly Cys Cys His Gly Asp Leu Pro Leu Leu Thr Ser Leu Trp 2.0 25 Ala Arg Phe Ala Val Pro Phe Leu Phe Lys Leu Ala Asp Met Gln Asp 35 40 45 50 55 60 70 75

Asn Lys Thr Gln Ser Asp Ser Thr Phe Thr Leu Asn Asn Leu Ser Phe Arg Val Pro Gly Arg Thr Leu Leu His Pro Leu Ser Leu Thr Phe Pro Ala Gly Lys Val Thr Gly Leu Ile Gly His Asn Gly Ser Gly Lys Ser 8.5 90 Thr Leu Leu Lys Met Leu Gly Arg His Gln Pro Pro Ser Glu Gly Asp 105 110 Ile Leu Leu Asp Asp Gln Pro Leu Ala Ser Trp Ser Ser Lys Ala Phe 115 120 125 Ala Arg Lys Val Ala Tyr Leu Pro Gln Gln Leu Pro Gln Ala Glu Gly 135 140 Met Thr Val Arg Glu Leu Val Ala Ile Gly Arg Tyr Pro Trp His Gly 150 155 Ala Leu Gly Arg Phe Gly Val Ala Asp Arg Glu Lys Val Glu Glu Ala 165 170 175 Ile Ala Leu Val Gly Leu Lys Pro Leu Ala His Arg Leu Val Asp Ser 180 185 190 Leu Ser Gly Gly Glu Arg Gln Arg Ala Trp Ile Ala Met Leu Val Ala 200 205 Gln Asp Ser Arg Cys Leu Leu Leu Asp Glu Pro Thr Ser Ala Leu Asp 210 215 Ile Ala His Gln Val Asp Val Leu Ala Leu Val His Arg Leu Ser Gln 230 235 240 Gln Arg Gly Leu Thr Val Ile Ala Val Leu His Asp Ile Asn Met Ala 245 250 Ala Arg Tyr Cys Asp Tyr Leu Val Ala Leu Arg Gly Gly Glu Met Ile 260 265 Ala Gln Gly Thr Pro Ala Glu Leu Met Arg Ser Glu Thr Leu Glu His 280 285 Ile Tyr Gly Ile Pro Met Gly Ile Leu Pro His Pro Ala Gly Ala Ala 295 Pro Val Ser Phe Val Tyr

305 310 <210> 6893 <211> 833 <212> PRT <213> Enterobacter cloacae

40 Lys Arg Glu Lys Pro Ala Asn Arg Glu Glu Leu Ala Val Glu Leu Asn 5.5 Ile Glu Gly Glu Glu Gln Ile Glu Ala Leu Arg Arg Arg Leu Arg Ala 7.0 75 Met Glu Arg Asp Gly Gln Leu Val Phe Thr Arg Arg Gln Cys Tyr Ala 85 90 Leu Pro Glu Arg Leu Asp Leu Leu Lys Gly Thr Val Ile Gly His Arg 100 105 Asp Gly Phe Gly Phe Leu Arg Val Glu Gly Arg Lys Asp Asp Leu Tyr 120 125 Leu Ser Ser Glu Gln Met Lys Met Cys Ile His Gly Asp Gln Ile Leu 135 140 Ala Gln Pro Leu Gly Ala Asp Arg Lys Gly Arg Arg Glu Ala Arg Val 150 155 160 Val Arg Val Leu Val Pro Lys Thr Ser Gln Ile Val Gly Arg Tyr Phe 165 170 175 Thr Asp Ala Gly Val Gly Phe Val Val Pro Asp Asp Ser Arg Leu Ser 180 185 190 Phe Asp Ile Leu Ile Pro Pro Glu Glu Val Met Gly Ala Arg Met Gly 195 200 205 Phe Val Val Val Val Glu Leu Thr Gln Arg Pro Thr Arg Arg Thr Lys 210 215 220 Ala Val Gly Lys Ile Val Glu Val Leu Gly Asp Asn Met Gly Thr Gly 225 230 235 Met Ala Val Asp Met Ala Leu Arg Thr His Glu Ile Pro Tyr Val Trp 245 250 Pro Lys Ala Val Glu Asp Gln Ile Glu Asn Leu Arg Glu Glu Val Pro 260 265 270 Glu Glu Ser Lys Ala Gly Arg Val Asp Leu Arg Asp Leu Pro Leu Val 275 280 285 Thr Ile Asp Gly Glu Asp Ala Arg Asp Phe Asp Asp Ala Val Tyr Cys 290 295 300 Glu Lys Lys Arg Gly Gly Gly Trp Arg Leu Trp Val Ala Ile Ala Asp 310 315 320 Val Ser Tyr Tyr Val Arg Pro His Thr Pro Leu Asp Asn Glu Ala Arg 330 Ser Arg Gly Thr Ser Val Tyr Phe Pro Ser Gln Val Val Pro Met Leu 340 345 350 Pro Glu Val Leu Ser Asn Gly Leu Cys Ser Leu Asn Pro Gln Val Asp 355 360 365 Arg Leu Cys Met Val Cys Glu Met Thr Ile Ser Ser Lys Gly Arg Leu 370 380 Thr Gly Tyr Lys Phe Tyr Glu Ala Val Met Ser Ser His Ala Arg Leu 385 390 395 400 Thr Tyr Thr Lys Val Trp His Met Leu Gln Gly Asp Gln Asp Leu Arg 405 410 Glu Gln Tyr Ala Pro Leu Val Lys His Ile Glu Glu Leu His Asn Leu 420 425 Tyr Lys Thr Leu Asp Gln Ala Arg Glu Glu Arg Gly Gly Ile Ser Phe 435 44C 445 Glu Ser Glu Glu Ala Lys Phe Ile Phe Asn Ala Glu Arg Arg Ile Glu 455 460 Arg Ile Glu Gln Thr Gln Arg Asn Asp Ala His Lys Leu Ile Glu Glu 470 475 Cys Met Ile Leu Ala Asn Ile Ser Ala Ala Arg Phe Val Glu Lys Ala 485 490 Lys Glu Pro Ala Leu Phe Arg Ile His Asp Lys Pro Thr Thr Glu Ala 500 505 Val Thr Ser Phe Arg Ser Val Leu Ala Glu Leu Gly Leu Glu Leu Pro 520 525

Gly Gly Asn Lys Pro Glu Pro Arg Asp Tyr Ala Glu Leu Leu Glu Ser 530 535 540 Ile Ser Asp Arg Pro Asp Ala Glu Met Leu Gln Thr Met Leu Leu Arg 550 555 560 Ser Met Lys Gln Ala Ile Tyr Asp Pro Glu Asn Arg Gly His Phe Gly 565 570 575 Leu Ala Leu Gln Ser Tyr Ala His Phe Thr Ser Pro Ile Arg Arg Tyr 580 585 590 Pro Asp Leu Ser Leu His Arg Ala Ile Lys Tyr Leu Leu Ala His Glu 595 600 Gln Gly His Lys Gly Asn Thr Thr Glu Thr Gly Gly Tyr His Tyr Ser 610 615 620 Met Glu Glu Met Leu Gln Leu Gly Gln His Cys Ser Met Thr Glu Arg 625  $\phantom{\bigg|}$  630  $\phantom{\bigg|}$  630  $\phantom{\bigg|}$  635  $\phantom{\bigg|}$ Arg Ala Asp Glu Ala Thr Arg Asp Val Ala Asp Trp Leu Lys Cys Asp 645 650 655 Phe Met Leu Asp Gln Val Gly Asn Ile Phe Lys Gly Val Ile Ala Ser 660 665 Val Thr Gly Phe Gly Phe Phe Val Arg Leu Asp Glu Leu Phe Ile Asp 675 680 685 Gly Leu Val His Val Ser Ser Leu Asp Asn Asp Tyr Tyr Arg Phe Asp 695 700 Gln Val Gly Gln Arg Leu Ile Gly Glu Ser Gly Gly Gln Thr Tyr Arg 710 715 Leu Gly Asp Arg Val Glu Val Lys Val Glu Ala Val Asn Met Asp Asp 725 7.30 735 Arg Lys Ile Asp Phe Ser Leu Ile Ser Ser Glu Arg Ala Pro Arg Asn 740 745 Val Gly Lys Thr Glu Arg Glu Lys Ala Lys Lys Gly Gly Asn Gly Lys 760 765 Ala Gly Gly Lys Arg Arg Gln Ala Gly Lys Arg Val Asn Phe Glu Pro 775 780 Asp Ser Ala Phe Arg Gly Glu Lys Lys Gln Lys Pro Lys Ala Ala Lys 790 795 Lys Asp Ala Arg Lys Ala Lys Lys Pro Ser Thr Lys Thr Gln Lys Ile 805 810 815 Ala Ala Ala Thr Lys Ala Lys Arg Ala Ala Lys Lys Gln Gln Ala Glu 825

```
<210> 6894
<211> 265
<212> PRT
<213> Enterobacter cloacae
```

<400> 6894 Phe Pro Leu Thr Leu Ser Pro Thr Gly Glu Gly Lys Tyr Leu 10 15 Leu Arg Glu Pro Ser Met Ser Glu Met Ile Tyr Gly Ile His Ala Val 25 Gln Ala Leu Leu Glu Arg Ala Pro Glu Arg Phe Gln Glu Val Phe Ile 40 Leu Lys Gly Arg Glu Asp Lys Arg Leu Met Pro Leu Ile His Ala Leu 50 60 55 Glu Ala Gln Gly Val Val Ile Gln Leu Ala Asn Arg Gln Tyr Leu Asp 70 75 Glu Lys Ser Glu Gly Ala Val His Gln Gly Ile Ile Ala Arg Val Lys 90 85 Pro Gly Arg Gln Tyr Gln Glu Asn Asp Leu Pro Asp Leu Ile Ala Glu 105

```
Leu Asp Asn Pro Phe Phe Leu Ile Leu Asp Gly Val Thr Asp Pro His
 115
                  120
Asn Leu Gly Ala Cys Leu Arg Ser Ala Asp Ala Ala Gly Val His Ala
               135
Val Ile Val Pro Arg Asp Arg Ser Ala Gln Leu Asn Ala Thr Ala Lys
               150
                    155 160
Lys Val Ala Cys Gly Ala Ala Glu Asn Val Pro Leu Ile Arg Val Thr
          165 170 175
Asn Leu Ala Arg Thr Met Arg Leu Leu Gln Glu Glu Asn Ile Trp Ile
             185 190
        180
Val Gly Thr Ala Gly Glu Ala Asp His Thr Leu Tyr Gln Ser Lys Met
    195 200 205
Thr Gly Arg Met Ala Leu Val Met Gly Ala Glu Gly Glu Gly Met Arg
 210
      215 220
Arg Leu Thr Arg Glu His Cys Asp Giu Leu Ile Ser Ile Pro Met Ala
225 230 235 240
Gly Ser Val Ser Ser Leu Asn Val Ser Val Ala Thr Gly Ile Cys Leu
      245 250
Phe Glu Ala Val Arg Gln Arg Gly
        260
<210> 6895
<211> 464
<212> PRT
<213> Enterobacter cloacae
<400> 6895
Pro Gln Leu Ala Tyr Phe Arg Val Lys Lys Cys Cys Ile Ser Glu Lys
Ala Met Val Glu Ser Ile Phe Lys Gln Thr Val Ile Leu Lys Lys Met
                       25
Gly Asn Asn Val Val Leu Gly Thr Gln Trp Gly Asp Glu Gly Lys
                  40
Gly Lys Ile Val Asp Leu Leu Thr Glu Arg Ala Lys Tyr Val Val Arg
            55
Tyr Gln Gly Gly His Asn Ala Gly His Thr Leu Val Ile Asn Gly Glu
            70 75
Lys Thr Val Leu His Leu Ile Pro Ser Gly Ile Leu Arg Glu Asn Val
          85 90
Thr Ser Ile Ile Gly Asn Gly Val Val Leu Ser Pro Ala Ala Leu Met
        100 105
                           110
Lys Glu Met Lys Gly Leu Glu Asp Arg Gly Ile Pro Val Arg Glu Arg
 115 120 125
Leu Leu Ser Glu Ala Cys Pro Leu Ile Leu Asp Tyr His Val Ala
 130 135
                                 140
Leu Asp Val Ala Arg Glu Lys Ala Arg Gly Ala Lys Ala Ile Gly Thr
    150
                              155
                                             160
Thr Gly Arg Gly Ile Gly Pro Ala Tyr Glu Asp Lys Val Ala Arg Arg
           165 170 175
Gly Leu Arg Val Gly Asp Leu Phe Asp Lys Ala Thr Phe Ala Glu Lys
        180
            185
Leu Lys Glu Val Met Glu Tyr His Asn Phe Gln Leu Val Asn Phe Tyr
                           205
         200
Lys Ala Glu Ala Val Asp Tyr Gln Lys Val Leu Asp Asp Val Met Ala
 210 215 220
Ile Ala Asp Ile Leu Thr Gly Met Val Val Asp Val Ser Asp Leu Leu
225 230
                             235
Asp Gln Ala Arg Lys Arg Gly Asp Phe Val Met Phe Glu Gly Ala Gln
           245 250
Gly Thr Leu Leu Asp Ile Asp His Gly Thr Tyr Pro Tyr Val Thr Ser
```

265

```
Ser Asn Thr Thr Ala Gly Gly Val Ala Thr Gly Ser Gly Leu Gly Pro
 275 280
Arg Tyr Val Asp Tyr Val Leu Gly Ile Ile Lys Ala Tyr Ser Thr Arg
                  295
                                  300
Val Gly Ala Gly Pro Phe Pro Thr Glu Leu Phe Asp Glu Thr Gly Glu
      310
                               315
Phe Leu Cys Lys Gln Gly Asn Glu Phe Gly Ala Thr Thr Gly Arg Arg
            325
                            330
                                           335
Arg Arg Thr Gly Trp Leu Asp Ala Val Ala Val Arg Arg Ala Val Gln
         340
                         345
Ile Asn Ser Leu Ser Gly Phe Cys Leu Thr Lys Leu Asp Val Leu Asp
      355 360 365
Gly Leu Lys Glu Val Lys Ile Cys Val Gly Tyr Arg Met Pro Asp Gly
                                  380
                 375
Arg Glu Val Thr Thr Thr Pro Leu Ala Ala Asp Asp Trp Glu Gly Ile
385
               390 395
Glu Pro 1le Tyr Glu Thr Met Pro Gly Trp Ser Glu Thr Thr Phe Gly
            405 410 415
Val Lys Glu Arg Ser Gly Leu Pro Lys Ala Ala Leu Asp Tyr Ile Lys
    420 425 430
Arg Ile Glu Glu Leu Thr Glu Val Pro Ile Asp Ile Ile Ser Thr Gly
 435 440 445
Pro Asp Arg Thr Glu Thr Met Ile Leu Arg Asp Pro Phe Asp Ala
 450 455
<210> 6896
<211> 167
<212> PRT
<213> Enterobacter cloacae
<400> 6896
Leu Ser Gly Trp Phe 11e Ile Ile Asn Glu Tyr Leu Cys Gly Leu Thr
          5
                         10
Ala Phe Ser Leu Phe Pro Glu Val Asp Val Gln Leu Thr Ser Phe Thr
 20
                      25
Asp Tyr Gly Leu Arg Ala Leu Ile Tyr Met Ala Ser Leu Pro Asp Gly
 35
               40
Lys Met Thr Ser Ile Ser Glu Val Thr Glu Val Tvr Gly Val Ser Arg
                55 60
Asn His Met Val Lys Ile Ile Asn Gln Leu Ser Arg Ala Gly Tyr Val
             70 75
Ala Ala Val Arg Gly Lys Asn Gly Gly Ile Arg Leu Gly Lys Pro Ala
           85
                90
Gln Ser Ile Arg Ile Gly Asp Val Val Arg Glu Leu Glu Pro Leu Ser
        100 105 110
Leu Val Asn Cys Ser Ser Ala Phe Cys His Ile Thr Pro Ala Cys Arg
     115 120
                                   125
Leu Lys Gln Ala Leu Ser Lys Ala Val Gln Ser Phe Leu Lys Glu Leu
 130 135 140
Asp Asn Tyr Thr Leu Ala Asp Leu Val Glu Glu Asn Gln Pro Leu Tyr
                               155
                                              160
Lys Leu Leu Val Glu
            165
<210> 6897
<211> 565
```

<212> PRT

<213> Enterobacter cloacae

<400> 6897

Pro Pro Ser His Ala Ala Cys Met Pro Ser Val His Thr Tyr Leu Tyr

```
Cys Gln Leu Lys Glu Gly Asp Ser Met His Trp Gln Thr His Thr Val
                         25
Phe Asn Gln Pro Ala Pro Leu Ser Asn Ser Asn Leu Phe Leu Ser Asp
Cys Ala Leu Arg Asp Ala Val Ala Arg Glu Gly Ala Glu Trp Asp Val
Asp Leu Leu Ala Ser Ile Gly Gln Gln Leu Gly Thr Ala Glu Ser Leu
          70
                            7.5
Glu Leu Gly Arg Leu Ala Asn Val Asn Pro Pro Glu Leu Leu Arg Tyr
                 90
Asp Ala Thr Gly Glu Arg Leu Asp Asp Val Arg Phe His Pro Ala Trp
                105
         100
His Leu Leu Met Gln Gly Leu Cys Ala Asn Arg Val His Asn Leu Ala
                         125
             120
Trp Glu Glu Glu Ala Arg Lys Gly Ser Phe Val Ala Arg Ala Ala Arg
       135 140
  130
Phe Val Leu His Ala Gln Val Glu Ala Gly Thr Leu Cys Pro Val Thr
      150 155 160
Met Thr Phe Ala Ala Thr Pro Leu Leu Gln Ser Leu Pro Lys Pro
      165 170 175
Phe His Asp Trp Leu Thr Pro Leu Met Ser Asp Arg Tyr Asp Pro His
 180 185
Leu Ala Pro Gly Ala Gln Lys Arg Gly Leu Leu Ile Gly Met Gly Met
 195 200 205
Thr Glu Lys Gln Gly Gly Ser Asp Val Leu Ser Asn Thr Thr Lys Ala
 210 215 220
Glu Lys Cys Ser Asp Gly Ser Tyr Arg Leu Val Gly His Lys Trp Phe
225 230 235
Phe Ser Val Pro Gln Ser Asp Ala His Leu Val Leu Ala Gln Ala Lys
       245 250 255
Gly Gly Leu Ser Cys Phe Phe Val Pro Arg Phe Leu Pro Asp Gly Gln
  260 265
                            270
Arg Asn Ala Val Arg Leu Glu Arg Leu Lys Asp Lys Leu Gly Asn Arg
 275 280 285
Ser Asn Ala Ser Ser Glu Ala Glu Phe Phe Asp Ala Tyr Gly Trp Leu
 290 295
Leu Gly Glu Glu Gly Glu Gly Val Arg Gln Ile Leu Lys Met Gly Gly
305 310 315
                                             320
Leu Thr Arg Phe Asp Cys Ala Leu Gly Ser His Gly Leu Met Arg Arg
         325 330
                               335
Ala Leu Ser Val Ala Leu Tyr His Ala His Gln Arg Gln Thr Phe Gly
   340
                        345
Lys Asn Leu Ile Asp Gln Pro Leu Met Arg Asp Val Leu Ser Arg Met
 355 360
                                    365
Ala Leu Val Leu Glu Gly His Thr Ala Leu Leu Phe Arg Leu Ala Arg
 370 375
                                 380
Ala Trp Asp Asn Arg Thr Asp Pro Gln Glu Ala Ala Trp Ala Arg Leu
385 390
                              395
Phe Thr Pro Ala Ala Lys Tyr Ser Val Cys Lys Ala Gly Ile Pro Phe
           405
                           410
Val Ala Glu Ala Met Glu Val Leu Gly Gly Ala Gly Tyr Cys Glu Glu
420 425 430
Ser Glu Leu Pro Arg Leu Tyr Arg Glu Met Pro Val Asn Ser Ile Trp
     435
                     440
Glu Gly Ser Gly Asn Ile Met Cys Leu Asp Val Leu Arg Val Leu Ala
                  455
Lys Gln Ser Gly Ile Leu Asp Leu Leu Ala Asp Asp Phe Ala Gln Val
465 470
                     475
Lys Gly Gln Asp Arg His Phe Asp Arg Ser Trp Arg Gln Leu Gln Gln
                           490
```

```
Lys Leu Arg Lys Pro Gln Glu Ala Gln Gly Arg Glu Ile Ala Arg Gln
          500 505
Leu Phe Leu Leu Gly Ala Gly Ser Gln Met Leu Arg His Ala Thr Pro
       515
                          520
                                            525
Pro Val Ala Gln Ala Trp Cys Arg Met Met Leu Asp Thr Arg Gly Gly
                      535
Thr Leu Met Ser Glu Gln Val Gln Asn Asp Leu Leu Leu Arg Ala Thr
545
                                     555
Gly Arg Val Gly
<210> 6898
<211> 62
<212> PRT
<213> Enterobacter cloacae
<400> 6898
Pro Ala Arg Ile Ser Ser Ala Arg Arg Glu Asp Gly Arg Leu Gly Pro
                                  10
Met Leu Tyr Pro Arg Ala Trp Arg Arg Met Ile Ala Thr Met Ser Gln
        20
                             25
Leu Pro Asp Asn Ile Leu Arg Arg Phe Gly Gly Leu Val Val Ala
 35
                   40
Gly Ile Val Ile Tyr Tyr Met Leu Arg Lys Thr Ile Gly
   50
<210> 6899
<211> 461
<212> PRT
<213> Enterobacter cloacae
<400> 6899
Arg Arg Tyr Ile Thr Gln Tyr Gln Pro Val Lys Asn Ala Glu Gly Gln
                             1.0
Val Ile Gly Ile Ile Phe Val Gly Val Asp Ile Thr His Ser Trp Asn
                             25
Val Met Arg Glu Lys Ile Leu Asn Arg Arg Leu Gly Lys Ser Gly His
 35
                         40
                                            4.5
Phe Phe Val Leu Asp Arg Ser Ser Gly Lys Thr Arg Gly Gln Tyr Leu
50
                      55
                                         60
Phe His Ala Ser Glu Glu Gly Lys Leu Pro Asn Trp Asp Thr Ala Thr
                  7.0
                                     75
Gln Gln Gln Leu Leu Ser Asp Lys Ala Gly Thr Leu Glu Arg Val Ser
              8.5
                                 9.0
Ala Asp Gly Arg Thr Leu Lys Val Ala Tyr Thr Pro Leu Pro Gly Trp
          100
                             105
                                                110
Asn Trp Thr Ile Val Gly Glu Val Asp Lys Ala Val Leu Leu Ser Ser
       115
                         120
                                            125
Val Thr Thr Leu Arg Asp Arg Pne Leu Met Ala Gly Val Val Leu Ser
                      135
                                         140
Ala Leu Phe Ala Gly Leu Phe Val Ile Leu Ile Arg Arg Met Leu Thr
    150
                                     155
Arg Pro Leu Arg Ala Val Ile Ala Leu Ala Arg Gln Tyr Ala Ala Gly
              165
                                 170
Asp Leu Arg Ala Ser Leu Pro Val Thr Arg Gln Asp Glu Val Gly Gln
          180
                             185
                                                190
Leu Ile Asp Ala Ile Asn Gly Ile Gly Gly Gly Leu Gln Lys Ile Val
                         200
Leu Gln Val Arg Glu Ala Ala Ser Glu Ile His Leu Gly Thr Asn Ala
                     215
Leu Ala Ser Asp Thr Gly Glu Ile Ser Glu Gln Ile Asn Lys Gln Ala
```

```
230
Ser Ser Val Glu Glu Thr Ser Ala Ser Met Glu Gln Leu Ala Ala Thr
            245
                       250
Val Gln Gln Asn Ala Ala Asn Met Glu Gln Thr Gln Gln Leu Val Gly
         260
                265
Glu Thr Ser Arg Ala Val His Gln Gly Gly Glu Thr Val Thr His Ala
      275
          280 285
Val Ser Thr Met Asp Asp Ile Arg Asp Ala Ser Lys Arg Ile Glu Asp
       295 300
Ile Thr Arg Val Ile Glu Ser Ile Ala Phe Gln Thr Asn Ile Leu Ala
    310 315 320
Leu Asn Ala Ala Val Glu Ala Ala Arg Ala Gly Glu His Gly Lys Gly
          325 330 335
Phe Ala Val Val Ala Gln Glu Val Arg Ala Leu Ala Ala Arg Ser Ala
       340 345 350
Asn Ala Val Lys Glu Ile Glu Gln Leu Ile Gly Asp Thr Leu Asn Lys
 355 360 365
Val Ser Glu Gly His Ala Leu Ser Glu Gln Thr Arg Leu Ala Met Asp
                   375 380
Ala Ile Ile Val His Ile Asp Asn Ile Ser Gln Leu Val Thr Glu Ile
385 390 395 400
Asn His Ala Ser Arg Glu Gln Ser Ala Gly Ile Gly Gln Val Asn Leu
          405 410
Ala Met Thr His Ile Gly Glu Ala Ser His Ile Asn Ala Asp Arg Ile
        420 425
                              430
Ser Arg Ser Glu Gln Thr Ala Gln Thr Leu Arg Glu Lys Gly Ser His
   435 440
Leu Thr Arg Leu Val Ser Leu Phe Gln Leu Lys Ala
                   455
<210> 6900
<211> 449
<212> PRT
<213> Enterobacter cloacae
<400> 6900
Gly Gln Thr Lys Val Ala Pro Val Phe Arg Ile Val Asn Arg Leu Leu
                             10
His Gly Ala Gln Gln His Gly Leu Gln His Phe Arg Val Arg Thr Ile
         20
                          25
                                          3.0
Ala Asp Gly Phe Gln Gln Leu Gly Val Ile Ala Trp Leu Arg Leu Ile
                     4.0
Thr Ala Arg Gln Leu Gln Ala Glu Phe Ser Gln His Gly Ala Glu Arg
 50 55
                                   60
Gly Tyr Gly Phe Arg Gly Trp Leu Val Val Asn Thr Glu Gln Arg Arg
               7.0
                                7.5
Leu Phe Gly Phe Leu Asn Glu Thr Cys Arg Arg Asp Val Cys Gln Asp
           85
                             90
His Thr Leu Phe Asn Gln Leu Val Arg Ile Val Thr Leu Gly Leu Leu
                         105
         100
Asp Thr Leu Asp Thr Thr Leu Ser Val Glu Asp Lys Leu Arg Phe Phe
     115
                      120
Ala Leu Lys Gly Asp Pro Ala Ala Leu Phe Ala Arg Leu Ile Gln Arg
  130
                135
                                    140
Phe Val Glu Val Val Gln Leu Phe Asp Val Phe Asp Gln Arg Arg Val
                150
                                155
                                                160
Leu Phe Ala Gln Ile Leu Ile Ala Leu Gln His Met Pro Asp Leu Gly
            165
                             170
Ile Gly Gln Ala Arg Met Gly Thr His His Cys Phe Val Glu Leu Ile
         180
                          185
                                  190
```

Ala Arg Gln Thr Ser Leu Ala Gly Asp Gly His Phe Ala Asp His Thr

200 Gln Ala Val His Leu Arg Val Glu Gly Thr Gln Ala Val Gly Glu His 215 Phe Trp Gln His Arg Tyr Asn Leu Arg Arg Glu Val Asp Arg Cys Thr 230 235 Ala Ala Arg Phe Val Ile Gln Arg Arg Val Trp Thr Tyr Val Val 245 250 Ala His Ile Arg Asp Ser His Pro Gln Thr Pro Ala Thr Thr Thr Phe 260 265 Phe Leu Thr Val His Gly Ile Ile Glu Val Thr Gly Val Phe Thr Ile 275 280 285 Asn Gly Asp Gln Arg Gln Ile Ala Gln Ile His Ala Ala Cys Phe Gly 295 300 Leu Phe Arg His Phe Phe Thr Gln Val Phe Asp Leu Val Phe Asn Arg 310 315 Phe Arg Pro Asp Val Arg Asn Phe Met Gly Ala Gln Arg His Ile Asp 325 330 335 Gly His Ala Gly Ala His Val Ile Ala Gln His Phe Asn Asp Phe Thr 340 345 350 His Arg Phe Cys Ala Thr Ser Trp Ala Leu Gly Glu Phe Asn His His 355 360 365 His Lys Ala His Ala Cys Ala His Tyr Leu Phe Arg Arg Asp Glu Asn 370 375 380 Val Glu Ala Gln Thr Ala Val Val Arg His His Lys Ala Tyr Ala Arg 385 390 395 \*\* Ile Gly Lys Val Thr Ala Asn Asp Leu Ala Gly Phe Arg His Gln His 405 410 Ala Asp His Ala Arg Phe Ala Ala Ala Phe Thr Val Cys Thr Gln Arg 420 425 430 Leu Arg Gln Asp Leu Val Ala Val Asn Thr His Leu His Leu Phe Gly 440

<210> 6901 <211> 137 <212> PRT

<213> Enterobacter cloacae

<400> 6901 Asp Phe Cys Arg Arg Ser Ala Ala Asp Gly His Asp Lys Ala Pro Pro Arg Ala His Gly Ala Ser Val Arg Gly Cys Gln Ala His Ser Gln Ser 25 3.0 Ala Ser Ala Arg Pro Ser Ser Glu Phe Ala Gly His Leu His Pro Leu 4.0 Arg Pro Ala Ala Ser Arg Lys His Gln Arg Thr Gln Pro His Cys Trp 55 60 His Leu Asn Gly Tyr Arg Ala Cys Pro Ser Asp Ala Gln Gly Ala Arg 7.0 His Cys Val Ala Arg Arg Val Arg Asn Ala Gly Gln Lys Ser Arg Thr 90 Thr Arg Pro Ser Pro Ala Arg Ala Pro Asp Ala His Arg Ser Ala Ala 100 105 110 Arg Arg Lys Thr Ile Cys Ala Pro Pro Ala Gly Asn Cys His His Cys 115 120 Ile Ser Leu Leu Trp Trp Tyr Tyr

135

<210> 6902 <211> 437

Ser Leu Glu Glu 435

03

<212> PRT <213> Enterobacter cloacae

<400> 6902 Ile Ile Tyr Ser Tyr Pro Val Phe Val Arg Ile Val Met Gln Gln Asp 10 Ala His Lys Arg Ala Leu Ile Ala Gly Ser Ile Gly Asn Phe Ile Glu 20 25 Trp Tyr Glu Phe Ala Val Tyr Gly Phe Leu Ala Thr Val Ile Ala Arg 4.5 Asn Phe Phe Gln Leu Glu Gly Glu Ala Glu Leu Thr Ser Leu Ile Leu 60 Thr Trp Ala Ser Phe Ala Ile Ala Phe Phe Phe Arg Pro Leu Gly Ala 70 75 Val Val Phe Gly Arg Ile Gly Asp Arg Ile Gly Arg Lys Pro Thr Leu 85 90 95 Ile Ile Val Leu Val Leu Met Thr Leu Ala Thr Ala Ala Ile Gly Ile 100 105 Val Pro Val Tyr Ala Ser Ile Gly Ile Ala Ala Pro Leu Ile Val Thr 115 120 125 Leu Leu Arg Ile Leu Gln Gly Leu Phe Ala Gly Gly Glu Tyr Gly Gly 130 135 140 Ala Val Ser Leu Met Thr Glu Phe Ala Pro Arg Gly Lys Arg Gly Leu 145 150 155 Tyr Gly Ala Trp Gln Ser Phe Thr Val Ala Leu Gly Leu Leu Ala Gly 165 170 175 Ala Gly Ile Val Ala Leu Leu Ser Ala Leu Leu Ser Pro Glu Ala Leu 180 185 190 His Ala Trp Gly Trp Arg Ile Pro Phe Phe Leu Ala Leu Pro Met Gly 195 200 205 Ala Val Ala Leu Trp Leu Arg Val Ser Met Glu Glu Thr Pro Ser Phe 210 215 220 Val Gln Gln Arg Glu Lys Pro Val Val Thr Gln Ala Thr Thr Ala Ala 225 230 235 Thr Phe Lys Thr Ile Leu Met Gly Ile Gly Arg Val Met Val Trp Ser 245 250 255 Ala Ala Gly Tyr Thr Tyr Leu Val Ile Met Pro Thr Tyr Leu Gln Ser 260 265 270 Ala Leu His Thr Gly Phe Asn Gln Ala Leu Leu Ile Ala Val Ile Ser 275 280 285 Asn Ile Gly Phe Ala Leu Thr Ile Ile Pro Ser Gly Met Leu Ser Asp 290 295 300 Arg Ile Gly Arg Arg Thr Val Met Ile Ile Ser Thr Val Leu Leu 305 310 315 Ile Leu Ala Leu Pro Leu Leu Lys Ile Leu Gln Ala Glu Thr Ser Thr 325 330 335 Leu Ala Val Lys Ala Ile Val Val Leu Ile Ala Gly Gly Leu Val Gly 340 345 350 Met Leu Ala Gly Pro Gly Pro Ala Met Leu Ser Glu Met Phe Pro Thr 355 360 365 Arg Val Arg Tyr Thr Gly Leu Gly Leu Ala Tyr Ser Leu Ser Asn Ala 370 375 380 Ile Phe Ser Gly Cys Thr Gly Leu Ile Ile Thr Gly Leu Ile Lys Glu 385 390 395 Thr Gly Asn Leu Asp Ile Pro Ala Tyr Tyr Val Met Ala Thr Ala Val 405 410 415 Val Ser Ile Phe Ala Leu Met Thr Leu Arg Lys Asp Asp His Leu Arg 420 425 430

<212> PRT

```
<210> 6903
<211> 244
<212> PRT
<213> Enterobacter cloacae
<400> 6903
Thr Ser Asp Arg His Ala Arg Arg Tyr Met Ser Gly Ser Phe Phe Leu
                             10
Ser Gly Val Ser Ala Met Ala Glu Gly Pro Leu Asn Glu Ser Glu Met
                                         3.0
Ala Trp Leu Glu Glu Thr Leu Ile Ser Tyr Gly His Asp Asp Ala Ser
      35
                      4.0
                                      4.5
Val Ile Asp Val Ser Glu Leu Asp Gly Met Leu Thr Ala Val Leu Ser
                  55
                         60
Gly Pro Val Val Val Glu Pro Asp Thr Trp Leu Val Ala Val Trp Gly
              70 75
Gly Glu Lys Tyr Ile Pro Arg Trp Lys Asn Asp Arg Glu Met Asn Arg
          85 90
Phe Ile Asp Leu Cys Phe Lys His Met Asn Asp Ile Ala Glu Arg Leu
         100 105
Ser Glu Tyr Pro Asp Gln Phe Glu Pro Leu Phe Gly Tyr Asn Asp Val
 115 120 125
Asp Gly Gln Ser Tyr Thr Val Val Glu Glu Trp Cys Tyr Gly Tyr Met
 130 135 140
Arg Gly Val Ala Leu Thr Asp Trp Ser Ser Leu Pro Glu Ala Leu Glu
145 150 155 160
Ala Asp Leu Ala Val Ile Ala Leu His Gly Thr Glu Glu Asn Ser Glu
  165 170 175
Lys Leu Asp Ala Leu Thr Glu Glu Glu Tyr Met Ala Ser Ile Glu Ser
 180 185 190
Ile Gln Pro Ala Ala Leu Arg Leu Tyr Asp Tyr Trp Val Ala Asn Pro
195 200
                           205
Gln Gln Pro Glu Ala Lys Lys Pro Ile Val Asn Gly Ser Lys Leu Gly
210 215 220
Arg Asn Asp Pro Cys Pro Cys Gly Ser Gly Lys Lys Phe Lys Ser Cys
225 230
                                                240
Cvs Leu His
<210> 6904
<211> 88
<212> PRT
<213> Enterobacter cloacae
<400> 6904
Ser Ala Phe Tyr Leu Arg Glu Val Thr Met Ser Ile His Gly His Asp
                            10
Val Leu Asn Met Met Ile Glu Ser Gly Glu Arg Tyr Thr Glu Glu Ser
        2.0
                         25
                                         30
Leu Val Glu Ala Ile His Ala Arg Phe Gly Glu Ala Ala Arg Phe His
                     40
Thr Cys Ser Ala Ser Glu Met Thr Ala Ala Glu Leu Val Ala Phe Leu
                 55
                            60
Ala Ala Arg Gly Lys Phe Ile Pro Ala Ala Asp Gly Phe Ser Thr His
               70
                               7.5
Glu Ser Lys Ile Cys Arg His
            85
<210> 6905
<211> 311
```

## <213> Enterobacter cloacae

```
<400> 6905
Asn Phe His Leu Arg Asp Val Met Ser Leu Pro Pro Leu Tyr Ala Leu
Arg Ala Phe Glu Val Ala Ala Arg Leu Asn Ser Phe Ser Lys Ala Ala
                         25
Glu Thr Leu Asn Ile Thr Pro Gly Ala Val Ser Arg His Val Arg Thr
                     40
                               4.5
Leu Glu Leu Trp Phe Asp Cys Glu Leu Phe Lys Arg Gln Gly Pro Arg
                55
                                60
Val Glu Val Thr Glu Ala Gly Arg Val Leu Ala Gly Gln Leu Asn Glu
             70
                   75
Ser Phe Thr Ser Ile Glu Trp Ala Cys Arg Ala Phe Arg Ser Glu Asn
           85 90
His Leu Leu Arg Leu Lys Ala Pro Ser Thr Leu Thr Met Arg Trp Leu
      100 105 110
Leu Asp Val Leu Arg Ser Phe Arg Asn Asn His Ala Lys Pro Gln Val
 115 120 125
Glu Ile Ala Ser Val Trp Met Asp Ile Asp Thr Val Asp Phe Asn Leu
130 135 140
Glu Pro Tyr Asp Cys Ala Ile Leu Leu Gly Asn Gly Arg Phe Gly Asp
145 150 155
Thr Thr Glu Ser Gln Leu Leu Phe His Glu Trp Leu Ile Pro Val Cys
    165 170
Thr Pro Ser Leu Ile Glu Pro Ala Arg Gln Arg Leu Pro Gln Cys Asp
180 185 190
Leu Ile His Pro Ser Pro Asp Arg Arg Asp Trp Arg Arg Trp Leu Arg
195 200 205
Arg Thr Gly Leu Phe Pro Gly Leu Asp Met Ser Ser Gly Met Val Phe
210 215
Asp Thr Leu Glu Gln Gly Ser Ile Ala Ala Met Asn Gly His Gly Ile
225 230 235
Ala Ile Ala Asp Leu His Leu Thr Leu Asp Ala Leu Lys Ser Gly Leu
           245 250
Leu Ala Leu Ala Val Gln Gly Ser Tyr Cys Asp Arg Gly Trp Leu Leu
      260 265
Pro Arg Leu Ala Lys Lys Phe Thr Gln Lys Arg Glu His Ser Ala Ser
    275 280
Ser Gly Leu Ala Ala Lys Pro Tyr Pro Gly Arg Ser Gly Ala Gly Tyr
Arg Leu Ser Gly Ile Arg
<210> 6906
<211> 114
<212> PRT
<213> Enterobacter cloacae
<400> 6906
Thr Met Lys Arg Ile Ile Ile Ala Gly Thr Ile Leu Leu Leu Ala Gly
                            10
Cys Ser Ile Asn Arg Gln Ala Glu Ile Ser Ser Thr Asp Ala Pro Asn
        2.0
                        25
Gly Ile Val Arg Leu Asp Tyr Gly Gln Ala Met Leu Gln Asn Ala Trp
                     40
```

35 40 45
Ser Asp Glu Tyr Val Asn Asn Gly Thr Ala Thr Lys Ala Cys Gln His 50 55
Met Gly Tyr Ala Thr Ala Ser Ala Tyr Gly Gln Pro Ile Lys Thr Cys 65 70 75 80
Thr Leu Ile Ser Gly Ser Leu Cys Leu Asn Glu Ser Val Thr Ile Gln

90 Tyr Lys Cys Gln Gly Tyr Ala Val Thr Ser Ser Ser Gln Asn Pro Trp 105 100

<210> 6907 <211> 431 <212> PRT <213> Enterobacter cloacae

<400> 6907 Ser Val Arg Asn Asn Ala Met Thr Ser Asp Gly Phe Ser Leu Lys Arg 10 Cys Ile Leu Asp Ala Ile Phe Ser Gly Met Ile Ala Leu Ile Ile Phe 20 25 3.0 Gly Pro Ile Ala Gly Val Ile Leu Asp Gly Tyr Ser Phe Thr Phe Gly 35 40 4.5 Gly Gln Arg Leu Ala Trp Ile Val Gly Thr Val Met Val Gly Arg Phe 50 55 Leu Leu Ser Ala Phe Ser Ala Thr Ala Ala Gly Arg Arg Leu Gln Thr 65 70 75 Arg Phe Glu Ser Asp Asn Ala Gly Val Tyr Val Arg Pro Pro Ala Tyr 85 90 Lys Ser Arg Met Arg Trp Ile Ile Pro Leu Ile Val Thr Leu Ala Ile 100 105 110 Cys Phe Pro Phe Val Ala Thr Lys Tyr Leu Leu Thr Val Ala Ile Leu 115 120 Gly Leu Ile Tyr Val Leu Leu Gly Leu Gly Leu Asn Ile Val Val Gly 130 135 140 Leu Ala Gly Leu Leu Asp Leu Gly Tyr Val Ala Phe Tyr Ala Ile Gly 145 150 155 Ala Tyr Gly Leu Ala Leu Gly Tyr Gln Tyr Leu Gly Leu Gly Phe Trp 165 170 Ser Met Leu Pro Leu Ala Ala Leu Met Ala Ala Gly Ala Gly Ala Leu 180 185 Leu Gly Phe Pro Val Leu Arg Met His Gly Asp Tyr Leu Ala Ile Val 195 200 205 Thr Leu Gly Phe Gly Glu Ile Ile Arg Leu Val Leu Asn Asn Trp Leu 210 215 220 Thr Phe Thr Gly Gly Pro Asn Gly Val Ser Ala Pro Ala Pro Thr Phe 235 Phe Gly Leu Glu Phe Gly Arg Arg Ala Lys Glu Gly Gly Val Pro Phe 245 250 255 His Glu Phe Phe Gly Leu Thr Tyr Asn Pro Asn Met Lys Phe Ile Phe 265 270 Ile Tyr Ala Val Leu Phe Leu Val Val Met Leu Val Leu Tyr Ile Lys 280 285 His Arg Leu Thr Arg Met Pro Ile Gly Arg Ala Trp Glu Ala Leu Arg 295 300 Glu Asp Glu Ile Ala Cys Arg Ser Met Gly Leu Asn His Val Leu Val 310 315 Lys Leu Ser Ala Phe Thr Leu Gly Ala Ser Thr Ala Gly Ile Ala Gly 325 330 Val Phe Phe Ala Thr Tyr Gln Gly Phe Val Asn Pro Thr Ser Phe Thr 340 345 350 Phe Phe Glu Ser Ala Leu Ile Leu Ala Ile Val Val Leu Gly Gly Met 355 360 365 Gly Ser Thr Val Gly Val Val Leu Ala Ala Phe Val Leu Thr Val Thr

380

375 Pro Glu Leu Leu Arg Ser Phe Ala Glu Tyr Arg Val Leu Leu Phe Gly

2988 390 395 Met Leu Met Val Val Met Met lle Trp Arg Pro Arg Gly Leu Ile Arg 405 410 Ile Asn Arg Ser Gly Phe Thr Val Arg Lys Gly Val Ala Pro 420 <210> 6908 <211> 429 <212> PRT <213> Enterobacter cloacae <400> 6908 Phe Asp Glu Thr Gly Leu Phe Pro Tyr Ser Ala Pro Gln Asn Glu Ser 10 Arg Tyr Gly Ser Val Val Glu Glu Ser Val Lys Asn Arg Thr Leu Gly 20 25 Ser Ile Phe Ile Val Ala Gly Thr Thr Ile Gly Ala Gly Met Leu Ala 35 4.0 Met Pro Leu Ala Ala Ala Gly Val Gly Phe Gly Ile Thr Val Val Leu 50 55 Leu Gly Gly Leu Trp Ala Leu Met Cys Tyr Thr Ala Leu Leu Leu Leu 70 75 Glu Val Tyr Gln His Val Pro Ala Asp Thr Gly Leu Gly Ser Leu Ala 85 90 Ala Arg Tyr Leu Gly Arg Tyr Gly Gln Trp Ile Ala Gly Phe Ser Met 100 105 110 Met Phe Leu Met Tyr Ala Leu Thr Ala Ala Tyr Ile Ser Gly Ala Gly 115 120 Glu Leu Ile Ala Ser Ser Ile Asn Asp Gly Phe Gly Ala Ser Leu Ser 130 135 140 Pro Glu Thr Gly Ala Ile Val Phe Thr Leu Ile Gly Gly Val Val 145 150 155 Cys Ala Gly Thr Ser Leu Val Asp Leu Phe Asn Arg Phe Leu Phe Ser 165 170 175 Ala Lys Ile Leu Phe Leu Val Val Met Leu Val Leu Leu Ala Pro His 180 185 190 Val His Lys Ile Asn Leu Leu Ser Leu Pro Leu Glu Lys Gly Leu Ala 195 200 205 Leu Ser Ala Ile Pro Val Ile Phe Thr Ser Phe Gly Phe His Gly Ser 210 215 220 Val Pro Ser Ile Val Ser Tyr Met Asn Gly Asp Ile Arg Lys Leu Arg 225 230 235 240 Arg Val Phe Val Ile Gly Ser Ala Ile Pro Leu Ile Ala Tyr Leu Phe 245 250 255 Trp Gln Leu Val Thr Leu Gly Ser Ile Asp Ser Asn Thr Phe Ile Gly 260 265 270 Leu Met Ala Glu His Ser Gly Leu Asn Gly Phe Leu Val Ala Leu Arg 275 280 285 Asn Val Val Ala Ser Ser His Val Glu Leu Ala Val His Leu Phe Ala 290 295 300 Asp Leu Ala Leu Ala Thr Ser Phe Leu Gly Val Ala Leu Gly Leu Phe 305 310 315 Asp Tyr Met Ala Asp Leu Phe Gln Arg Arg Asn Thr Val Ala Gly Arg 325 330 335 Leu Gln Thr Gly Ala Met Thr Phe Leu Pro Pro Leu Ala Phe Ala Leu 345 350 Phe Tyr Pro Arg Gly Phe Val Met Ala Leu Gly Tyr Ala Gly Val Ala 360 Leu Ser Val Leu Ala Leu Leu Leu Pro Ser Leu Leu Ala Trp Lys Ser

375

Arg Gln Gln His Pro Gln Gln Gly Tyr Arg Val Ala Gly Gly Thr Pro

<400> 6910

```
390
                            395
Met Leu Cys Val Val Phe Gly Cys Gly Val Ala Ile Ile Leu Val Gln
                  410
        405
Ile Leu Ile Ala Ala Gly Met Leu Pro Glu Val Gly
        420
<210> 6909
<211> 332
<212> PRT
<213> Enterobacter cloacae
<400> 6909
Arg Ser Ala Ile Thr Gly Arg Asn Leu Leu Ser Ala Gly Arg Ser Asp
                    1.0
Cys Arg Arg Asn Pro Leu Phe Arg Cys Ala Thr Met Ser Thr Phe Phe
 20
                    25
                                     30
Leu Gln Gln Leu Ile Asn Gly Leu Thr Leu Gly Ser Val Tyr Gly Leu
35 40
                        4.5
Ile Ala Ile Gly Tyr Thr Met Val Tyr Gly Ile Ile Gly Met Ile Asn
              55
50
                               60
Phe Ala His Gly Glu Val Tyr Met Ile Ser Ala Tyr Leu Ser Ala Ile
65 70 75 80
Gly Leu Ala Leu Leu Ala Phe Phe Gly Leu His Ser Phe Pro Leu Leu
      85 90 95
Ile Leu Gly Thr Leu Val Phe Thr Ile Val Val Thr Gly Val Tyr Gly
100 105 110
Trp Thr Ile Glu Arg Ile Ala Tyr Lys Pro Leu Arg Asn Ser Thr Arg
115 120 125
Leu Ala Pro Leu Ile Ser Ala Ile Gly Met Ser Leu Ile Leu Gln Asn
130 135 140
Tyr Val Gln Leu Ser Gln Gly Pro Arg Gln Gln Gly Val Pro Thr Met
145 150 155 160
Leu Asp Gly Val Leu Arg Phe His Leu Gly Glu Gly Phe Val Gln Ile
  165 170 175
Thr Tyr Thr Lys Val Phe Ile Leu Ile Ala Ser Phe Ala Gly Met Leu
   180 185 190
Val Leu Thr Trp Ile Ile Asn Arg Thr Arg Leu Gly Arg Met Cys Arg
195 200 205
Ala Val Gln Gln Asp Arg Lys Met Ala Ser Ile Leu Gly Ile Asn Thr
 210 215
                               220
Asp Arg Ile Ile Ser Leu Val Phe Val Ile Gly Ala Ala Met Ala Gly
225 230 235 240
Leu Ala Gly Val Leu Ile Thr Met Asn Tyr Gly Thr Phe Asp Phe Tyr
         245 250 255
Val Gly Phe Val Ile Gly Ile Lys Ala Phe Thr Ala Ala Glu Leu Gly
        260 265 270
Gly Ile Gly Ser Leu Pro Gly Ala Met Leu Gly Gly Leu Ile Leu Gly
    275 280 285
Val Ala Glu Ala Gln Phe Ser Gly Met Val Asn Ser Asp Tyr Lys Asp
 290 295 300
Val Phe Ser Phe Gly Leu Leu Val Leu Ile Leu Ile Phe Arg Pro Gln
305 310 315
Gly Leu Leu Gly Arg Pro Val Val Ala Lys Val
           325
                         330
<210> 6910
<211> 255
<212> PRT
<213> Enterobacter cloacae
```

Lys Ser Tyr Cys Arg Val Ser Gly His Arg Arg Lys Arg Gly Lys Ser 10 Val Ser Glu Pro Met Leu Gln Phe Gln Asp Val Asp Val Phe Tyr Gly 20 Val Ile Gln Ala Leu Lys Gln Val Ser Leu Glu Val Asn Lys Gly Glu 40 Thr Val Ala Leu Ile Gly Ala Asn Giy Ala Gly Lys Ser Thr Leu Leu 55 Met Ser Val Phe Gly Gln Pro Arg Ile Arg Asn Gly Gln Ile Leu Phe Cys Gly Glu Asp Ile Ser His Lys Ser Thr His Tyr Val Ala Thr Gly 85 Gly Ile Ala Gln Ala Pro Glu Gly Arg Arg Ile Phe Pro Asp Met Ser 100 105 110 Val Glu Glu Asn Leu Leu Met Gly Thr Ile Pro Val Gly Asn Gln His 115 120 125 Ala Ala Glu Asp Met Gln Ser Met Phe Asp Leu Phe Pro Arg Leu Lys 130 135 140 Glu Arg Arg Asn Gln Arg Ala Met Thr Leu Ser Gly Gly Glu Gln Gln 145 150 155 160 Met Leu Ala Ile Ala Arg Ala Leu Met Ser Arg Pro Lys Leu Leu Leu 165 170 175 Leu Asp Glu Pro Ser Leu Gly Leu Ala Pro Ile Val Val Lys Gln Ile 180 185 190 Phe Gln Thr Leu Arg Glu Leu Ala Arg Asn Gly Met Thr Ile Phe Leu 195 200 205 Val Glu Gln Asn Ala His His Ala Leu Lys Leu Ser Asp Arg Gly Tyr 210 215 220 Val Met Val Asn Gly Gln Ile Arg Leu Ser Gly Ser Gly Glu Ala Leu 225 230 235 Leu Lys Asp Pro Glu Val Arg Lys Ala Tyr Leu Gly Gly Val 245 250

<211> 185 <212> PRT

<213> Enterobacter cloacae

165

<400> 6911

<210> 6911

Ile Thr Asn Tyr Ser Val Ala His Arg Glu Pro Glu Leu Ile Asn Arg Ser Cys Thr Met Leu Lys Thr Glu Met Ile Asp Lys Leu Asn Ala Gln 20 25 30 Met Asn Leu Glu Leu Phe Ser Ser Leu Leu Tyr Gln Gln Met Ser Ala 40 4.5 Trp Cys Ser Tyr His Ser Phe Glu Gly Ala Ala Ala Phe Leu Arg Arg 5.5 His Ala Gln Glu Glu Met Thr His Met Gln Arg Leu Phe Asp Tyr Leu 65 70 75 Thr Asp Thr Gly Ser Leu Pro Arg Ile Asp Asn Val Ala Ser Pro Phe 85 90 Ala Glu Tyr Gly Ser Leu Asp Glu Leu Phe Arg Ala Thr Tyr Glu His 105 Glu Gln Leu Ile Thr Gln Lys Ile Asn Glu Leu Ala His Ala Ala Met 115 120 125 Thr Ser Gln Asp Tyr Pro Thr Phe Asn Phe Leu Gln Trp Tyr Val Ala 130 135 140 Glu Gln His Glu Glu Glu Lys Leu Phe Lys Ser Val Leu Asp Lys Leu 145 150 155 160 Ser Leu Ala Gly Lys Ser Gly Glu Gly Leu Tyr Phe Ile Asp Lys Glu Leu Ser Thr Leu Asp Thr Gln Asn 180 18

<210> 6912 <211> 427

<212> PRT

<213> Enterobacter cloacae

<400> 6912

Cys Ser Ala Arg Phe Ala Val Arg Gly Ile Leu Ala Val Leu Ser Met 10 Arg Leu Leu Lys Cys Ile Leu Phe Ser Leu Leu Phe Leu Asp Leu 20 25 30 Arg Cys His Gln Ala Phe Gly Phe Ile Pro Gly Ala Lys Thr Ser Leu 35 40 45 Leu Arg Asn Ile Ile Met Ser Leu Lys Phe Thr Lys Thr Pro Leu Ser 50 55 60 Leu Val Leu Ala Gly Cys Leu Val Thr Ala Phe Ser Ala Gln Ala Asp 70 75 80 Ile Val Ile Gly Val Ala Gly Pro Phe Thr Gly Pro Asn Ala Thr Tyr 8.5 90 95 Gly Asp Gln Tyr Trp His Gly Ala Thr Gln Ala Ala Glu Asp Ile Asn 100 105 110 Ala Ala Gly Gly Ile Asn Gly Glu Lys Ile Lys Leu Val Gln Gly Asp 115 120 125 Asp Ala Cys Glu Pro Lys Gln Ala Val Ala Val Ala Asn Arg Leu Val 135 140 Asp Gln Asp Lys Val Lys Ala Val Val Gly His Phe Cys Ser Ser Ser 145 150 155 160 Thr Met Pro Ala Ser Glu Val Tyr Ser Asp Ala Gly Ile Leu Ser Ile 165 170 175 Thr Pro Gly Ser Thr Asn Pro Leu Ile Thr Glu Arg Gly Met Ser Asp 180 185 190 Ile Phe Arg Met Cys Gly Arg Asp Asp Gln Gln Gly Gln Val Ala Ser 195 200 205 Asp Phe Ile Leu Asp Lys Leu Lys Ala Lys Arg Val Val Ile Ile His 210 215 220 Asp Lys Asp Thr Tyr Gly Gln Gly Leu Ala Asp Ala Thr Lys Ala Ala 225 230 235 240 Leu Ala Lys Arg Gly Val Lys Giu Val Met Tyr Glu Gly Leu Ser Arg 245 250 255 Gly Glu Lys Asp Phe Asn Ala Leu Val Thr Lys Ile Gly Ala Gln Lys 260 265 Pro Asp Val Val Phe Phe Gly Gly Cys His Pro Glu Ala Gly Pro Leu 275 280 285 Val Arg Gln Met Arg Glu Gln Gly Val Gln Ala Lys Phe Phe Ser Gly 290 295 300 Asp Cys Ile Val Asm Glu Glu Met Val Thr Ala Ala Gly Gly Ala Glm 305 310 315 Tyr Thr Asn Gly Ile Tyr Met Thr Phe Gly Lys Asp Pro Arg Leu Ile 325 330 Pro Asp Gly Lys Ala Val Ile Glu Lys Phe Arg Thr Gly Lys Phe Glu 345 340 350 Pro Glu Gly Tyr Thr Leu Tyr Ala Tyr Ala Ser Val Gln Ala Ile Ala 355 360 Ala Ala Phe Lys Ala Thr Gln Gly Thr Asp Ser Ala Lys Ala Ser Glu 370 375 380 Trp Leu Lys Ala Asn Pro Val Asp Thr Val Met Gly Lys Lys Ala Trp 385 390 395

Asp Ser Lys Gly Asp Leu Lys Val Ser Asp Tyr Val Val Tyr Gln Trp

410

```
Asp Asp Lys Gly Lys Tyr Lys Glu Val Pro
  420
<210> 6913
<211> 296
<212> PRT
<213> Enterobacter cloacae
<400> 6913
Arg Ser Gly Ala Met Asn Ala Thr Ile Leu Arg Val Glu His Leu Met
                              1.0
Met His Phe Gly Gly Ile Lys Ala Leu Asn Asp Val Asn Leu Glu Val
                          25
Gln Arg Gly Ser Ile Thr Ala Leu Ile Gly Pro Asn Gly Ala Gly Lys
                       40
Thr Thr Val Phe Asn Cys Leu Thr Gly Phe Tyr Arg Ala Ser Gly Gly
                  55
Asn Ile Leu Phe Asn Ala Arg Asn Lys Thr Thr Asn Val Ile Gln Val
              70
                        75
Leu Gly Gln Lys Phe Gln Pro Gly Asp Trp Leu Asn Pro Ala Gln Leu
            85
                             90
Gly Gln Arg Leu Phe Tyr Lys Met Phe Gly Gly Thr His Leu Val Asn
         100 105
                                            110
Arg Ala Gly Leu Ala Arg Thr Pne Gln Asn Ile Arg Leu Phe Arg Glu
 115 120
                                        125
Met Ser Val Val Glu Asn Leu Leu Val Ala Gln His Met Arg Val Asn
 130 135
                                    140
Arg Asn Leu Leu Ala Gly Val Leu Asn Thr Pro Ala Tyr Arg Arg Ala
145 150 155
Glu Asn Asp Ala Leu Asp Arg Ala Phe Tyr Trp Leu Glu Val Val Asp
          165 170
Leu Val Asp Cys Ala Asn Arg Leu Ala Gly Glu Met Ser Tyr Gly Gln
         180
                                            190
Gln Arg Arg Leu Glu Ile Ala Arg Ala Met Cys Thr Gly Pro Glu Met
      195 200 205
Ile Cys Leu Asp Glu Pro Ala Ala Gly Leu Asn Pro Val Glu Thr His
  210 215
                                     220
Lys Leu Ser Glu Ile Ile Arg Phe Leu Arg Asp His His Asp Ile Thr
225 230
                                 235
Val Leu Leu Ile Glu His Asp Met Gly Met Val Met Gly Ile Ser Asp
            245
                             250
Asp Ile Ile Val Leu Asp His Gly Asp Val Ile Ala Arg Gly Lys Pro
       260
                          265 270
Ala Glu Ile Gln His Asn Glu Lys Val Ile Ala Ala Tyr Leu Gly Thr
                                        285
Asp Glu Ser Glu Val Asn Leu
   290
<210> 6914
<211> 295
<212> PRT
<213> Enterobacter cloacae
<400> 6914
Ala Leu Ile Pro Leu Tyr Cys Pro Leu Leu Cys Gly Asn Lys Arg Pro
                              10
Leu Pro Met Leu Met Ile Thr Ser Phe Ser Asn Pro Arg Val Ala Gln
                          25
Ala Phe Val Asp Tyr Met Ala Thr Gln Gly Ile Ile Leu Thr Ile Gln
                       4.0
Gln His Thr Gln Thr Asp Val Trp Leu Ala Asp Glu Ser Gln Ala Gly
```

```
The state of the s
```

```
5.5
Arg Val Asn Ala Glu Leu Ala Arg Phe Leu Glu Asn Pro Gly Asp Pro
                           75
               7.0
Arg Tyr Leu Ala Ala Ser Trp Gln Ser Gly Gln Thr Gly Ser Gly Leu
           85
                           90
His Tyr Gln Arg Phe Pro Phe Leu Ala Thr Leu Arg Glu Arg Ala Gly
       100
             105
                                        110
Pro Phe Thr Leu Leu Met Val Ala Cys Ile Ile Val Phe Ile Ile
 115 120
                           125
Met Ser Val Val Gly Asp Gln Ser Val Met Ile Ala Leu Ala Trp Pro
           135
                         140
Tyr Asp Pro Ser Leu Gln Phe Asp Val Trp Arg Tyr Phe Thr His Ala
      150 155 160
Leu Met His Phe Ser Val Met His Ile Leu Phe Asn Leu Leu Trp Trp
          165 170 175
Trp Tyr Leu Gly Gly Ala Val Glu Lys Arg Leu Gly Ser Gly Lys Leu
       180 185 190
Ile Val Ile Thr Leu Ile Ser Ala Leu Leu Ser Gly Tyr Val Gln His
   195 200
                                    205
Lys Phe Ser Gly Pro Trp Phe Gly Gly Leu Ser Gly Val Val Tyr Ala
210 215
Leu Met Gly Tyr Ala Trp Leu Arg Gly Glu Arg Asp Pro Asp Ser Gly
225 230 235
Ile Tyr Leu Gln Arg Gly Leu Ile Thr Phe Ala Leu Ile Trp Leu Ile
       245 250 255
Ala Gly Trp Phe Asp Leu Phe Gly Met Ser Ile Ala Asn Gly Ala His
      260 265 270
Val Thr Gly Leu Ala Val Gly Leu Ala Met Ala Leu Ala Asp Thr Leu
   275 280
His Ala Arg Lys Arg Thr
 290
<210> 6915
<211> 81
<212> PRT
<213> Enterobacter cloacae
<400> 6915
Ser Phe Ala Met Gly His Thr Pro Gly Ala Phe His Leu Thr Asn Asp
                           10
Thr Leu Gly Ala Phe Met Arg Asp Asn Asp Phe Asp Thr Pro Val Met
   20
                        25
Val Met Cys Tyr His Gly Asn Ser Ser Lys Gly Ala Ala Gln Tyr Leu
 35
                    4.0
Leu Gln Gln Gly Tyr Glu Ala Val Tyr Ser Val Asp Gly Gly Phe Asp
             5.5
                                60
Ala Trp His Arg His Phe Pro Ala Glu Val Glu Tyr Ala Phe Glu Arg
```

<210> 6916 <211> 301 <212> PRT <213> Enterobacter cloacae

<400> 6916

Tyr Gly Leu Leu Pro Asp Gly Leu Ile Cys Leu Val Cys Leu Ser Pro I 5 10 15
Met Val Arg Thr Leu Pro Ala Trp Arg Ser Gly Trp Arg Trp Arg Trp 20 25 30

```
Pro Ile Arg Ser Met Arg Glu Ser Glu His Asn Ser Gln Gly Tyr Phe
                     4.0
Met Lys Gln Thr Gln Arg His Asp Ala Ile Ile Glu Leu Val Lys Lys
Gln Gly Tyr Val Ser Thr Glu Glu Leu Val Glu Gln Phe Ala Val Ser
               70
Pro Gln Thr Ile Arg Arg Asp Leu Asn Asp Leu Ala Asp Gln Asn Arg
            85
                           90
Ile Leu Arg His His Gly Gly Ala Ala Leu Pro Ser Ser Ser Val Asn
         100
                       105
Thr Ser Trp His Asp Arg Lys Ala Thr Gln Thr Ala Glu Lys Glu Arg
      115
              120 125
Ile Ala Arg Lys Val Ala Ser Gln Ile Pro Asn Gly Ala Thr Leu Phe
 130 135 140
Ile Asp Ile Gly Thr Thr Pro Glu Ala Val Ala His Ala Leu Leu Asn
145 150 155 160
His Glu Asn Leu Arg Val Val Thr Asn Asn Leu Asn Val Ala Asn Thr
         165 170
Leu Met Gln Lys Asp Asp Phe Arg Ile Ile Leu Ala Gly Gly Glu Leu
 180 185
Arg Ser Arg Asp Gly Gly Ile Ile Gly Glu Ala Thr Leu Asp Phe Ile
 195 200 205
Ser Gln Phe Arg Leu Asp Phe Gly Ile Leu Gly Ile Ser Gly Ile Asp
 210 215 220
Thr Asp Gly Ser Leu Leu Glu Phe Asp Tyr His Glu Val Arg Thr Lys
225 230 235
Arg Ala Ile Ile Glu Asn Ser Arg His Val Met Leu Val Val Asp His
    245 250 255
Ser Lys Phe Gly Arg Asn Ala Met Val Asn Met Gly Ser Ile Ser Met
 260 265 270
Val Asp Ala Val Tyr Thr Asp Val Met Pro Pro Ala Gly Val Met Gln
 275 280 285
Val Ile Lys Asp Asn Asn Leu Gln Leu Glu Leu Cys
       295
<210> 6917
<211> 811
<212> PRT
<213> Enterobacter cloacae
<400> 6917
Arg Gln Met Cys Phe Leu Ser Thr Gly Cys Arg Phe Pro Met Ser Gln
          5
                         10
Pro Thr Phe Asn Lys Ala Gln Phe Gln Ala Ala Leu Thr Arg Gln Trp
      2.0
                     25
                                        30
Gln Arg Phe Gly Leu His Ala Ala Asn Glu Met Thr Pro His Gln Trp
            40
Trp Gln Ala Val Ser Gly Ala Leu Ala Glu Gln Leu Asp Ala Gln Pro
 50 55
                               60
Val Ala Lys Pro Val Lys Gly Gln Arg His Val Asn Tyr Ile Ser Met
```

Gln Ser Phe Ala Asp Gly His Gln Met Glu Ala Pro Asp Asp Trp His 165 170 175 Arg Asn Thr Tyr Pro Trp Phe Arg His Asn Ala Gln Leu Asp Val Gln 180 185 Val Gly Ile Gly Gly Lys Val Thr Lys Gln Gly Leu Trp Glu Pro Ala 195 200 205 Phe Thr Ile Thr Gly Glu Ala Trp Asp Leu Pro Val Leu Gly Tyr Arg 215 Asn Gly Val Ala Gln Pro Leu Arg Leu Trp Gln Ala Lys His Ala His 230 235 Pro Phe Asn Leu Thr Lys Phe Asn Asp Gly Asp Phe Leu Arg Ala Glu 250 255 245 Gln Gln Gly Ile Asp Ala Glu Lys Leu Thr Lys Val Leu Tyr Pro Asn 260 265 270 Asp Asn His Leu Ala Gly Lys Lys Leu Arg Leu Met Gln Gln Tyr Phe 285 275 280 Gln Cys Ala Cys Ser Val Ala Asp Ile Leu Arg Arg His His Leu Ala 290 295 300 Gly Arg Lys Leu Ala Gln Leu Pro Asp Phe Glu Val Ile Gln Leu Asn 305 310 315 320 Asp Thr His Pro Thr Ile Ala Ile Pro Glu Leu Leu Arg Val Leu Ile 325 330 335 Asp Glu His Gln Leu Ser Trp Asp Asp Ala Trp Ala Ile Thr Ser Arg 340 345 350 Thr Phe Ala Tyr Thr Asn His Thr Leu Met Pro Glu Ala Leu Glu Cys 355 360 365 Trp Asp Glu Lys Leu Val Lys Thr Leu Leu Pro Arg His Met Gln Ile 370 375 380 Ile Asn Lys Ile Asn Asp Gln Phe Lys Thr Leu Val Glu Lys Thr Trp 385 390 395 Pro Gly Asp Lys Ala Val Trp Ala Lys Leu Ala Val Val His Asp Lys 405 410 415 Gln Val Arg Met Ala Asn Met Cys Val Val Ser Gly Phe Ala Val Asn 420 425 430 Gly Val Ala Ala Leu His Ser Asp Leu Val Val Lys Asp Leu Phe Pro 435 440 445 Glu Tyr His Gln Leu Trp Pro Thr Lys Phe His Asn Val Thr Asn Gly 450 455 460 Ile Thr Pro Arg Arg Trp Ile Lys Gln Cys Asn Pro Leu Leu Ala Gly 470 475 480 Leu Leu Asp Lys Thr Leu Lys Lys Glu Trp Ala Asn Asp Leu Asp Gln 485 490 495 Leu Ile Asn Leu Glu Lys Leu Aia Asp Asn Ala Lys Phe Arg Glu Gln 500 505 510 Tyr Arg Ala Ile Lys Leu Glu Asn Lys Val Arg Leu Ala Glu Phe Val 515 520 Lys Met Arg Thr Gly Ile Glu Ile Asn Pro Asn Ala Ile Phe Asp Ile 535 540 Gln Ile Lys Arg Leu His Glu Tyr Lys Arg Gln His Leu Asn Leu Leu 550 555 560 His Ile Leu Ala Leu Tyr Lys Glu Ile Arg Glu Asn Pro Gln Ala Asp 565 570 Arg Val Pro Arg Val Phe Leu Phe Gly Ala Lys Ala Ala Pro Gly Tyr 580 585 590 Tyr Leu Ala Lys Asn Ile Ile Leu Ala Ile Asn Lys Val Ala Ala Ala 595 600 605 Ile Asn Asn Asp Pro Lys Val Gly Asp Lys Leu Lys Val Val Phe Leu 615 620 Pro Asp Tyr Cys Val Ser Ala Ala Glu Met Leu Ile Pro Ala Ala Asp 630 Ile Ser Glu Gln Ile Ser Thr Ala Gly Lys Glu Ala Ser Gly Thr Gly

```
645
                            650
Asn Met Lys Leu Ala Leu Asn Gly Ala Leu Thr Val Gly Thr Leu Asp
        660
                        665
Gly Ala Asn Val Glu Ile Ala Glu Lys Val Gly Glu Glu Asn Ile Phe
    675
                     680
Ile Phe Gly His Thr Val Glu Glu Val Lys Ala Ile Lys Ala Lys Gly
                  695
Tyr Asp Pro Val Lys Trp Arg Lys Lys Asp Lys Val Leu Asp Ala Val
       710
                          715
Leu Lys Glu Leu Glu Ser Gly Lys Tyr Ser Asp Gly Asp Lys His Ala
            725
                         730
                                   735
Phe Asp Gln Met Leu His Ser Met Asp Lys Gln Gly Gly Asp Pro Tyr
                      745
       740
Leu Val Met Ala Asp Phe Ser Ala Tyr Val Glu Ala Gln Lys Gln Val
      755
                     760
                            765
Asp Val Leu Tyr Arg Asp Gln Asp Ala Trp Thr Arg Ala Cys Ile Leu
 770 775 780
Asn Thr Ala Arg Cys Gly Met Phe Ser Ser Asp Arg Ser Ile Arg Asp
785 790 795
Tyr Gln Ala Arg Ile Trp Gln Ala Lys Arg
            805
<210> 6918
<211> 697
<212> PRT
<213> Enterobacter cloacae
<400> 6918
Gly Ser Ala Met Glu Ser Lys Arg Leu Asp Ser Ala Ala Gln Ala Ala
      5
                        10
Gly Ile Ser Leu Ser Tyr Ile Asn Ala His Gly Lys Pro Gln Ser Ile
20 25
Gly Ala Asp Thr Lys Arg Arg Leu Leu Asp Ala Met His Lys Thr Asp
               4.0
Ala Lys Ala Ser Gly Ala Pro Val Pro Asn Val Lys Val Phe Thr Ala
50 55
Gly Lys Lys Met Pro Leu Ala Val Glu Gly Arg Gly Glu Phe Ser Trp
65 70 75
Leu Leu Thr Thr Glu Glu Gly His Gln His Lys Gly His Ala Thr Gly
   85
                           90
Gly Lys Thr Leu Asn Leu Pro Ala Lys Leu Pro Glu Gly Tyr His Thr
        100 105 110
Leu Thr Leu Thr Arg Asp Asp Gln Arg Phe His Cys Arg Val Ile Val
                     120
                                   125
Ala Pro Lys Arg Cys Tyr Glu Pro Gln Ala Leu Leu Glu Gly Lys Lys
                 135
                                 140
Leu Trp Gly Ala Cys Val Gln Leu Tyr Thr Leu Arg Ser Asp Ser Asn
     150
                              155 160
Trp Gly Ile Gly Asp Phe Gly Asp Leu Lys Lys Met Leu Ala Ser Val
            165
                           170
Gly Glu Arg Gly Gly Ala Phe Ile Gly Leu Asn Pro Ile His Ala Leu
        180 185
                                        190
Tyr Pro Ala Asn Pro Glu Ser Ala Ser Pro Tyr Ser Pro Ser Ser Arg
195
                     200
                                     205
Arg Trp Leu Asn Val Ile Tyr Ile Asp Val Asn Ala Leu Asp Asp Phe
                  215
                                 220
Lys Asn Ser Lys Glu Ala Gln Ala Trp Trp Lys Leu Glu Thr Thr Gln
225 230
                              235
Gln Met Leu Lys Gln Ala Arg Asp Ala Asp Trp Val Asp Tyr Ala Ser
           245
                           250
```

Val Thr Ala Leu Lys Met Ala Ala Leu Arg Leu Ala Trp Lys Gly Phe

```
265
        260
Ala Lys Arg Asp Asp Glu Gln Met Ala Ala Phe Arg Gln Phe Val Met
             280
                            285
Gln Glu Gly Glu Ser Leu Tyr Trp Gln Ala Ala Phe Asp Ala Leu His
              295
Ala Tyr Gln Val Gln Glu Asp Glu Met Arg Trp Gly Trp Pro Val Trp
     310 315
Pro Glu Ala Tyr Gln Ser Val Asp Thr Pro Glu Val Lys Ala Phe Cys
          325 330 335
Glu Thr His Ala Asp Glu Val Asp Phe Tyr Leu Trp Leu Gln Trp Leu
       340 345 350
Ala Tyr Ser Gln Phe Ala Ala Cys Trp Gln Val Ser Gln Gly Tyr Asn
   355
        360 365
Met Pro Ile Gly Leu Tyr Arg Asp Leu Ala Val Gly Val Ala Glu Gly
 370 375 380
Gly Ala Glu Thr Trp Cys Asp Arg Glu Leu Tyr Cys Leu Lys Ala Ser
385 390 395 400
Val Gly Ala Pro Pro Asp Ile Leu Gly Pro Leu Gly Gln Asn Trp Gly
      405 410 415
Leu Pro Pro Met Asp Pro His Val Met Ala Ala Arg Ala Tyr Glu Pro
 420 425 430
Phe Ile Asp Leu Leu Arg Ala Asn Met Gln Asn Cys Gly Ala Leu Arg
435 440 445
Ile Asp His Val Met Ser Val Leu Arg Leu Trp Trp Ile Pro Tyr Gly
450 455 460
Glu Thr Ala Asp His Gly Ala Tyr Val Gln Tyr Pro Val Asp Asp Leu
465 470 475 480
Leu Ser Ile Leu Ala Leu Glu Ser Lys Arg His Gln Cys Met Val Ile
       485 490 495
Gly Glu Asp Leu Gly Thr Val Pro Val Glu Ile Val Ser Lys Leu Arg
 500 505 510
Asp Ser Gly Val Tyr Ser Tyr Lys Val Leu Tyr Phe Glu Asn Asp His
515 520 525
Glu Lys Thr Phe Arg Ala Pro Lys Ala Tyr Pro Glu Gln Ser Met Ala
530 535 540
Val Ala Thr Thr His Asp Leu Pro Thr Leu Arg Gly Tyr Trp Glu Ser
545 550 555 560
Gly Asp Leu Thr Leu Gly Lys Thr Leu Gly Leu Tyr Pro Asp Glu Glu
          565 570 575
Val Leu Arg Gly Leu Tyr Gln Asp Arg Glu Leu Ala Lys Gln Gly Leu
 580 585 590
Leu Asp Ala Leu His Lys His Gly Cys Leu Pro Lys Arg Ala Gly His
595 600 605
Lys Ala Ser Leu Met Ser Met Thr Pro Met Leu Asn Arg Gly Leu Gln
610 615 620
Arg Tyr Ile Ala Asp Ser Asn Ser Ala Leu Leu Gly Leu Gln Pro Glu
   630 635
Asp Trp Ile Asp Met Ala Glu Pro Val Asn Ile Pro Gly Thr Ser Tyr
        645 650
Gln Tyr Lys Asn Trp Arg Arg Lys Leu Ser Thr Thr Leu Glu Ala Met
      660 665
Phe Ala Asp Asp Gly Val Asn Arg Leu Ile Lys Asp Leu Asp Lys Arg
675 680
Arg Arg Ala Val Gly Asn Lys Arg
```

<210> 6919 <211> 89

<211> 09

<213> Enterobacter cloacae

<400> 6919 Leu Ser Arg Gln Ser Arg Pro Ala His Pro Ala Ala Arg Cys Gly Gly 1.0 Thr Thr Asp Arg Tyr Cys Gly Ala Ser Arg Pro Ala Leu Pro Ser Asp 25 Gly Arg Arg Gln Met Thr Asp Gly Thr Gly Arg Thr Asp Ser Ser Gly 35 40 His Ser Gln Ser Pro Thr Gly Pro Pro Leu Pro Trp Asn Pro Gly Ser 55 60 Arg Leu Pro Asp Val Pro Asp Arg Arg Tyr Pro Ala Pro Gly Gln Pro 70 Leu Leu Pro Ala Asp Arg Ser Gly <210> 6920 <211> 920 <212> PRT <213> Enterobacter cloacae <400> 6920 Leu Arg Ser Ala Lys Lys Ile Asn Ser Leu Val Pro His Ser Glu Val 10 Lys Thr Met Leu Ile Pro Ser Lys Leu Ser Arg Pro Val Arg Leu Asp 20 25 His Thr Val Val Arg Glu Arg Leu Leu Ala Lys Leu Ser Gly Ala His 35 40 Asn Phe Arg Leu Ala Leu Val Thr Ser Pro Ala Gly Tyr Gly Lys Thr 50 55 60 Thr Leu Ile Ser Gln Trp Ala Ala Gly Lys Ser Asp Leu Gly Trp Tyr 70 7.5 80 Ser Leu Asp Glu Gly Asp Asn Gln Gln Glu Arg Phe Ala Ser Tyr Leu 85 90 Ile Ala Ala Ile Gln Gln Ala Tor Asn Gly His Cys Val Thr Ser Glu 100 105 Val Met Val Gln Lys Arg Gln Tyr Ala Ser Leu Ser Ser Leu Phe Ser 115 120 125 Gln Leu Phe Ile Glu Leu Ala Glu Trp His Arg Pro Leu Tyr Val Val 130 135 140 Ile Asp Asp Tyr His Leu Ile Thr Asn Pro Val Ile His Glu Ser Met 145 150 155 Arg Phe Phe Leu Arg His Gln Pro Glu Asn Leu Thr Leu Val Val Leu 165 170 175 Ser Arg Asn Leu Pro Gln Leu Gly Ile Ala Asn Leu Arg Val Arg Asp 180 185 190 Gln Leu Leu Glu Ile Gly Ser Gln Gln Leu Ala Phe Thr His Gln Glu 195 200 205 Ala Lys Gln Phe Phe Asp Cys Arg Leu Thr Ser Pro Ile Glu Ala Ser 210 215 220 Glu Ser Ser Arg Leu Cys Asp Asp Val Ala Gly Trp Ala Thr Ala Leu 230 235 240 Gln Leu Ile Ala Leu Ser Ala Arg Gln Asn Asn Ser Pro Thr His Gln 245 250 Ser Ala Arg Arg Leu Ala Gly Ile Asn Ala Ser His Leu Ser Asp Tyr 265 270 Leu Val Asp Glu Val Leu Asp Ser Val Asp Leu Ser Thr Arg His Phe 280 285 Leu Leu Lys Ser Ser Leu Leu Arg Ser Met Asn Asp Ala Leu Ile Val 295 300 Arg Val Thr Gly Ile Glu Asn Gly Gln Leu Gln Leu Glu Glu Ile Glu 310 315

Arg Gln Gly Leu Phe Leu Thr Arg Met Asp Asp His Gly Glu Trp Phe

330 Ser Tyr His Pro Leu Phe Gly Ser Phe Leu Arg Gln Arg Cys Gln Trp 345 340 350 Glu Leu Ala Ala Glu Leu Pro Asp Ile His Arg Ala Ala Ala Glu Ser 355 360 365 Trp Met Ala Gln Gly Phe Pro Ser Glu Ala Ile His His Ala Leu Ala 375 380 Ala Gly Asp Ala Gly Met Leu Arg Asp Ile Leu Leu Asn His Ala Trp 385 390 395 Gly Leu Phe Asn His Ser Glu Leu Thr Leu Leu Glu Glu Ser Leu Lys 405 410 Ala Leu Pro Trp Glu Ser Leu Leu Glu Asn Pro Arg Leu Val Leu Leu 420 425 430 Gln Ala Trp Leu Met Gln Ser Gln His Arg Tyr Ser Glu Val Asn Thr 435 440 445 Leu Leu Ala Arg Ala Glu Gln Glu Met Glu Ser Glu Met Asp Thr Thr 450 455 460 Leu His Gly Glu Phe Asn Ala Leu Arg Ala Gln Val Ala Ile Asn Asp 465 470 475 Gly Asp Pro Asp Glu Ala Glu Arg Leu Ala Met Val Ala Leu Asp Glu 485 490 495 Leu Pro Leu Ala Asn Phe Tyr Ser Arg Ile Val Ala Thr Ser Val His 500 505 510 Gly Glu Val Leu His Cys Lys Gly Asp Leu Thr Arg Ser Leu Ser Leu 515 520 525 Met Gln Gln Thr Glu Gln Met Ala Arg Arg His Asp Val Trp His Tyr 535 540 Ala Leu Trp Ser Leu Ile Gln Gln Ser Glu Ile Leu Phe Ala Gln Gly 545 550 555 560 Phe Leu Gln Ala Ala Trp Glu Asn Gln Glu Lys Ala Phe Gln Leu Ile 565 570 Arg Glu Gln His Leu Glu Gln Leu Pro Met His Glu Phe Leu Leu Arg 580 585 590 Ile Arg Ala Gln Leu Leu Trp Ala Trp Ser Arg Leu Asp Glu Ala Glu 595 600 605 Ser Cys Ala Arg Gln Gly Leu Asn Val Leu Ser Ser Phe Gln Pro Gln 610 615 620 Gln Gln Leu Gln Cys Leu Ala Leu Leu Val Gln Cys Ser Leu Ala Arg 630 635 Gly Asp Leu Asp Asn Ala Arg Asn His Leu Asn Arg Leu Glu Asn Leu 645 650 655 Leu Gly Asn Gly Gln Tyr His Ser Asp Trp Val Ser Asn Ala Asp Lys 665 Val Arg Val Ile Tyr Trp Gln Met Thr Gly Asp Lys Lys Ser Ala Ala 680 685 Asn Trp Leu Arg His Thr Pro Lys Pro Glu Phe Ala Asn Asn His Phe 695 700 Leu Gln Ser Gln Trp Arg Asn Ile Ala Arg Val Gln Ile Leu Leu Gly 705 710 715 720 Asp Phe Glu Pro Ala Glu Ile Val Leu Glu Glu Leu Asn Glu Asn Ala 725 730 Arg Ser Leu Arg Leu Met Ser Asp Leu Asn Arg Asn Leu Leu Leu Leu 740 745 750 Asn Gln Leu Tyr Trp Gln Ala Gly Arg Lys Asn Asp Ala Gln Arg Val 755 760 765 Leu Leu Glu Ala Leu Gln Leu Ala Asn Arg Thr Gly Phe Ile Ser His 770 775 780 Phe Val Ile Glu Gly Glu Val Met Ala Gln Gln Leu Arg Gln Leu Ile 795 800 790 Gln Leu Asn Thr Leu Pro Glu Leu Asp Gln His Arg Ala Gln Arg Ile 805

```
Leu Arg Glu Ile Asn Gln His His Arg His Lys Phe Ala His Phe Asp
   820 825
Glu Asn Phe Val Glu Arg Leu Leu Asn His Pro Glu Val Pro Glu Leu
 835 840 845
Ile Arg Thr Ser Pro Leu Thr Gln Arg Glu Trp Gln Val Leu Gly Leu
 850 855 860
Ile Tyr Ser Gly Tyr Ser Asn Glu Gln Ile Ala Gly Glu Leu Ala Val
               870 875
Ala Ala Thr Thr Ile Lys Thr His Ile Arg Asn Leu Tyr Gln Lys Leu
            885 890 895
Gly Val Ala His Arg Gln Asp Ala Val Gln His Ala Gln Gln Leu Leu
        900
                        905
Lys Met Met Gly Tyr Gly Val
<210> 6921
<211> 63
<212> PRT
<213> Enterobacter cloacae
<400> 6921
Ile Thr Arg Ser Thr Arg Ile Phe Gln Pro Arg Val Lys Ile Ser His
                            10
Val Asn Asp Pro Gly Phe Trp Leu Phe Lys Glu Tyr Phe Asn Leu Thr
                        2.5
Ile Gly Glu Thr Ile Lys Ser Trp Ser Ala Leu Glu Thr Ile Ile Ser
                   40
Val Cys Gly Leu Val Gly Val Leu Leu Leu Asn Met Val Val
<210> 6922
<211> 351
<212> PRT
<213> Enterobacter cloacae
<400> 6922
Lys Lys Glu His Arg Met Lys Tyr Val Asn Leu Gly Arg Ser Gly Leu
         5
                           10
Gln Val Ser Arg Leu Cys Leu Gly Cys Met Ser Tyr Gly Glu Pro Glu
20
                         25
                                          3.0
Arg Leu Pro Gln Pro Trp Ser Leu Asp Glu Lys Ala Ser Arg Pro Leu
 35
                      40
                                      4.5
Ile Arg Gln Ala Leu Glu Ala Gly Ile Asn Phe Phe Asp Thr Ala Asn
 50
                 55
                                  60
Ile Tyr Ser Gly Gly Ser Ser Glu Glu Ile Thr Gly Lys Ala Leu Arg
                70
                               75
Glu Met Ala Arg Arg Asp Glu Ile Val Val Ala Thr Lys Thr Phe Phe
           85
                            90
Pro Trp Arg Asn Ser Pro Asn Thr Gly Phe Leu Ser Arg Lys Ala Ile
       100
                        1.05
                                          110
Phe Gln Ser Ile Asp Asp Ser Leu Met Arg Leu Gly Met Asp Tyr Val
    115 120 125
Asp Leu Phe Gln Ile His Arg Phe Asp His Ser Thr Pro Val Glu Glu
  130
                 135
                                  140
Thr Met Glu Ala Leu His Asp Leu Val Lys Ser Gly Lys Val Arg Tyr
                              155
               150
Ile Gly Ala Ser Ser Met Glu Ala Trp Arg Phe Ala Lys Met Gln His
                           170
           165
                                             175
Thr Ala Glu Leu Asn Gly Trp Thr Arg Phe Ile Thr Met Gln Pro Gln
         180
                         1.85
Tyr Asn Leu Leu Tyr Arg Glu Glu Glu Arg Glu Met Leu Pro Leu Cys
```



```
200
Glu Asp Gln Gly Val Gly Val Ile Pro Trp Ser Pro Met Ala Arg Gly
                 215
                           220
Arg Leu Thr Arg Asp Trp Ser Val Thr Ser Arg Arg Thr Gln Asn Asp
              230
                           235
Ala Phe Ala Leu Lys Met Tyr Glu Asn Ala Ala Leu Leu Asp Lys Pro
      245
                   250
Val Ile Asp Val Val Ala Ser Ile Ala Glu Lys His Asp Val Pro Arg
       2.60
                      265
Ala His Val Ala Ile Ala Trp Leu Leu Ser Lys Thr Val Ile Thr Ala
   275 280
                          285
Pro Ile Ile Gly Ala Thr Lys Pro Glu His Leu Ser Thr Ala Ile Ser
 290 295 300
Ala Leu Asp Phe Ser Leu Ser Asp Ala Glu Ile Met Glu Leu Glu Ala
305 310 315 320
His Tyr Leu Pro His Pro Val Asp Gly Ile Ile Pro Pro Leu Pro Asp
      325 330 335
Thr Pro Pro Ser Leu Thr Pro Pro Ser Ala Ile Gln Asp Cys
        340 345
<210> 6923
<211> 341
<212> PRT
<213> Enterobacter cloacae
<400> 6923
Val Asp Gly Leu Val Lys Lys Ile Gln Gln Arg Ile Ser Pro Gly Arg
                      10
Ser Met Val Tyr Ile Ile Ser Val Ser Ile Eis Ser Gly Leu Asn Ala
20 25 30
Gln Gly Lys Arg Phe Cys Met Gln Ile Ser Arg Ala Asp Val Ala Asp
35 40
Leu Ile Tyr Phe Met Ala Ile Ala Arg His Arg Ser Phe Ser Arg Ala
50 55 60
Ala Ile Glu Leu Gly Val Ser Ala Ser Ala Leu Ser His Ala Leu Lys
      70 75 80
Gly Leu Glu Thr Arg Leu Gly Val Arg Leu Leu Asn Arg Thr Thr Lys
           85
                           90
Ser Val Thr Pro Thr Ala Ala Gly Glu Glu Leu Val Gln Ser Val Leu
        100 105 110
Gln Pro Phe Asp Thr Ile Glu Gly Ala Leu Glu Ser Leu Asn Arg Tyr
     115 120 125
Arg Asn Thr Pro Thr Gly Arg Ile Arg Ile Asn Ala Ala Val Glu Ala
               135
                                 140
Ala Asn Leu Leu Ala Pro Val Met Pro Ala Phe Met Asp Arg Tyr
              150 155 160
Pro Asp Ile Glu Ile Asp Ile Val Ala Ser Asn Arg Met Val Asp Val 165 170 175
Thr Asp Ala Gly Phe Asp Ala Gly Ile Arg Tyr Gly Gly Thr Val Pro
   180
                        185
                            190
Glu Asp Met Val Ala Arg Arg Leu Ser Ala Asp Ile Arg Trp Val Ile
195 200 205
Ala Ala Ser Pro Asp Tyr Leu Glu Arg Tyr Gly Thr Pro Glu Tyr Pro
                215
                                 220
Asp Asp Leu Leu His His Arg Cys Ile Ser Asn Arg Leu Gly Asp Asp
              230
                      235
Arg Ile Tyr Arg Trp Glu Leu Glu Arg Asp Gly Glu Thr Tyr Gln Ile
            245
                           250
Thr Val Pro Gly Ser Val Thr Val Asn Gln Ala Glu Thr Gly Leu Val
                   265
```

Ala Val Leu Gly Gly Ala Gly Leu Met Tyr Phe Pro Glu Pro Leu Val

```
280
Ala Pro Tyr Val Lys Asp Gly Arg Leu Arg Leu Val Leu Thr Glu Trp
                             300
                   295
Ser Pro Leu Glu Glu Gly Phe His Ile Tyr Tyr Ser Ser Arg Arg Gln
       310
                               315
Leu Pro Thr Gly Leu Arg Leu Leu Ile Glu Phe Ile Gln Glu Ala Arg
                             330
Pro Leu Glv Leu
          340
<210> 6924
<211> 179
<212> PRT
<213> Enterobacter cloacae
<400> 6924
Arg Val Arg Pro Asp Met Lys Pro Ala Asp Lys Pro Val Leu Cys Val
                     10
Val Ser Ser His Pro Ile Lys Gly Ala Ser Gly Val Pro Thr Gly Phe
 20 25
                                           3.0
Phe Leu Ala Glu Leu Thr His Pro Leu Lys Val Val Glu Asp Ala Gly
35 40
                                       45
Leu Lys Thr Thr Ile Ala Ser Ile Arg Gly Gly Gln Pro Pro Val Asp
50
              55
                                    60
Gly Phe Asp Leu Ser Asp Pro Val Asn Ala Trp Phe Trp Asn Glu Thr
                7.0
                                7.5
Asp Phe Gln Gln Arg Leu Ala Thr Thr Pro Ala Leu Ser Glu Leu Asn
           85
                 90 95
Gly Ser Asp Tyr Ser Ala Val Phe Phe Ala Gly Gly His Gly Thr Met
         100 105
                                           110
Trp Asp Phe Arg Asp Ser Gln Asp Ala Gln Arg Ile Ile Arg Glu Val
115 120
                                       125
Tyr Glu Ser Asp Gly Ile Val Ala Ala Val Cys His Gly Pro Ala Ala
 130 135
                                    140
Leu Val Asp Ser Lys Leu Ser Ser Gly Glu Tyr Leu Val Lys Gly Lys
145 150 155 160
Asn Val Ala Ala Phe Thr Asn Lys Glu Ser Ser Pro Ala Gly Arg Lys
                             170
Glu Gln Ard
<210> 6925
<211> 62
<212> PRT
<213> Enterobacter cloacae
<400> 6925
Val Val Ser Met Ser Gly Lys Gly Tyr Pro Lys Ala Phe Lys Ile Glu
                             10
Ala Val Lys Gln Val Val Glu Arg Gly Tyr Ser Val Ser Ser Val Thr
Thr Leu Leu Asp Ile Thr Thr His Gly Leu Tyr Ala Arg Ile Lys Lys
      3.5
                     4.0
Ile Ala Val Gly Phe His Cys Pro Gln Cys Ile Arg Gln
                    55
   50
<210> 6926
<211> 176
<212> PRT
<213> Enterobacter cloacae
```

```
<400> 6926
Lys Gln Trp Arg Ala Tyr Ser Ser Arg Ala Cys Ala Arg Asn Glu Ile
                              10
Gly Lys Gly His Arg Asn Ile Ala Leu Val Ile Asp Asn Glu Thr Asp
         20
Asp Ala Ser Lys Arg Met Val Glu Gly Tyr Arg Asn Val Leu Gln Asn
                      40
Tyr Ser Phe Pro Phe Asn Arg Gln Leu Val Leu Thr Ala Asn Glu Asn
             55
Val Glu Arg Ala Leu Leu Thr Leu Ile Asn Ser Leu Ser Lys Phe Ser
              70
                                75
Ser Ile Val Val Lys Arg Asp Ala Tyr Ala Ala Glu Ala Met Arg Leu
            8.5
                           90
Phe Arg Glu Phe Asn Ile Ala Val Pro Gln Glu Val Ser Leu Leu Ser
       100 105 110
Leu Glu Asp Ser Pro Leu Ala Thr Gln Leu Tyr Pro Gln Leu Thr Cys
 115 120 125
Ile Ser Trp Pro Met Glu Ser Leu Leu His Gln Cys Val Gln Arg Ile
 130 135 140
Lys Ser Ile Val Glu Gly Arg Pro Leu Arg Glu Thr Glu Leu Pro Pro
145 150 155 160
Ile Ile Gly Lys Leu Thr Pro Arg Gln Ser Val Leu Glu Met Ser
<210> 6927
<211> 356
<212> PRT
<213> Enterobacter cloacae
<400> 6927
Thr Arg Cys Ala Leu Leu Phe Leu Lys Ile Met Arg Ser Gly Arg Arg
                             10
Ser Gly Arg Asn Ile His Leu Thr Glu Pro Cys Met Asn Tyr Thr His
                         25
                                          30
Leu Gly Arg Thr Gly Leu Lys Val Ser Arg Leu Cys Leu Gly Thr Met
                40
Asn Phe Gly Asp Val Thr Asp Glu Lys Thr Ser Ala Arg Ile Leu Asp
                   55
Glu Ala Leu Glu Ala Gly Ile Asn Phe Ile Asp Thr Ala Asp Val Tyr
                7.0
                                75
Gly Thr Glu Gln Ser Pro Asp Ile Gln Gln Gly Ser Gly Leu Ser Glu
                             9.0
Glu Ile Ile Gly Arg Trp Ile Gln Gln Gly Gly Arg Arg Asp Arg Ile
         100 105
Val Leu Ala Thr Lys Val Tyr Gln Pro Met Gly Pro Gly Pro Asn Asp
      115
                       120
Arg Arg Leu Ser Ala Tyr His Ile Arg Lys Ala Cys Glu Asp Ser Leu
                   135
                                    140
Arg Arg Leu Lys Thr Asp His Ile Asp Val Tyr Gln Met His His Ile
                150 155
Asp Arg Tyr Thr Pro Trp Glu Glu Ile Trp Gln Ala Met Glu Leu Leu
             165 170
Val Gln Gln Gly Lys Val Leu Tyr Ile Gly Ser Ser Asn Phe Ala Gly
         180
              185 190
Trp Asp Ile Ala Thr Ala Gln Ser Val Ala Thr Ala Arg His Ser Leu
      195
                       200
                                       205
Gly Leu Val Ala Glu Gln Ser Leu Tyr Asn Leu Thr Ala Arg Thr Val
                 215
                                    220
Glu Leu Glu Val Ile Pro Ala Cys Arg His Phe Gly Leu Gly Leu Ile
               230
                                 235
```

Pro Trp Ser Pro Leu Ala Gly Gly Leu Leu Gly Gly Val Leu Lys Lys

```
250
Met Glu Ser Gly Arg Arg Ala Arg Pro Ala Phe Ser Arg Leu Ile Glu
                                            270
       260
                           265
Gln Tyr Arg Pro Gln Leu Glu Ala Tyr Glu Gly Leu Cys Glu Asp Leu
                                      285
                       280
      275
Asp Glu Thr Pro Ser Asp Val Ala Leu Ala Trp Leu Leu Gln Asn Pro
           295
                            300
Val Val Thr Ala Pro Leu Ile Gly Pro Arg Thr Val Glu Gln Leu Arg
305 310
                               315
Glu Ala Leu His Ala Thr Thr Ile Thr Leu Ser Asp Asp Thr Met Ser
          325
                              330 335
Cys Leu Asp Glu Ile Trp Pro Gly Pro Gly Gly Glu Ala Pro Gln Ala
                           345
Tyr Ala Trp
     355
<210> 6928
<211> 151
<212> PRT
<213> Enterobacter cloacae
<400> 6928
Lys Arg Glu Ser Pro Val Val Ser Val Cys Lys Val Glu Ile Gln Asn
Phe Arg Ser Ile Arg Leu Leu Thr Trp Leu Pro Ser Pro Gly Leu Asn
                           25
                                           30
 20
Cys Leu Ile Gly Pro Gly Asp Ser Gly Lys Thr Thr Ile Leu Asp Ala
             40
                               4.5
Ile Asp Leu Cys Leu Gly Ala Arg Arg Asn Val Ser Phe Ser Asp Thr
 50 55
                              60
Asp Phe Phe Gly Leu Asp Val Thr Gln Pro Ile Ser Ile Thr Leu Ala
             70
                       7.5
Leu Gly Ser Leu Pro Asp Ala Leu Arg Thr Met Glu Thr Tyr Gly Asn
           8.5
                              90
Phe Leu Tyr Pro Gly Val Lys Ala Val Ser Gly Asp Ile Glu Lys Cys
         100 105 110
Cys Tyr Ala Gly Asn Arg Ile Thr Thr Leu Asn Asn Leu Phe Asp Cys
    115 120 125
Phe Asn Phe Lys Arg Phe Arg Ile Thr Leu Thr Ala His Gly His His
 130 135
Ser Leu Ser His Leu Lys
<210> 6929
<211> 303
<212> PRT
<213> Enterobacter cloacae
<400> 6929
Glu His Ile Met Asn Asn Ala Leu Tyr Asn Gln Ile Arg Ile Phe Gln
Ser Ile Ala Arg Glu Gly Asn Ile Ser Ala Ala Ala Arg Lys Leu Glu
Ile Thr Pro Pro Ser Val Ser Asn Ala Leu Lys Leu Leu Glu Asp His
    35
                       40
Ile Gly His Pro Leu Phe Val Arg Thr Thr Arg Arg Ile Glu Leu Thr
                  55
Glu Thr Gly Gln Leu Leu Glu Gln Thr Ala Ala Ala Val Glu Ser
               70
                               75
Leu Glu His Ser Leu Glu Ser Ile Arg Asp Gln Asn Gln Glu Pro Ser
```

```
Gly Ile Val Arg Ile Thr Leu Ser Arg Phe Ala Tyr Leu Leu Ile Leu
                105
Lys Pro Ala Met Ala Lys Phe Cys Gln Gln Tyr Pro Gly Ile Gln Leu
      115
Glu Ile Ser Val Tyr Asp Gly Thr Val Asn Val Ile Glu Glu Arg Phe
                   135
                                    140
Asp Leu Gly Ile Arg Phe Gly Asp Ile Leu Glu Gly Gly Val Val Ala
                                 155
145
Arg Pro Leu Met Lys Pro Phe Arg Glu Gly Leu Tyr Ala Ser Ser Ala
                 170
          165
Tyr Ile Ser Glu His Gly Met Pro Glu Val Pro Ala Asp Leu Ser Gln
       180 185 190
His Lys Leu Ile Gly Tyr Arg Phe Ile Thr Asn Asn Arg Ile Leu Pro
     195 200
                           205
Leu Ile Leu Asn Asp Arg Gly Glu Gln Leu Thr Val Glu Met Pro Gly
 210 215 220
Gln Leu Ile Ser Asn Asp Ile Asp Val Met Ala Asp Gly Ile Arg Asn
225 230 235 240
Gly Leu Gly Ile Gly Arg Leu Phe Glu Pro Ile Leu Gln Leu Gln Pro
          245 250 255
Asp Arg Glu Arg Phe Ile Pro Val Met Glu Ser Tyr Trp Lys Thr Tyr
   260 265 270
Pro Pro Val Tyr Leu Tyr Tyr Pro Lys Asn Ala Gly Lys Thr Lys Arg
 275 280 285
Val Lys Ala Leu Ile Asp Phe Leu Ile Ser Ala Thr Gly Arg
                   295
<210> 6930
<211> 430
<212> PRT
<213> Enterobacter cloacae
<400> 6930
Ala Val Ser Thr Lys Ser Gly Pro Asp Pro Gly Glu Lys Arg Pro Arg
                            10
Leu Met Pro Gly Asn Asp Gln Ile Asn Glu Ser Phe Leu Arg Tyr Arg
                         25
Glu Phe Gln Phe Met Ser Lys Met Met His Asp Gln His Ser Ala Ser
          40 45
Val Pro Ala Ser Arg Asp Arg Asp Phe Leu Ile Ala Gly Ala Gly
                 5.5
Leu Ala Leu Ala Ala Thr Thr Leu Gly Arg Ser Gly Ala Val Met Ala
                               75
                70
Lys Pro Ala Gly Gln Asp Thr Ser Ser Ala Pro Ser Gly Ala Val Pro
                             90
             85
Val Gln Lys Glu Thr Leu Thr Thr Arg Lys Leu Gly Ser Leu Glu Val
         100
                          105
Ser Ser Met Gly Leu Gly Cys Leu Pro Met Val Gly Tyr Tyr Gly Gly
                      120
      115
                                      125
Gly Pro Arg Asp Arg Lys Ala Met Val Ser Leu Ile Arg Ala Ala Phe
                   135
                                    140
Glu Gln Gly Ile Thr Phe Phe Asp Thr Ala Glu Val Tyr Gly Pro His
                                 155
145
                150
Leu Ser Glu Glu Phe Val Gly Glu Ala Leu Ala Pro Val Arg Asp Arg
                             170
             165
Val Val Ile Ala Thr Lys Phe Gly Phe Gly Val Glu Glu Gly Lys Pro
                          185
                                           190
Thr Ser Leu Asn Ser His Pro Asp His Ile Arg Arg Ala Val Glu Gly
   195
                       200
```

Ser Leu Lys Arg Leu Lys Thr Asp His Ile Asp Leu Leu Tyr Gln His

220

```
Arg Pro Asp Pro Asn Val Pro Ile Glu Asp Val Ala Glu Thr Val Lys
      230 235 240
Ala Leu Ile Arg Glu Gly Lys Val Lys His Trp Gly Leu Ser Glu Ala
                          250
           245
Ser Ala Gly Thr Ile Arg Arg Ala His Ala Val Leu Pro Val Thr Ala
                       265
        260
Val Gln Ser Glu Tyr Ala Met Trp Trp Arg Glu Pro Glu Thr Arg Ile
            280
     275
Phe Pro Thr Leu Glu Glu Leu Gly Ile Gly Phe Val Pro Tyr Cys Pro
        295
                                300
Thr Ala Arg Ser Phe Leu Ala Gly Ala Val Asn Pro Ser Gln Arg Phe
   310
                             315
Asp Ser Thr Asp Arg Arg His Asn Leu Pro Arg Phe Gln Pro Asp Ala
               330
                              335
        325
Leu Ala Lys Asn Met Val Leu Leu Glu Phe Ala Gln Ser Trp Ala Arg
      340
                       345
                                      350
Arg Lys Asn Thr Thr Pro Val Gln Phe Ala Leu Ala Trp Val Met Ala
 355 360
                        365
Gln Arg Pro Trp Ile Val Pro Ile Pro Gly Thr Thr Gln Tyr Pro His
                                380
 370 375
Leu Ile Glu Asn Ser Gly Ala Pro Gln Val Arg Leu Thr Asp Ser Glu
385 390 395 400
Leu Arg Glu Ile Asp Ala Ala Leu Ala Arg Ile Pro Leu Gln Gly Gly
 405 410 415
Arg Ala Asp Pro Phe Thr Glu Ser Gln Phe Asp Lys Ser
420 425
<210> 6931
<211> 325
<212> PRT
<213> Enterobacter cloacae
<400> 6931
Val Lys Ser Pro Ser Val Phe Leu Pro Gly Ile Asn His Met Asn Gly
                 10
Leu Asn His Asn Ala Leu Thr Arg Ser Ala Val Pro Ile Pro Pro Cys
 20 25 30
Glu Arg Ser Leu Gln Thr Val Glu Ala Gln Pro Tyr Phe Ser Val Ser
                    40
                                 4.5
Glu Ala Ser Leu Val Leu Glu Gly Ala Val Phe Asp Arg Asn Asn Asn
50 55 60
Leu Leu Phe Val Asp Ala Ala Thr Gly Arg Val Phe Lys Leu Thr Pro
65 70
                             75 80
Glu Arg Gln Leu Ser Ile Val Leu Lys Glu Asn Thr Phe Gly Ala Ser
          85 90
Gly Leu Ala Val His Lys Asp Gly Arg Ile Phe Ile Ala Ser Val Gly
                    105 110
Asp Met Gln Arg Gly Ser Val Arg Ala Ile Glu Pro Asp Gly Thr Arg
 115 120 125
Glu Gln Met Ile Val Asp Pro Glu Gly Gly Phe Leu Ala Asn Asp Leu
                135 140
Val Phe Asp Asn Gln Gly Gly Phe Tyr Phe Thr Asp Ser Arg Gly Asn 145 150 155 160
Ser Ala Asp Pro Gln Gly Gly Val Phe Tyr Val Ser Pro Asn Val Gly
           165 170
Ser Ile His Ala Ile Leu Pro Gly Leu Ala Val Gly Asn Gly Leu Ala
      180 185 190
Ile Asp Pro Asp Gly Thr Leu Ile Trp Ala Thr Glu His Ala Lys Asn
     195 200 205
Arg Leu His Arg Val Arg Leu Ser Asp Ala Thr Thr Ile Ala Pro Phe
```

```
Gly Ser Val Val Thr Tyr Gln Phe Thr Gly Pro Ala Pro Asp Gly Ala
                                  235
Arg Val Asp Ser Glu Gly Asn Val Tyr Val Ala Ile Ser Gly Gln Gly
             245
Arg Ile Met Val Phe Asn Arg Asn Gly Leu Pro Ile Gly Gln Ile Val
         260 265
Leu Pro Asp Arg Asp Lys Gly Arg Asn Leu Lys Ser Thr Ser Leu Ala
                 280
                                         285
     275
Ile Arg Pro Gly His His Glu Leu Phe Ile Val Thr Asn Ser Gly Thr
 290 295 300
Glu Pro Gly Gly Ala Met Ile Phe Arg Ser Gly Ala Phe Ala Pro Ala
                310
                      315
Pro Leu Pro Phe
             325
<210> 6932
<211> 187
<212> PRT
<213> Enterobacter cloacae
<400> 6932
Arg Leu Ser Gly Lys Pro Ala Trp Cys Lys Ala Thr Cys Pro Arg Glu
Lys Gly Asp Lys Ile Glu Ser Thr Cys Gln Ile Val Ile Arg Cys Ala
                                           30
                    2.5
Leu Phe Gly Arg Val Lys Phe Pro Met Lys Asn Ile Pro Phe Trp Gln
                                      4.5
 35
                  40
Ser Lys Thr Phe Asp Asp Met Thr Asp Ala Glu Trp Glu Ser Leu Cys
                 55
                                     60
Asp Gly Cys Gly Gln Cys Cys Leu His Lys Leu Met Asp Glu Asp Ser
                70
                                 7.5
Asp Glu Ile Tyr Phe Thr Asn Val Ala Cys Lys Gln Leu Asn Ile Lys
                  90
Thr Cys Gln Cys Arg Asn Tyr Glu Arg Arg Phe Glu Tyr Glu Pro Asp
         100 105
Cys Ile Lys Leu Thr Arg Glu Asn Leu Pro Thr Phe Glu Trp Leu Pro
      115 120 125
His Thr Cys Ala Tyr Arg Leu Leu Ala Glu Gly Lys Asp Leu Pro Thr
 130 135 140
Trp His Pro Leu Leu Thr Gly Ser Lys Ala Ala Met His Gly Glu Arg
145 150 155 160
Ile Ser Val Arg His Ile Ala Val Lys Glu Ser Glu Val Arg Asp Trp
             165
                              170
Glu Asp His Ile Met Asn His Pro Asn Arg
          180
<210> 6933
<211> 298
<212> PRT
<213> Enterobacter cloacae
<400> 6933
Asp Lys Thr Ser Val Tyr Ala Lys Met Ala Ala Glu Arg Gly Ile Lys
                               10
Pro Phe Val Asn Phe Ile Lys Met Lys Arg Arg Ser Leu Phe Ser Val
                           25
          20
Ser Ala Ala Leu Ser Ala Ser Ala Arg Leu Trp Tyr Asp Glu Cys Asn
       35
                        40
Leu Leu Lys Leu Cys Asn Gly Asn Leu Thr Met Val Ile Lys Ala Gln
                    55
Ser Pro Ala Gly Phe Ala Glu Glu Tyr Ile Ile Glu Ser Ile Trp Asn
```

```
Asn Arg Phe Pro Ala Gly Ser Ile Leu Pro Ala Glu Arg Glu Leu Ser
                           90
         8.5
Glu Leu Ile Gly Val Thr Arg Thr Thr Leu Arg Glu Val Leu Gln Arg
        100
                        105
                                        110
Leu Ala Arg Asp Gly Trp Leu Thr Ile Gln His Gly Lys Pro Thr Lys
    115
                  120
Val Asn Asn Phe Trp Glu Thr Ser Gly Leu Asn Ile Leu Glu Thr Leu
  130 135
                            140
Ala Arg Leu Asp His Glu Ser Val Pro Gln Leu Ile Asp Asn Leu Leu
    150
                   155
Ser Val Arg Thr Asn Ile Ala Thr Ile Phe Ile Arg Thr Ala Phe Arg
          165 170
Gln His Pro Glu Asp Ala Leu Lys Val Leu Ala Thr Ala Asn Glu Val
      180 185 190
Glu Asp His Ala Asp Ala Phe Ala Thr Leu Asp Tyr Asn Val Phe Arg
 195 200 205
Gly Leu Ala Phe Ala Ser Gly Asn Pro Val Tyr Gly Leu Ile Leu Asn
 210 215 220
Gly Met Lys Gly Leu Tyr Thr Arg Ile Gly Arg His Tyr Phe Ala Asn
225 230 235 240
Pro Glu Ala Arg Ser Leu Ala Leu Gly Phe Tyr His Lys Leu Ser Lys
           245 250
Leu Cys Thr Glu Gly Leu His Asp Gln Val Tyr Glu Thr Val Arg Arg
    260 265 270
Tyr Gly His Asp Ser Gly Glu Ile Trp His Arg Met Gln Lys Thr Leu
275 280 285
Pro Gly Asp Leu Ala Ile Gln Gly Arg
                  295
<210> 6934
<211> 445
<212> PRT
<213> Enterobacter cloacae
<400> 6934
Leu Asp Asp Cys Ser Phe Ala His Asn Gly Val Ala Met Arg Val Val
                    10
Ile Leu Gly Ser Gly Val Val Gly Val Thr Ser Ala Trp Tyr Leu Ser
                        25
                                        3.0
Gln Ala Gly His Glu Val Thr Val Ile Asp Arg Glu Ser Gly Pro Ala
     35 40
                                    4.5
Leu Glu Thr Ser Ala Ala Asn Ala Gly Gln Ile Ser Pro Gly Tyr Ala
                 55
Ala Pro Trp Ala Ala Pro Gly Val Pro Leu Lys Ala Ile Lys Trp Met
               70
                               75
Phe Gln Arg His Ala Pro Leu Ala Ile Ser Leu Asp Gly Thr Gln Phe
          85
                           90
Gln Leu Lys Trp Met Trp Gln Met Leu Arg Asn Cys Asp Thr Arg His
         100 105 110
Tyr Met Glu Asn Lys Gly Arg Met Val Arg Leu Ala Glu Tyr Ser Arg
      115 120 125
Asp Cys Leu Lys Ala Leu Arg Ala Ser Thr Gly Ile Glu Tyr Glu Gly
  130 135 140
Arg Gln Gly Gly Thr Leu Gln Leu Phe Arg Thr Ala Gln Gln Tyr Glu
               150
                              155
```

Asn Ala Thr Arg Asp Ile Ala Val Leu Glu Asp Ala Gly Val Pro Tyr 165 170 175 Gln Leu Leu Glu Ala Ser Gln Leu Ala Gln Val Glu Pro Ala Leu Ala

185 Glu Val Ala His Lys Leu Thr Gly Gly Leu Arg Leu Pro Asn Asp Glu

```
200
Thr Gly Asp Cys Gln Leu Phe Thr Gln Arg Leu Ala Arg Met Cys Glu
                 215
                         220
Gln Ala Gly Val Lys Phe Arg Phe Asn Thr Ser Val Asp Lys Leu Leu
              230
                           235
Ser Glu Gly Glu Lys Ile Tyr Gly Val Lys Cys Gly Glu Glu Val Ile
           245
                   250
Lys Ala Asp Ala Tyr Val Met Ala Phe Gly Ser Tyr Ser Thr Ala Met
        260
             265
Leu Lys Gly Ile Leu Asp Ile Pro Val Tyr Pro Leu Lys Gly Tyr Ser
    275
                    280
                                   285
Leu Thr Ile Pro Val Lys Glu Asp Ser Gly Ala Pro Val Ser Thr Ile
      295
                        300
Leu Asp Gla Thr Tyr Lys Ile Ala Ile Thr Arg Phe Asp Asn Arg Ile
305 310
                             315
Arg Val Gly Gly Met Ala Glu Ile Val Gly Phe Asn Thr Glu Leu Leu
         325 330 335
Lys Pro Arg Arg Glu Thr Leu Glu Met Val Val Gly Asp Leu Phe Pro
        340 345
                           350
Arg Gly Gly Phe Ile Glu Gln Ala Thr Phe Trp Thr Gly Leu Arg Pro
355 360 365
Met Thr Pro Asp Gly Thr Pro Ile Val Gly Arg Thr Pro Tyr Lys Asn
370 375 380
Leu Trp Thr Asn Thr Gly His Gly Thr Leu Gly Trp Thr Met Ala Cys
385 390 395 400
Gly Ser Gly Gln Leu Leu Ser Asp Leu Ile Ser Gly Arg Thr Pro Ala
     405 410 415
Ile Pro Phe Asp Asp Leu Ser Ala Ala Arg Tyr Gln Ser Gly Phe Thr
    420 425 430
Pro Ser Arg Pro Gln His Leu His Gly Ala His Asn
```

<210> 6935 <211> 360 <212> PRT

<213> Enterobacter cloacae

<400> 6935 Gly Val Ala Met Ser Arg Pro Ile Leu Ala Gln Leu Asp Leu Gln Ala 10 Leu Lys Asp Asn Leu Gln Ile Val Arg Arg Ala Ala Pro Gly Ser Arg 25 Val Trp Ser Val Val Lys Ala Asn Ala Tyr Gly His Gly Ile Asp Arg 40 Ile Trp Ser Ala Leu Gly Ala Thr Asp Gly Phe Ala Leu Leu Asn Leu 5.5 Glu Glu Ala Ile Leu Leu Arg Glu Arg Gly Trp Lys Gly Pro Ile Leu 7.0 Leu Leu Glu Gly Phe Phe His Ala Gln Asp Leu Pro Leu Leu Asp Lys 90 95 Tyr Arg Leu Thr Thr Ser Val His Ser Asn Trp Gln Ile Lys Ala Ile 100 Gln Asp Ala Lys Leu His Ala Pro Leu Asp Ile Tyr Leu Lys Val Asn 115 120 125 Ser Gly Met Asn Arg Leu Gly Phe Gln Pro Glu Arg Val His Thr Val 135 140 Trp Gln Gln Leu Arg Ala Leu Lys Asn Val Gly Glu Met Thr Leu Met 145 150 155 160 Ala His Phe Ala Asp Ala Glu Lys Pro Asp Gly Ile Ala Asp Ala Met 165 170 Val Arg Ile Glu Gln Ala Ala Glu Gly Leu Asp Cys Pro Arg Ser Leu

```
180
                         185
Ser Asn Ser Ala Ala Thr Leu Trp His Pro Glu Ala His Tyr Asn Trp
             200
   195
Val Arg Pro Gly Ile Val Leu Tyr Gly Ala Ser Pro Ser Gly Gln Trp
                                   220
         215
Gln Asp Ile Ala Asn Ser Gly Leu Lys Pro Val Met Thr Leu Arg Ser
               230
                               235
Glu Ile Ile Gly Val Gln Thr Leu Lys Ala Gly Asp Thr Val Gly Tyr
                      250
            245
Gly Ser Arg Tyr Arg Ala Ala Gly Glu Gln Arg Ile Gly Ile Val Ala
         260
                         265
Gly Gly Tyr Ala Asp Gly Tyr Pro Arg Ile Ala Pro Ser Gly Thr Pro
      275
                     280
                                    285
Val Trp Val Asp Gly Val Arg Thr Gly Thr Val Gly Thr Val Ser Met
       295
                                300
  290
Asp Met Leu Ala Ile Asp Leu Thr Pro Cys Pro Gln Ala Gly Ile Gly
305 310
                               315
Ser Pro Val Giu Leu Trp Gly Asn Glu Val Lys Ile Asp Asp Val Ala
         325
                            330
Ala Ala Gly Thr Val Gly Tyr Glu Leu Met Cys Ala Leu Ala Pro
   340
                         345
Arg Val Pro Val Val Thr Val
    355
                      360
<210> 6936
<211> 211
<212> PRT
<213> Enterobacter cloacae
<400> 6936
Pro Ala Ile Arg Ile Asp Asp Val Lys Leu Arg Trp Phe Ala Phe Leu
                            10
Ile Val Leu Leu Ala Gly Cys Ser Ser Lys His Asp Tyr Gln Asn Pro
                         25
                                          30
20
Pro Trp Asn Pro Glu Val Pro Val Lys Arg Ala Met Gln Trp Met Pro
35
                   4∩
                                      4.5
Ile Ser Glu Gln Ala Gly Lys Ala Trp Gly Val Ser Pro Arg Leu Ile
 50 55
                                   60
Thr Ala Ile Ile Ala Val Glu Ser Gly Gly Asn Pro Thr Leu Val Ser
   70
                               7.5
Lys Ser Asn Ala Val Gly Leu Met Gln Leu Lys Ala Ser Thr Ala Gly
           85 90
Arg Glu Val Tyr Arg Tyr Met Gly Trp Lys Gly Gln Pro Ser Thr Ser
        100 105 110
Glu Leu Lys Asn Pro Glu Arg Asn Ile Ser Met Gly Thr Ala Tyr Leu
                      120 125
Ser Ile Leu Glu His Gly Ile Leu Lys Gly Ile Asp Asp Pro Glu Val
 130 135
                                  140
Met Gln Tyr Ala Leu Val Val Ser Tyr Val Asn Gly Ala Gly Ala Leu
145 150 155
Leu Arg Thr Phe Ser Ser Asp Arg Lys Glu Ala Ile Glu Glu Ile Asn
            165 170 175
Asp Met Asp Lys Asp Glu Phe Phe Glu His Val Val Lys Asn His Pro
         180 185 190
Ser Ala Gln Ala Pro Arg Tyr Ile Trp Lys Val Gln Lys Ala Met Asp
                      200
Ala Met
  210
```

<210> 6937 <211> 257

<210> 6938

<212> PRT <213> Enterobacter cloacae <400> 6937 Pro Arg Asp Ser Leu Ser Ser Ile Glu Glu Pro Ser Gly Val Ser Ser 10 Tyr Ser Glu Gln Phe Leu Lys Gln Asn Pro Leu Ala Val Leu Gly Val 25 Leu Arg Asp Leu Lys Lys Gly Glu Val Pro Leu Arg Ile Asn Trp Ser 35 40 Thr Ser Gln Phe Ile Ser Lys Ile Leu Asp Val Thr Ala Glu His Leu 5.0 5.5 60 Ile Val Asp Leu Gly Ser Gln Ser Asp Glu Asn Arg Ala Ala Leu Gln 70 75 Ala Glu Asn Leu Ser Val Met Ala Glu Thr Gln Gly Ala Lys Val Glu 85 90 95 Phe Val Leu Pro Arg Leu Thr Ala Ile Ala Tyr Gln Asp Leu Pro Ala 100 105 110 Phe Ile Ala Pro Leu Pro Ala Asn Leu Trp Phe Val Gln Arg Arg Glu 115 120 125 Phe Phe Arg Ile Ser Ala Pro Leu His Pro Ala Tyr Phe Cys Lys Ala 135 140 130 Lys Met Pro Asp Lys Lys Glu Ile Arg Phe Arg Leu Phe Asp Leu Ser 150 155 160 Leu Gly Gly Met Gly Ala Leu Met Asp Thr Pro Lys Pro Glu Gly Leu 165 170 175 Val Glu Gly Met Arg Phe Ser Gln Ile Glu Leu Asp Met Gly Gly Trp 180 185 190 Gly Arg Phe Trp Phe Asp Ala Gin Leu Ile Ala Ile Ser Glu Arg Lys 195 200 205 Val Val Asp Ser Lys Asn Glu Thr Ile Thr Thr Pro Arg Leu Ser Phe 210 215 220 Arg Phe Leu Asn Val Gly Pro Gly Ala Glu Arg Glu Leu Gln Arg Ile

```
<211> 313
<212> PRT
<213> Enterobacter cloacae
<400> 6938
Ile Leu Ile Gln Gln Gly Ile Ala Met Pro Gln Phe His Leu Ile Ala
                                  10
Pro Ser Gly Tyr Cys Ile Asn Gln Glu Ala Ala Gln Arg Gly Val Gln
                              25
                                                  3.0
           20
Arg Leu Leu Glu Met Gly His Gln Val Glu Asn Gln Thr Ile Ile Pro
   35
                          40
                                        4.5
Arg Arg Met Gln Arg Phe Ala Gly Thr Glu Ala Gln Arg Leu Ser Asp
 50
                      55
Ile Asn Ser Leu Ala Thr Leu Glu Gly Glu Asn Thr Ile Val Leu Ala
```

225 230 235 240
The Phe Ser Leu Glu Arg Glu Ala Arg Glu Arg Ala Asn Lys Val Arg
245 250 250

65 70 75 80
Val Arg Gly Gly Tyr Gly Ala Ser Arg Leu Leu Glu Ser Ile Asp Trp
90 95
Ala Gly Leu Ala Ala Arg Gln Gln Gln Asp Pro Leu Leu Ile Cys Gly

100 105 His Ser Asp Phe Thr Ala Ile Gln Leu Gly Leu Leu Ala Leu His Asp

Ser Asp Phe Thr Ala Ile Gln Leu Gly Leu Leu Ala Le 115 120 125

```
Val Ile Thr Phe Ser Gly Pro Met Leu Ala Gly Asn Phe Gly Ala Pro
        135 140
Glu Leu Asp Ala Phe Thr Gln Asp His Phe Trp Arg Ala Leu Gln Asn
                            155
        150
Pro Thr Phe Thr Ile Glu Trp Gln Gly Asn Gly Pro His Trp Glu Cys
                            170
         165
Glu Gly Gln Leu Trp Gly Gly Asn Leu Ala Met Leu Val Ser Leu Ile
      180
                         185
                             190
Gly Thr Pro Trp Leu Pro Gln Ile Thr Asp Gly Ile Leu Val Leu Glu
  195 200
                          205
Asp Ile Asn Glu His Pro Phe Arg Val Glu Arg Met Leu Leu Gln Leu
 210 215 220
Ser His Ala Gly Ile Leu Asp Arg Gln Ser Ala Ile Val Leu Gly Ser
225 230 235
Phe Ser Gly Ser Ala Pro Asn Asp Tyr Asp Ala Gly Tyr Ser Leu Glu
        245 250 255
Thr Met Ile Asp Phe Ile Arg Ser Arg Leu Asp Ile Pro Val Ile Ala 260 \hspace{1.5cm} 265 \hspace{1.5cm} 270 \hspace{1.5cm}
Gly Leu Asp Phe Gly His Glu Gln Gln Thr Val Thr Leu Pro Leu Gly
 275 280 285
Ala Arg Ala His Leu Val His Asp Asn Ser Gly Ser Arg Leu Thr Ile
290 295 300
Ser Gly His Pro Val Leu Lys Ala
               310
<210> 6939
<211> 184
<212> PRT
<213> Enterobacter cloacae
<400> 6939
Ala Cys Ser Arg Glu Met Ile Met Leu Arg Phe Leu Asn Gln Cys Ser
                10
Arg Gly Arg Gly Ala Trp Leu Leu Met Ala Leu Thr Ala Phe Ala Leu
                  25
                                   30
Glu Met Val Ala Leu Trp Phe Gln His Val Met Gly Leu Lys Pro Cys
                   40 45
Val Leu Cys Ile Tyr Glu Arg Cys Ala Leu Phe Gly Ile Met Gly Ala
                5.5
Gly Leu Val Gly Ala Ile Ala Pro Lys Ser Pro Leu Arg Tyr Ala Ala 65 70 75 80
Ile Ala Ile Trp Leu Tyr Ser Ala Gly Lys Gly Ile Ala Leu Ala Trp
                 90 95
Glu His Thr Gln Met Gln Leu His Pro Ser Pro Phe Met Thr Cys Asp
         100 105 110
Phe Ala Ala Arg Phe Pro Ser Trp Leu Pro Leu Asp Lys Trp Leu Pro 115 120 125
Gin Val Phe Val Ala Ser Gly Asp Cys Ser Val Arg Gln Trp Glu Phe
 130 135 140
Leu Thr Leu Glu Met Pro Gln Trp Leu Val Gly Ile Phe Val Ala Tyr
145 150 155 160
Phe Val Val Ala Leu Leu Val Leu Ile Ala Gln Pro Phe Lys Pro Lys
            165
Lys Arg Asp Leu Phe Gly Arg
         180
```

<210> 6940 <211> 584

<212> PRT <213> Enterobacter cloacae

<400> 6940 Gly Gly Ser Lys Thr Thr Leu Gly Ala Thr Ala Ile Ile Ser Leu Phe 10 Ile Leu Gly Ser Ile Leu Val Thr Phe Ser Ile Leu Leu Ser Ser Phe 25 Ser Ser Arg Leu Gly Ile Pro Ile Leu Val Ile Phe Leu Ala Ile Gly 35 40 Met Leu Ala Gly Ile Asp Gly Ile Gly Gly Ile Pro Phe Asp Asn Tyr 5.5 Pro Phe Ala Tyr Met Val Ser Asn Leu Ala Leu Ala Val Ile Leu Leu 70 75 Asp Gly Gly Met Arg Thr Gln Ala Ser Ser Phe Arg Val Ala Leu Gly 90 85 Pro Ala Leu Ser Leu Ala Thr Val Gly Val Leu Ile Thr Ser Gly Leu 100 105 110 Thr Gly Met Met Ala Ala Trp Leu Phe Asn Leu Asp Ile Met Glu Gly 115 120 125 Leu Leu Ile Gly Ala Ile Val Gly Ser Thr Asp Ala Ala Ala Val Phe 130 135 140 Ser Leu Leu Gly Gly Lys Gly Leu Asn Glu Arg Val Gly Ser Thr Leu 145 150 155 160 Glu Ile Glu Ser Gly Ser Asn Asp Pro Met Ala Val Phe Leu Thr Ile 165 170 175 Thr Leu Ile Glu Met Ile Gln Gln His Glu Thr Gly Leu Ser Trp Met 180 185 190 Phe Ala Trp His Ile Leu Gln Gln Phe Gly Leu Gly Ile Ile Ile Gly 195 200 205 Leu Gly Gly Gly Tyr Leu Leu Gln Gln Thr Ile Asn Arg Ile Thr Leu 210 215 220 Pro Ser Gly Leu Tyr Pro Leu Leu Ala Leu Ser Gly Gly Ile Leu Ile 225 230 235 Phe Ala Val Thr Thr Ala Leu Asp Gly Ser Gly Ile Leu Ala Val Tyr 245 250 255 Leu Cys Gly Phe Leu Leu Gly Asn Arg Pro Ile Arg Asn Arg His Ala 260 265 270 Ile Leu Gln Asn Phe Asp Gly Leu Ala Trp Leu Ala Gln Ile Ala Met 275 280 285 Phe Leu Val Leu Gly Leu Leu Val Thr Pro Ser Asp Leu Leu Pro Ile 290 295 300 Ala Val Pro Ala Leu Leu Ser Ala Trp Met Ile Phe Phe Ala Arg 305 310 315 320 Pro Leu Ser Val Phe Ala Gly Leu Leu Pro Phe Arg Gly Phe Asn Leu 325 330 335 Arg Glu Arg Ile Phe Ile Ser Trp Val Gly Leu Arg Gly Ala Val Pro 340 345 350 Ile Ile Leu Ala Val Phe Pro Met Met Ala Gly Leu Asp Asn Ala Arg 355 360 365 Leu Phe Phe Asn Val Ala Phe Phe Val Val Leu Val Ser Leu Leu Phe 375 Gln Gly Thr Ser Leu Gly Trp Ala Ala Lys Lys Ala Lys Val Val Val 390 395 Pro Pro Ile Gly Trp Pro Val Ser Arg Val Gly Leu Asp Ile His Pro 405 410 415 Glu Asn Pro Trp Glu Gln Phe Val Tyr Gln Leu Ser Ala Asp Lys Trp 420 425 Cys Val Gly Ala Ser Leu Arg Asp Leu His Met Pro Ala Glu Thr Arg 435 440 445 Ile Ala Ala Leu Phe Arg Asp Asn Ala Leu Leu His Pro Thr Gly Ser 455 460 Thr Arg Leu Arg Glu Asn Asp Ile Leu Cys Val Ile Gly Arg Glu Arg Asp Leu Pro Ala Leu Gly Lys Leu Phe Ser Gln Ser Pro Pro Val Ala 485 490 Leu Asp Gln Arg Phe Phe Gly Asp Phe Ile Leu Glu Ala Ser Ala Arg 510 505 500 Phe Ala Asp Val Ala Leu Ile Tyr Gly Leu Glu Gly Gly Leu Glu Asn 520 Arg Asp Asn Gln Gln Thr Leu Gly Glu Ile Ile Gln Gln Leu Leu Gly 540 535 Ala Ala Pro Val Val Gly Asp Gln Val Glu Phe Ala Gly Met Ile Trp 545 550 555 Thr Val Ala Glu Lys Glu Asp Asn Ala Val Arg Lys Val Gly Val Arg 565 570 575 Pro Met Glu Glu Glu Ala Glu 580

<210> 6941 <211> 527 <212> PRT

<213> Enterobacter cloacae

<400> 6941 Lys Glu Ala Leu Gln Ser Glu Arg Ala Thr Asn Asn Glu Gly Ala Leu 10 Met Ala Thr Leu Asp Ser Met Ser Arg Asp Ser Thr Arg Leu Ser Asp 20 25 3.0 Gly Pro Asp Trp Thr Phe Glu Leu Leu Asp Val Tyr Leu Ala Glu Ile 40 45 Asp Arg Val Ala Lys Leu Tyr Arg Leu Asp Thr Tyr Pro His Gln Ile 50 55 Glu Val Ile Thr Ser Glu Gln Met Met Asp Ala Tyr Ser Ser Val Gly 70 75 Met Pro Ile Asn Tyr Pro His Trp Ser Phe Gly Lys Lys Phe Ile Glu 85 90 95 Thr Glu Arg Leu Tyr Lys His Gly Gln Gln Gly Leu Ala Tyr Glu Ile 100 105 110 Val Ile Asn Ser Asn Pro Cys Ile Ala Tyr Leu Met Glu Glu Asn Thr 115 120 125 Ile Thr Met Gln Ala Leu Val Met Ala His Ala Cys Tyr Gly His Asn 130 135 140 Ser Phe Phe Lys Asn Asn Tyr Leu Phe Arg Ser Trp Thr Asp Ala Ser 155 160 Ser Ile Val Asp Tyr Leu Ile Phe Ala Arg Asn Tyr Ile Thr Asp Cys 165 170 175 Glu Glu Arg Tyr Gly Val Asp Glu Val Glu Lys Leu Leu Asp Ser Cys 180 185 190 His Ala Leu Met Asn Tyr Gly Val Asp Arg Tyr Lys Arg Pro Gln Lys 195 200 205 Ile Ser Leu Gln Glu Glu Lys Ala Arg Gln Lys Ser Arg Glu Glu Tyr 210 215 220 Leu Gln Ser Gln Val Asn Met Leu Trp Arg Thr Leu Pro Lys Arg Glu 230 235 225 Glu Glu Lys Thr Val Ala Glu Ala Arg Arg Tyr Pro Ser Glu Pro Gln 245 250 Glu Asn Leu Leu Tyr Phe Met Glu Lys Asn Ala Pro Leu Leu Glu Pro 265 270 260 Trp Gln Arg Glu Ile Leu Arg Ile Val Arg Lys Val Ser Gln Tyr Phe 285 275 280 Tyr Pro Gln Lys Gln Thr Gln Val Met Asn Glu Gly Trp Ala Thr Phe 300 295 Trp His Tyr Thr Ile Leu Asn His Leu Tyr Asp Glu Gly Lys Val Ser 310 315

```
Glu Arg Phe Met Met Glu Phe Leu His Ser His Thr Asn Val Val Phe
                          330
         325
Gln Pro Ala Tyr Asn Ser Pro Trp Tyr Ser Gly Ile Asn Pro Tyr Ala
                        345
        340
Leu Gly Phe Ala Met Phe Gln Asp Ile Lys Arg Ile Cys Gln Ser Pro
         360
                                    365
      355
Thr Glu Glu Asp Lys Tyr Trp Phe Pro Asp Ile Ala Gly Ser Asp Trp
                 375
                                 380
Leu Glu Thr Leu His Phe Ala Met Arg Asp Phe Lys Asp Glu Ser Phe
                              395
385 390
Ile Ser Gln Phe Met Ser Pro Lys Ile Met Arg Asp Phe Arg Phe Phe
          405 410 415
Thr Val Leu Asp Asp Asp Arg Asn Asn Phe Leu Glu Ile Ser Ala Ile
            425
        420
His Asn Glu Glu Gly Tyr Arg Glu Ile Arg Ser Arg Leu Ser Ser Gln
                         445
 435
                    440
Tyr Asn Leu Ser Asn Leu Glu Pro Asn Ile Gln Val Trp Asn Val Asp
 450 455 460
Leu Arg Gly Asp Arg Ser Leu Thr Leu Arg Tyr Ile Pro His Asn Arg
465 470 475 480
Ala Pro Leu Asp Lys Gly Arg Lys Glu Val Leu Lys His Val His Arg
     485 490 495
Leu Trp Gly Phe Asp Val Leu Leu Glu Gln Gln Asn Glu Asp Gly Ser
    500
            505 510
Val Glu Leu Leu Glu Arg Cys Pro Ala Arg Leu Asn Thr Leu
                    520
```

<210> 6942 <211> 540 <212> PRT

<213> Enterobacter cloacae

<400> 6942 Cys Leu Val Leu Phe Asp Gly Glu Arg Thr Ser Val Val Glu Ile Ser 10 Phe Gly Arg Ala Leu Trp Arg Asn Phe Leu Gly Gln Ser Pro Asp Trp 25 3.0 Tyr Lys Leu Thr Leu Leu Val Phe Leu Val Val Asn Pro Val Ile Phe 40 45 Leu Leu Asp Pro Phe Val Ala Gly Trp Met Leu Val Ala Glu Phe Ile 5.5 Phe Thr Leu Ala Met Ala Leu Lys Cys Tyr Pro Leu Leu Pro Gly Gly 7.0 75 Leu Leu Ala Leu Glu Ala Val Val Ile Gly Met Thr Ser Ala Glu His 90 8.5 Val Lys Asn Glu Ile Ala Ser Asn Leu Glu Val Leu Leu Leu Ile 105 110 100 Phe Met Val Ala Gly Ile Tyr Phe Met Lys Gln Leu Leu Leu Phe Ile 120 115 Phe Thr Arg Leu Leu Ser Ile Pro Ser Lys Thr Leu Leu Ser Leu 135 140 130 Ala Phe Cys Leu Ala Ala Ala Phe Val Ser Ala Phe Leu Asp Ala Leu 150 155 Thr Val Val Ala Val Val Ile Ser Val Ala Val Gly Phe Tyr Gly Ile 165 170 175 Tyr His Arg Val Ala Ser Ser Arg Pro Gly Asp Asn Leu Gln Asp Asp 185 180 190 Ser His Val Glu Ala His Asn Arg Asp Val Leu Glu Gln Phe Arg Ala 195 200 205 Phe Leu Arg Ser Leu Met Met His Ala Gly Val Gly Thr Ala Leu Gly 210 215 220

```
Gly Val Met Thr Met Val Gly Glu Pro Gln Asn Leu Ile Ile Ala Lys
225
      230
                              235
Ala Ala Glu Trp His Phe Gly Glu Phe Phe Leu Arg Met Ala Pro Val
            245 250
Ser Val Pro Val Leu Val Cys Gly Leu Ala Thr Cys Val Leu Val Glu
     260
            265 270
Lys Phe Asn Leu Phe Gly Tyr Gly Ala Thr Leu Pro Asp Gln Val Arg 275 \hspace{1cm} 280 \hspace{1cm} 285 \hspace{1cm}
Gln Glu Leu His Lys Phe Asp Glu Gln Ser Arg Lys Gln Arg Thr Arg
290 295 300
Gln Glu Thr Leu Arg Leu Ile Ala Gln Gly Phe Ile Gly Val Trp Leu
305 310 315
Ile Ala Ala Leu Ala Phe His Leu Ala Glu Val Gly Leu Ile Gly Leu
          325 330 335
Ser Val Ile Ile Leu Ala Thr Ser Leu Gly Gly Val Thr Asp Glu His
         340 345 350
Ala Ile Gly Lys Ala Phe Thr Glu Ala Leu Pro Phe Thr Ala Leu Leu 355 360 365
Ala Val Phe Phe Ala Val Val Ala Val Ile Ile Asp Gln His Leu Phe
      375
                                 380
Ala Pro Ile Ile Ala Phe Val Leu Gln Ala Thr Pro Asp Ser Gln Leu
              390 395 400
Thr Leu Phe Tyr Leu Phe Asn Gly Leu Leu Ser Ser Ile Ser Asp Asn
           405 410 415
Val Phe Val Gly Thr Val Tyr Ile Asn Glu Ala Lys Ala Ala Met Glu
       420 425 430
Gln Gly Ile Val Ser Ser Glu Gln Phe Glu Leu Leu Ala Val Ala Ile
435 44C 445
Asn Thr Gly Thr Asn Leu Pro Pne Arg Gly Asn Pro Glu Arg Ser Gly
450 455 460
Gly Ile Pro Leu Pro Ala Asp Leu Gly Ala Gly Thr Thr His Thr Thr
465 470 475
Phe Leu Trp Lys Asn Gly Leu Asp Gly Ala Ala Val Tyr Ala Gly Ala
          485
                           490 495
Tyr Pro Gly Trp Phe Thr Val His Gln Asn Tyr Ser Arg Ser Leu Tyr
        500
                        505 510
Ala Met Val Ile Ala Ser Arg Tyr Thr Cys Gly Ala Leu Lys Phe Val
 515 520
Tyr Thr Ala Leu Ser Lys His Val Pro Gly Lys
  530
                  535
<210> 6943
<211> 125
<212> PRT
<213> Enterobacter cloacae
<400> 6943
Arg Cys Ser Ile Cys Leu Thr Val Cys Cys Pro Leu Tyr Pro Ile Thr
                            10
                                   1.5
Ser Leu Ser Gly Arg Tyr Thr Ser Met Arg Pro Lys Pro Arg Trp Ser
         20
                        25
                                        30
Lys Gly Leu Ser Ala Val Asn Ser Ser Ser Cys Trp Arg Trp Arg Ser
      35
                   40
                                     4.5
```

```
Gln Trp Leu Leu Gln Ala Gly Ile Leu Ala Ala His
                          120
<210> 6944
<211> 62
<212> PRT
<213> Enterobacter cloacae
<400> 6944
Asn Ser Phe Thr Leu Arg Cys Leu Ser Met Phe Gln Gly Asn Asp Tyr
                                10
Val Ala Ile Phe Glu Pro Val Leu Thr Arg Ser Arg Ser Val Val Val
                          25
           20
                                             30
Asp Gly Pro Asp Arg Leu Cys Ala Gly Asn Gly Arg Ala Val Val Ser
                                          45
                      40
Ala Cys Asp Gly Ala Glu Thr Leu Arg Thr Val Tyr Leu
   50
<210> 6945
<211> 195
<212> PRT
<213> Enterobacter cloacae
<400> 6945
Ile Met Thr Asp Tyr Leu Leu Leu Phe Val Gly Thr Val Leu Val Asn
                                 1.0
Asn Phe Val Leu Val Lys Phe Leu Gly Leu Cys Pro Phe Met Gly Val
           20
                             2.5
Ser Lys Lys Leu Glu Thr Ala Met Gly Met Gly Leu Ala Thr Thr Phe
       35
                          4.0
                                            4.5
Val Met Thr Met Ala Ser Ile Cys Ala Trp Leu Ile Asp Thr Trp Ile
 50
                      55
                                         60
Leu Ile Pro Leu Asp Met Leu Tyr Leu Arg Thr Leu Ala Phe Ile Leu
                  70
                                     75
65
Val Ile Ala Val Val Val Gln Pne Thr Glu Met Val Val Arg Lys Thr
              8.5
                                 90
Ser Pro Ala Leu Tyr Arg Leu Leu Gly Ile Phe Leu Pro Leu Ile Thr
                             105
                                                110
           100
Thr Asn Cys Ala Val Leu Gly Val Ala Leu Leu Asn Ile Asn Leu Gly
                          120
                                            125
       115
His Asn Phe Leu Gln Ser Ala Leu Tyr Gly Phe Ser Ala Ala Val Gly
  130
                      135
                                         140
Phe Ser Phe Val Met Val Leu Phe Ala Ser Ile Arg Glu Arg Leu Ala
145
                  150
                                     155
Ala Ala Asp Ile Pro Ala Pro Phe Arq Gly Asn Ala Ile Ala Leu Val
              165 170
                                                    175
Thr Ala Gly Leu Met Ser Leu Ala Phe Met Gly Phe Ser Gly Leu Val
           180
                              185
Lys Leu
       195
<210> 6946
<211> 702
<212> PRT
<213> Enterobacter cloacae
<400> 6946
Asn Tyr Ala Arg Leu Lys Arg Leu Pro Lys Thr Gly Ser Gly Thr Phe
1
                                 10
Arg Pro Phe Arg Phe Ala Ile Phe Leu Trp Asn Asn Met Leu Lys Leu
           20
                             25
                                                 3.0
```

Phe Ser Ala Phe Arg Lys Glu Lys Ile Trp Asp Phe Asp Gly Gly Ile 35 40 His Pro Pro Glu Met Lys Ser Gln Ser Asn Gly Thr Pro Leu Arg Gln 55 Ile Pro Leu Ala Thr Arg Tyr Val Met Pro Leu Lys Gln His Ile Gly 70 Ala Glu Gly Glu Leu Cys Val Lys Glu Gly Asp Ser Val Leu Arg Gly 90 85 Gln Pro Leu Thr Phe Gly Arg Gly Arg Met Leu Pro Ile His Ala Pro 100 105 110 Thr Ser Gly Lys Val Val Ala Val Ala Pro His Thr Val Ala His Pro 115 120 125 Ser Ala Leu Ser Glu Leu Ser Val Ile Ile Glu Ala Asp Gly Glu Asp 130 135 140 Arg Trp Ile Glu Arg Asp Gly Trp Ser Asp Tyr Arg Ser His Ser Arg 145 150 155 160 Glu Ala Leu Ile Glu Arg Ile His Gln Phe Gly Val Ala Gly Leu Gly 165 170 175 Gly Ala Gly Phe Pro Thr Gly Ala Lys Leu His Gly Gly Gly Asp Lys 180 185 190 Ile Glu Thr Leu Ile Ile Asn Ala Ala Glu Cys Glu Pro Tyr Ile Thr 195 200 205 Ala Asp Asp Arg Leu Met Gln Asp Cys Ala Ala Gln Val Val Glu Gly 210 215 220 Ile Arg Ile Leu Ala His Ile Leu Gln Pro Arg Glu Val Leu Ile Gly 230 235 Ile Glu Asp Asn Lys Pro Gln Ala Ile Ser Met Leu Arg Ala Val Leu 245 250 255 Ala Asp Ser His Asp Ile Ala Leu Arg Val Ile Pro Thr Lys Tyr Pro 260 265 270 Ser Gly Gly Ala Lys Gln Leu Thr Gln Ile Leu Thr Gly Lys Gln Val 275 280 285Pro His Gly Gly Arg Ser Ser Asp Ile Gly Val Leu Met Gln Asn Val 295 Gly Thr Ala Tyr Ala Val Lys Arg Ala Val Ile Asp Gly Glu Pro Leu 310 315 Thr Glu Arg Val Val Thr Leu Thr Gly Glu Ser Val Ser Arg Pro Gly 325 330 335 Asn Ile Trp Ala Arg Leu Gly Thr Pro Val Arg His Leu Leu Glu Gln 345 340 Ala Gly Phe Cys Pro Gly Asn Asp Gln Leu Val Ile Met Gly Gly Pro 360 355 Leu Met Gly Phe Thr Leu Pro Trp Leu Asp Val Pro Val Val Lys Ile 370 375 380 Thr Asn Cys Leu Leu Ala Pro Ser Leu Thr Glu Met Gly Glu Thr Gln 390 395 Glu Glu Lys Gly Cys Ile Arg Cys Ser Ala Cys Ala Asp Ala Cys Pro 405 410 415 Ala Asp Leu Leu Pro Gln Gln Leu Tyr Trp Tyr Ser Lys Gly Gln Leu 425 420 His Asp Lys Ala Gln Ala His Asn Leu Ala Asp Cys Ile Glu Cys Gly 440 435 445 Ala Cys Ala Trp Val Cys Pro Ser Asn Ile Pro Leu Val Gln Tyr Phe 450 455 460 Arg Gln Glu Lys Ala Glu Ile Tyr Ala Ile Ser Met Glu Glu Lys Arg 475 . 480 470 Ala Ala Glu Ala Lys Ala Arg Phe Glu Ala Arg Gln Ala Arg Leu Glu 490 Arg Glu Lys Gln Ala Arg Gln Glu Arg His Lys Gln Ala Ala Val Gln 505 510 500 Pro Ala Ala Lys Asp Gln Asp Ala Ile Asn Ala Ala Leu Ala Arg Val

520 Arg Glu Lys Lys Ala Thr Ala Ala Gln Thr Val Val Ile Ala Pro Gly 540 535 Glu Lys Pro Asp Asn Ser Glu Ala Ile Ala Ala Arg Glu Ala Arg Lys 550 555 Ala Glu Ala Arg Ala Arg Gln Ala Glu Lys Ala Gln Asn Ala Lys Pro 565 570 Glu Ala Asp Ile Asp Pro Arg Lys Ala Ala Val Glu Ala Ala Ile Ala 580 585 590 Arg Ala Lys Ala Arg Lys Ala Gly Gln Gln Thr Val Val Val Glu Gln 595 600 Glu Ala Thr Asp Pro Arg Lys Ala Ala Val Glu Ala Ala Ile Ala Arg 610 615 620 Ala Lys Ala Arg Lys Ala Ala Gln Leu Gln Pro Ala Glu Glu Ser Glu 625 630 635 Ala Pro Val Asp Pro Arg Lys Ala Ala Val Glu Ala Ala Ile Ala Arg 645 650 655 Ala Lys Ala Arg Lys Ala Ala Gln Gln Asp Glu Leu Pro Ala Ala Ala 660 665 670 Asn Asp Asp Pro Arg Lys Ala Ala Val Ala Ala Ala Ile Ala Arg Val 675 680 Gln Ala Lys Lys Ala Ala Gln Gln Ala Val Asn Glu Asp <210> 6947 <211> 351 <212> PRT <213> Enterobacter cloacae <400> 6947 Met Val Phe Arg Ile Ala Ser Ser Pro Tyr Thr His Asn Gln Arg Gln 10 Thr Ser Arg Ile Met Met Leu Val Cys Leu Ala Ala Leu Pro Gly Ile 25 Ala Val Gln Cys Trp Phe Phe Gly Trp Gly Thr Leu Phe Gln Leu Val 40 45 Leu Gly Cys Ala Ser Ala Val Ala Ala Glu Ala Ala Ile Leu Lys Leu 50 5.5 60 Arg Lys Met Glu Val Thr Arg Ile Leu Ser Asp Asn Ser Ala Leu Leu 70 75 Thr Gly Leu Leu Ala Ile Ser Ile Pro Pro Phe Ala Pro Trp Trp 85 90 95 Met Val Val Leu Gly Thr Val Phe Ala Val Ile Ile Ala Lys Gln Leu 100 105 110 Tyr Gly Gly Leu Gly His Asn Pro Phe Asn Pro Ala Met Ile Gly Tyr 115 120 125 Val Val Leu Leu Ile Ser Phe Pro Val Gln Met Thr Ser Trp Leu Pro 130 135 140 Pro His Glu Ile Ala Ala Thr Val Pro Gly Phe Met Asp Ala Leu His 150 155 Val Ile Phe Thr Gly His Thr Ala Leu Gly Ala Asp Met Asn Ala Leu 165 170 175 Arg Met Gly Val Asp Gly Ile Ser Gln Ala Thr Pro Leu Asp Thr Phe 190 185 180 Lys Thr Ser Leu Arg Ala Gly Gln Ser Val Glu Gln Val Met Lys Ser 195 200 205 Ser Ile Tyr Ser Gly Val Leu Ala Gly Ala Gly Trp Gln Trp Val Asn 215 220 210 Leu Ala Tyr Leu Leu Gly Gly Ala Phe Leu Leu Gln Gln Lys Ala Ile 235 230

Arg Trp His Ile Pro Val Ser Phe Leu Val Thr Leu Ala Val Cys Ser

```
245
Thr Leu Gly Trp Val Ile Ser Pro Glu Ser Leu Ala Ser Pro Gln Leu
                                  270
         260
                         265
His Leu Leu Ser Gly Ala Thr Met Leu Gly Ala Phe Phe Ile Leu Thr
   275 280
                                 285
Asp Pro Val Thr Ala Ser Thr Thr Asn Arg Gly Arg Leu Ile Phe Gly
 290 295 300
Ala Leu Ala Gly Leu Leu Val Trp Leu Ile Arg Ser Phe Gly Gly Tyr
305 310 315
                                                  320
Pro Asp Gly Val Ala Phe Ala Val Leu Leu Ala Asn Ile Thr Val Pro
          325 330 335
Leu Ile Asp Tyr Tyr Thr Arg Pro Arg Val Tyr Gly His Arg
                        345
         340
<210> 6948
<211> 232
<212> PRT
<213> Enterobacter cloacae
<400> 6948
Gly Val Thr Met Ser Gln Val Lys Glu Val Ile Val Gln Gly Leu Trp
                             10
Lys Asn Asn Ser Ala Leu Val Gln Leu Leu Gly Leu Cys Pro Leu Leu
 20
                          25
Ala Val Thr Ser Thr Ala Thr Asn Ala Leu Gly Leu Gly Leu Ala Thr
                      40
Thr Leu Val Leu Thr Leu Thr Asn Phe Ser Ile Ser Val Leu Arg Arg
50
                   5.5
                                    60
Trp Thr Pro Ser Glu Ile Arg Ile Pro Ile Tyr Val Met Ile Ile Ala
              7.0
                                 7.5
Ser Val Val Ser Val Val Gln Met Leu Ile Asn Ala Tyr Ala Phe Gly
           85
                             90
Leu Tyr Gln Ser Leu Gly Ile Phe Ile Pro Leu Ile Val Thr Asn Cys
   100
                          105
Ile Val Val Gly Arg Ala Glu Ala Phe Ala Val Lys Asn Asn Pro Ala
    115
                       120
                                       125
Ile Ser Ala Leu Asp Gly Phe Ser Ile Gly Met Gly Ala Thr Ala Ala
                   135
                                    140
   130
Met Phe Val Leu Gly Ser Leu Arg Glu Ile Leu Gly Asn Gly Thr Leu
                                 155
145
                150
                                                 1.60
Phe Asp Gly Ala Asp Ala Leu Leu Gly Gly Trp Ala Lys Ser Leu Arg
             165
                             170 175
Ile Glu Val Phe His Thr Asp Thr Pro Phe Leu Leu Ala Met Leu Pro
          180
                          185
                                           190
Pro Gly Ala Phe Ile Gly Leu Gly Met Met Leu Ala Leu Lys Tyr Leu
      195 200
                              205
Ile Asp Glu Lys Arg Lys Arg Arg Ala Ala Glu Arg Ser Val Gln Glu
 210
                215
Gly Ile Pro Glu Lys Ala Val
                230
<210> 6949
<211> 516
<212> PRT
<213> Enterobacter cloacae
<400> 6949
Thr Pro Pro Leu Ile Trp Asp Val Lys Lys Glu Val Tyr Val Ser Thr
                             10
Ala Asn Asn Lys Pro Thr Asp Glu Ser Val Ser Leu Asn Ala Phe Lys
```

```
Gln Pro Lys Ala Phe Tyr Leu Ile Phe Ser Ile Glu Leu Trp Glu Arg
                  40
     35
Phe Gly Tyr Tyr Gly Leu Gln Gly Ile Met Ala Val Tyr Leu Val Lys
Gln Leu Gly Met Ser Glu Ala Asp Ser Ile Thr Leu Phe Ser Ser Phe
              70
Ser Ala Leu Val Tyr Gly Leu Val Ala Ile Gly Gly Trp Leu Gly Asp
                          90
           85
Lys Val Leu Gly Thr Lys Arg Val Ile Met Leu Gly Ala Val Val Leu
                       105
        100
Ala Ile Gly Tyr Gly Leu Val Ala Trp Ser Gly His Asp Ala Gly Val
    115 120
Val Tyr Met Gly Met Ala Thr Ile Ala Val Gly Asn Gly Leu Phe Lys
130 135
                                140
Ala Asn Pro Ser Ser Leu Leu Ser Thr Cys Tyr Ser Lys Asp Asp Pro
145 150 155
Arg Leu Asp Gly Ala Phe Thr Met Tyr Tyr Met Ser Ile Asn Ile Gly
   165 170 175
Ser Phe Phe Ser Met Leu Ala Thr Pro Trp Leu Ala Ala Lys Phe Gly
 180 185
                            190
Trp Ser Val Ala Phe Ala Leu Ser Phe Val Gly Met Leu Ile Thr Val
195 200 205
Val Asn Phe Leu Phe Cys Arg Ser Trp Val Lys Asp Tyr Gly Ser Lys
210 215 220
Pro Asp Phe Glu Pro Val His Met Gly Lys Leu Leu Ala Thr Ile Val 225 230 235 240
Gly Ile Val Ile Leu Ala Ala Val Ala Thr Trp Leu Leu His Asn Glr
         245 250 255
Gly Val Ala Arg Ala Val Leu Gly Val Val Ala Leu Gly Ile Val Ile
        260 265 270
Ile Phe Ala Lys Glu Ala Phe Ala Met Gln Gly Ala Ala Arg Arg Lys
275 280 285
Met Ile Val Ala Phe Ile Leu Met Leu Glu Ala Ile Ile Phe Phe Val
290 295 300
Leu Tyr Ser Gln Met Pro Thr Ser Leu Asn Phe Phe Ala Ile Arg Asn
   310 315
Val Glu His Ser Ile Leu Gly Ile Ala Phe Glu Pro Glu Gln Tyr Gln
        325 330 335
Ala Leu Asn Pro Phe Trp Ile Met Ile Gly Ser Pro Ile Leu Ala Ala
        340 345 350
Ile Tyr Asn Lys Met Gly Asp Arg Leu Pro Met Pro His Lys Phe Ala
     355 360 365
Ile Gly Met Val Leu Cys Ser Gly Ala Phe Leu Val Leu Pro Leu Gly
  370 375 380
Thr Lys Phe Ala Thr Asp Ala Gly Ile Vai Ser Val Asn Trp Leu Ile
              390
                             395
Leu Ser Tyr Ala Leu Gln Ser Ile Gly Glu Leu Met Ile Ser Gly Leu
           405 410 415
Gly Leu Ala Met Val Ala Gln Leu Val Pro Gln Arg Leu Met Gly Phe
        420
                      425 430
Ile Met Gly Ser Trp Phe Leu Thr Thr Ala Gly Ala Ala Ile Ile Ala
     435 440 445
Gly Lys Ile Ala Asn Leu Met Ala Val Pro Asp Asn Val Thr Asp Pro
 450 455 460
Leu Val Ser Leu Asn Val Tyr Gly Thr Val Phe Met Gln Ile Gly Ile
              470
                             475
Ala Thr Ala Val Ile Ala Val Leu Met Leu Leu Thr Ala Pro Lys Leu
           485 490 495
Asn Arg Met Thr Gln Asp Asp Asp Lys Ser Ala Lys Ala Ile Lys Thr
                       505
                                      510
Ala Asn Ala
```

```
<210> 6950
<211> 213
<212> PRT
<213> Enterobacter cloacae
<400> 6950
His Ser Trp Asn Leu Ser Lys Lys Glu Leu Pro Met Lys Leu Phe Tyr
                              10
Lys Pro Gly Ala Cys Ser Leu Ala Ser His Ile Thr Leu Arg Glu Ser
   20
                           25
                                            3.0
Gly Lys Asp Phe Thr Leu Asp Gly Val Asp Leu Met Lys Lys Arg Leu
    35
          4.0
                                         45
Glu Asn Gly Asp Asp Phe Phe Ala Ile Asn Pro Lys Gly Gln Val Pro
          55
                           60
Ala Leu Leu Leu Asp Asp Gly Thr Leu Leu Thr Glu Gly Val Ala Ile
                7.0
                                 7.5
Met Gln Phe Leu Ala Asp Asn Val Pro Asp Arg Gln Leu Leu Ala Pro
       85
                              90 95
Thr Gly Ser Ile Ala Arg Tyr Lys Thr Leu Glu Trp Leu Asn Tyr Ile
                          105
                               110
         100
Ala Thr Glu Leu His Lys Gly Phe Thr Pro Leu Phe Arg Pro Asp Thr
      115
                       120 125
Pro Glu Glu Tyr Lys Pro Thr Val Arg Ala Leu Leu Glu Lys Lys Leu
                    135
                                     140
Gln Tyr Val Asn Asp Ala Leu Lys Asp Asp Gln Trp Ile Cys Gly Ser
                 150 155
145
Arg Phe Thr Ile Ala Asp Ala Tyr Leu Phe Thr Val Leu Arg Trp Ala
             165
                              170 175
Arg Ala Val Lys Leu Asn Met Glu Gly Leu Asp His Val Ala Ser Tyr
         180 185 190
Met Thr Arg Val Ala Glu Arg Pro Ala Val Ala Ala Ala Leu Lys Ala
                       200
   195
Glu Gly Leu Asn
  210
<210> 6951
<211> 115
<212> PRT
<213> Enterobacter cloacae
<400> 6951
Phe Phe Ala Lys Lys Thr Pro Asn Phe Val Ala Leu Pro Glu Trp Thr
                              10
Val Tyr Val Phe Ile Asn Pro Phe Ile Ile Arg Thr His Tyr Leu Tyr
                           25
                                            30
          20
Gly Tyr Tyr Pro Phe Ile Trp Lys Leu Ile Asn Met Thr Val Gln Asp
                       40
                                         45
Tyr Leu Leu Lys Phe Arg Lys Ile Asn Ser Leu Glu Ser Leu Glu Lys
  50
                    55
                                  60
Leu Phe Asp His Leu Asn Tyr Thr Leu Ser Asp Asn Gln Asp Ile Ile
                            75
                 70
                                                   80
Asn Met Tyr Arg Ala Ala Asp His Arg Arg Ala Glu Leu Val Ser Gly
                               90
Gly Arg Leu Phe Asn Val Gly Glu Val Pro Lys Ser Val Trp Arg Tyr
          100
Val Val
      115
```

```
<211> 260
<212> PRT
<213> Enterobacter cloacae
<400> 6952
Phe Ser Ala Arg Trp Gln Ala Cys Trp Ser Gly Leu Phe Ala Ala Leu
                               10
Ala Ala Ile Arg Thr Ala Trp His Leu Pro Cys Cys Trp Leu Thr Ser
        20
                         25
Pro Phe Arg Ser Ser Thr Thr Thr Arg Val His Ala Cys Thr Val Ile
 35
                  4.0
Ala Lys Gly Arg Ala Met Leu Lys Thr Met Gln Lys His Gly Val Thr
             55
                                      60
Leu Ala Ile Phe Ala Ala Ala Leu Thr Gly Leu Thr Ala Leu Val Asn
         70
                                   7.5
Glu Leu Thr Lys Thr Thr Ile Ala Glu Gln Ala Met Lys Gln Gln Lys
                  90
            85
Ala Leu Phe Asp Gln Val Ile Pro Ser Asp Leu Tyr Asp Asn Asp Leu
         100
                         105
Gln Lys Ser Cys Phe Val Val Gln Ala Pro Gln Leu Gly Lys Gly Pro
    115
                        120 125
His Arg Val Tyr Ile Ala Arg Lys Gly Asp Asn Pro Val Gly Ala Val
                  135
 130
Met Glu Ala Thr Ala Pro Asp Gly Tyr Ser Gly Ala Ile Gln Leu Leu
     150
                                   155
Val Gly Ser Asp Phe Ser Gly Thr Val Leu Gly Thr Arg Val Thr Glu
              165
                               170
His His Glu Thr Pro Gly Leu Gly Asp Lys Ile Glu Thr Arg Leu Ser
          180
                            185
Asp Trp Ile Leu His Phe Ala Gly Lys Met Ile His Gly Glu Asp Asp
      195
                     200
Pro Ala Phe Ala Val Lys Lys Asp Gly Gly Glu Phe Asp Gln Phe Thr
 210
                    215
Gly Ala Thr Ile Thr Pro Arg Ala Val Val Asn Ala Val Lys Arg Ala
                 230
                                 235
Gly Leu Tyr Ala Glu Thr Leu Pro Ala Gln Ile Asn His Leu Ser Thr
                                250
              245
Cvs Glu Glu
          260
<210> 6953
<211> 156
<212> PRT
<213> Enterobacter cloacae
<400> 6953
His Phe Ala Gln Thr Met Gly Glu Arg Met Thr Ala Leu Pro Gly Glu
                                1.0
Arg Ile Gly Gly Trp Leu Ile Ala Pro Leu Ala Trp Leu Leu Val Ala
          20
                            25
                                              3.0
Leu Leu Ser Ala Ser Leu Ala Leu Leu Leu Tyr Thr Thr Ala Leu Val
      35
                         40
                                           4.5
Thr Pro His Ala Ile Gln Thr Leu Met Ser Gln Ser Ala Leu Asn Ile
Ala Thr Trp Phe Val Ser Phe Val Phe Ala Ile Ala Met Trp Tyr Tyr
                 70
Thr Leu Trp Leu Thr Ile Ala Phe Phe Lys Arg Arg Lys Ser Val Pro
                                90
             8.5
Lys His Tyr Ile Ile Trp Leu Leu Val Ser Val Leu Leu Ala Val Lys
                         105
Ala Phe Ala Phe Ser Pro Val Ser Asp Ala Leu Ala Val Arg Gln Leu
```

```
120
Leu Phe Pro Leu Leu Ala Thr Ala Leu Leu Val Pro Tyr Phe Lys Arg
             135
Ser Thr Arg Val Lys Lys Thr Phe Val Asn Pro
                150
<210> 6954
<211> 199
<212> PRT
<213> Enterobacter cloacae
<400> 6954
Trp Ser Gly Glu Val Val Met Ser Ala Ile Trp Ile Ala Ile Ala Ser
Ile Ser Val Leu Gly Leu Val Phe Gly Ile Ile Leu Gly Tyr Ala Ser
         20
                          25
Arg Arg Phe Ala Val Glu Asp Asp Pro Val Val Glu Lys Ile Asp Glu
 35
                      40
Leu Leu Pro Gln Ser Gln Cys Gly Gln Cys Gly Tyr Pro Gly Cys Arg
50
                   55
Pro Tyr Ala Glu Ala Val Gly Val Gln Gly Glu Lys Ile Asn Arg Cys
                7.0
                                7.5
Ala Pro Gly Gly Glu Ala Val Met Leu Lys Ile Ala Ala Leu Leu Asn
            85 90 95
Val Asp Pro Gln Pro Val Asp Gly Asp Glu Gln Ala Gln Glu Pro Val
        100 105 110
Arg Ala Leu Ala Val Ile Asp Glu Ala Asn Cys Ile Gly Cys Thr Lys
 115 120 125
Cys Ile Gln Ala Cys Pro Val Asp Ala Ile Val Gly Ala Thr Arg Ala
 130 135 140
Met His Thr Val Val Ala Asp Leu Cys Thr Gly Cys Asn Leu Cys Val
145 150 155
Ala Pro Cys Pro Thr Gln Cys Ile Glu Leu Arg Pro Val Glu Thr Thr
        165 170 175
Thr Glu Asn Trp Lys Trp Asp Leu Gln Thr Ile Pro Val Arg Asn Ile
   180 185
Pro Val Glu Gln His Ala
 195
<210> 6955
<211> 224
<212> PRT
<213> Enterobacter cloacae
<400> 6955
Thr Gln Arg Thr Gly Arg Asp Pro Arg Glu Ser Ser Met Asn Lys Glu
                        10
                                      15
Lys Arg Ile Ala Ile Leu Thr Arg Leu Arg Asp Glu Asn Pro His Pro
                          25
                                          3.0
Thr Thr Glu Leu Asn Phe Asn Ser Pro Phe Glu Leu Leu Ile Ala Val
                   40
                                      45
Leu Leu Ser Ala Gln Ala Thr Asp Val Ser Val Asn Lys Ala Thr Ala
                   55
Leu Leu Tyr Pro Val Ala Asn Thr Pro Gln Ala Met Leu Glu Leu Gly
                7.0
                                 75
Val Glu Gly Val Lys Ser Tyr Ile Lys Thr Ile Gly Leu Phe Asn Ser
             85
                              90
Lys Ala Glu Asn Val Ile Lys Thr Cys Arg Ile Leu Leu Glu Lys His
       100
                        105
Gly Gly Glu Val Pro Glu Asp Arg Ala Ala Leu Glu Ala Leu Pro Gly
                       120
```

```
Val Gly Arg Lys Thr Ala Asn Val Val Leu Asn Thr Ala Phe Gly Trp
 130
            135
                            140
Pro Thr Ile Ala Val Asp Thr His Ile Phe Arg Val Ser Asn Arg Thr
145
            150 155
Arg Phe Ala Pro Gly Lys Asn Val Glu Glu Val Glu Glu Lys Leu Leu
        165 170 175
Lys Val Val Pro Ala Glu Phe Lys Val Asp Cys His His Trp Leu Ile
        180 185 190
Leu His Gly Arg Tyr Thr Cys Ile Ala Arg Lys Pro Arg Cys Gly Ser
 195 200 205
Cys Ile Ile Glu Asp Leu Cys Glu Tyr Lys Glu Lys Val Tyr Pro
  210 215 220
<210> 6956
<211> 457
<212> PRT
<213> Enterobacter cloacae
<400> 6956
Arg Thr Pro Arg Trp Arg Phe Ile Leu Trp Ser Phe Arg Ile Arg Arg
                         10
Lys Val Val Tyr Arg Gln Arg Cys Ser Arg Leu Tyr Met Glu Asn Leu
                        25
20
Met Ala Ser Ser Asn Leu Ile Lys Gln Leu Gln Glu Arg Gly Leu Val
35
                   4.0
Ala Gln Val Thr Asp Glu Glu Ala Leu Ala Glu Arg Leu Ala Gln Gly
                55
                     60
Pro Ile Ala Leu Tyr Cys Gly Phe Asp Pro Thr Ala Asp Ser Leu His
               70
                           75
Leu Gly His Leu Val Pro Leu Leu Cys Leu Lys Arg Phe Gln Met Ala
          85
                         90
Gly His Lys Pro Val Ala Leu Val Cly Gly Ala Thr Gly Leu Ile Gly
        100 105 110
Asp Pro Ser Phe Lys Ala Ala Glu Arg Lys Leu Asn Thr Glu Asp Thr
115 120 125
Val Gln Glu Trp Val Asp Lys Ile Arg Lys Gln Val Ala Pro Phe Leu
                 135 140
 130
Asp Phe Asp Cys Gly Glu Asn Ser Ala Ile Ala Ala Asn Asn Tyr Asp
145 150
                            155
Trp Phe Gly Gly Met Asn Val Leu Thr Phe Leu Arg Asp Ile Gly Lys
           165 170
His Phe Ser Val Asn Gln Met IIe Asn Lys Glu Ala Val Lys Gln Arg
                      185
                                       190
        180
Leu Asn Arg Asp Asp Gln Gly Ile Ser Phe Thr Glu Phe Ser Tyr Asn
    195 200
                                    205
Leu Leu Gln Gly Tyr Asp Phe Ala Cys Leu Asn Lys Leu His Gly Val
 210
                 215 220
Ser Leu Gln Ile Gly Gly Ser Asp Gln Trp Gly Asn Ile Thr Ser Gly
               230
                              235
225
                                             240
Ile Asp Leu Thr Arg Arg Leu His Gln Asn Gln Val Phe Gly Leu Thr
                           250
            245
Val Pro Leu Ile Thr Lys Ala Asp Gly Thr Lys Phe Gly Lys Thr Glu
         260
                        265
                                       270
Gly Gly Ala Val Trp Leu Asp Pro Lys Lys Thr Ser Pro Tyr Lys Phe
      275
                    280
                                    285
Tyr Gln Phe Trp Ile Asn Thr Ala Asp Ala Asp Val Tyr Arg Phe Leu
   290
                 295
                                 300
Lys Phe Phe Thr Phe Met Asp Ile Glu Glu Ile Asn Ala Leu Glu Glu
305
               310
Glu Asp Lys Asn Ser Gly Lys Ala Pro Arg Ala Gln Tyr Val Leu Ala
```

```
Asp Glu Val Thr Lys Leu Val His Gly Glu Glu Gly Leu Ala Ala Ala
                   345
Lys Arg Ile Thr Ala Ser Leu Phe Asn Gly Thr Leu Ser Asp Leu Ser
      355
                   360
Glu Ala Asp Phe Glu Gln Leu Ala Gln Asp Gly Val Pro Met Val Glu
                                  380
                  375
Met Glu Lys Gly Ala Asp Leu Met Gln Ala Leu Val Asp Ser Glu Leu
               390
                              395
Gln Pro Ser Arg Gly Gln Ala Arg Lys Thr Ile Ala Ser Asn Ala Ile
      405 410 415
Thr Ile Asn Gly Glu Lys Gln Ala Asp Pro Glu Tyr Thr Phe Thr Glu
      420 425 430
Asn Asp Arg Leu Tyr Gly Arg Tyr Thr Leu Leu Arg Arg Gly Lys Lys
 435 440
Asn Tyr Cys Leu Val Cys Trp Lys
 450
<210> 6957
<211> 309
<212> PRT
<213> Enterobacter cloacae
<400> 6957
Leu Lys Val Cys Arg Gly Val Gly Asn His Ala Pro Phe Val Leu Thr
                         10 15
Gly Phe Gly Lys Tyr Asn Met Lys Asn Ile Leu Ala Ile Gln Ser His
                 25
Val Val Phe Gly His Ala Gly Asn Ser Ala Ala Glu Phe Pro Met Arg
                4.0
                          4.5
Arg Leu Gly Val Asn Val Trp Pro Leu Asn Thr Val Gln Phe Ser Asn
50 55 60
His Thr Gln Tyr Gly Lys Trp Thr Gly Cys Val Met Pro Pro Ser His
               70 75 80
Leu Thr Glu Val Val Gln Gly Val Ala Asp Ile Asp Gln Leu Lys Arg
                           90
Cys Asp Ala Val Leu Ser Gly Tyr Leu Gly Ser Ala Glu Gln Gly Glu
        100
                        105 110
His Ile Leu Gly Ile Val Arg Gln Val Lys Ala Ala Asn Pro Ala Ala
                     120 125
Lys Tyr Phe Cys Asp Pro Val Met Gly His Pro Glu Lys Gly Cys Ile
 130 135 140
Val Ala Pro Gly Val Ala Glu Phe His Val Arg His Ala Leu Pro Ala
145 150 155
Ser Asp Ile Ile Ala Pro Asn Leu Ile Glu Leu Glu Ile Leu Ser Glu
            165 170 175
His Pro Val Asn Ser Val Glu Glu Ala Val Ser Ala Ser Arg Glu Leu
         180
                        185
                                         190
Ile Ala Gln Gly Pro Glu Ile Val Leu Val Lys His Leu Ala Arg Ala
     195
                     200
                                     205
Gly Leu Ser Gln Asp Arg Phe Glu Met Leu Leu Val Thr Lys Asp Glu
                  215
                                  220
 210
Ala Trp His Ile Ser Arg Pro Leu Val Asp Phe Gly Ala Arg Gln Pro
225
               230
                               235
Val Gly Val Gly Asp Val Thr Ser Gly Leu Leu Leu Val Lys Leu Leu
            245
                            250
                                           255
Gln Gly Ala Ser Leu Arg Asp Ala Leu Glu His Val Thr Ala Ala Val
             265
         260
Tyr Glu Ile Met Ile Ala Thr Lys Thr Met Gln Glu Tyr Glu Leu Gln
                     280
Val Val Ala Ala Gln Asp Arg Ile Ala Lys Pro Glu His Tyr Phe Ser
```

295

```
Ala Thr Gln Leu
305
<210> 6958
<211> 378
<212> PRT
<213> Enterobacter cloacae
<400> 6958
Gly Lys Arg Met Lys Ser Gly Arg Tyr Ile Gly Val Met Ser Gly Thr
                         10
Ser Leu Asp Gly Val Asp Val Val Leu Ala Ala Ile Asp Glu Asn Met
                 25
     20
Val Ala Gln Gln Ala Ser Leu Thr Trp Pro Ile Pro Val Ser Leu Lys
 35 40
                        45
Glu Glu Ile Leu Asn Ile Cys Gln Gly Gln Gln Leu Thr Leu Ser Gln
50 55 60
Leu Gly Gln Leu Asp Val Arg Leu Gly Ala Leu Phe Ala Asp Ala Val
65 70
                 75
Leu Ala Leu Met Gln Gln Glu Arg Leu His Pro Gln Asp Ile Val Ala
     85 90 ° 95
Ile Gly Cys His Gly Gln Thr Val Trp His Glu Pro Val Gly Glu Ala
 100 105 110
Pro His Thr Met Gln Ile Gly Asp Asn Asn Gln Ile Val Ala Lys Thr
115 120 125
Gly Val Thr Val Val Gly Asp Phe Arg Arg Arg Asp Met Ala Leu Gly
130 135 140
Gly Gln Gly Ala Pro Leu Val Pro Ala Phe His Gln Ala Leu Leu Ala
145 150 155 160
His Pro Val Lys Arg Met Met Val Leu Asn Ile Gly Gly Asn Pro Asn
     165 170 175
Leu Ser Met Leu Ile Pro Gly Gln Pro Val Arg Gly Tyr Asp Thr Gly
180 185 190
Pro Gly Asn Met Leu Met Asp Ala Trp Ile Trp Arg Gln Ser Gly Lys
195 200 205
Ala Tyr Asp Lys Asp Ala Gln Trp Ala Ser Gln Gly Lys Val Ile Leu
 210 215 220
Pro Leu Leu Gln Thr Leu Leu Ser Asp Pro Phe Phe Ala Leu Pro Ala
225 230 235 240
Pro Lys Ser Thr Gly Arg Glu Tyr Phe Asn Tyr Gly Trp Leu Glu Arg 245 \phantom{000}250 \phantom{000}255
Gln Leu Ala Arg Phe Pro Gly Leu Ala Pro Gln Asp Val Gln Ala Thr
       260 265 270
Leu Thr Glu Leu Thr Ala Val Ser Ile Ser Glu Gln Val Leu Leu Ser
     275 280 285
Gly Gly Cys Glu Arg Leu Leu Val Cys Gly Gly Gly Ser Arg Asn Pro
 290 295 300
Leu Val Met Ala Arg Leu Ala Ala Leu Leu Pro Gly Thr Glu Val Thr
305 310 315 320
Thr Thr Asp Glu Ala Gly Ile Ser Gly Asp Asp Met Glu Ala Leu Ala
           325
              330
Phe Ala Trp Leu Ala Trp Arg Thr Val Ala Gly Leu Pro Gly Asn Leu
      340 345
                          350
Pro Ser Val Thr Gly Ala Arg Glu Ala Ser Val Leu Gly Ala Ile Phe
  355 360
Pro Ala Asn Pro Arg His Asn Gln Ser
  370
<210> 6959
<211> 120
<212> PRT
```

## <213> Enterobacter cloacae

```
<400> 6959
Ala Leu Gln Asp Gln Asp Ser Leu Arg Asn Leu Pro Met Lys Lys Leu
                              10
Leu Leu Ile Ala Val Pro Phe Leu Met Thr Gly Cys Ser Val Tyr Asn
                          25
Gln Phe Val Glu Arg Met Gln Tnr Asp Thr Leu Glu Tyr Arg Cys Asp
      35
                      40
Glu Lys Pro Leu Thr Val Lys Leu Asn Asn Pro Arg Gln Glu Ala Ser
 50
                   5.5
Phe Val Tyr Asp Asn Lys Leu Leu Thr Leu Lys Gln Gly Met Ser Ala
                70
                                 7.5
Ser Gly Ala Arg Tyr Ser Asp Gly Ile Tyr Val Phe Trp Ser Lys Gly
           85
                 90
Asp Ser Ala Thr Val Tyr Lys Arg Asp Arg Ile Val Leu Asn Asn Cys
       100
                        1.05
Gln Leu Gln Asn Pro Lys Arg
<210> 6960
<211> 229
<212> PRT
<213> Enterobacter cloacae
<400> 6960
Arg His Pro Ile Ser Leu Ser Ala Asn Ala Met Ser Asp Asn Asp Glu
                       10
Leu Gln Gln Ile Ala His Leu Arg Arg Glu Tyr Thr Lys Gly Gly Leu
                          25
Arg Arg Gln Asp Leu Pro Ala Glu Pro Leu Val Leu Phe Glu Arg Trp
                       40
                                        45
Leu Lys Gln Ala Cys Glu Thr Lys Leu Val Asp Pro Thr Ala Met Val
50 55
Val Ala Thr Val Asp Glu Asn Gly Gln Pro Tyr Gln Arg Ile Val Leu
                70
                                 75
Leu Lys His Tyr Asp Glu Lys Gly Leu Val Phe Tyr Thr Asn Leu Gly
             8.5
                              90
Ser Arg Lys Ala His His Leu Glu Asn Asn Pro Arg Ile Ser Leu Leu
         100 105
                                           110
Phe Pro Trp His Met Leu Glu Arg Gln Val Met Val Thr Gly Lys Ala
 115 120 125
Glu Arg Leu Ser Thr Leu Glu Val Val Lys Tyr Phe His Ser Arg Pro
                   135
                                     140
Arg Asp Ser Gln Ile Gly Ala Trp Val Ser Lys Gln Ser Ser Arg Ile
                150
                                 155
Ser Ala Arg Gly Val Leu Glu Ser Lys Phe Leu Glu Leu Lys Gln Lys
             165
                              170
                                              175
Phe Gln Gln Gly Glu Val Pro Leu Pro Ser Phe Trp Gly Gly Phe Arg
         180
                          185
                                           190
Ile Pro Ile Glu Gln Met Glu Pne Trp Gln Gly Gly Glu His Arg Leu
  195 200
                                        205
His Asp Arg Phe Leu Tyr Gln Arg Asp Asn Gly Gly Trp Lys Ile Asp
  210
                   215
Arg Leu Ala Pro
```

<210> 6961 <211> 386

<211> 386 <212> PRT

<213> Enterobacter cloacae

```
<400> 6961
Cys Glu Val Thr Lys Asn Ala Val Val Arg Cys Tyr Phe Asn Ser Gln
Gly Thr Leu Leu Met Cys Ala Leu Ser Thr Arg Pro Val Ile Asn Lys
         20
                           25
Arg Thr Ala Arg Gly Lys Thr Met Ser Glu Asn Ile Arg Val Gly Leu
      35
                       40
                                        45
Ile Gly Tyr Gly Tyr Ala Ser Lys Thr Phe His Ala Pro Leu Val Ala
                   5.5
                                    60
Gly Thr Pro Gly Met Glu Leu Ala Ala Ile Thr Ser Ser Asp Glu Thr
                70
                                 7.5
Lys Val Arg Ala Asp Trp Pro Ala Val Pro Val Val Thr Glu Pro Lys
            8.5
                 90
                                               95
His Leu Phe Asn Asp Pro Asn Ile Asp Leu Ile Val Ile Pro Thr Pro
    100 105 110
Asn Asp Thr His Phe Pro Leu Ala Lys Ala Ala Leu Asp Ala Ser Lys
     115 120 125
His Val Val Val Asp Lys Pro Phe Thr Val Thr Leu Ser Gln Ala Arq
 130 135 140
Glu Leu Asp Ala Leu Ala Arg Ser Leu Gly Arg Leu Leu Ser Val Phe
    150 155
His Asn Arg Arg Trp Asp Ser Asp Phe Leu Thr Val Lys Ala Leu Leu
             165 170
                                               175
Asn Glu Gly Thr Leu Gly Glu Ile Ala Phe Phe Glu Ser His Phe Asp
          180
                          185
Arg Tyr Arg Pro Gln Val Arg Asp Arg Trp Arg Glu Gln Ala Gly Pro
      195 200
                                        205
Gly Ser Gly Ile Trp Tyr Asp Leu Ala Pro His Leu Leu Asp Gln Ala
 210
                   215
                                     220
Val His Leu Phe Gly Leu Pro Val Ser Met Thr Val Asp Leu Ala Gln
                 230
                                 235
Leu Arg Pro Gly Ala Gln Thr Tar Asp Tyr Phe His Ala Ile Leu Ser
             245
Tyr Pro Gln Arg Arg Ile Val Leu His Gly Thr Met Leu Ala Ala Ala
          260
                           265
                                           270
Glu Ser Ala Arg Tyr Ile Ile His Gly Ala Arg Gly Ser Tyr Val Lys
       275
                       280
                                        285
Phe Gly Leu Asp Pro Gln Glu Glu Arg Leu Lys Asn Gly Glu Arg Leu
                    295
                                     300
Pro Gln Glu Asp Trp Gly Tyr Asp Met Arg Asp Gly Val Val Thr Arg
                310
                                 315
Ala Glu Gly Glu Ala Leu Val Glu Glu Thr Val Leu Thr Leu Pro Gly
             325
                              330
Asn Tyr Pro Ala Tyr Tyr Ala Ala Ile Arg Asp Ala Leu Asn Gly Ser
          340
                           345
                                            350
Gly Glu Asn Pro Val Pro Ala Ser Gln Ala Ile Gln Ile Met Glu Leu
                       360
      355
                                         365
Ile Glu Leu Gly Ile Glu Ser Ala Lys His Arg Ala Thr Leu Cys Leu
                    375
                                     380
Ala
385
<210> 6962
<211> 258
<212> PRT
<213> Enterobacter cloacae
<400> 6962
Phe Lys Arg Ile Ala Val Gly Gln Leu Ala Glu Glu Lys Asp Gly Ile
```

```
Met Ile Ser Leu Lys Asn Val Ser Lys Trp Tyr Gly His Phe Gln Val
Leu Thr Asp Cys Ser Thr Glu Val Lys Lys Gly Asp Val Val Val Val
Cys Gly Pro Ser Gly Ser Gly Lys Ser Thr Leu Ile Lys Thr Val Asn
                  55
Gly Leu Glu Pro Val Gln Gln Gly Glu Ile Val Val Asn Gly Thr Lys
            70
                              75
Val Asn Asp Arg Lys Thr Asn Leu Ala Gln Leu Arg Ser His Val Gly
         85
                     90
Met Val Phe Gln His Phe Glu Leu Phe Pro His Leu Ser Ile Ile Glu
   100 105 110
Asn Leu Thr Leu Ala Gln Val Lys Val Leu Lys Arg Asp Lys Lys Ala
 115 120 125
Ala Arg Glu Lys Gly Leu Lys Leu Leu Glu Arg Val Gly Leu Ser Ala
 130 135 140
His Ala Asp Lys Phe Pro Ala Gln Leu Ser Gly Gly Gln Gln Gln Arg
145 150 155
Val Ala Ile Ala Arg Ala Leu Cys Met Asp Pro Val Ala Met Leu Phe
     165 170 175
Asp Glu Pro Thr Ser Ala Leu Asp Pro Glu Met Ile Asn Glu Val Leu
   180 185 190
Asp Val Met Val Glu Leu Ala His Glu Gly Met Thr Met Met Val Val
195
                    200 205
Thr His Glu Met Gly Phe Ala Arg Lys Val Pro Asn Arg Val Ile Phe
                 215 220
Met Asp Glu Gly Lys Ile Val Glu Asp Ser Pro Lys Glu Glu Phe Phe
225 230 235
Ala Asn Pro Lys Ser Glu Arg Ala Lys Asp Phe Leu Ala Lys Ile Leu
           245
                          250
His
```

<210> 6963 <211> 178 <212> PRT

<213> Enterobacter cloacae

<400> 6963

Thr Ala Ile Leu Asn Cys Thr Ala Thr Leu Ala Arg Ile Val Ile Met 1.0 Gly Gly Ala Met Gly Leu Gly Asn Trp Thr Pro Ala Ala Glu Phe Asn 20 25 30 Ile Phe Val Asp Pro Glu Ala Ala Glu Ile Val Phe Gln Ser Gly Leu 3.5 40 Pro Ile Val Met Ala Gly Leu Asp Val Thr His Arg Ala Gln Ile Met 55 60 Val Gln Asp Ile Glu Arg Phe Arg Thr Val Gly Asn Pro Val Ala Thr 75 70 80 Thr Val Ala Glu Leu Leu Asp Phe Phe Met Glu Tyr His Lys Ala Glu 85 90 Lys Trp Gly Phe His Gly Ala Pro Leu His Asp Pro Cys Thr Ile Ala 105 Trp Leu Leu Lys Pro Glu Met Phe Thr Thr Val Glu Arg Trp Val Gly 115 120 Val Glu Thr Gln Gly Lys Tyr Tar Gln Gly Met Thr Val Val Asp Tyr 130 140 Tyr Ser Leu Thr Gly Asn Lys Pro Asn Thr Thr Val Met Val Asp Ile 155 150 160 Asp Arg Glu Ala Phe Val Asp Leu Leu Ala Glu Arg Leu Ala Tyr Tyr 165 170

Met

<210> 6964

```
<211> 169
<212> PRT
<213> Enterobacter cloacae
<400> 6964
Tyr Phe Phe Thr Thr Glu Lys Asn Glu Met Thr Ile Pro Ala His Ile
                           10
Trp Leu Ile Asp Asp Asn Gly Ser Pro Leu Ile Gly Glu Cys Leu Met
                                  30
       20 25
Pro Ser Arg Leu Gly Ser Thr Glu Leu Lys Ser Phe Asp His Ser Val
                              4.5
     35
                   40
Trp Ile Pro Thr Asp His Asn Thr Gly Lys Leu Thr Gly Thr Arg Leu
50 55
                            60
His Val Pro Ile Arg Phe Lys Lys Glu Ile Asp Arg Leu Thr Pro Tyr
                       75
            70
Leu Phe Arg Ala Val Cys Glu Gly Arg Ile Leu Lys Glu Ala Leu Ile
           8.5
                90
Lys Met Tyr Lys Ile Asn Asp Ala Gly Ile Glu Leu Glu Tyr Phe Asn
        100 105 110
Ile Lys Leu Glu Asn Val Lys Ile Thr Gln Ile Ser Pro Val Leu Phe
115 120
Pro Val Gly Ile Ala Ser Lys His Met Glu Glu Val Glu Ile Arg Tyr
130 135 140
Glu Ser Ile Glu Trp Lys Tyr Thr Glu Gly Asn Ile Met Tyr Lys Asp
145 150
                              155
Ser Trp Asn Glu Arg Val Thr Ala
            165
```

<212> PRT <213> Enterobacter cloacae

<210> 6965 <211> 345

<400> 6965 Leu Met Ile Arg Leu Tyr Pro Glu Gln Leu Arg Ala Gln Leu Asn Glu 10 Gly Leu Arg Ala Ala Tyr Leu Leu Leu Gly Asn Asp Pro Leu Leu Leu 25 Gln Glu Ser Leu Asp Ala Val Arg His Ala Ala Ala Ala Gln Gly Phe 3.5 4.0 Asp Glu His His Thr Phe Gln Ile Asp Asn Ser Thr Asp Trp Asn Ala 50 55 60 Ile Phe Ser Leu Cys Gln Ala Met Ser Leu Phe Ala Ser Arg Gln Thr 70 Ile Gln Ile Leu Leu Pro Glu Asn Gly Pro Asn Ala Ala Ile Asn Glu 85 90 Gln Leu Ala Met Leu Val Ser Leu Leu His Gly Asp Leu Leu Leu Ile 100 105 110 Val Arg Gly Asn Lys Leu Thr Lys Ala Gln Glu Asn Ala Ala Trp Phe 115 120 Thr Arg Leu Thr Pro Ser Ala Val Leu Val Ser Cys Gln Thr Pro Glu 130 135 140 Gln Ala His Leu Pro Lys Trp Val Ala Ala Arg Ala Lys Gln His Asn 150 155 160 Leu Gln Leu Asp Glu Ala Ala Ser Gln Leu Leu Cys Tyr Cys Tyr Glu 170 175 165 Gly Asn Leu Leu Ala Leu Ala Gln Ala Leu Asp Arg Leu Ala Leu Leu

```
185
Trp Pro Asp Gly Lys Leu Thr Leu Pro Arg Val Glu Gln Ala Val Asn
                200
   195
                                   205
Asp Ala Ala His Phe Thr Pro Phe His Trp Val Asp Ala Leu Leu Ser
                  215
Ala Lys Ser Lys Arg Ala Leu His Ile Leu Gln Gln Leu Arg Leu Glu
              230
                    235
Gly Ser Glu Pro Val Ile Leu Leu Arg Thr Leu Gln Arg Glu Leu Leu
          245
                250
Leu Leu Asn Asn Leu Lys Arg Gln Ser Ala His Thr Pro Leu Arg Ala
      260
            265 270
Leu Phe Asp Lys His Arg Val Trp Gln Asn Arg Arg Ala Met Thr Thr
   275 280 285
Glu Ala Ile Asn Arg Leu Ser Gln Glu Gln Leu Arg Gln Ala Val Gln
 290 295 300
Leu Leu Met Arg Ala Glu Leu Thr Leu Lys Gln Asp Tyr Gly Gln Ser
305 310 315 320
Val Trp Ala Glu Leu Glu Ser Leu Ser Leu Leu Leu Cys His Lys Ala
      325 330 335
Leu Ala Asp Val Phe Ile Asp Gly
         340
<210> 6966
<211> 638
<212> PRT
<213> Enterobacter cloacae
<400> 6966
Phe Lys Gln Arg Met Lys Leu Gln Asn Ser Phe Arg Asp Tyr Thr Ala
Glu Ser Ala Leu Phe Val Arg Arg Ala Leu Val Ala Phe Thr Gly Ile
                      25
Leu Leu Thr Gly Val Leu Ile Ala Asn Leu Tyr Asn Leu Gln Ile
35 40
Val Arg Tyr Thr Asp Tyr Gln Thr Arg Ser Asn Glu Asn Arg Ile Lys
                 5.5
Leu Val Pro Ile Ala Pro Ser Arg Gly Ile Ile Tyr Asp Arg Asn Gly
                              75
              70
Thr Pro Leu Ala Leu Asn Arg Tar Ile Tyr Gln Ile Glu Met Met Pro
          85
                           90 95
Glu Lys Val Asp Asn Val Gln Asp Thr Leu Asn Ala Leu Arg Ser Val
        100 105 110
Val Asp Leu Thr Asp Asp Asp Ile Ala Ala Phe Lys Lys Glu Arg Ala
 115 120 125
Arg Ser His Arg Phe Thr Ser Ile Pro Val Lys Thr Asn Leu Thr Glu
 130 135 140
Val Gln Val Ala Arg Phe Ala Val Asn Gln Tyr Arg Phe Pro Gly Val
              150
                   155
Glu Val Lys Gly Tyr Lys Arg Arg Tyr Tyr Pro Tyr Gly Ser Ala Leu
           165
                           170 175
Thr His Val Ile Gly Tyr Val Ser Lys Ile Asn Asp Lys Asp Val Glu
      180
                        185
                              190
Arg Leu Asp Lys Asp Gly Lys Leu Ala Asn Tyr Ala Ala Thr His Asp
    195
                     200 205
Ile Gly Lys Leu Gly Ile Glu Arg Tyr Tyr Glu Asp Val Leu His Gly
                  215
                                 220
Gln Thr Gly Tyr Glu Glu Val Glu Val Asn Asn Arg Gly Arg Val Ile
              230 235
Arg Gln Leu Lys Glu Val Pro Pro Gln Ala Gly His Asp Val Tyr Leu
           245
                          250
Thr Leu Asp Leu Lys Leu Gln Gln Tyr Ile Glu Thr Leu Leu Ala Gly
```

```
260
                      265
Ser Arg Ala Ala Val Ile Val Thr Asp Pro Arg Thr Gly Gly Ile Leu
                 280
                          285
Ala Met Val Ser Met Pro Ser Tyr Asp Pro Asn Leu Phe Val Asp Gly
             295
                        300
Ile Ser Ser Lys Asp Tyr Ser Gly Leu Leu Asn Asp Pro Asn Thr Pro
        310
                      315
Leu Val Asn Arg Ala Thr Gln Gly Val Tyr Pro Pro Ala Ser Thr Val
          325
                     330 335
Lys Pro Tyr Val Ala Val Ser Ala Leu Ser Ala Gly Val Ile Thr Arg
      340
           345 350
Asn Thr Ser Leu Phe Asp Pro Gly Trp Trp Gln Leu Pro Gly Ser Glu
 355 360
                       365
Lys Arg Tyr Arg Asp Trp Lys Lys Trp Gly His Gly His Leu Asn Val
370 375
                   380
Thr Lys Ser Leu Glu Glu Ser Ala Asp Thr Phe Phe Tyr Gln Val Ala
385 390 395 400
Tyr Asp Met Gly Ile Asp Arg Leu Ser Glu Trp Met Ser Lys Phe Gly
       405 410 415
Tyr Gly His Tyr Thr Gly Ile Asp Leu Ala Glu Glu Arg Ser Gly Asn
    420 425 430
Met Pro Thr Arg Glu Trp Lys Leu Lys Arg Phe Lys Lys Pro Trp Tyr
435 440 445
Gln Gly Asp Thr Ile Pro Val Gly Ile Gly Gln Gly Tyr Trp Thr Ala
450 455 460
Thr Pro Leu Gln Met Asn Lys Ala Met Met Ile Leu Ile Asn Asp Gly
465 470 475 480
Val Val Lys Val Pro His Leu Leu Gln Ser Thr Val Glu Asp Gly Lys
      485 490 495
Lys Val Pro Trp Ile Gln Pro His Glu Pro Pro Val Gly Asp Ile His
 500 505 510
Ser Gly Tyr Trp Glu Ile Ala Lys Asp Gly Met Tyr Gly Val Ala Asn
515 520 525
Arg Pro Asn Gly Thr Ala His Lys Tyr Phe Ala Gly Ala Pro Tyr Lys
530 535 540
Val Ala Ala Lys Ser Gly Thr Ala Gln Val Phe Gly Leu Lys Ala Asn
545 550 555 560
Glu Thr Tyr Asn Ala His Lys Ile Ala Glu Arg Leu Arg Asp His Lys
       565 570 575
Leu Met Thr Ala Phe Ala Pro Tyr Asp Asn Pro Gln Val Ala Val Ala
580 585 590
Met Ile Leu Glu Asn Gly Gly Ala Gly Pro Ala Val Gly Thr Ile Met
595 600 605
Arg Gln Ile Leu Asp His Ile Met Leu Gly Asp Asn Asn Thr Glu Leu
 610 615 620
Pro Ala Glu Asn Pro Ala Ala Ala Ala Ala Glu Asp Gln
<21.0> 6967
```

<210> 6967 <211> 176 <212> PRT

<213> Enterobacter cloacae

Asn Gly Pro Ile Val Glu Ile Ser Gly Ala Asp Pro Val Tyr Glu Pro 70 Leu Asn Ala Ser Val Asn Gln Asp Tyr Gln Arg Asp Gly Lys Ser Tyr 85 90 Lys Ile Val Gln Asp Pro Ser Arg Phe Ser Gln Ala Gly Phe Ala Ala 100 105 Ile Tyr Asp Ala Glu Pro Gly Ser Asn Leu Thr Ala Ser Gly Glu Thr 115 120 125 Phe Asp Pro Met Gln Ile Thr Ala Ala His Pro Thr Leu Pro Val Pro 130 135 140 Ser Tyr Ala Arg Ile Thr Asn Leu Ala Asn Gly Arg Met Ile Val Val 145 150 155 160 Arg Ile Thr Leu His His Val Ala Arg Ser Leu Arg Pro Ser Asn 165 170 175 <210> 6968 <211> 276 <212> PRT <213> Enterobacter cloacae <400> 6968 Val Val Val Pro His Ser Ala Gln Lys Leu Ser Phe Ser Pro Ile Phe 10 Glu Gly Ser Ala Ala Thr Leu Phe Phe Leu Glu Phe Thr Met Ser Ile 25 Asp Trp Asn Trp Gly Ile Phe Leu Gln Gln Ala Pro Phe Gly Asn Thr 40 Thr Tyr Leu Gly Trp Leu Trp Ser Gly Phe Gin Val Thr Val Ala Leu 50 55 Ser Ile Thr Ala Trp Ile Ile Ala Phe Leu Val Gly Ser Leu Phe Gly 65 70 75 Ile Leu Arg Thr Val Pro Asn Arg Phe Leu Ser Ser Ile Gly Thr Leu 85 90 95 Tyr Val Glu Leu Phe Arg Asn Val Pro Leu Ile Val Gln Phe Phe Thr 100 105 110 Trp Tyr Leu Val Ile Pro Glu Leu Leu Pro Glu Asp Leu Gly Met Trp 115 120 125 Phe Lys Ala Glu Leu Asp Pro Asr Val Gln Phe Phe Val Ser Ser Met 130 135 140 Leu Cys Leu Gly Leu Phe Thr Ala Ala Arg Val Cys Glu Gln Val Arg 145 150 155 Ala Ala Ile Gln Ser Leu Pro Arg Gly Gln Lys Asn Ala Ala Leu Ala 165 170 175 Ala Tyr Arg Val Ile Val Pro Pro Met Thr Ser Glu Met Met Asn Leu 195 200 Val Lys Asn Ser Ala Ile Ala Ser Thr Ile Gly Leu Val Asp Met Ala 210 215 220 Ala Gln Ala Gly Lys Leu Leu Asp Tyr Ser Ala His Ala Trp Glu Ser 230 235 Phe Thr Ala Ile Thr Leu Ala Tyr Val Leu Ile Asn Ala Phe Ile Met 250 245 Leu Val Met Asn Leu Val Glu Arg Lys Val Arg Leu Pro Gly Asn Leu 265 Gly Gly Lys 275

<210> 6969 <211> 225

3035 <212> PRT <213> Enterobacter cloacae <400> 6969 Met Tyr Asp Phe Asp Trp Ser Ser Ile Val Pro Ser Met Pro Tyr Leu 10 Leu Asp Gly Leu Ala Ile Thr Leu Lys Ile Thr Val Ile Ala Ile Ile 20 25 Val Gly Ile Val Trp Gly Thr Leu Leu Ala Val Met Arg Leu Ser Ser 40 35 4.5 Phe Lys Pro Leu Ala Trp Phe Ala Thr Ala Tyr Val Asn Val Phe Arg 50 5.5 60 Ser Ile Pro Leu Val Met Val Leu Leu Trp Phe Tyr Leu Ile Val Pro 65 70 75 Gly Phe Leu Gln Asn Val Leu Gly Leu Ser Pro Lys Thr Asp Ile Arg 85 90 Leu Ile Ser Ala Met Val Ala Phe Ser Met Phe Glu Ala Ala Tyr Tyr 100 105 110 Ser Glu Ile Ile Arg Ala Gly Ile Gln Ser Ile Ser Arg Gly Gln Ser 115 120 125 Ser Ala Ala Leu Ala Leu Gly Met Thr His Trp Gln Ser Met Lys Leu 130 135 140 Ile Ile Leu Pro Gln Ala Phe Arg Ala Met Val Pro Leu Leu Leu Thr 150 155 Gln Gly Ile Val Leu Phe Gln Asp Thr Ser Leu Val Tyr Val Leu Ser 165 170 Leu Ala Asp Phe Phe Arg Thr Ala Ser Thr Ile Gly Glu Arg Asp Gly 185 190 Thr Gln Val Glu Met Ile Leu Phe Ala Gly Gly Val Tyr Phe Val Ile 195 200 205 Ser Leu Ser Ala Ser Leu Leu Val Ser Trp Leu Lys Lys Arg Thr Val 215 225 <210> 6970 <211> 203 <212> PRT <213> Enterobacter cloacae <400> 6970 Ile Ala Glu Ser Gly Arg Trp Leu Ser Ala Gly Gly Asn Val Arg Gln 10 Leu Ala Thr Ile Leu Leu Ser Leu Ala Val Leu Val Thr Ala Gly Cys 25 Gly Trp His Leu Arg Asn Thr Thr Ala Val Pro Ala Gln Met Lys Thr 35 40 Met Ile Phe Asp Ser Ser Asp Pro Asn Gly Pro Leu Ser Arg Ala Ile 55 Arg Asn Gln Leu Arg Leu Asn Asp Val Glu Leu Ile Glu Lys Gly Thr 70 Leu Arg Gln Asp Val Pro Ser Leu Arg Val Leu Lys Ser Thr Leu Ala 8.5 90 Lys Asp Thr Ala Ser Ile Phe Gln Asp Gly Arg Thr Ala Glu Tyr Gln 100 105 110 Met Val Leu Thr Val Ser Ala Ala Val Leu Met Pro Gly Lys Asp Ile 115 120

Tyr Pro Ile Ser Thr Lys Val Tyr Arg Ser Phe Phe Asp Asn Pro Gln

Thr Ala Leu Ala Lys Asp Ala Glu Glu Gln Ile Ile Lys Glu Met

140

135

150

```
3036
Tyr Asp Lys Ala Ala Glu Gln Leu Ile Arg Lys Leu Pro Thr Ile Ala
                               170
             165
Ala Ser Thr Lys Lys Gly Ala Asp Val Ile Glu Thr Pro Asp Ala Arg
          180
                          185
Thr Pro Asp Met Pro Thr Ser Leu Gly Asn
      195
                        200
<210> 6971
<211> 251
<212> PRT
<213> Enterobacter cloacae
<400> 6971
Asn Arg Ile Thr Val Ser Leu Ser Gly Arg Ser Trp Arg Val Ser Leu
Cys Cys Ser Ala Ile Arg Leu Trp Gln Thr Tyr Leu Ser Met Gly Asp
                        25
                                            3.0
Met His Ser Leu Gln Ala Met Tyr Gly Gly Thr Phe Asp Pro Val His
 35
                                   4.5
                       40
Tyr Gly His Leu Lys Pro Val Glu Ile Leu Ala Asn Leu Ile Gly Leu
 50
                   5.5
Gln Arg Val Ile Ile Met Pro Asn Asn Val Pro Pro His Arg Pro Gln
                7.0
                                  75
Pro Glu Ala Thr Ser Glu Gln Arg Lys Ala Met Leu Ala Leu Ala Ile
             8.5
                            90
Ala Asp Lys Pro Leu Phe Thr Leu Asp Glu Arg Glu Leu Arg Arg Asp
          100
                         105
                                   110
Thr Pro Ser Trp Thr Ser Gln Thr Leu Arg Glu Trp Arg Ala Glu Gln
     115 120
Gly Pro Met Lys Pro Leu Ala Phe Ile Ile Gly Gln Asp Ser Leu Leu
 130 135
                                      140
Asn Phe Pro Ser Trp Tyr Gln Tyr Glu Thr Ile Leu Glu Asn Ser His
                150 155 160
Leu Leu Val Cys Arg Arg Pro Gly Tyr Pro Leu Thr Met Arg Asp Ala
             165
                              170 175
Gln His Gln Gln Trp Leu Asp Ala His Leu Thr Asp Asn Ile Glu Asp
              185 190
Leu His Ser Leu Pro Ala Gly Lys Ile Tyr Leu Ala Glu Thr Pro Trp
                       200
Phe Asp Ile Ser Ala Thr Leu Ile Arg Glu Arg Leu Gln Gln Gly Leu
 210
                    215
                                     220
Asp Cys Asp Asp Leu Leu Pro Ser Pro Val Leu Ala Tyr Ile Leu Ala
225 230
                                  235
His Gly Leu Tyr Gln Lys Ser Thr Asp Val
             245
<210> 6972
<211> 84
<212> PRT
<213> Enterobacter cloacae
<400> 6972
Asp Asn Trp Glu Ile Val Gly Thr Ala Gln Ser Lys Glu Ala Tyr Gly
Cys Met Leu Arg Lys Gly Asp Glu Asp Phe Lys Lys Leu Ile Asp Asp
                           25
Thr Ile Ala Gln Ala Gln Thr Ser Gly Glu Ala Ala Lys Trp Phe Asp
      35
                        4.0
                                         45
```

Lys Trp Phe Lys Asn Pro Ile Pro Pro Lys Asn Leu Asn Met Asn Phe

Glu Leu Ser Asp Asp Met Lys Ala Leu Phe Lys Ser Pro Asn Asp Lys

<210> 6973 <211> 194 <212> PRT <213> Enterobacter cloacae

<400> 6973 Ile Ser Phe Ser Ile Arg Arg His Ile Ala Ala Leu Thr Leu Ser Gln 10 Ile Met Leu Arg Met Glu Asn Ala Met Ala Gln Pro Ile Ile Leu Asp 20 25 Cys Asp Pro Gly His Asp Asp Ala Ile Ala Leu Val Leu Ala Leu Ala 35 40 4.5 Ser Pro Glu Leu Asp Val Lys Ala Val Thr Ser Ser Ala Gly Asn Gln 50 55 60 Thr Pro Asp Lys Thr Leu Arg Asn Val Leu Arg Met Leu Thr Leu Leu 7.0 75 Lys Arg Thr Asp Ile Pro Val Ala Gly Gly Ala Val Lys Pro Leu Met 85 90 Arg Glu Leu Ile Ile Ala Asp Asn Val His Gly Glu Ser Gly Leu Asp 100 105 110 Gly Pro Ala Leu Pro Glu Pro Asp Phe Ala Pro Gln Asn Cys Thr Ala 115 120 125 Val Glu Leu Met Ala Lys Val Leu Arg Glu Ser Ala Glu Pro Val Thr 130 135 140 Leu Val Ala Thr Gly Pro Gln Thr Asn Val Ala Leu Leu Leu Asn Ser

145 150 155 160 His Pro Glu Leu His Ser Asn Thr Arg Pro Tyr Arg His His Gly Arg 165 170 175 Gly Asn Gly Ala Gly Glu Leu Asp Ala Ser Ser Arg Val Gln His Leu 180 185

Arg

13

12

ha

30

1 1

1 4

10

4.3

<210> 6974 <211> 904 <212> PRT

<213> Enterobacter cloacae

<400> 6974

Ile Pro Ala Lys Cys Ile Cys Val Lys Gly Cys Phe Asp Ala Gly Val 10 Trp Ala Met Leu Cys Gly Ser Glu Leu Pro His Pro Leu Ala Thr Phe

25 Val Ala Val Leu Asn Thr Gly Pro Leu Ala Ala Met Gln Glu Gln Tyr 4.0

Arg Pro Glu Glu Ile Glu Ser Lys Val Gln Gln His Trp Asp Glu Lys 55 Arg Thr Phe Glu Val Thr Glu Asp Glu Ser Lys Glu Lys Tyr Tyr Cys 7.0 Leu Ser Met Leu Pro Tyr Pro Ser Gly Arg Leu His Met Gly His Val

85 90 Arg Asn Tyr Thr Ile Gly Asp Val Ile Ala Arg Tyr Gln Arg Met Leu 100 105 110

Gly Lys Asn Val Leu Gln Pro Ile Gly Trp Asp Ala Phe Gly Leu Pro 120 Ala Glu Gly Ala Ala Val Lys Asn Asn Thr Ala Pro Ala Pro Trp Thr

Tyr Asp Asn Ile Ala Tyr Met Lys Asn Gln Leu Lys Met Leu Gly Phe 145 150 155 Gly Tyr Asp Trp Ser Arg Glu Leu Ala Thr Cys Thr Pro Glu Tyr Tyr 165 170 Arg Trp Glu Gln Lys Phe Phe Thr Glu Leu Tyr Lys Lys Gly Leu Val 180 185 190 Tyr Lys Lys Thr Ser Ala Val Asn Trp Cys Pro Asn Asp Gln Thr Val 195 200 Leu Ala Asn Glu Gln Val Ile Asp Gly Cys Cys Trp Arg Cys Asp Thr 215 220 Lys Val Glu Arg Lys Glu Ile Pro Gln Trp Phe Ile Lys Ile Thr Ala 230 235 Tyr Ala Asp Glu Leu Leu Asn Asp Leu Asp Asn Leu Asp His Trp Pro 245 250 255 Asp Thr Val Lys Thr Met Gln Arg Asn Trp Ile Gly Arg Ser Glu Gly 260 265 270 Val Glu Ile Thr Phe Asn Val Glu Asn Tyr Asp Gln Thr Leu Thr Val 275 280 285 Tyr Thr Thr Arg Pro Asp Thr Phe Met Gly Ala Thr Tyr Leu Ala Val 290 295 300 Ala Ala Gly His Pro Leu Ala Gln Asn Ala Ala Glu Asn Asn Pro Glu 305 310 315 320 Leu Ala Thr Phe Ile Asp Glu Cys Arg Asn Thr Lys Val Ala Glu Ala 325 330 335 Asp Met Ala Thr Met Glu Lys Lys Gly Val Asp Thr Gly Phe Lys Ala 340 345 350 Ile His Pro Leu Thr Gly Glu Ala Ile Pro Val Trp Ala Ala Asn Phe 355 360 365 Val Leu Met Glu Tyr Gly Thr Gly Ala Val Met Ala Val Pro Gly His 370 375 380 Asp Gln Arg Asp Tyr Glu Phe Ala Thr Lys Tyr Gly Leu Thr Ile Lys 390 395 Pro Val Ile Leu Ala Ala Asp Gly Ser Glu Pro Asp Leu Ser Glu Gln 405 410 415 Ala Leu Thr Glu Lys Gly Thr Leu Phe Asn Ser Gly Glu Phe Ser Gly 420 425 430 Leu Ser Phe Glu Glu Gly Phe Asn Ala Ile Ala Asp Lys Leu Ala Ser 435 440 445 Leu Gly Val Gly Glu Arg Lys Val Asn Tyr Arg Leu Arg Asp Trp Gly 455 460 Val Ser Arg Gln Arg Tyr Trp Gly Ala Pro Ile Pro Met Val Thr Leu 465 470 475 480 Glu Asp Gly Thr Val Met Pro Thr Pro Glu Asp Gln Leu Pro Val Ile 485 490 495 Leu Pro Glu Asp Val Val Met Asp Gly Ile Thr Ser Pro Ile Lys Ala 500 505 510 Asp Pro Glu Trp Ala Lys Thr Thr Val Asn Gly Gln Pro Ala Leu Arg 515 520 Glu Thr Asp Thr Phe Asp Thr Phe Met Glu Ser Ser Trp Tyr Tyr Ala 535 540 Arg Tyr Thr Cys Pro Gln Tyr Lys Glu Gly Met Leu Asp Ser Asp Ala 550 555 Ala Asn Tyr Trp Leu Pro Val Asp Ile Tyr Ile Gly Gly Ile Glu His 565 570 Ala Ile Met His Leu Leu Tyr Phe Arg Phe Phe His Lys Leu Met Arg 585 590 580 Asp Ala Gly Leu Val Asn Ser Asp Glu Pro Ala Lys Gln Leu Leu Cys 595 600 605 Gln Gly Met Val Leu Ala Asp Ala Phe Tyr Tyr Val Gly Ala Asn Gly 615 Glu Arg Asn Trp Val Ser Pro Val Asp Ala Ile Val Glu Arg Asp Glu

```
635
               630
Lys Gly Arg Ile Val Lys Ala Lys Asp Ala Glu Gly His Glu Leu Val
                      650
            645
Tyr Thr Gly Met Ser Lys Met Ser Lys Ser Lys Asn Asn Gly Ile Asp
                      665
Pro Gln Val Met Val Glu Arg Tyr Gly Ala Asp Thr Val Arg Leu Phe
     675
            680
                                     685
Met Met Phe Ala Ser Pro Ala Asp Met Thr Leu Glu Trp Gln Glu Ser
 690 695 700
Gly Val Glu Gly Ala Asn Arg Phe Leu Lys Arg Val Trp Lys Leu Val
       710 715
Tyr Glu His Thr Ser Gln Gly Asp Ala Pro Ala Leu Asn Val Ala Ala
         725 730 735
Leu Thr Glu Asp Gln Gln Ala Leu Arg Arg Asp Val His Lys Thr Ile
        740 745 750
Ala Lys Val Thr Asp Asp Ile Gly Arg Arg Gln Thr Phe Asn Thr Ala
     755 760 765
Ile Ala Ala Ile Met Glu Leu Met Asn Lys Leu Ala Lys Ala Pro Gln
 770 775 780
Asp Gly Glu Gln Asp Arg Ala Leu Met Arg Glu Ala Leu Leu Ala Val
785 790 795
Val Arg Met Leu Asn Pro Phe Thr Pro His Val Ser Phe Thr Leu Trp
         805 810 815
Gln Glu Leu Lys Gly Glu Gly Asp Ile Asp Asn Ala Pro Trp Pro Val
    820 825 830
Ala Asp Glu Ser Ala Met Val Glu Asn Thr Thr Leu Val Val Val Gln
                     840 845
Val Asn Gly Lys Val Arg Gly Lys Ile Thr Val Ala Val Asp Ala Thr
                  855
Glu Glu Gln Val Arg Glu Arg Ala Gly Gln Glu His Leu Val Ala Lys
865 870 875
Tyr Leu Glu Gly Val Thr Val Arg Lys Val Ile Tyr Val Pro Gly Lys
       885
Leu Leu Asn Leu Val Val Gly
         900
<210> 6975
<211> 135
<212> PRT
<213> Enterobacter cloacae
<400> 6975
His Leu Ser Arg Asp Trp Arg Gln Phe Arg Tyr Thr Asp Trp Pro Arg
                            1.0
Ile His Ser Cys Thr Ile Ser Phe Thr Gln Gly Glu Asn Leu Gln Gly
         20
                         25
Lys Ala Leu Gln Asp Phe Val Ile Asp Lys Ile Asp Asp Leu Lys Gly
                     40
Gln Asp Ile Ile Ala Ile Asp Val Lys Gly Lys Ser Ser Ile Thr Asp
```

55 50 60 Cys Met Ile Ile Cys Thr Gly Thr Ser Thr Arg His Val Val Ser Ile 70 75 65 Ala Asp His Val Val Gln Glu Ser Arg Ala Ala Gly Leu Leu Pro Leu 85 90 Gly Val Glu Gly Glu Ala Thr Ala Asp Trp Val Val Val Asp Leu Gly 110 100 105 Asp Val Ile Val His Val Met Gln Glu Glu Ser Arg Arg Leu Tyr Glu 120

Leu Glu Lys Leu Trp Gly 130

```
<210> 6976
<211> 157
<212> PRT
<213> Enterobacter cloacae
<400> 6976
Cys Val Lys Leu Gln Leu Val Ala Val Gly Thr Lys Met Pro Asp Trp
                        10
Val Gln Thr Gly Phe Thr Glu Tyr Leu Arg Arg Phe Pro Lys Asp Met
  20
                          25
                                           30
Pro Phe Glu Leu Val Glu Ile Pro Ala Gly Lys Arg Gly Lys Asn Ala
 35 40
                                       4.5
Asp Ile Lys Arg Ile Leu Asp Lys Glu Gly Glu Leu Met Leu Ala Ala
 50 55
                         60
Ala Gly Lys Asn Arg Ile Val Thr Leu Asp Ile Pro Gly Lys Pro Trp
               70 75
Asp Thr Pro Gln Leu Ala His Glu Leu Glu Arg Trp Lys Gln Asp Gly
            85
                             90
Arg Asp Val Ser Leu Leu Ile Gly Gly Pro Glu Gly Leu Ser Pro Ala
 100 105 110
Cys Lys Ala Ala Ala Glu Gln Ser Trp Ser Leu Ser Ala Leu Thr Leu
115 120 125
Pro His Pro Leu Val Arg Val Leu Val Ala Glu Ser Leu Tyr Arg Ala
130 135 140
Trp Ser Ile Thr Thr Asn His Pro Tyr His Arg Glu
                150
145
<210> 6977
<211> 383
<212> PRT
<213> Enterobacter cloacae
<400> 6977
Lys Pro Gly Ser Arg Cys Gly Gly Gly Pro Ile Ile Met Thr Asp Asn
                            10
Pro Asn Lys Lys Ser Leu Trp Asp Lys Ile His Ile Asp Pro Ala Met
                          25
Leu Leu Ile Leu Leu Ala Leu Leu Val Tyr Ser Ala Leu Val Ile Trp
 35
                     40
Ser Ala Ser Gly Gln Asp Ile Gly Met Met Glu Arg Lys Ile Gly Gln
                   5.5
                                  60
Ile Ala Met Gly Leu Val Ile Met Val Val Met Ala Gln Ile Pro Pro
               70
                                75
Arg Val Tyr Glu Gly Trp Ala Pro Tyr Leu Tyr Ile Phe Cys Ile Ile
             85
                              90
Leu Leu Val Ala Val Asp Ala Phe Gly Ala Ile Ser Lys Gly Ala Gln
                        105
         100
Arg Trp Leu Asp Leu Gly Ile Val Arg Phe Gln Pro Ser Glu Ile Ala
      115
                       120
                                       125
Lys Ile Ala Val Pro Leu Met Val Ala Arg Phe Ile Asn Arg Asp Val
 130
                 135
                                    140
Cys Pro Pro Ser Leu Lys Asn Thr Ala Ile Ala Leu Val Leu Ile Phe
                150
                                 155
145
Leu Pro Thr Leu Leu Val Ala Ala Gln Pro Asp Leu Gly Thr Ser Ile
             165 170
                                               175
Leu Ile Ala Leu Ser Gly Leu Phe Val Leu Phe Leu Ser Gly Leu Ser
              185
          180
                                           190
Trp Arg Leu Ile Gly Ile Ala Val Val Leu Val Ala Ala Phe Ile Pro
       195
                       200
                                        205
Ile Leu Trp Phe Phe Leu Met His Asp Tyr Gln Arg Gln Arg Val Met
```

215

```
Met Leu Leu Asp Pro Glu Thr Asp Pro Leu Gly Ala Gly Tyr His Ile
            230
Ile Gln Ser Lys Ile Ala Ile Gly Ser Gly Gly Leu Arg Gly Lys Gly
                              250
            245
Trp Leu His Gly Thr Gln Ser Gln Leu Glu Phe Leu Pro Glu Arg His
                           265
Thr Asp Phe Ile Phe Ala Val Leu Ala Glu Glu Leu Gly Leu Val Gly
            280
      275
                                        285
Ile Leu Val Leu Leu Ala Leu Tyr Val Leu Leu Ile Met Arg Gly Leu
 290
       295
                                     300
Trp Ile Ala Ala Arg Ala Gln Thr Thr Phe Gly Arg Val Met Ala Gly
305 310
                                 315
Gly Leu Met Leu Ile Leu Phe Val Tyr Val Phe Val Asn Ile Gly Met
                            330 335
          325
Val Ser Gly Ile Leu Pro Val Val Gly Val Pro Leu Pro Leu Val Ser
                          345
          340
                               350
Tyr Gly Gly Ser Ala Leu Ile Val Leu Met Ala Gly Phe Gly Ile Val
     355 360 365
Met Ser Ile His Thr His Arg Lys Met Leu Ser Lys Ser Val
          375
<210> 6978
<211> 175
<212> PRT
<213> Enterobacter cloacae
<400> 6978
Gly Leu Leu Glu Thr Val Thr Tyr Pro Gly Gly Lys Met Met Asn
            5
                              10
Lys Val Ala Gln Phe Tyr Arg Glu Leu Val Ala Thr Leu Thr Glu Arg
         20
                       2.5
Leu Arg Asn Gly Glu Arg Asp Ile Asp Ala Leu Val Glu Gln Ala Arg
                      40
                                      4.5
Ala Arg Val Thr Gln Thr Gly Glu Leu Thr Arg Thr Glu Val Glu Glu
                    55
Val Thr Arg Ala Val Arg Arg Asp Leu Glu Glu Phe Ala Arg Ser Tyr
                7.0
                                 75
Glu Glu Ser Gln Asp Glu Ile Ala Asp Ser Val Phe Met Arg Val Ile
             85
                              90
Lys Glu Ser Leu Trp Gln Glu Leu Ala Asp Ile Thr Asp Lys Thr Gln
         100
                        105
Leu Glu Trp Arg Glu Val Phe Gln Asp Leu Asn His His Gly Val Tyr
      115
                     120
                                        125
His Ser Gly Glu Val Val Gly Leu Gly Asn Leu Val Cys Glu Lys Cys
                 135 140
His His His Ile Ala Val Tyr Thr Pro Glu Val Leu Ser Leu Cys Pro
              150
                                 155
Lys Cys Gly His Asp Gln Phe Gln Arg Arg Pro Phe Glu Pro
             165
                              170
<210> 6979
<211> 148
<212> PRT
<213> Enterobacter cloacae
<400> 6979
Leu Tyr Ala Gln Asn Thr Cys Cys Ser Glu Thr Glu Ala Glu Pro Gly
                              10
Met Asn Thr Phe Phe Lys Leu Thr Ala Leu Ala Gly Leu Phe Ala Ile
                           25
                                            30
Thr Gly His Ala Phe Ala Val Asp Asp Ile Thr Arg Val Asp Gln Ile
```

Pro Val Leu Lys Glu Glu Thr Gln His Ala Thr Val Ser Glu Arg Val 55 60 Thr Ser Arg Phe Thr Arg Ser His Tyr Arg Gln Phe Asp Leu Asp Gln 7.0 Ala Phe Ser Ala Lys Ile Phe Asp Arg Tyr Leu Asn Leu Leu Asp Tyr 8.5 90 Ser His Asn Val Leu Leu Ala Ser Asp Val Glu Gln Phe Ala Lys Arg 100 105 Lys Ser Glu Val Gly Asp Glu Leu Arg Ser Gly Lys Leu Asp Leu Phe 115 120 125 Tyr Asp Leu Tyr Asn Leu Ser Gln Asn Arg Arg Phe Asp Arg Leu Phe 130 135 Thr Ser Glu 145

<210> 6980 <211> 118

<212> PRT <213> Enterobacter cloacae

<400> 6980

Gly Glu Glu Fro Glu Gln Gln Leu His Gln Gln Arg Arg Ile Ala  $35 \ \ 40 \ \ 45$ 

Lys Gln Arg Tyr Pro Ala Ala Asp Glu Arg Arg Pro Glu Thr Ser Pro 50 60 60 Gly Lys Pro Gln Lys His Lys Glu Gln Gly Glu Gln Ala Cys Gln His

85 90 95 Pro Val Gln Gly Leu Ser Gly Gln His Pro Leu Pro Val Gln Ser Gly 100 105 110

His Tyr Ser Cys Ser

<210> 6981

<211> 281 <212> PRT

<213> Enterobacter cloacae

<400> 6981

Thr Leu Ile Asn Thr His Arg Asn His Ile Met Lys Lys Thr Leu Thr 10 Leu Ile Ala Ala Ala Thr Leu Ser Ala Leu Ser Phe Ala Ser Trp Ala 25 Asp Thr Leu Thr Val Gly Ala Ser Asn Thr Pro His Ala Glu Ile Leu 40 35 Glu Gln Ala Lys Pro Ile Leu Ala Lys Gln Gly Ile Asp Leu Glu Ile 55 Lys Pro Phe Gln Asp Tyr Ile Leu Pro Asn Thr Ala Leu Ala Gly His 65 70 Asp Ile Asp Ala Asn Tyr Phe Gln His Ile Pro Tyr Leu Asn Ser Val 85 90 Leu Lys Asp His Ala Gly Asp Lys Asp Tyr Asp Phe Val Ser Ala Gly 1.05 100 Ala Ile His Ile Glu Pro Ile Gly Ile Tyr Ser Lys Lys Tyr Lys Ser

```
Leu Lys Asp Leu Pro Glu Gly Gly Lys Ile Ile Met Arg Asp Ala Val
           135
Ser Glu Glu Gly Arg Ile Leu Ser Ile Phe Glu Lys Glu Gly Val Ile
                                 155
145
                 150
Lys Leu Lys Pro Gly Ile Asp Lys Val Thr Ala Arg Ile Ser Asp Ile
                                                  175
                                170
             165
Val Glu Asn Pro Lys Lys Leu Gln Phe Thr Pro Asn Val Glu Ala Ser
                                              190
                            185
       180
Leu Leu Pro Gln Met Tyr Asn Asn Asp Glu Gly Ala Ala Val Val Ile
                  200
                                           205
   195
Asn Ala Asn Tyr Ala Ile Asp Ala Gly Leu Asp Pro Val His Asp Pro
 210
                    215 220
Ile Ala Val Glu Ser Gly Glu Asn Asn Pro Tyr Ala Asn Ile Ile Thr
225 230 235
Val His Arg Gly Asp Glu Lys Lys Lys Asp Ile Val Ala Leu Val Asn
          245 250
Val Leu His Ser Lys Glu Ile Gln Asp Trp Ile Arg Thr Lys Tyr Lys
         260 265
Gly Ala Val Ile Pro Val Asn Asn
<210> 6982
<211> 76
<212> PRT
<213> Enterobacter cloacae
<400> 6982
Gly Asn Gly Val Met Ala Met Gly Asn Val Thr Lys Asp Glu Ala Leu
Tyr Gln Glu Met Cys Arg Val Val Gly Lys Val Val Leu Glu Met Arg
                                              30
                         2.5
Asp Leu Gly Gln Glu Pro Lys His Ile Val Ile Ala Gly Val Leu Arg
 3.5
                      4.0
                                 45
Thr Ala Leu Ala Asn Gln Arg Val Lys Arg Ser Glu Leu Thr Thr Lys
               55
Ala Met Glu Thr Val Val Lys Ala Leu Ala Gly
<210> 6983
<211> 344
<212> PRT
<213> Enterobacter cloacae
<400> 6983
Arg Ile Arg Met Ile Val Leu Ser Asn Ile Ser Lys Val Phe Asp Asn
                                10
Gly Lys Leu Ala Leu Thr Ala Val Asp Asn Val Asn Leu Thr Ile Glu
                             25
Gln Gly Gln Ile Tyr Gly Ile Ile Gly Tyr Ser Gly Ala Gly Lys Ser
       35
                         4.0
Thr Leu Ile Arg Leu Leu Asn Gly Leu Glu Lys Pro Ser Ala Gly Ser
                     5.5
                                       60
  50
Val Thr Ile Asn Gly Gln Asp Ile Ser Ala Ala Lys Gly Glu Ala Leu
                                    75
                  7.0
Arg Gln Ala Arg Leu Lys Ile Ser Met Val Phe Gln His Phe Asn Leu
              85
                                90
Leu Trp Ser Arg Thr Val Lys Glu Asn Ile Ala Phe Ser Met Gln Ile
                             105 110
           100
Ala Gly Val Pro Lys Ala Gln Ile Gln Ala Arg Val Ala Glu Leu Val
                                          125
Glu Leu Val Gly Leu Lys Gly Arg Glu Asn Ala Tyr Pro Ser Gln Leu
```

```
Ser Gly Gly Gln Lys Gln Arg Val Gly Ile Ala Arg Ala Leu Ala Asn
                           155
            150
His Pro Asp Val Leu Leu Cys Asp Glu Ala Thr Ser Ala Leu Asp Pro
         165
                  170
Gln Thr Thr Asp Gln Ile Leu Asp Leu Leu Leu Asp Ile Asn Arg Arg
      180
               185
                                      190
Phe Asn Leu Thr Ile Val Leu Ile Thr His Glu Met His Val Val Arg
 195 200
                           205
Lys Ile Cys Asp Arg Val Ala Val Met Glu Asn Gly Lys Val Val Glu
 210 215 220
Glu Gly Asp Val Leu Ser Val Phe Thr His Pro Gln Gln Pro Ile Thr
225 230 235
Arg Gln Phe Val Arg Gln Val Ser Gln Tyr Ala Glu Glu Glu Thr Phe
         245 250 255
Asn Thr Glu Leu Ala Asn Asp Leu Glu Gly Thr Val Ile Arg Leu Thr
      260 265 270
Phe Thr Gly His Ser Thr His Arg Pro Ile Val Gly Glu Leu Thr Leu
   275 280 285
Arg Tyr Gly Leu Pro Phe Asn Ile Leu His Gly Lys Met Thr Gln Thr
290 295 300
Ala His Gly Val Phe Gly Gln Leu Trp Val His Val Val Ala Ser Asp
305 310 315 320
Glu Gln Leu Asn Asn Ile Leu Ala Asp Leu Lys Gln Ser Asp Ile Glu
                         330
          325
Gly Glu Val Ile Lys His Gly
         340
```

<210> 6984 <211> 221 <212> PRT

<213> Enterobacter cloacae

<400> 6984 Arg Thr Leu Ser Ala Pro Glu Val Gly Ser Ala Leu Gly Cys Asn Pro 1.0 Gly Asp Ala Leu His Asp Cys Ala Phe Pro Ala Trp Arg Arg Leu Phe 20 25 Leu Gly Ile Ala Leu Gly Leu Ala Leu Phe Leu Thr Ala Arg Gly Gly 40 Leu Phe His Asn Arg Thr Val Tyr Ser Val Met Ser Ile Val Val Asn 5.0 55 60 Val Phe Arg Ser Ile Pro Phe Ile Ile Leu Ile Val Leu Leu Ile Pro 70 7.5 Phe Thr Lys Thr Val Val Gly Thr Ile Leu Gly Ala Asn Ala Ala Leu 9.0 8.5 Pro Ala Leu Ile Val Gly Ala Ala Pro Phe Tyr Ala Arg Leu Val Glu 100 105 110 Ile Ala Leu Arg Glu Val Asp Lys Gly Val Ile Glu Ala Thr Arg Ser 115 120 125 Met Gly Ala Arg Leu Ser Thr Leu Val Phe Arg Val Leu Leu Pro Glu 135 140 130 Ser Ser Pro Ala Leu Val Ser Gly Met Thr Val Thr Leu Ile Ala Leu 150 155 Val Ser Tyr Ser Ala Met Ala Gly Val Ile Gly Ala Gly Gly Leu Gly 170 175 165 Asn Leu Ala Tyr Leu Glu Gly Phe Gln Arg Asn His Gly Asp Val Thr 180 190 185 Leu Val Ala Thr Val Thr Ile Leu Ile Ile Val Phe Ile Ile Gln Phe 200 Cys Gly Asp Ala Ile Thr Ser Leu Leu Asp Lys Arg

<210> 6985 <211> 288

<211> 200 <212> PRT

<213> Enterobacter cloacae

<400> 6985

17

1 19

1.75

12

14

1 A

in.

Arg Gly Lys Thr Lys Thr Thr Gly Trp Arg Met Thr Met Ala Ala Lys

1 10 15

Met Lys Gly Phe Lys Lys Arg Ala Gln Val Leu Gly Leu Val Ala Trp 20 30 Gly Leu Val Ser Ala Gln Ala Gln Ala Asp Arg Leu Ala Asp Ile Lys

35 40 45 Ala Ala Gly Val Val Lys Val Ala Thr Phe Asp Ala Asn Pro Pro Phe

Ala Ala Gly Val Val Lys Val Ala Infr Phe Asp Ala Ash Pro Flo Flo 50 Gly Ser Ile Asp Ala Lys Thr His Glu Ile Val Gly Tyr Asp Val Asp

65 70 75 80 Phe Ala Lys Ala Leu Ala Lys Ser Leu Gly Val Lys Leu Glu Leu Val

85 90 95

Ala Thr Asn Pro Ala Asn Arg Ile Pro Leu Leu Gln Ser Gly Lys Ala 100 105 110

Asp Leu Ile Val Ala Asp Ile Thr Ile Thr Pro Glu Arg Ala Gln Val

Ile Asp Phe Ser Thr Pro Tyr Phe Val Thr Gly Gln Gln Phe Leu Val

130 135 140 Pro Ala Lys Ser Pro Asp Lys Leu Asp Asp Tyr Ser Arg Ala Arg Ile 145 150 155 160

145 \$150 155 160 Gly Ala Val Lys Gly Thr Thr Gly Glu Gln Ala Leu His Gln Arg Phe 165 170 175

Pro Gln Ser Arg Val Leu Ser Tyr Asp Asp Ile Pro Leu Ala Leu Thr 180 185 190

Ala Leu Arg Asn Gly Asn Val Gln Ala Ile Thr Gln Asp Ser Thr Ile 195 200 205

Leu Ala Gly Leu Leu Ala Gln Ala Pro Asp Lys Ala Asp Phe Lys Ile 210 215 220

Leu Pro Asp Leu Leu Ser Lys Glu Glu Ile Gly Val Gly Val Lys Lys

225 230 235 240 Leu Val Asp Leu

Gly Glu Thr Ala Leu Leu Lys Ala Val Asn Asp Glu Leu Val Asn Leu 245 250 Glu Lys Asn Gly Gln Ala Ala Lys Ile Tyr Asp Val Trp Phe Gly Pro

260 265 270 Gly Ser Pro Ala Pro Gln Pro Arg Asn Phe Lys Ile Glu Ala Arg 275 280 285

<210> 6986

<211> 303 <212> PRT

<213> Enterobacter cloacae

<400> 6986

Asp Ala Val Arg Pro Gly Asn Cys Arg Ser Asn Arg Leu Tyr Arg Arg 1 10 15 15

Trp Thr His Ser Gly Asn Arg Val Pro Gly Ala Ile Phe Gln Pro Thr 20 25 30 Val Ala Ser Ala Cys Glu Ala Val Pro Ala Lys Ser Ala Gly Ser Ala

35 40 45 Ala Ser Gly Ala Thr Val Met Pro Ala Leu Asp Trp Gln Gly Val Leu 50 55 60

Ala Gly Gln Pro Leu His Trp Ile Leu Ser Gly Phe Leu Thr Thr Leu 65 70 75 80

```
Trp Val Thr Leu Ala Gly Ile Met Leu Ala Ser Leu Leu Ala Leu Phe
                          90
Phe Met Leu Leu Arg Leu Ser Gly Gly Arg Leu Gly Thr Ser Phe Val
        100
                       105
Ser Gly Trp Val Ser Leu Phe Arg Asn Thr Pro Leu Leu Val Gln Leu
                    120
   115
Leu Phe Trp Tyr Phe Ala Ala Trp Asn Gly Leu Pro Gln Glu Leu Arg
       135
                                140
Asp Ala Val Asn Ala Asp His Ser Trp Ser Ile Leu Pro Gly Asp Val
145 150 155
Trp Trp Phe Thr Pro Glu Phe Leu Cys Ser Ala Trp Gly Leu Gly Val
      165 170
Phe Thr Ser Ala Phe Leu Ile Glu Glu Val Glu Ser Gly Leu Arg Ser
   180 185
                                      190
Val Pro Ala Gly Gln Arg Glu Ala Ala Leu Ala Gln Gly Phe Ser Ser
 195 200 205
Trp Arg Leu Phe Arg Tyr Ile Leu Leu Pro Gln Gly Leu Ala Asn Ala
               215 220
 210
Trp Gln Pro Val Val Gly Gln Tyr Leu Asn Leu Met Lys Leu Ser Ser
225 230 235 240
Leu Ala Ser Gly Ile Gly Phe Ala Glu Leu Thr Tyr Gln Val Arg Gln
     245 250 255
Ile Glu Ser Tyr Asn Ala His Ala Leu Glu Ala Phe Thr Val Gly Thr
        260 265 270
Val Leu Tyr Leu Leu Thr Gly Met Val Thr Gly Ser Val Leu Val Arg
 275 280 285
Leu Gly Pro His Ser Gly Arg Lys Asn His Asp Pro Arg Ile
```

<210> 6987 <211> 276 <212> PRT

<213> Enterobacter cloacae

<400> 6987

Lys Pro Gly Asn Met Leu Ser Gly Leu Phe Ser His Ser Ala Ala Asn 10 Ala Ala Asp Phe Ser Arg Leu Glu Gln Ala Ser Val Glu Phe Arg His 25 Val Asp Lys Arg Tyr Gly Asp His Pro Val Leu Thr Asp Ile Asn Leu 35 4.0 Thr Ile Met Pro Gly Glu Val Val Ala Ile Leu Gly Pro Ser Gly Ser 55 Gly Lys Ser Thr Leu Ile Arg Leu Ile Asn Gln Leu Glu Ser Leu Ser 75 70 Gly Gly Glu Ile Leu Val Asp His Lys Pro Thr Gly Gln Leu Ser Gly 8.5 90 Ser Arg Leu Arg Gln Leu Arg Ser Arg Val Gly Phe Val Phe Gln Gln 105 110 100 Phe Asn Leu Tyr Ala His Leu Thr Ala Ser Gln Asn Ile Thr Leu Ala 120 125 115 Leu Glu His Val His Gly Trp Lys Pro Met Pro Ala Gln Glu Arg Ala 135 140 Leu Ala Leu Leu Glu Lys Val Gly Met Leu Glu Lys Ala His Arg Tyr 150 155 Pro Ala Glu Leu Ser Gly Gly Gln Gln Gln Arg Val Ala Ile Ala Arg 170 175 165 Ala Leu Ala Ser Ser Pro Gln Ile Ile Leu Phe Asp Glu Pro Thr Ser 180 185 190 Ala Leu Asp Pro Glu Met Ile Gly Glu Val Leu Leu Val Met Lys Ala 195 200

```
Leu Ala His Ser Gly Ile Thr Met Ile Val Val Thr His Glu Met Gln
                 215
                                 220
 210
Phe Ala Arg Glu Ile Ala Asp Arg Ile Val Phe Ile Asp Gly Gly His
                                 235
               230
Ile Leu Glu Thr Ala Ser Pro Ala Gln Phe Phe Asn Gln Pro Ser His
       245
                             250 255
Pro Arg Ala Arg Arg Phe Leu Gln Lys Val Leu Asp Pro Leu Arg Gln
               265
Glu Gln Leu
      275
<210> 6988
<211> 245
<212> PRT
<213> Enterobacter cloacae
<400> 6988
Arg Gly Ala Cys Trp Cys Ala Ser Ala Pro Ile Gln Gly Gly Lys Ile
                             10
Met Ile Pro Gly Phe Asn Val Ile Val Glu Asn Leu Asp Tyr Leu Leu
      20
                       25
                                         30
Trp Gly Arg Ala Ile Ala Gly Glu Pro Gly Gly Val Leu Leu Ser Leu
                                     4.5
35
                      40
Leu Met Ala Ala Gly Ala Ala Ala Leu Ala Leu Pro Gly Gly Ile Val
                55 60
Leu Ala Cys Val Ala Trp Arg Tyr Pro Gly Val Val Arg Ser Ala Leu
                                75
               70
Phe Ala Trp Ala Glu Leu Ile Arg Gly Ile Pro Leu Ile Phe Val Ile
          8.5
                            90
Phe Trp Met Trp Tyr Leu Leu Pro Leu Ile Thr Gly Arg Asp Leu Pro
 100 105 110
Gly Ala Thr Thr Val Thr Leu Ala Leu Ala Trp Phe Thr Ala Ala Ala
   115 120 125
Val Met His Ser Val Leu Ala Gly Leu Arg Ala Leu Pro Ser Gly Gln
                 135 140
Asn Glu Ala Ala Leu Ser Gln Gly Phe Ser Thr Gln Gln Thr Leu Trp
145 150 155
Arq Val Leu Leu Pro Gln Ala Leu Arg Asn Ile Leu Pro Ser Leu Val
          165 170 175
Gly Ile Phe Ile Ser Leu Leu Lys Asp Thr Ser Leu Ala Phe Ile Val
       180 185 190
Asn Val Pro Glu Leu Thr Thr Val Ala Gly Gln Val Asn Asn Arg Val
                    200
                                       205
Gln Ile Tyr Pro Ala Ala Ile Phe Ile Phe Thr Gly Val Ile Tyr Tyr
                   215 220
Leu Leu Cys Cys Ser Leu Glu Leu Leu Ala Lys Arg Trp Arg Val Ser
                230
                                235
Arg Pro Ala Leu
             245
<210> 6989
<211> 292
<212> PRT
<213> Enterobacter cloacae
<400> 6989
Leu Arg Gly Gly Ala Pro Pro Glu Arg Asp Phe His Ile Leu Pro Asn
                             10
Leu Lys Thr Lys Thr Val Met Lys Lys Thr Lys Ile Val Cys Thr Ile
         20
                          25
Gly Pro Lys Thr Glu Ser Glu Glu Met Leu Ser Lys Met Leu Asp Ala
```

```
40
Gly Met Asn Val Met Arg Leu Asn Phe Ser His Gly Asp Tyr Ala Glu
                 55
                                60
His Gly Gln Arg Ile Gln Asn Leu Arg Asn Val Met Ser Lys Thr Gly
                             75
Lys Lys Ala Ala Ile Leu Leu Asp Thr Lys Gly Pro Glu Ile Arg Thr
          85
                          90
Ile Lys Leu Glu Gly Gly Asn Asp Val Ser Leu Lys Ala Gly Gln Thr
      100
            105
Phe Thr Phe Thr Thr Asp Lys Ser Val Val Gly Asn Asn Glu Ile Val
   115 120
                           125
Ala Val Thr Tyr Glu Gly Phe Thr Ser Asp Leu Ser Val Gly Asn Thr
 130 135
                        140
Val Leu Val Asp Asp Gly Leu Ile Gly Met Glu Val Thr Ala Ile Glu
145 150 155 160
Gly Asn Lys Val Ile Cys Lys Val Leu Asn Asn Gly Asp Leu Gly Glu
        165 170 175
Asn Lys Gly Val Asn Leu Pro Gly Val Ser Ile Ala Leu Pro Ala Leu
       180 185 190
Ala Glu Lys Asp Lys Gln Asp Leu Ile Phe Gly Cys Glu Gln Gly Val
 195 200 205
Asp Phe Val Ala Ala Ser Phe Ile Arg Lys Arg Ser Asp Val Val Glu
210 215 220
Ile Arg Glu His Leu Lys Ala His Gly Gly Glu Asn Ile Gln Ile Ile
225 230 235
Ser Lys Ile Glu Asn Gln Glu Gly Leu Asn Asn Phe Asp Glu Ile Leu
           245 250 255
Glu Ala Ser Asp Gly Ile Met Val Ala Arg Gly Asp Leu Gly Val Glu
    260
                    265 270
Ile Pro Gly Cys Arg Ser Val Phe Thr Thr Gly Ala Gly Thr Asn Arg
                    280
Ile Lys Arg Gly
  290
```

<210> 6990 <211> 534

<212> PRT <213> Enterobacter cloacae

<400> 6990 Leu Ser Ala Ile Cys Ile Ser Gly His Thr His Pro Ala Lys Ser Val 10 Asn Phe Ala Ala Leu Tyr Ala Asp Leu Ala Ile Leu Thr Ser Gly Gln 20 25 Leu Tyr Val Leu Leu Ser Phe His Leu Lys Ile Gln Gly Leu Phe Leu 40 4.5 Ser Val Leu Lys Pro Gly Glu Thr Phe Phe Ile Glu Lys Ile Ser Trp 50 55 60 Phe Tyr His Pro Val Ile Thr Ser Ser Gln Asp Met Thr Met Thr Leu 75 70 Tyr His Ser Val Thr Glu Leu Ile Gly Arg Thr Pro Leu Ile Gln Leu 90 8.5 His Lys Leu Asp Thr Gly Pro Cys Ser Leu Phe Leu Lys Leu Glu Asn 100 105 110 Gln Asn Pro Gly Gly Ser Ile Lys Asp Arg Val Ala Leu Ser Met Ile 120 115 Asn Glu Ala Glu Arg Thr Gly Gln Leu Arg Pro Gly Gly Thr Ile Ile 135 140 Glu Ala Thr Ala Gly Asn Thr Gly Leu Gly Leu Ala Leu Ile Ala Ala 150 155 Gln Lys Gly Tyr Ser Leu Ile Leu Val Val Pro Asp Lys Met Ser Arg

```
170
           165
Glu Lys Ile Phe His Leu Arg Ala Leu Gly Ala Gln Val Val Leu Thr
               185
                             190
        180
Arg Ser Asp Val Asn Lys Gly His Pro Ala Tyr Tyr Gln Asp Tyr Ala
           200
                                  205
     195
Arg Arg Leu Ala Asn Glu Leu Pro Gly Ala Phe Tyr Ile Asp Gln Phe
                       220
      215
Ser Asn Ala Ala Asn Pro Leu Ala His Arg Thr Thr Ala Pro Glu
      230
                  235
Leu Phe Glu Gln Leu Asp Gly Gln Ile Asp Ala Ile Val Val Gly Val
         245 250
Gly Ser Gly Gly Thr Leu Gly Gly Leu Gln Ala Trp Phe Ala Glu His
            265 270
        260
Ser Pro Gln Thr Glu Phe Val Leu Ala Asp Pro Ala Gly Ser Val Leu
  275 280 285
Ala Asp Gln Val Glu Thr Gly Arg Tyr His Asp Ala Gly Ser Trp Leu
 290 295 300
Val Glu Gly Ile Gly Glu Asp Phe Ile Pro Pro Leu Ala His Ile Glu
305 310 315 320
Gly Val Asn Arg Ala Trp Arg Ile Thr Asp Arg Glu Ala Phe Thr Thr
      325 330 335
Ala Arg Asp Leu Leu Lys Thr Glu Gly Ile Leu Ala Gly Ser Ser Thr
  340 345 350
Gly Thr Leu Leu Ala Thr Ala Leu Lys Tyr Cys Gln Ala Gln Thr Thr
355 360 365
Pro Lys Arg Val Val Thr Phe Ala Cys Asp Ser Gly Asn Lys Tyr Leu
370 375 380
Ser Lys Met Phe Asn Asp Asp Trp Met Arg Gln Gln Gly Leu Ile Ser
   390 395 400
Arg Pro Gln Ala Gly Asp Leu Ser Asp Tyr Ile Ala Leu Arg His Asp
        405 410 415
Glu Gly Ala Thr Val Thr Ala Ala Pro Asp Asp Thr Leu Ser Thr Val
      420 425 430
Leu Ala Arg Met Arg Leu Tyr Glu Ile Ser Gln Leu Pro Val Leu Asp
435 440 445
Asn Asn Lys Val Val Gly Ile Ile Asp Glu Trp Asp Leu Leu Arg His
      455 460
Ile Gly Gly Asp Ala Asp Arg Pne Ser Leu Pro Val Thr Ala Ala Met
465 470 475 480
Thr Arg Gln Val Glu Tyr Leu Asp Lys Gln Ala Pro Glu Ser Ala Leu
           485 490 495
Tyr Ala Ile Phe Asp Arg Gly Leu Val Ala Ile Ile Tyr Asp Gly Asn
        500 505 510
Arg Phe Leu Gly Leu Ile Thr Arg Ser Asp Val Leu Thr Ala Trp Arg
                   520
   515
Asn Arg Leu Thr Lys
 530
<210> 6991
<211> 386
<212> PRT
<213> Enterobacter cloacae
<400> 6991
Lys Glu Gln Lys Met Lys Asn Leu Ala Thr Leu Ser Val His Ser Gly
Glu Tyr His Asp Pro His Gly Ala Val Met Pro Pro Ile Tyr Ala Thr
      20
                     2.5
Ser Thr Phe Ala Gln Pro Ala Pro Gly Glu His Thr Gly Tyr Glu Tyr
```

Ser Arg Ser Gly Asn Pro Thr Arg His Ala Leu Glu Thr Ala Ile Ala

```
55
Glu Leu Glu Gly Gly Thr Arg Gly Tyr Ala Phe Ala Ser Gly Leu Ala
                              7.5
Ala Ile Ser Thr Val Leu Glu Leu Leu Asp Gln Asp Ser His Ile Val
          8.5
                           90
Ala Ile Asp Asp Val Tyr Gly Gly Thr Tyr Arg Leu Ile Glu Asn Val
     100 105
                                   110
Arg Lys Arg Ser Thr Gly Leu Gln Val Ser Trp Val Lys Pro Asp Asp
    115 120 125
Val Ala Gly Leu Glu Ala Ala Ile Arg Pro Asp Thr Arg Met Ile Trp
130 135 140
Val Glu Thr Pro Thr Asn Pro Leu Leu Lys Leu Ala Asp Leu Glu Ala
145 150 155
Ile Ala Asp Ile Ala Arg Arg His Asn Ala Ile Ser Val Ala Asp Asn
         165 170 175
Thr Phe Ala Ser Pro Val Ile His Arg Pro Leu Glu Ala Gly Phe Asp
      180 185 190
Ile Val Val His Ser Ala Thr Lys Tyr Leu Asn Gly His Ser Asp Val
                   200
                         205
     195
Val Ala Gly Leu Ala Val Val Gly Ala Asn Lys Asp Leu Ala Glu Arg
 210 215 220
Leu Gly Tyr Leu Gln Asn Ala Ile Gly Gly Val Leu Asp Pro Phe Ser
   230 235 240
Ser Phe Leu Thr Leu Arg Gly Ile Arg Thr Leu Ser Leu Arg Val Glu
                250 255
            245
Lys His Ser Ala Asn Ala Leu Ala Ile Ala Gln Trp Leu Glu Gln His
       260 265 270
Pro Gln Val Asp Ser Val Phe Tyr Pro Gly Leu Ala Ser His Pro Gln
275 280 285
Tyr Ala Leu Ala Arg Arg Gln Met Ala Leu Pro Gly Gly Met Ile Ser
                295 300
Val Val Ile Lys Gly Asp Ala Gln Arg Ala Thr Glu Val Ile Arg His
305 310 315
Leu Thr Leu Phe Thr Leu Ala Glu Ser Leu Gly Gly Val Glu Ser Leu
          325 330
Val Ser Gln Pro Tyr Ser Met Thr His Ala Ser Ile Pro Leu Ala Gln
         340 345 350
Arg Leu Ala Asn Gly Ile Val Pro Gln Leu Ile Arg Leu Ser Val Gly
                     360
     355
Ile Glu Asp Ala Lys Asp Leu Ile Ala Asp Leu Lys Gln Ala Leu Lys
Lys
385
<210> 6992
<211> 285
<212> PRT
<213> Enterobacter cloacae
<400> 6992
Gly Arg Glu Ala His Gln Gly Lys Gly Gly Phe Glu Lys Met Gly Ile
Gly Ala Ser Leu Lys Gln Leu Gly Pro Gln Gly Met Gln Ile Ser Asp
                        25
                                        3.0
Asp Val Lys Gly Thr Ser Pro Asp Arg Leu Thr Gly Thr Asp Val Met
      35
                     40
Ala Ala Ile Gly Thr Thr Ser Ser Arg Ala Arg Phe Gly Leu Ala Ala
                  55
 50
Phe Phe Gly Lys Ala Gly Ile Ser Lys Thr Asp Glu Gln Leu Ala Val
              70
                              7.5
```

Gln Ala Leu Ala Arg Tyr Ala Met Asp Val Ala Pro Lys Asn Val Arg

90 Lys Ala Ala Gly Gly Gln Phe Gly Trp Cys Met Gln Met Leu Ala Gln 105 110 Phe Ala Phe Ala Asp Tyr Ser Arg Ser Ala Ala Thr Ser Ala Thr Cys 115 120 His Ser Cys Cys Gly Thr Gly Arg Thr Thr Arg Glu Gln Ile Thr Arg 135 140 Lys Val Ser Tyr Pro Trp Gly Lys Ala Pro Tyr Trp Ala Cys Arg Ser 150 155 Arg Ala Val Arg Pro Ser Asp Trp Glu Gln Trp Thr Glu Val Thr Glu 165 170 175 Val Val Pro Ala Val Cys Asp Val Cys Glu Gly Lys Gly Thr Ile Ser 185 180 190 Ala Arg Cys Arg Cys Gly Gly Lys Gly Glu Val Leu Asp Arg Lys Ala 195 200 205 Thr Lys Glu Arg Gly Ala Pro Val Phe Lys Thr Cys Glu Arg Cys Ser 215 220 Gly Asn Gly Phe Ser Ala Ile Ser Ser Ala Thr Val His Arg Ala Ile 225 230 235 Leu Lys Arg Leu Pro Asp Leu His Gln Ser Ser Trp Ser Arg Asn Trp 245 250 Lys Pro Phe Tyr Glu Met Leu Val Asp Thr Leu Arg Gln Gly Glu Arg 260 265 His Ala Ala Val Glu Phe Glu Lys Ala Thr Thr Tyr

<211> 121 <212> PRT <213> Enterobacter cloacae

<210> 6993

<400> 6993 Val Leu Met Pro Ala Ala Ile Pro Arg Ala Cys Arg Lys Arg Gly Cys 10 Ser Gly Thr Thr Thr Asp Arg Ser Gly Tyr Cys Glu His His Arg Asn 25 Glu Gly Trp Gln Gln His Gln Arg Gly Gln Ser Arg His Gln Arg Gly 35 4.0 Tyr Gly Ser Lys Trp Asp Arg Leu Arg Gln Ile Val Leu Asp Arg Asp 55 60 Lys His Leu Cys Gln Glu Cys Leu Arg Asn Gly Arg Tyr Thr Pro Ala 7.0 75 Glu Thr Val Asp His Ile Lys Pro Lys Ala His Gly Gly Thr Asp Asp 8.5 90 Leu Ser Asn Leu Glu Ser Ile Cys Arg Gly Cys His Lys Ala Lys Thr 100 Ala Arg Glu Arg Leu Asn Arg Asn

115
<210> 6994
<211> 590
<212> PRT

<213> Enterobacter cloacae

His Gly Glu Glu Arg Gly Ile Phe Phe Ser Glu Pro Arg Ala Gln His 55 Ile Leu Asn Phe Tyr Asn Phe Val Pro His Val Lys Gly Ala Leu Ala 7.0 Gly Gln Pro Ile Glu Leu Met Asp Trp His Val Phe Ile Leu Ile Asn 90 85 Ile Phe Gly Phe Val Ile Pro Leu Val Asn Glu Glu Thr Gly Glu Thr 105 Val Leu Arg Asn Asp Gly Ser Gly Arg Pro Val Met Val Arg Arg Phe 120 115 125 Arg Thr Ala Asp Val Glu Val Ala Arg Lys Asn Ala Lys Ser Thr Leu 135 140 Cys Ser Gly Val Gly Leu Tyr Met Ala Gly Ala Asp Gly Glu Gly Gly 155 145 150 Ala Glu Val Tyr Ser Ala Ala Thr Thr Arg Asp Gln Ala Arg Ile Val 165 170 Phe Glu Asp Ala Lys Asn Met Val Lys Lys Ala Lys Ala Thr Leu Gly 180 185 190 Arg Ile Phe Glu Phe Asn Lys Leu Ala Ile Tyr Gln Glu Gln Ala Ala 195 200 205 Ser Lys Phe Glu Pro Leu Ser Ser Asp Ala Asn Asn Leu Asp Gly Leu 210 215 220 Asn Ile His Cys Ala Ile Val Asp Glu Leu His Ala His Lys Thr Arg 225 230 235 240 Asp Val Trp Asp Val Leu Glu Thr Ala Thr Gly Ala Arg Leu Gln Ser 245 250 255 Leu Leu Phe Gly Ile Thr Thr Ala Gly Phe Asn Lys Glu Gly Ile Cys 260 265 270 Tyr Glu Leu Arg Asp Tyr Ala Ile Lys Val Leu Arg Gly Leu Val Lys 275 280 285 Asp Asp Thr Phe Phe Ala Ile Ile Tyr Thr Leu Asp Glu Gly Asp Asp 290 295 300 Pro Phe Asp Glu Lys Val Trp Gln Lys Ala Asn Pro Gly Leu Gly Ile 305 310 315 Cys Lys Arg Trp Asp Asp Leu Arg Arg Leu Ala Lys Lys Ala Lys Glu 325 330 335 Gln Val Ser Ala Arg Ile Asn Phe Phe Thr Lys His Met Asn Ile Trp 340 345 350 Val Thr Ala Glu Ser Ala Trp Met Asp Met Met Lys Trp Glu Lys Cys 355 360 Glu Phe Ile Ala Pro Gln His Glu Leu Lys Thr Tyr Pro Ser Trp Val 370 375 Gly Val Asp Leu Ser Asn Lys Ile Asp Ile Cys Ala Ala Ala Lys Val 390 395 Trp Arg Ala Pro Asp Gly His Val His Ala Asp Phe Lys Phe Trp Leu 405 410 415 Pro Glu Gly Arg Leu Glu Lys Cys Ser Arg Gln Met Ala Glu Leu Tyr 425 Arg Lys Trp Ala Gly Met Asp Lys Leu Ile Leu Thr Asp Gly Asp Val 435 440 445 Ile Asp His Ala Gln Ile Lys Glu Glu Leu Gln Leu Trp Val Ala Gly 450 455 460 Glu Ser Leu Lys Glu Ile Gly Phe Asp Pro Trp Ser Ala Thr Gln Phe 465 470 475 Ser Leu Ala Leu Ala Glu Glu Gly Leu Pro Leu Val Glu Val Pro Gln 485 490 Thr Val Arg Asn Phe Ser Glu Ala Met Lys Glu Val Glu Ala Leu Val 500 505 Tyr Gly Gly Arg Phe His His Ser Asp His Pro Val Met Asn Trp Met 520 515 Met Ser Asn Val Thr Val Lys Pro Asp Arg Asn Glu Asn Ile Phe Pro

```
535
Asn Lys Ser Thr Pro Glu Ala Lys Ile Asp Gly Pro Ala Ala Leu Phe
           550
                                 555
Thr Ala Met Ser Arg Val Leu Val Asn Gly Gly Asn Asp Gln Gln Asp
          565 570
Leu Ser Gly Phe Phe Asn Asn Pro Ile Met Val Gly Phe
<210> 6995
<211> 292
<212> PRT
<213> Enterobacter cloacae
<400> 6995
Asn Arg Pro Leu Arg Ser Thr Phe Leu Met Ser Lys Lys Gln Leu Pro
                        10
Val Ala Pro Ala Gly Arg Pro Cys Ala Arg Val Thr Cys Glu Thr Leu
                    2.5
Pro Ser Ala Leu Asp Arg Trp Asp Gly Gly Ile Lys Ala Ala Ala Thr
                       40
Asp Asp Asn Ser Ile Ser Val Phe Asp Val Ile Gly Gln Asp Tyr Trp
              55
Gly Glu Gly Val Thr Ala Lys Arg Ile Ala Gly Ala Leu Arg Ala Met
                70
                                 75
Asn Gly Ala Asp Val Thr Val Asn Ile Asn Ser Pro Gly Gly Asp Met
            85
                              9.0
Phe Glu Gly Leu Ala Ile Tyr Asn Leu Leu Arg Glu Tyr Glu Gly Arg
                          105
         100
Val Thr Val Lys Val Leu Gly Ile Ala Ala Ser Ala Ala Ser Val Ile
 115 120
                                        125
Ala Met Ala Gly Asp Asp Ile Gln Ile Gly Arg Gly Ala Phe Leu Met
                   135
                                    140
Ile His Asn Cys Trp Val Tyr Ala Met Gly Asn Arg His Asp Phe Ala
145 150
                                 155
Glu Leu Ser Gln Ser Leu Glu Pro Phe Asp Asn Ala Met Ala Asp Ile
           165
                              170 175
Tyr Ala Ala Arg Ser Gly Leu Asp Met Ala Ala Val Gln Lys Leu Met
                               190
         180
                           185
Asp Ala Glu Ser Tyr Ile Gly Gly Ser Asp Ala Val Ala Lys Gly Leu
                       200
                                     205
      195
Ala Asp Ser Leu Leu Ser Ala Asp Ala Val Ser Asp Gly Asp Glu Ser
                    215
                                     220
Pro Ala Ala Ala Leu Arg Lys Leu Asp Ala Leu Leu Ala Lys Thr Asn
                230
                                  235
Thr Pro Arg Ser Glu Arg Arg Lys Leu Ile Lys Ala Leu Ser Gly Gly
             245
                              250 255
Met Pro Gly Ala Val Thr Thr Asn Asp Gly Thr Pro Gly Ala Ala Glu
          260
                        265
                                            270
Asp Ile Lys Pro Glu Thr Leu Asn Ser Leu Glu Asn Ala Leu Ala Ala
      275
                     280
                                         285
Leu Val Lys
  290
<210> 6996
<211> 407
<212> PRT
<213> Enterobacter cloacae
<400> 6996
Gly Pro Phe Met Ser Glu Val Asn Glu Ile Leu Lys Lys Val Thr Ala
```

```
Ser Ile Glu Asp Ala Thr Ser Lys Phe Asn Ala Lys Ala Glu Glu Ala
                       25
Leu Thr Glu Ala Lys Lys Asn Gly Gln Leu Ser Ala Gln Thr Lys Asp
      35
                    40
Val Val Asp Lys Met Ala Thr Glu Leu Asn Ala Leu Lys Glu Ala Glu
                 55
Lys Thr Leu Lys Ala Ser Leu Gly Glu Leu Glu Gln His Val Ala Gln
              7.0
Met Pro Leu Asn Asn Ala Ala Lys Val Thr Glu Thr Val Gly Gln Val
                          90
          8.5
Val Ile Asn Ser Glu Ala Leu Lys Ala Phe Ala Ala Ser Val Glu Gly
      100 105
                                      110
Asn Lys Arg Val Ser Val Pro Val His Ala Ala Leu Leu Ser Thr Asp
   115 120 125
Val Ala Asp Gly Val Val Glu Pro Gln Arg Leu Pro Gly Ile Asp Thr
 130 135 140
Ala Pro Lys Gln Arg Leu Phe Ile Arg Asp Leu Ile Ala Pro Gly Arg
    150 155 160
Thr Ser Ser Pro Ala Ile Phe Trp Val Gln Gln Thr Gly Phe Thr Asn
     165 170 175
Ala Ala Lys Val Val Ala Glu Gly Thr Ala Lys Pro Tyr Ser Asp Ile
      180 185 190
Glu Phe Ala Thr Lys Ile Thr Pro Val Thr Thr Ile Ala His Met Phe
 195 200 205
Lys Ala Ser Lys Gln Ile Leu Asp Asp Phe Ala Gln Leu Gln Ser Thr
 210 215 220
Val Asp Ala Glu Met Arg Tyr Gly Leu Lys Tyr Val Glu Glu Glu Glu
225 230 235 240
Ile Leu Phe Gly Asp Gly Thr Gly Val His Leu His Gly Ile Val Pro
     245 250
Gln Ala Ser Ala Phe Asp Pro Ala Phe Ser Val Glu Ser Gln Asn Gly
                                      270
 260
                       265
Ile Asp Asp Leu Arg Leu Ala Met Leu Gln Ala Gln Leu Ala Arg Phe
                    280
275
                                   285
Pro Ala Ser Gly His Val Leu His Phe Ile Asp Trp Ala Lys Ile Glu
                 295
                                300
Leu Thr Lys Asp Ser Leu Gly Arg Tyr Ile Leu Ala Asn Pro Ala Ser
            310
                             315
Leu Thr Gly Pro Thr Leu Trp Gly Leu Pro Val Val Ala Thr Glu Ala
           325
                          330
Ala Ala Phe Gln Gly Lys Phe Leu Thr Gly Ala Phe Asn Ala Ala Ala
                       345 350
        340
Gln Leu Phe Asp Arg Glu Asp Ala Asn Val Val Ile Ser Thr Glu Asn
                                   365
    355
                    360
Ala Asp Asp Phe Glu Lys Asn Met Ile Ser Ile Arg Cys Glu Glu Arg
  370
                 375 380
Leu Ala Leu Ala Val Lys Arg Pro Glu Ala Phe Val Tyr Gly Ser Phe
             390
                              395
Ser Thr Gly Ala Gly Ser
```

<210> 6997 <211> 222

\*211> ZZZ

<212> PRT

<213> Enterobacter cloacae

405

## <400> 6997

Met Asn Arg Glu Thr Lys Gln Met Leu Thr Leu Ser Lys Phe Gln Gln 1 5 10 15
Ala Thr Gly Thr Ser Ala Glu Leu Ala Gly Lys Trp Phe Pro Val Val 20 25 30

Leu Ala Ala Met Gln Lys Tyr Asp Ile Ser Thr Pro Leu Arg Gln Ala His Phe Leu Ala Gln Val Gly His Glu Ser Ser Gly Phe Val Arg Val Glu Glu Ser Leu Asn Tyr Arg Tyr Gly Ala Leu Leu Ala Met Phe Gly 70 75 Asn Arg Ile Ser Gln Glu Asp Ala Phe Arg Tyr Gly Arg Val Asp Ser 85 90 Gly Gln Asn Pro His Pro Ala Asp Gln Lys Met Ile Gly Ser Ile Ile 100 105 Tyr Ala Asn Arg Asn Gly Asn Gly Asp Arg Asn Ser Gly Asp Gly Tyr 115 120 125 Arg Tyr Arg Gly Arg Gly Leu Ile Gln Val Thr Gly Lys Ala Asn Tyr 135 140 Ala Ala Leu Val Lys Gln Leu Gly Val Asp Ile Val Lys Ser Pro Glu 145 150 155 160 Leu Leu Thr Gln Pro Gln Tyr Ala Ala Glu Ser Ala Ala Ala Trp Trp 165 170 175 Ser Asn His Gly Leu Asn Ala Ile Ala Asp Ser Asp Asp Val Ser Arg 180 185 190 Ile Thr Arg Ile Ile Asn Gly Gly Thr Asn Gly Leu Glu Asp Arg Lys 200 205 Ala Arg Leu Thr Lys Ala Lys Gly Val Leu Cys Ser Gly 210 215

<210> 6998 <211> 316 <212> PRT

<213> Enterobacter cloacae

<400> 6998 Ile Met Gly Gln Lys Ile Ile Thr Leu Ser Gly Ala Ala Thr Asp Val 1.0 Leu Tyr Ala Leu Phe Phe Arg Gly Ala Leu Gln Ser Gly Asp Leu Pro 20 25 Ala Lys Ser Gly Ala Ala Glu Leu Arg Glu Leu Gly Phe Ala Glu Thr 40 Arg His Thr Ala Thr Glu Tyr Gln Lys Glu Asn Tyr Phe Thr Phe Leu 55 Thr Ala Glu Gly Gln Ala Phe Ala Ile Glu His Leu Ala Asn Thr Arg 7.0 7.5 Phe Gly Val Lys Gln Tyr Cys Ser Ala Ile Asn Ile Gly Val Glu Leu 8.5 90 Asp Thr Thr Asp Ala Gln Lys Ala Ile Asp Asp Leu Asp Asp Lys Ile 100 105 110 Arg Asn Ser Asp Ala Phe Lys Val Leu Lys Asp Gly Trp Ser Phe Glu 115 120 125 Lys Asn Gly Thr Leu Val Ile Asn Asn Gly Gln Val Phe Ile Thr Asp 140 130 135 Ala Lys Ile Ser Asp Gly Val Leu Ser Thr Asn Tyr Asn Val Lys Leu 150 155 Asn Asp Ala Asp Lys Gly Lys Pro His Glu Ala Gly Met Thr Leu Gly 170 165 175 Val Glu Glu Gly Lys Gln Gln Ala Thr Phe Lys Ala Asp Arg Phe Lys 180 185 190 Val His Glu Ala Ala Gln Ser Ala Ser Asn Asn Glu Glu Thr Ala Phe 195 200 Asm Gly Gly Leu Ala Phe Gly Gly Phe Pro Gly Ala Ile Ser His Asp 215 Gly Ala Asn Pro Ala Asp Gly Asn Asn Ala Thr Ala Glu Pro Ile Ser 225 230 235

Ser Ile Ala Ser Ala Thr Gly Thr Ala Thr Lys Ala Arg Leu Thr Asp 245 250 Glu Met Gln Glu Leu Val Leu Lys Ala Val Arg Glu Ser Asp Leu Phe 260 265 270 Thr Ser Leu Gln Thr Ala Ile Ala Ala Lys Ala Ala Ser Thr Ala Gly 275 280 285 Leu Gln Gln Ala Val Asn Asp Ala Val Ser Asn Ala Ile Arg Asn Ala 290 295 Leu Lys Pro Gly Gly Leu Leu Tyr Gly Lys Cys 310 <210> 6999 <211> 162 <212> PRT <213> Enterobacter cloacae <400> 6999 Glu Phe Ser Ile Met Ser Gly Pro Pro Lys Thr Pro Thr His Leu Arg 10 5 Leu Val Arg Gly Asn Pro Ser Lys Arg Pro Ile Asn Glu Asn Glu Pro 2.0 2.5 Lys Pro Pro Ser Gly Val Pro Pro Thr Pro Lys His Phe Asp Lys Gln 40 Gly Lys Tyr Trp Phe Lys Arg Met Ala Asp Glu Leu Asp Ala Ile Gly 55 Val Met Ser Gln Leu Asp Ala Arg Ala Leu Glu Leu Leu Val Glu Ala 70 75 Tyr Thr Glu Tyr Arg His His Cys Asp Thr Leu Glu Val Glu Gly Tyr 90 Thr Tyr Arg Thr Glu Thr Gln Asn Gly Asp Val Leu Ile Lys Ala His 100 105 Pro Ala Ala Ile Met Lys Ala Asp Ala Trp Lys Arg Leu Arg Ala Met 115 120 125 Leu Gly Glu Phe Gly Met Thr Pro Ala Ser Arg Thr Lys Val Asn Ala 130 135 140 Lys Gly Pro Asp Ala Val Asp Pro Leu Ala Glu Phe Met Lys Ala Arg 145 Asp <210> 7000 <211> 442 <212> PRT <213> Enterobacter cloacae <400> 7000 Ser His His Gly Arg Phe Leu Met Lys Lys Asn Lys Arg Pro Gly Arg Val Lys Ser Ala Leu Leu Asn Trp Leu Gly Val Pro Ile Ser Leu Thr 20 2.5 Thr Gly Thr Phe Trp Glu Glu Trp Phe Gly Thr Ser Ser Ser Gly Lys 35 40 45 Val Val Thr Ala Asp Lys Ala Ile Gln Leu Ser Ala Val Trp Ala Cys 55 60 Val Arg Leu Leu Ser Glu Ser Ile Ser Thr Leu Pro Leu Lys Ile Tyr 70 75 8.0 Val Arg Gln Pro Asp Gly Ser Arg Lys Ala Ala Thr Asp His Pro Ala 85 90 95 Tyr Ser Ile Leu Cys Arg Arg Pro Asn Ser Glu Met Thr Pro Ser Arg

105 Phe Met Leu Met Val Val Ala Ser Ile Cys Leu Arg Gly Asn Ala Phe

100

```
120
Ile Glu Lys Lys Phe Ile Ala Asn Arg Leu Val Ser Leu Val Pro Leu
                135
                              140
Leu Pro Gln Asn Met Val Val Lys Arg Leu Thr Thr Gly Ala Leu Glu
              150
                         155
Tyr Lys Tyr Thr Glu Asn Gly Asn Glu Arg Val Ile Pro Val Lys Asn
               170
         165
Ile Met His Ile Arg Gly Phe Gly Leu Asp Gly Val Cys Gly Met Met
       180
            185
Pro Met Lys Thr Gly Arg Asp Val Ile Gly Ser Ala Met Ala Val Glu
    195 200
                       205
Glu Ser Ala Ala Lys Ile Phe Glu Gln Gly Leu Gln Ser Ser Gly Phe
 210 215 220
Leu Ser Ser Asp Lys Ala Leu Asp Asp Thr Gln Arg Glu Lys Leu Arg
225 230 235
Gly Tyr Met Ala Ala Phe Thr Gly Ser Lys Asn Ala Gly Lys Ile Met
        245 250 255
Val Leu Glu Gly Gly Leu Thr Tyr Gln Gly Val Thr Met Asn Pro Glu
      260 265 270
Asp Ala Gln Met Leu Glu Ser Arg Ala Phe Ser Ile Glu Glu Ile Cys
275 280 285
Arg Trp Phe Arg Val Pro Pro Phe Met Val Gly His Thr Thr Lys Gln
290 295 300
Ser Ser Trp Ala Ser Ser Leu Glu Gly Met Asn Leu Gln Phe Leu Thr
305 310 315 320
His Thr Leu Arg Pro Leu Leu Val Asn Ile Glu Glu Glu Ile Gly Arg
      325 330 335
Cys Leu Leu Asp Ser Asp Asp Glu Val Phe Ala Glu Phe Ser Val Glu
  340 345 350
Gly Leu Leu Arg Ala Asp Ser Ala Gly Arg Ala Ala Tyr Tyr Thr Ser
355 360 365
Ala Leu Gln Asn Gly Trp Met Ser Arg Asn Asp Val Arg Arg Leu Glu
370 375 380
Asn Met Pro Pro Ile Glu Gly Gly Asp Ile Tyr Thr Val Gln Leu Asn
385 390 395
Leu Thr Gln Leu Lys Asn Leu Glu Ser Ser Asn Pro Ala Val Gln Ala
         405 410 415
Leu Ala Leu Arg Glu Leu His Asn His Ile Phe Pro Asp Ile Ser Phe
      420 425
Glu Gln Ser Pro Leu Lys Gln Ala Ala
```

<210> 7001 <211> 157 <212> PRT

<213> Enterobacter cloacae

<400> 7001

Ile Ile Ser Ile Phe Phe Asn Ser Leu Arg Val Cys Arg Asp Leu Ile 10 Leu Met Leu Asn Leu Ile Leu Ser Gln Leu Phe Asn Glu Arg Gly Ile 20 25 3.0 Ala Met Ser Trp Arg Val Ile Ser Ser Val Ile Cys Pro Asn Thr Gly 35 4.0 Ile Val Tyr Ser Ser Ile Leu Gly Leu Lys Phe Leu Lys Leu Ile Ile Trp Tyr Glu Ser Asp Val Tyr Leu Tyr Pro Gly Asp Arg Ile Tyr Pro 75 65 70 Thr Lys Asn Gly Val Phe Ile Asn Gly Val Phe Lys Pro Ile Ser Ile 85 90 Tyr Asn Ile Ser Pro Tyr Asn Glu Met Leu Trp Ser Glu Ile Lys Asn

105 Lys Met Ala Cys Pro Tyr Asn Arg Asn Gln Glu Glu Ile Cys Thr 115 120 125 Tyr Ala Val His Cys Asn Ala Arg Lys Cys Pro His Gly Phe Thr Thr 140 135 Asn Pro Leu Ile Val Ser Thr Ala Lys Ser Arg His <210> 7002 <211> 445 <212> PRT <213> Enterobacter cloacae <400> 7002 Lys Thr Cys Ser Glu Ala Pro Val Ser Val Arg Leu Met Lys Lys Leu 10 Phe Val Gln Phe Tyr Leu Leu Phe Val Cys Phe Leu Val Met Thr 20 25 Met Leu Val Gly Leu Val Tyr Lys Phe Thr Ala Glu Arg Ala Gly Arg 40 Gln Ser Leu Asp Asp Leu Met Lys Ser Ser Leu Tyr Leu Met Arg Ser 50 55 Glu Leu Arg Glu Ile Pro Pro His Asp Trp Ala Arg Thr Leu Lys Glu 65 70 75 Leu Asp Leu Asn Leu Ser Phe Asp Leu Arg Ile Glu Pro Met Lys Asp 85 90 Phe Asp Leu Ala Pro Pro Ala Met Gln Arg Leu Arg Asp Gly Asp Ile 100 105 110 Val Ala Leu Asp Glu Lys Tyr Thr Phe Ile Gln Arg Ile Pro Arg Ser 115 120 125 His Tyr Val Leu Ala Val Gly Pro Val Pro Tyr Leu Tyr Tyr Leu His 130 135 140 Gln Met Arg Leu Leu Asp Leu Ala Leu Leu Gly Phe Ile Ala Ile Ser 145 150 155 Leu Ala Phe Pro Val Phe Ile Trp Met Arg Pro His Trp Gln Asp Met 165 170 175 Leu Lys Leu Glu Ser Ala Ala Gln Arg Phe Gly Glu Gly His Leu Thr 180 185 190 Glu Arg Ile His Phe Asp Ser Gly Ser Ser Phe Asp Arg Leu Gly Ile 195 200 205 Ala Phe Asn Gln Met Ala Asp Asn Ile Asn Ala Leu Ile Ala Ser Lys 210 215 220 Lys Gln Leu Ile Asp Gly Ile Ala His Glu Leu Arg Thr Pro Leu Val 225 230 235 Arg Leu Arg Tyr Arg Leu Glu Met Ser Glu Asn Leu Thr Gly Ala Glu 245 250 Ser Gln Ala Leu Asn Arg Asp Ile Gly Gln Leu Glu Ala Leu Ile Glu 260 265 Glu Leu Leu Thr Tyr Ala Arg Leu Asp Arg Pro Gln Thr Glu Leu His 280 285 Leu Ser Thr Pro Asp Leu Pro Val Trp Leu Gln Thr His Ile Asn Asp 295 300 Val Gln Ser Val Asn Pro Gln Arg Lys Leu Leu Thr Ala Ile Thr Pro 310 315 Gly Ala Tyr Gly Ala Leu Asp Met Arg Leu Met Glu Arg Val Leu Asp 325 330 Asn Leu Met Asn Asn Ala Met Arg Tyr Ser Glu Thr Thr Leu Arg Ile 340 345 Gly Leu Asp Leu Gln Gly Ser Gln Ala Ile Leu Cys Val Glu Asp Asp 355 360

Gly Pro Gly Ile Glu Pro Ala Glu Arg Glu Lys Val Phe Glu Pro Phe

```
375
Val Arg Leu Asp Pro Ser Arg Asp Arg Ala Thr Gly Gly Cys Gly Leu
             390
                              395
Gly Leu Ala Ile Val Arg Ser Ile Ala Gln Ala Met Gly Gly Ser Val
          405
                  410 415
Arg Cys Glu Ala Ser Glu Leu Gly Gly Ala Arg Phe Val Phe Ser Trp
       420 425 430
Pro Ile Tyr His Asn Ile Pro Leu Pro Val Pro Ala
                     440
      435
<210> 7003
<211> 473
<212> PRT
<213> Enterobacter cloacae
<400> 7003
Leu Phe Trp Ile Trp Thr Phe His Asn Arg Lys Pro Met Glu Lys Lys
                         1.0
Leu Gly Leu Ser Ala Leu Thr Ala Leu Val Leu Ser Ser Met Leu Gly
 20
                25
Ala Gly Val Phe Ser Leu Pro Gln Asn Met Ala Ala Val Ala Ser Pro
                      40
Ala Ala Leu Leu Ile Gly Trp Gly Ile Thr Gly Val Gly Ile Leu Leu
50 55
Leu Ala Phe Ala Met Leu Leu Thr Arg Ile Arg Pro Asp Leu Asp
                                 75
Gly Gly Ile Phe Thr Tyr Ala Arg Glu Gly Phe Gly Glu Leu Ile Gly
            85
                             90
Phe Cys Ser Ala Trp Gly Tyr Trp Leu Cys Ala Val Ile Ala Asn Val
 100 105
                                          110
Ser Tyr Leu Val Ile Val Phe Ser Ala Leu Ser Phe Phe Thr Asp Thr
   115
                      120
                                       125
Pro Glu Leu Arg Leu Phe Gly Asp Gly Asn Thr Trp Gln Ser Ile Val
 130 135
                                    140
Gly Ala Ser Val Leu Leu Trp Ile Val His Trp Leu Ile Leu Arg Gly
              150 155
Val Gln Thr Ala Ala Ser Ile Asn Leu Val Ala Thr Leu Ala Lys Leu
            165 170 175
Val Pro Leu Gly Leu Phe Val Val Leu Ala Phe Leu Ala Phe Arg Leu
         180
                         185 190
Asp Val Phe Thr Leu Asp Phe Ser Gly Ile Ala Leu Gly Val Pro Val
      195
                      200
                                       205
Trp Glu Gln Val Lys Asn Thr Met Leu Ile Thr Leu Trp Val Phe Ile
  210
                   215
                                    220
Gly Val Glu Gly Ala Val Val Val Ser Ala Arg Ala Arg Asn Lys Arg
                230
                                 235
Asp Val Gly Arg Ala Thr Leu Leu Ala Val Leu Ala Ala Leu Gly Val
             245
                             250 255
Tyr Leu Leu Val Thr Leu Leu Ser Leu Gly Val Val Ala Arg Pro Glu
                          265
         260
                                           270
Leu Ala Glu Met Arg Asn Pro Ser Met Ala Gly Leu Met Val Lys Met
      275
                       280
Leu Gly Pro Trp Gly Asp Val Ile Ile Ala Ala Gly Leu Ile Val Ser
                   295
                                    300
  290
Val Cys Gly Ala Tyr Leu Ser Trp Thr Ile Met Ala Ala Glu Val Pro
305
                310
                                 315
Phe Leu Ala Ala Thr His Lys Ala Phe Pro Arg Leu Phe Ala Arg Gln
             325
                             330
Asn Lys Asn Ser Ala Pro Ser Ala Ser Leu Trp Leu Thr Asn Ile Ser
         340
                          345
Val Gln Val Cys Leu Val Leu Ile Trp Leu Thr Gly Ser Asp Tyr Asn
```

```
360
Thr Leu Leu Thr Ile Ala Ser Glu Met Ile Leu Val Pro Tyr Phe Leu
              375
                             380
Val Gly Ala Tyr Leu Leu Lys Ile Ala Thr Arg Pro Ala His Tyr Ala
             390
                      395
Val Gly Val Gly Ala Cys Ile Tyr Gly Leu Trp Leu Leu Tyr Ala Ser
            405 410 415
Gly Pro Met His Leu Leu Ser Val Val Leu Tyr Ala Pro Gly Leu
       420 425 430
Leu Val Phe Ile Tyr Ala Arg Arg Thr His Gln Leu Asp Asn Ala Leu
                          445
   435 440
Lys Arg Arg Glu Met Ala Leu Ile Gly Leu Leu Leu Val Ala Ala Val
 450 455
Pro Ala Thr Trp Met Leu Met Gly
465
               470
<210> 7004
<211> 245
<212> PRT
<213> Enterobacter cloacae
<400> 7004
Thr Glu Lys Glu Ile Thr Met Gly His Thr Gln Gln Arg Pro Ile Leu
                            10
Ile Thr Gly Ala Gly Arg Arg Ile Gly Leu Ala His His Phe Leu Asn
                         25
Leu Arg His Pro Val Ile Val Ser Tyr Arg Thr Glu Tyr Pro Ser Ile
                      40
                                      45
Glu Gly Leu Arg Asn Ala Gly Ala Val Cys Ile Gln Ala Asp Phe Ser
50 55
                                  60
Thr Asp Glu Gly Ile Leu Ala Phe Ala Asp Lys Val Lys Ser Thr Thr
               7.0
                               7.5
His Gly Leu Arg Ala Val Ile His Asn Ala Ser Thr Trp Leu Pro Glu
                          90 95
Lys Ala Gly His Ser Leu Ser Glu Thr Leu Ala Cys Met Met Gln Ile
       100 105
                                        110
His Val Asn Ala Pro Tyr Leu Leu Asn His Ala Leu Gln Asp Leu Leu
   115
                     120
                                     125
Arg Gly His Gly His Ala Ala Gly Asp Ile Ile His Phe Thr Asp Tyr
 130
                  135
                                   140
Val Val Glu Arg Gly Ser Asp Lys His Ile Ala Tyr Ala Ala Ser Lys
                               155
               150
Ala Ala Leu Asp Asn Met Thr Arg Ser Phe Ala Arg Lys Leu Ala Pro
            165 170 175
Glu Val Lys Val Asn Ala Ile Ala Pro Ala Met Ile Leu Phe Asn Glu
         180
                        185 190
Gly Asp Asp Ala Glu Tyr Arg Gln Gln Ala Leu Asn Lys Ser Leu Met
      195
                     200 205
Lys Ile Ala Pro Gly Glu Lys Glu Val Ile Asp Leu Ile Asp Tyr Leu
  210
                  215
                                  220
Leu Thr Ser Cys Tyr Val Thr Gly Arg Thr Phe Ala Val Asp Gly Gly
225
               230
                                235
                                                240
Arg Pro Leu Arg
            245
<210> 7005
```

<211> 255

<212> PRT

<213> Enterobacter cloacae

<400> 7005

```
Asp Cys Ala Val Tyr Val Asp Val Phe Cys Asp Asp Arg Arg Cys Met
                          10
Asn Lys Ile Val Tyr Val Glu Asp Glu Pro Glu Val Gly Gln Leu Ile
Ala Ala Tyr Leu Gly Lys His Asp Met Glu Val Val Val Glu Pro Arg
                    40
Gly Asp Arg Ala Glu Asp Val Val Thr Arg Glu Asn Pro Asp Leu Val
                 55
Leu Leu Asp Ile Met Leu Pro Gly Lys Asp Gly Met Thr Leu Cys Arg
                             7.5
Asp Leu Arg Thr Lys Trp Asp Gly Pro Ile Val Leu Leu Thr Ser Leu
                    90
       85
Asp Ser Asp Met Asn His Ile Leu Ser Leu Glu Met Gly Ala Asn Asp
     100 105 110
Tyr Ile Leu Lys Thr Thr Pro Pro Ala Val Leu Leu Ala Arg Leu Arg
     115 120 125
Leu His Leu Arg Gln Arg Ala Ser Gly Ala Glu Arg Glu Ala Ser Ala
130 135 140
Pro Ser Leu Thr Pro His Lys Ala Met Arg Phe Gly Thr Leu Ser Ile
145 150 155 160
Asp Pro Val Asn Arg Gln Val Met Leu Ser Gly Glu Leu Ile Ala Leu
   165 170 175
Ser Thr Ala Asp Phe Asp Leu Leu Trp Glu Leu Ala Thr His Ala Gly
 180 185 190
Gln Ile Met Asp Arg Asp Ala Leu Leu Lys Asn Leu Arg Gly Val Ser
195 200 205
Tyr Asp Gly Met Asp Arg Ser Val Asp Val Ala Ile Ser Arg Leu Arg
210 215 220
Lys Lys Leu Leu Asp Asn Ala Thr Glu Pro Tyr Arg Ile Lys Thr Val
225 230 235
Arg Asn Lys Gly Tyr Leu Phe Ala Pro His Ala Trp Glu Thr
           245
                          250
```

<210> 7006 <211> 330 <212> PRT

<213> Enterobacter cloacae

<400> 7006

Gln Gln His Gln Tyr Met Val Cys Ala Arg Arg Arg Ile Ile Phe Met 10 Lys Leu Lys Asn Thr Leu Leu Ala Ser Ala Leu Leu Ser Ala Thr Ala Leu Ser Ala Asn Ala Ala Thr Glu Leu Thr Pro Glu Gln Ala Ala Ala 40 4.5 Leu Lys Pro Phe Asp His Thr Val Ile Val Gly Arg Tyr Asn Ser Ile 55 60 Gly Asp Ala Val Ala Ala Ala Ser Lys Ala Ala Asp Lys Asn Gly Ala 7.0 75 Ala Ser Phe Tyr Val Val Asp Gln Ser Asp Gln Gly Asn Ser Gly Asn 90 Gln Arg Val Thr Ile Ala Leu Tyr Lys Asp Asn Ala Pro Lys Ala Asp 110 100 105 Glu Gln Lys Asn Arg Val Ile Asn Gly Ile Val Glu Leu Pro Lys Asp 120 115 Gln Ala Val Gln Leu Glu Pro Tyr Asp Thr Val Thr Val Gln Gly Phe 130 135 140 Tyr Arg Ser Gln Pro Glu Val Asn Asp Ala Ile Thr Lys Ala Ala Arg 155 145 150 Glu Lys Gly Ala Tyr Ala Phe Tyr Ile Val Arg Gln Val Asp Ala Asn 165 170

```
Gln Gly Gly Asn Gln Arg Ile Thr Ala Phe Ile Tyr Lys Gln Asp Ala
                      185
Lys Lys Arg Val Val Gln Ser Pro Asp Ala Ile Pro Ala Asp Ser Asp
     195
            200
Ala Gly Arg Ala Ala Leu Ala Lys Gly Gly Glu Glu Ala Lys Lys Val
   210
               215 220
Glu Ile Pro Gly Val Ala Thr Ser Ala Ala Pro Ser Ala Glu Val Gly
   230 235 240
Arg Phe Phe Glu Thr Gln Ser Thr Lys Gly Gly Arg Tyr Thr Val Thr
      245 250 255
Leu Pro Asp Gly Thr Lys Ile Glu Glu Leu Asn Lys Ala Thr Ala Ala 260 265 270
Gln Met Val Pro Phe Asp Ser Ile Lys Phe Thr Gly Asn Tyr Gly Asn
275 280
                        285
Met Thr Glu Ile Ser Tyr Gln Val Ala Lys Arg Ala Ala Lys Lys Gly
290 295 300
Ala Lys Tyr Tyr His Ile Thr Arg Gln Trp Gln Glu Arg Gly Asn Asn
305 310 315
Leu Thr Ile Ser Ala Asp Leu Tyr Lys
```

<210> 7007 <211> 314 <212> PRT

<213> Enterobacter cloacae

325

<400> 7007 Leu Arg Ala Ala Met Thr Thr Tyr Asp Leu Ile Glu Arg Leu Asn Thr Thr Phe Arg Glu Ile Glu Gln Ala Leu Leu Thr Leu Thr Gly Gln Leu 2.5 Gln Asp Cys Arg Leu Leu Ala Ala Arg Val Phe Ser Leu Pro Glu Val 35 40 Ala Lys Gly Ala Glu His Asp Pro Leu Asn Thr Ile Glu Val Thr Gln 55 60 His Val Gly Lys Ala Ala Leu Glu Met Thr Leu Gln His Tyr Arg Arg 70 75 Leu Phe Ile Gln Gln Ser Glu Asn Arg Ser Ser Lys Ala Ala Val 8.5 90 Arg Leu Pro Gly Val Ile Cys Leu Gln Thr Asp Ala Ala Thr Arg Glu 100 105 110 Gly Ile Glu Ala Gln Ile Thr His Ile Asn Thr Leu Lys Ala Ala Phe 115 120 125 Glu Lys Ile Val Thr Val Glu Ser Gly Leu Ala Pro Ala Ala Arg Phe 135 140 Glu Trp Val His Arg Gln Leu Pro Gly Leu Ile Thr Leu Asn Ala Tyr 145 150 155 160 Arg Thr Leu Thr Val Leu Arg His Pro Ala Thr Leu Arg Phe Gly Trp 165 170 175 Ala Asn Lys His Ile Ile Lys Asn Phe Ala Arg Asp Glu Ile Leu Ala 180 185 190 Gln Leu Glu Lys Ser Leu Lys Ser Pro Arg Thr Val Ala Pro Trp Ser 195 200 205 Arg Glu Gln Trp Ile Glu Arg Leu Glu Gln Glu Tyr His Ser Ile Ala 210 215 Ser Leu Pro Ala Asp Thr Arg Leu Lys Ile Lys Arg Pro Val Lys Val 225 230 Gln Pro Ile Ala Arg Val Trp Tyr Ala Gly Gln Gln Lys Gln Val Gln 245 250 255 Tyr Ala Cys Pro Thr Pro Leu Ile Ala Leu Tyr Asp Ala Asp Gln Gly 265

Ala Val Val Pro Asp Ile Gly Glu Leu Leu Asn Tyr Asp Ala Glu Asn 275 280 Val Gln His Arg Tyr Lys Pro Gln Ala Gln Pro Leu Gln Leu Ile Ile 295 300 290 Pro Arg Leu His Leu Tyr Val Ala Gln 305 310 <210> 7008 <211> 405 <212> PRT <213> Enterobacter cloacae <400> 7008 Tyr Ala Glu Leu Ile Pro His Met Asn Gln Gly Leu Ile Met Gln Lys 10 Leu Ile Asn Ser Val Gln Asn Tyr Ala Trp Gly Ser Lys Thr Ala Leu 25 Thr Asp Leu Tyr Gly Ile Ala Asn Pro Asp Asn Leu Pro Met Ala Glu 4.0 Leu Trp Met Gly Ala His Pro Lys Ser Ser Ser Lys Ile Glu Asp Ala 50 55 Ser Gly Gln Val Arg Ser Leu Arg Asp Val Ile Asp Ala Asp Lys Ala 65 70 75 Ala Leu Leu Gly Asp Lys Val Ala Asn Arg Phe Gly Glu Leu Pro Phe 85 90 Leu Phe Lys Val Leu Cys Ala Asp Gln Pro Leu Ser Ile Gln Val His 100 105 110 Pro Asn Lys Lys Ala Ser Glu Leu Gly Phe Ala Lys Glu Asn Ala Ala 115 120 125 Gly Ile Pro Leu Asp Ala Val Glu Arg Asn Tyr Lys Asp Pro Asn His 130 135 140 Lys Pro Glu Leu Val Phe Ala Leu Thr Pro Phe Leu Ala Met Asn Ala 145 150 155 160 Phe Arg Glu Phe Ser Glu Ile Ile Ser Leu Leu Gln Pro Val Ala Gly 165 170 Ala His Asn Ala Ile Ala His Pne Leu Glu Asn Pro Asn Ala Glu Ala 180 185 190 Leu Ser Glu Leu Phe Ala Ser Leu Leu Asn Met Gln Gly Glu Glu Lys 200 205 Ser His Ala Leu Ala Val Leu Lys Ala Ala Leu Asn Ser Gln Gln Gly 210 215 220 Glu Pro Trp Asp Thr Ile Arg Val Ile Ser Ala Phe Tyr Pro Asp Asp 225 230 235 Ser Gly Leu Phe Ser Pro Leu Leu Leu Asn Val Val Lys Leu Asn Pro 245 250 Gly Glu Ala Met Phe Leu Phe Ala Glu Thr Pro His Ala Tyr Leu Asn 260 265 270 Gly Val Ala Leu Glu Val Met Ala Asn Ser Asp Asn Val Leu Arg Ala 275 280 285 Gly Leu Thr Pro Lys Tyr Ile Asp Ile Pro Glu Leu Val Ala Asn Val 290 295 300 Lys Phe Val Ala Lys Pro Ala Ala Glu Leu Leu Thr Gln Pro Val Lys 305 310 315 Asn Gly Ala Glu Leu Asp Phe Pro Ile Pro Val Asp Asp Phe Ala Phe 325 Ser Leu His Asp Leu Ser Ala Asp Glu Thr Ala Ile Ala Gln Glu Ser 340 345 Ala Ala Ile Leu Phe Cys Val Glu Gly Glu Ala Thr Leu His Lys Asp 355 360 365 Ser Asp Arg Leu Val Leu Lys Pro Gly Glu Ser Ala Phe Val Ala Ala

```
Asn Glu Ser Pro Val Arg Val Ser Gly Thr Gly Arg Leu Ala Arg Val
               390
                               395
Phe Asn Lys Leu
            405
<210> 7009
<211> 536
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(527)
<400> 7009
Pro Pro Gly Phe Ile Leu Gly Ile Ile Ala Met Lys Lys Ser Val Val
                             1.0
Ala Val Gly Val Ile Val Ala Leu Gly Val Ile Trp Thr Gly Ala Ser
       20
                         25
                                         30
Trp Tyr Thr Gly Lys Gln Leu Glu Ser Arg Leu Ala Glu Met Met Thr
 35
                     40
                               4.5
Gln Ala Asn Ser Glu Ile Lys Arg Ser Ala Pro Glu Ala Gly Leu Glu
                55 60
Leu Ser Tyr Gln Asn Tyr Gln Arg Gly Val Phe Thr Ser His Met Gln
       70 75
Val Val Lys Pro Val Ala Gly Asn Gln Asn Ala Trp Leu Lys Pro
          85 90
Gly Gln Ser Val Val Leu Asp Glu Val Val Ser His Gly Pro Phe Pro
   100 105 110
Leu Ala Gln Leu Lys Lys Phe Asn Leu Ile Pro Ser Met Ala Ser Ala
115 120 125
Arg Thr Val Leu Val Asn Asn Glu Val Thr Lys Pro Ile Phe Asp Met
130 135 140
Ala Lys Asn Glu Ser Pro Phe Glu Ile Asn Thr Arg Ile Ser Tyr Ala
   150 155
Gly Asp Thr His Ser Asp Ile Asp Leu Lys Ala Leu Asn Tyr Glu Gln
           165 170
Gly Thr Asp Lys Val Ala Phe Ser Gly Gly Asn Phe Gln Leu Asp Ala
        180 185 190
Asp Arg Asp Gly Lys Asn Val Ser Leu Thr Gly Asp Ala Ala Ser Gly
     195 200
                                      205
Leu Val Asn Ser Val Asn Glu Tyr Asn Gln Lys Val Gln Leu Thr Phe
                  215 220
Asn Asn Leu Lys Ala Ser Gly Asn Ser Arg Met Thr Asp Phe Asp Glu
               230
                               235
Arg Ile Gly Asp Gln Lys Leu Ser Leu Asp Lys Ile Ala Ile Ala Ile
            245
                            250
Glu Gly Lys Glu Met Ala Val Leu Glu Gly Met Asp Leu Asp Gly Lys
         260
                        265
                             270
Ser Asp Val Ser Lys Asp Gly Lys Ser Ile Asn Thr Gln Leu Asp Tyr
                     280
                                      285
Ser Leu Lys Ser Leu Lys Val Gln Asn Gln Asp Leu Gly Thr Gly Lys
                 295
                                   300
Leu Ser Leu Lys Ile Gly Asn Ile Asp Gly Gln Ala Trp His Glu Phe
               310
                                315
Ser Gln Lys Tyr Ser Lys Glu Ser Gln Ala Leu Leu Thr Asp Ala Ala
            325
Leu Gln Gln Asn Pro Gln Ala Tyr Gln Gln Gln Ala Met Thr Val Leu
        340
                         345
Phe Asn Asn Leu Pro Ile Leu Leu Lys Gly Glu Pro Val Ile Thr Val
                      360
```

```
Ala Pro Leu Ser Trp Lys Asn Gly Lys Gly Glu Thr Asn Phe Asn Leu
 370
                    375
                                      380
Ser Leu Phe Leu Lys Asp Pro Ala Ala Thr Thr Gly Glu Pro Gln Thr
                 390
                                   395
Leu Ala Gln Glu Val Asp Arg Ser Val Lys Ser Leu Asp Ser Lys Leu
             405
                               410
Thr Ile Pro Met Asp Met Ala Thr Glu Phe Met Thr His Ile Ala Lys
          420
                         425
Leu Glu Gly Tyr Gly Glu Glu Asp Ala Gly Lys Leu Ala Asn Gln Gln
      435
                        440 445
Val Lys Gly Leu Ala Ala Met Gly His Met Phe Arg Ile Thr Lys Val
        455
  450
                                   460
Glu Asp Asn Thr Ile Ser Thr Ser Leu Gln Tyr Ala Asn Gly Gln Val
465 470 475
Thr Leu Asn Gly Asp Lys Met Pro Leu Glu Thr Val Cys Gln Tyr Val
             485 490 495
Trp Tyr Gly Arg Thr Leu Gly Met Pro Glu Pro Ala Glu Thr Ala Ala
     500 505 510
Pro Pro Ala Val Pro Gln Gln Tyr Thr Lys Asn Pro Ser His Xaa Gly
 515 520
Phe Phe Ile Ala Gly Trp Arg
 530
<210> 7010
<211> 115
<212> PRT
<213> Enterobacter cloacae
<400> 7010
Gly Lys Arg Met Gly Leu Val Ile Lys Ala Thr Leu Gly Ala Leu Val
                              10
Val Leu Leu Ile Gly Val Leu Ala Lys Thr Lys Asn Tyr Tyr Ile Ala
    20
                           25
Gly Leu Ile Pro Leu Phe Pro Thr Phe Ala Leu Ile Ala His Tyr Ile
                      40
Val Ala Ser Glu Arg Gly Ile Glu Ala Leu Arg Ala Thr Ile Val Phe
                   55
Gly Met Trp Ser Ile Ile Pro Tyr Phe Ile Tyr Leu Leu Ser Leu Trp
                70
                                  75
Tyr Phe Thr Gly Phe Leu Arg Leu Pro Leu Ala Leu Gly Gly Ala Val
                         90
Val Cys Trp Ser Leu Ser Ala Trp Val Leu Ile Phe Phe Trp Ser Arg
<210> 7011
<211> 466
<212> PRT
<213> Enterobacter cloacae
<400> 7011
Val Met Thr Met His Arg Arg Glu Lys Asp Ser Met Gly Ala Ile Asp
Val Pro Ala Asp Lys Leu Trp Gly Ala Gln Thr Gln Arg Ser Leu Glu
                           2.5
His Phe Arg Ile Ser Thr Glu Lys Met Pro Val Ser Leu Ile Gln Ala
                       4.0
Leu Ala Leu Thr Lys Arg Ala Ala Ala Lys Val Asn Gln Asp Leu Gly
                    5.5
                                      60
Leu Leu Asp Ala Asp Lys Ala Thr Ala Ile Ile Asn Ala Ala Asp Glu
```

```
7.0
Val Leu Ala Gly Lys His Pro Asp Glu Phe Pro Leu Ala Ile Trp Gln
                        90
           8.5
Thr Gly Ser Gly Thr Gln Ser Asn Met Asn Met Asn Glu Val Leu Ala
        100
                       105
Asn Arg Ala Ser Glu Leu Leu Gly Gly Leu Arg Gly Met Glu Arg Lys
           120
Ile His Pro Asn Asp Asp Val Asn Lys Ser Gln Ser Ser Asn Asp Val
      135
                               140
Phe Pro Thr Ala Met His Val Ala Ala Val Ile Ala Ile Arg Glu Gln
      150 155 160
Leu Ile Pro Gln Leu Asn Val Leu Lys Ser Thr Leu Asn Glu Lys Ala
        165 170 175
Gln Ala Phe Arg Asp Ile Val Lys Ile Gly Arg Thr His Leu Gln Asp
      180 185 190
Ala Thr Pro Leu Thr Leu Gly Gln Glu Ile Ser Gly Trp Val Ala Met
   195 200 205
Leu Glu His Asn Leu Lys His Ile Asp Asn Ser Leu Pro His Leu Ala
                       220
 210 215
Glu Leu Ala Leu Gly Gly Thr Ala Val Gly Thr Gly Leu Asn Thr His
225 230 235 240
Pro Glu Tyr Ala Val Arg Val Ala Glu Glu Leu Ala Lys Ile Thr Gly
      245 250 255
Gln Pro Phe Val Thr Ala Pro Asn Lys Phe Glu Ala Leu Ala Thr Cys
260 265 270
Asp Ala Leu Val His Thr His Gly Ala Leu Lys Gly Leu Ala Ala Ser
275 280 285
Leu Met Lys Ile Ala Asn Asp Val Arg Trp Leu Ala Ser Gly Pro Arg
290 295 300
Cys Gly Ile Gly Glu Ile Ser Ile Pro Glu Asn Glu Pro Gly Ser Ser
305 310 315
Ile Met Pro Gly Lys Val Asn Pro Thr Gln Cys Glu Ala Met Thr Met
          325 330 335
Leu Cys Cys Gln Val Met Gly Asn Asp Val Ala Val Asn Met Gly Gly
   340 345 350
Ala Ser Gly Asn Phe Glu Leu Asn Val Tyr Arg Pro Met Val Ile His
 355 360 365
Asn Val Leu Gln Ser Ile Arg Leu Leu Ala Asp Gly Met Glu Ser Phe
370 375 380
Asn Glu His Cys Ala Val Gly Ile Glu Pro Asn Arg Glu Arg Ile Ser
385 390 395
Gln Leu Leu Asn Glu Ser Leu Met Leu Val Thr Ala Leu Asn Thr His
         405
                         410 415
Ile Gly Tyr Asp Lys Ala Ala Glu Ile Ala Lys Lys Ala His Lys Glu
       420 425 430
Gly Leu Thr Leu Lys Ala Ser Ala Leu Ala Leu Gly Tyr Leu Thr Asp
   435 440
                        445
Ala Glu Phe Asp Ala Trp Val Arg Pro Glu Ala Met Val Gly Ser Leu
               455
Arq
465
<210> 7012
<211> 572
<212> PRT
<213> Enterobacter cloacae
<400> 7012
Leu Ala Phe Lys Pro Gly Ser Gly Thr Ser Ala Leu Asn Lys Gln Thr
```

1 5 10 15 Glu Ala Val Ser Glu Arg Thr Met Ser Asn Lys Pro Phe His Tyr Gln

Asp Pro Phe Pro Leu Ser Gln Asp Gln Thr Glu Tyr Tyr Leu Leu Thr 40 Arg Asp Tyr Val Thr Val Ser Glu Phe Glu Gly Gln Glu Ile Leu Lys 55 Val Asp Pro Gln Gly Leu Thr Leu Leu Ala Gln Gln Ala Phe His Asp 70 Ala Ser Phe Met Leu Arg Pro Ala His Gln Gln Gln Val Ala Asp Ile 85 90 Leu Ser Asp Pro Glu Ala Ser Glu Asn Asp Lys Tyr Val Ala Leu Gln 100 105 110 Phe Leu Arg Asn Ser Asp Ile Ala Ala Lys Gly Ile Leu Pro Thr Cys 115 120 125 Gln Asp Thr Gly Thr Ala Ile Ile Thr Gly Lys Lys Gly Gln Arg Val 130 135 140 Trp Thr Gly Gly Gly Asp Glu Ala Thr Leu Ala Arg Gly Val Tyr Asn 145 150 155 160 Thr Tyr Thr Glu Asp Asn Leu Arg Tyr Ser Gln Asn Ala Ala Leu Asp 165 170 175 Met Tyr Lys Glu Val Asn Thr Gly Thr Asn Leu Pro Ala Gln Ile Asp 180 185 190 Leu Tyr Ser Val Asp Gly Asp Glu Tyr Lys Phe Leu Cys Ile Ala Lys 195 200 205 Gly Gly Gly Ser Ala Asn Lys Thr Tyr Leu Tyr Gln Glu Thr Lys Ala 210 215 220 Leu Leu Thr Pro Gly Lys Leu Lys Asn Tyr Leu Val Glu Lys Met Arg 225 230 235 240 Thr Leu Gly Thr Ala Ala Cys Pro Pro Tyr His Ile Ala Phe Val Ile 245 250 255 Gly Gly Thr Ser Ala Glu Ser Thr Leu Lys Thr Val Lys Leu Ala Ser  $260 \hspace{1.5cm} 265 \hspace{1.5cm} 270 \hspace{1.5cm}$ Thr Lys Tyr Tyr Asp Gly Leu Pro Thr Glu Gly Asn Glu His Gly Gln 275 280 285 Ala Phe Arg Asp Val Gln Leu Glu Gln Glu Leu Leu Ala Glu Ala Gln 290 295 300 Asn Leu Gly Leu Gly Ala Gln Pne Gly Gly Lys Tyr Phe Ala His Asp 305 310 315 320 Ile Arg Val Ile Arg Leu Pro Arg His Gly Ala Ser Cys Pro Val Gly 325 330 335 Met Gly Val Ser Cys Ser Ala Asp Arg Asn Ile Lys Ala Lys Ile Asn 350 340 345 Arg Asp Gly Ile Trp Ile Glu Lys Leu Glu Asn Asn Pro Gly Lys Tyr 355 360 365 Ile Pro Glu Glu Leu Arg Lys Ala Gly Glu Gly Glu Ala Val Arg Val 370 375 380 Asp Leu Asn Arg Pro Met Lys Glu Ile Leu Ala Gln Leu Ser Gln Tyr 385 390 395 Pro Val Ser Thr Arg Leu Ser Leu Asn Gly Thr Ile Ile Val Gly Arg 405 410 415 Asp Ile Ala His Ala Lys Leu Lys Glu Arg Leu Asp Asn Gly Glu Gly 420 425 430 Leu Pro Gln Tyr Ile Lys Asp His Pro Ile Tyr Tyr Ala Gly Pro Ala 435 440 Lys Thr Pro Asp Gly Tyr Ala Ser Gly Ser Leu Gly Pro Thr Thr Ala 455 460 Gly Arg Met Asp Ser Tyr Val Asp Gln Leu Gln Ala Asn Gly Gly Ser 475 465 470 Met Ile Met Leu Ala Lys Gly Asn Arg Ser Gln Gln Val Thr Asp Ala 485 490 Cys His Lys His Gly Gly Phe Tyr Leu Gly Ser Ile Gly Gly Pro Ala 505 510

```
Ala Val Leu Ala Gln Gly Ser Ile Lys Ser Leu Glu Cys Val Glu Tyr
 515 520
Pro Glu Leu Gly Met Glu Ala Ile Trp Lys Ile Glu Val Glu Asp Phe
                 535
                             540
Pro Ala Phe Ile Leu Val Asp Asp Lys Gly Asn Asp Phe Phe Lys Gln
545 550 555
Ile Gln Ser Ser Gln Cys Ser Ala Cys Val Lys
           565
<210> 7013
<211> 313
<212> PRT
<213> Enterobacter cloacae
<400> 7013
Glu Phe Lys Met Val Lys Val Tyr Ala Pro Ala Ser Ser Ala Asn Met
                       10
           - 5
Ser Val Gly Phe Asp Val Leu Gly Ala Ala Val Thr Pro Val Asp Gly
 20
                 25
                                30
Ser Leu Leu Gly Asp Thr Val Thr Val Glu Ala Ala Glu Arg Phe Ser
35 40
                        4.5
Leu Asn Asn Ile Gly Arg Phe Ala Ser Lys Leu Pro Ser Glu Pro Arg
50 55 60
Glu Asn Ile Val Tyr Gln Cys Trp Glu Arg Phe Cys Gln Glu Ile Gly
65 70 75
Lys Asn Val Pro Val Ala Met Thr Leu Glu Lys Ser Met Pro Ile Gly
      85 90 95
Ser Gly Leu Gly Ser Ser Ala Cys Ser Val Val Ala Ala Leu Val Ala
     100 105 110
Met Asn Glu His Cys Gly Lys Pro Leu Asn Asn Ser Arg Leu Leu Ala
115 120 125
Leu Met Gly Glu Leu Glu Gly Arg Ile Ser Gly Ser Ile His Tyr Asp
130 135 140
Asn Val Ala Pro Cys Phe Leu Gly Gly Met Gln Leu Met Ile Glu Glu
145 150 155
Asn Gly Ile Ile Ser Gln Gln Val Pro Gly Phe Asp Glu Trp Leu Trp
         165 170 175
Val Leu Ala Tyr Pro Gly Ile Lys Val Ser Thr Ala Glu Ala Arg Ala
   180 185 190
Ile Leu Pro Ala Gln Tyr Arg Arg Gln Asp Cys Ile Ala His Gly Arg
 195 200 205
His Leu Ala Gly Phe Ile His Ala Cys Tyr Thr Arg Gln Pro Gln Leu
               215 220
Ala Ala Lys Leu Met Lys Asp Ile Ile Ala Glu Pro Tyr Arg Thr Lys
225 230
                            235 240
Leu Leu Pro Gly Phe Asn Glu Ala Arg Gln Ala Ser Met Asp Ile Gly
          245
                         250 255
Ala Gln Ala Cys Gly Ile Ser Gly Ser Gly Pro Thr Leu Phe Ala Leu
      260
                      265
Cys Asp Lys Pro Asp Thr Ala Gln Arg Val Ala Asp Trp Leu Ser Lys
   275
                   280
                          285
His Tyr Leu Gln Asn Gln Glu Gly Phe Val His Ile Cys Arg Leu Asp
 290 295
                               300
Thr Ala Gly Ala Arg Val Leu Gly
              310
<210> 7014
<211> 430
```

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 7014
Arg Met Lys Leu Tyr Asn Leu Lys Asp His Asn Glu Gln Val Ser Phe
Ala Gln Ala Val Thr Gln Gly Leu Gly Lys Asn Gln Gly Leu Phe Phe
Pro His Asp Leu Pro Glu Phe Gln Leu Thr Glu Ile Asp Glu Leu Leu
              40
                        4.5
Lys Gln Asp Phe Val Thr Arg Ser Thr Lys Ile Leu Ser Ala Phe Ile
50 55 60
Gly Asp Glu Ile Pro Gln Glu Leu Leu Glu Glu Arg Val Arg Ala Ala
     70
                 75
Phe Ala Phe Pro Ala Pro Val Lys Gln Val Glu Pro Asp Val Gly Cys
     85 90 95
Leu Glu Leu Phe His Gly Pro Thr Leu Ala Phe Lys Asp Phe Gly Gly
 100 105 110
Arg Phe Met Ala Gln Met Leu Thr His Ile Ser Gly Asp Lys Pro Val
115 120 125
Thr Ile Leu Thr Ala Thr Ser Gly Asp Thr Gly Ala Ala Val Ala His
130 135 140
Ala Phe Tyr Gly Leu Lys Asn Val Arg Val Val Ile Leu Tyr Pro Lys
145 150 155 160
Gly Lys Ile Ser Pro Leu Gln Glu Lys Leu Phe Cys Thr Leu Gly Gly
     165 170 175
Asn Ile Glu Thr Val Ala Ile Asp Gly Asp Phe Asp Ala Cys Gln Ala
180 185 190
Leu Val Lys Gln Ala Phe Asp Asp Glu Glu Leu Lys Ala Ala Leu Gly
195 200 205
Leu Asn Ser Ala Asn Ser Ile Asn Ile Ser Arg Leu Leu Ala Gln Ile
210 215 220
Cys Tyr Tyr Phe Glu Ala Val Ala Gln Leu Pro Gln Asp Ala Arg Asn
225 230 235
Gln Leu Val Val Ser Val Pro Ser Gly Asn Phe Gly Asp Leu Thr Ala
      245 250 255
Gly Leu Leu Ala Lys Ser Leu Gly Leu Pro Val Lys Arg Phe Ile Ala
  260 265 270
Ala Thr Asn Ala Asn Asp Thr Val Pro Arg Phe Leu Lys Asp Gly Lys
  275 280 285
Trp Ala Pro Asn Ala Thr Gln Ala Thr Leu Ser Asn Ala Met Asp Val
290 295
                             300
Ser Gln Pro Asn Asn Trp Pro Arg Val Glu Glu Leu Phe Arg Arg Lys
305 310 315 320
Val Trp Arg Leu Gly Asp Leu Gly Tyr Ala Ala Val Thr Asp Glu Thr
          325 330 335
Thr Lys Ala Thr Met Arg Glu Leu Lys Ala Val Gly Tyr Thr Ser Glu
      340 345
Pro His Ala Ala Ile Ala Tyr Arg Ala Leu Arg Asp Gln Leu Gln Pro
     355 360
                                365
Gly Glu Tyr Gly Leu Phe Leu Gly Thr Ala His Pro Ala Lys Phe Lys
370 375
                             380
Glu Ser Val Glu Ala Ile Leu Gly Glu Thr Leu Pro Leu Pro Lys Glu
385 390 395
Leu Ala Glu Arg Ala Asp Leu Pro Leu Leu Ser His Glu Leu Pro Ala
          405 410
Asp Phe Ala Ala Leu Arg Lys Leu Met Met Thr Arg Ala
           425
```

<210> 7015 <211> 323 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 7015 Lys Arg Asn Thr Ile Met Thr Asp Lys Leu Thr Ser Leu Arg Gln Phe Thr Thr Val Val Ala Asp Thr Gly Asp Ile Ala Ala Met Lys Leu Tyr 25 Gln Pro Gln Asp Ala Thr Thr Asn Pro Ser Leu Ile Leu Asn Ala Ala 40 Gln Leu Pro Glu Tyr Arg Lys Leu Ile Asp Glu Ala Val Thr Trp Ala 60 Lys Ala Gln Ser Asn Asp Arg Ala Gln Gln Val Val Asp Ala Thr Asp 70 7.5 Lys Leu Ala Val Asn Ile Gly Leu Glu Ile Leu Lys Leu Val Pro Gly 85 90 Arg Ile Ser Thr Glu Val Asp Ala Arg Leu Ser Tyr Asp Thr Glu Ala 100 105 Ser Ile Ala Lys Ala Lys Arg Leu Ile Lys Leu Tyr Asn Asp Ala Gly 115 120 125 Ile Ser Asn Asp Arg Ile Leu Ile Lys Leu Ala Ser Thr Trp Gln Gly 130 135 140 Ile Arg Ala Ala Glu Gln Leu Glu Lys Glu Gly Ile Asn Cys Asn Leu 145 150 155 Thr Leu Leu Phe Ser Phe Ala Gln Ala Arg Ala Cys Ala Glu Ala Gly 165 170 Val Tyr Leu Ile Ser Pro Phe Val Gly Arg Ile Leu Asp Trp Tyr Lys 180 185 190 Ala Asn Thr Asp Lys Lys Glu Tyr Ala Ala Ser Glu Asp Pro Gly Val 195 200 205 Ile Ser Val Thr Glu Ile Tyr Glu Tyr Tyr Lys Gln His Gly Tyr Glu 210 215 220 Thr Val Val Met Gly Ala Ser Phe Arg Asn Val Gly Glu Ile Ile Glu 225 230 235 Leu Ala Gly Cys Asp Arg Leu Thr Ile Ala Pro Ala Leu Leu Lys Glu 245 250 Leu Ala Glu Ser Glu Gly Ala Ile Glu Arg Lys Leu Ser Tyr Thr Gly 260 265 270 Glu Val Lys Ala Arg Pro Glu Arg Ile Thr Glu Ser Glu Phe Leu Trp 275 280 285 Gln His Asn Gln Asp Pro Met Ala Val Asp Lys Leu Ala Asp Gly Ile 295 300 Arg Lys Phe Ala Ile Asp Gln Glu Lys Leu Glu Lys Met Ile Gly Asp 315

<210> 7016 <211> 179 <212> PRT <213> Enterobacter cloacae

<400> 7016

Leu Leu

Pro Glu Arg Asp Phe Cys Arg Val Ala Ala Thr Pro Tyr Arg Ala Tyr 10 Asn Gly Ser Glu Arg Arg Pro Gly Lys Arg Ser Ala Thr Arg Leu Phe 25 3.0 Tyr Gly Glu Ile Lys Glu Lys Asn Ser Arg Lys Lys Ala Glu Ile Pro 4.0 4.5 Asn Lys Cys Gly His Leu Ala Phe Arg Ile Ala Glu Asn Asn Ile Pro 55 60 Arg Ser His His Val Leu Ser Leu His Arg Pro Thr Leu Gly Lys Lys 7.0

Asn Lys Glu Ser Pro Met Ser Thr Leu Lys Pro Ala Leu Ile Ala Leu

| Ser Leu Met Leu Val Ala Pro Met Ala Val Gln Ala Ala Glu Ile Throng 100 | 105 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110

His Tyr

<210> 7017 <211> 450 <212> PRT

<213> Enterobacter cloacae

<400> 7017 Ser Thr Thr His Ala Gln Trp Phe Ala Met Ser His Asn Thr Arg Pro 10 Leu Asn Arg Gln Asp Tyr Lys Thr Leu Thr Leu Ala Ala Leu Gly Gly 20 25 Ala Leu Glu Phe Tyr Asp Phe Ile Ile Phe Val Phe Phe Ala Ala Val 35 4.0 Val Gly Ala Leu Phe Phe Pro Ala Asp Ile Pro Glu Trp Leu Arg Gln 50 55 60 Val Gln Thr Phe Gly IIe Phe Ala Ala Gly Tyr Leu Ala Arg Pro Leu 65 70 75 Gly Gly Ile Val Met Ala His Phe Gly Asp Leu Val Gly Arg Lys Lys 85 90 Met Phe Thr Leu Ser Ile Leu Leu Met Ala Val Pro Thr Leu Ala Ile 100 105 110 Gly Leu Leu Pro Thr Tyr Glu Ser Met Gly Ile Ile Ala Pro Leu Leu 115 120 125 Leu Leu Met Arg Ile Leu Gln Gly Ala Ala Ile Gly Gly Glu Val 135 140 Pro Gly Ala Trp Val Phe Val Ala Glu His Val Pro Val Arg Arg Ile 150 155 Gly Ile Ala Cys Gly Thr Leu Thr Ala Gly Leu Thr Ile Gly Ile Leu 165 170 Phe Gly Ser Val Val Ala Thr Ile Ile Asn Thr Ser Met Thr Gln Gln 185 190 Ala Val His Asp Trp Gly Trp Arg Ile Pro Phe Leu Leu Gly Gly Ala 200 205 Phe Gly Leu Val Ala Met Tyr Leu Arg Arg Trp Leu Gln Glu Thr Pro 215 220 Ile Phe Leu Glu Met Gln Gln Arg Lys Ala Leu Ala Gln Glu Leu Pro 230 235 Val Lys Thr Val Val Val Arg His Lys Lys Ala Val Val Val Ser Met 245 250 Leu Leu Thr Trp Leu Leu Ser Ala Gly Ile Val Val Ile Leu Met 260 265 270 Ser Pro Val Trp Leu Gln Lys Gln Tyr Gly Phe Ala Pro Ala Val Thr 280 285 Leu Gln Ala Asn Ser Ile Ala Thr Ile Met Leu Cys Phe Gly Cys Leu 295 300 Ala Ala Gly Leu Ala Ala Asp Arg Phe Gly Ala Ser Val Thr Phe Ile 310 315

Val Gly Ser Leu Leu Leu Ala Ala Ser Ser Trp Ala Phe Tyr His Leu

325 Ala Gly Thr His Pro Glu Gln Leu Phe Leu Leu Tyr Gly Val Val Gly 340 345 Leu Cys Val Gly Val Val Gly Ala Val Pro Tyr Val Met Val Arg Ala 355 360 365 Phe Pro Pro Glu Val Arg Phe Thr Gly Ile Ser Phe Ser Tyr Asn Val 375 380 Ser Tyr Ala Ile Phe Gly Gly Leu Thr Pro Ile Val Val Thr Val Leu 390 395 Met Gly Leu Ser Pro Leu Ala Pro Ala Trp Tyr Val Leu Ala Leu Ser 405 410 415 Leu Met Gly Leu Val Leu Gly Met Trp Leu Arg Gln Ser Glu Gly Arg 420 425 430 Arg Ala Arg Asp Ala Gly Thr Thr Glu Gly Ser Val Phe Phe Thr Asn 440 450 <210> 7018 <211> 822 <212> PRT <213> Enterobacter cloacae <400> 7018 Asn Met Arg Val Leu Lys Phe Gly Gly Thr Ser Val Ala Asn Ala Glu 10 Arg Phe Leu Arg Val Ala Asp Ile Leu Glu Ser Asn Ala Arg Gln Gly 25 Gln Val Ala Thr Val Leu Ser Ala Pro Ala Lys Ile Thr Asn His Leu 35 40 Val Ala Met Ile Glu Lys Thr Ile Gly Gly Gln Asp Ala Leu Pro Asn 50 55 60 Ile Ser Asp Ala Glu Arg Ile Phe Ala Asp Leu Leu Gln Gly Leu Ala 7.0 75 Asp Ala Gln Pro Gly Phe Pro Leu Ala Gln Leu Lys Ser Thr Val Glu 85 90 Leu Glu Phe Ala Gln Ile Lys His Val Leu His Gly Ile Ser Leu Leu 100 105 110 Gly Gln Cys Pro Asp Ser Ile Asn Ala Ala Leu Ile Cys Arg Gly Glu 115 120 125 Lys Leu Ser Ile Ala Ile Met Ala Gly Val Leu Glu Ala Arg Gly His 135 140 His Val Thr Val Ile Asp Pro Val Glu Lys Leu Leu Ala Val Gly His 150 155 160 Tyr Leu Glu Ser Thr Val Asp Ile Ala Glu Ser Thr Arg Arg Ile Ala 165 170 175 Ala Ser Lys Ile Pro Ser Asp His Met Ile Leu Met Ala Gly Phe Thr 180 185 190 Ala Gly Asn Glu Lys Gly Glu Leu Val Val Leu Gly Arg Asn Gly Ser 195 200 205 Asp Tyr Ser Ala Ala Val Leu Ala Ala Cys Leu Arg Ala Asp Cys Cys 210 215 220 Glu Ile Trp Thr Asp Val Asp Gly Val Tyr Thr Cys Asp Pro Arg Gln 230 240 Val Pro Asp Ala Arg Leu Leu Lys Ser Met Ser Tyr Gln Glu Ala Met 245 250 255 Glu Leu Ser Tyr Phe Gly Ala Lys Val Leu His Pro Arg Thr Ile Ser 260 265 Pro Ile Ala Gln Phe Gln Ile Pro Cys Leu Ile Lys Asn Thr Gly Asn 280

Pro Gln Ala Pro Gly Thr Leu Ile Gly Ala Ser Ala Asp Glu Asp Asp

```
295
Leu Pro Val Lys Gly Ile Ser Asn Leu Asn Asn Met Ala Met Phe Ser
                    315
             310
Val Ser Gly Pro Gly Met Lys Gly Met Val Gly Met Ala Ala Arg Val
         325
                 330
Phe Ala Ala Met Ser Arg Asn Gly Ile Ser Val Val Leu Ile Thr Gln
       340
           345 350
Ser Ser Ser Glu Tyr Ser Ile Ser Phe Cys Val Pro Gln Gly Asp Cys
 355 360
                       365
Leu Arg Ala Arg Arg Ala Leu Glu Glu Glu Phe Tyr Leu Glu Leu Lys
  370 375
                    380
Glu Glu Leu Leu Glu Pro Leu Ser Ile Gln Glu Arg Leu Ala Ile Ile
   390 395 400
Ser Val Val Gly Asp Gly Met Arg Thr Leu Arg Gly Ile Ser Ala Lys
      405 410 415
Phe Phe Ala Ala Leu Ala Arg Ala Asn Ile Asn Ile Val Ala Ile Ala
 420 425 430
Gln Gly Ser Ser Glu Arg Ser Ile Ser Val Val Val Asp Asn Asp Asp
435 440 445
Ala Thr Thr Gly Val Arg Val Val His Gln Met Leu Phe Asn Thr Asp
450 455 460
Gln Val Ile Glu Leu Phe Leu Val Gly Val Gly Gly Val Gly Gly Ala
465 470 475
Leu Leu Glu Gln Val Lys Arg Gln Gln Glu Trp Leu Lys Lys His
 485 490 495
Ile Asp Leu Arg Val Cys Gly Ile Ala Asn Ser Lys Ala Leu Leu Thr
500 505 510
Asn Val His Gly Leu Asn Leu Glu Asn Trp Gln Ala Glu Leu Glu Glu
515 520 525
Ala Lys Glu Pro Phe Asn Leu Gly Arg Leu Ile Arg Leu Val Lys Glu
530 535 540
Tyr His Leu Leu Asn Pro Val Ile Val Asp Cys Thr Ser Ser Gln Ala
545 550 555 560
Val Ala Asp Gln Tyr Ala Asp Phe Leu Arg Glu Gly Phe His Val Val
      565 570 575
Thr Pro Asn Lys Lys Ala Asn Thr Ser Ser Met Asp Tyr Tyr His Gln
  580 585 590
Leu Arg Leu Ala Ala Ser Lys Ser Arg Arg Lys Phe Leu Tyr Asp Thr
595 600 605
Asn Val Gly Ala Gly Leu Pro Val Ile Glu Asn Leu Gln Asn Leu Leu
610 615 620
Asn Ala Gly Asp Glu Leu Lys Arg Phe Ser Gly Ile Leu Ser Gly Ser
625 630 635
Leu Ser Phe Ile Phe Gly Lys Leu Asp Glu Gly Met Ser Leu Ser Glu
              650 655
      645
Ala Thr Arg Ala Ala Arg Glu Leu Gly Tyr Thr Glu Pro Asp Pro Arg
 660 665 670
Asp Asp Leu Ser Gly Met Asp Val Ala Arg Lys Leu Leu Ile Leu Val
675 680
                      685
Arg Glu Thr Gly Arg Glu Leu Glu Leu Ser Asp Ile Val Ile Glu Pro
690 695 700
Val Leu Pro Ala Glu Phe Asp Asp Ser Gly Asp Val Ser Ala Phe Met
705 710
                          715 720
Ala Asn Leu Pro Gln Leu Asp Asp Ala Phe Ala Ala Arg Val Ala Lys
          725 730
Ala Arg Asp Glu Gly Lys Val Leu Arg Tyr Val Gly Asn Ile Glu Glu
       740 745
                         750
Asp Gly Val Cys Arg Val Lys Ile Ala Glu Val Asp Gly Asn Asp Pro
    755 760
Leu Tyr Lys Val Lys Asn Gly Glu Asn Ala Leu Ala Phe Tyr Ser His
                775
                              780
```

```
Tyr Tyr Gln Pro Leu Pro Leu Val Leu Arg Gly Tyr Gly Ala Gly Asn
             790
                            795
Asp Val Thr Ala Ala Gly Val Phe Ala Asp Leu Leu Arg Thr Leu Ser
             805
Trp Lys Leu Gly Val
        820
<210> 7019
<211> 250
<212> PRT
<213> Enterobacter cloacae
<400> 7019
Val Cys Tyr Arg Pro Gly Lys Thr Gly Lys Asn Asp Arg Arg Pro Ala
Val Ile Ile Leu Arg Asp Arg Val Pro Gly His Ala Ser Phe Pro Arg
         2.0
                        25
                                           3.0
Leu Cys Leu Asn Phe Leu Ser Ala Cys Ile Ile Pro Phe Asn Gln Tyr
 35
                 40
                                       4.5
Phe Leu Asn Gly Met Asp Met Asn Thr Leu Arg Ile Gly Leu Val Ser
                 5.5
Ile Ser Asp Arg Ala Ser Ser Gly Val Tyr Gln Asp Lys Gly Ile Pro
             70
                               7.5
Ala Leu Glu Ala Trp Leu Gly Ser Ala Leu Thr Thr Pro Phe Glu Ile
                 90
            85
Gln Thr Arg Leu Ile Pro Asp Glu Gln Pro Ile Ile Glu Gln Thr Leu
         100 105
Cys Glu Leu Val Asp Glu Met Ser Cys His Leu Val Leu Thr Thr Gly
 115 120
                                       125
Gly Thr Gly Pro Ala Arg Arg Asp Val Thr Pro Asp Ala Thr Leu Ala
 130 135 140
Ile Ala Asp Arg Glu Met Pro Gly Phe Gly Glu Gln Met Arg Gln Ile
145 150 155
Ser Leu His Phe Val Pro Thr Ala Ile Leu Ser Arg Gin Val Gly Val
          165 170
Ile Arg Lys Gln Ala Leu Ile Leu Asn Leu Pro Gly Gln Pro Lys Ser
         180 185 190
Ile Lys Glu Thr Leu Glu Gly Val Lys Ala Glu Asp Gly Ser Val Ile
     195
                      200
Val His Gly Ile Phe Ala Ser Val Pro Tyr Cys Ile Gln Leu Leu Asp
 210 215
                                    220
Gly Pro Tyr Val Glu Thr Asp Gly Asn Val Val Ala Ala Phe Arg Pro
225 230
                                 235
                                                  240
Lys Ser Ala Arg Arg Glu Thr Ile Ser
             245
<210> 7020
<211> 500
<212> PRT
<213> Enterobacter cloacae
<400> 7020
Val Thr Ala Cys Thr Ile Ser Gly Ser Ala Tyr Ile Phe Thr Leu Ala
Ser Thr Arg Gly Thr Leu Val Pro Asp Phe Phe Phe Phe Ile Asn Glu
         20
                           25
                                            3.0
Val Leu Trp Gly Ser Ile Met Ile Tyr Leu Leu Ser Gly Ala Gly Ile
    35
                       40
Trp Phe Thr Trp Arg Ser Gly Leu Ile Gln Phe Arg Tyr Ile Arg Lys
                   55
Phe Gly Arg Ser Leu Lys Asn Ser Val Thr Pro Gln Pro Gly Gly Leu
```

```
Thr Ser Phe Gln Ala Leu Cys Thr Ser Leu Ala Ala Arg Val Gly Ser
                      90
        8.5
Gly Asn Leu Ala Gly Val Ala Leu Ala Ile Gly Ala Gly Gly Pro Gly
       100
                     105
Ala Val Phe Trp Met Trp Val Thr Ala Ile Ile Gly Met Ala Thr Ser
          120
Phe Ala Glu Cys Ser Leu Ala Gln Leu Tyr Lys Glu Lys Asp Gly Lys
      135
                    140
Gly Gln Phe Arg Gly Gly Pro Ala Trp Tyr Met Ala Arg Gly Leu Gly
   150 155 160
Met Arg Trp Met Gly Val Leu Phe Ser Ile Phe Leu Leu Ile Ala Tyr
       165
              170 175
Gly Leu Ile Phe Asn Thr Val Gln Ala Asn Ser Val Ala His Ala Leu
     180 185 190
Arg Phe Ala Phe Asn Cys Pro Glu Trp Leu Thr Gly Gly Ala Leu Ala
195 200 205
Leu Leu Thr Leu Leu Thr Ile Val Thr Gly Leu Lys Gly Val Ala Arg
210 215 220
Leu Met Gln Trp Leu Val Pro Leu Met Ala Leu Leu Trp Val Ser Thr
225 230 235 240
Ser Leu Met Val Cys Ala Ile His Ile Asp Glu Val Pro Asn Val Ile
     245 250 255
Val Thr Ile Phe Gln Ser Ala Phe Gly Trp Arg Glu Ala Ala Ser Gly
 260 265 270
Ala Leu Gly Tyr Thr Leu Ser Gln Ala Leu Thr Ala Gly Phe Gln Arg
275 280 285
Gly Met Phe Ser Asn Glu Ala Gly Met Gly Ser Thr Pro Asn Ala Ala
290 295 300
Ala Ala Ala Ser Trp Pro Pro His Pro Ala Ala Gln Gly Ile Val
305 310 315 320
Gln Met Ile Gly Val Phe Thr Asp Thr Ile Val Ile Cys Ser Ala Ser
     325 330 335
Ala Met Ile Met Leu Leu Ala Gly Ala Ala Glu Gln Pro Ser Gly Ser
340 345 350
Thr Ala Gly Ile His Trp Val Gln Gln Ala Leu Val Ser Leu Val Gly
355 360
Gly Trp Gly Ala Gly Leu Val Ala Leu Val Val Gly Leu Phe Ala Phe
370 375 380
Ser Ser Ile Ala Val Asn Tyr Met Tyr Ala Glu Asn Asn Leu Ile Phe
385 390 395 400
Leu Lys Val Asn Ser Cys Leu Thr Arg Asn Val Leu Arg Ala Gly Val
      405 410 415
Leu Gly Met Val Phe Val Gly Ser Leu Leu Gly Met Pro Leu Val Trp
       420 425 430
Gln Ile Ala Asp Val Ile Met Ala Leu Met Ala Ile Thr Asn Leu Thr
  435 440
                      445
Ala Ile Leu Leu Ser Pro Val Val Ala Leu Ile Ala Arg Asp Tyr
                   460
450 455
Leu Arg Gln Arg Lys Leu Gly Val Gln Pro Val Phe Asp Ala Ser Arg
           470 475 480
Tyr Pro Glu Ile Glu Ser Gln Ile Ala Pro Gly Thr Trp Asp Asp Leu
                        490
Pro Arg Gln
```

<sup>&</sup>lt;210> 7021 <211> 280 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 7021
Gln Leu Ser Ile Asn Ser Gly Arg Phe Phe Val Lys Val Ala Leu Asn
                           1.0
Phe Leu Gln Gly Leu Asp Met Leu Ile Leu Ile Ser Pro Ala Lys Thr
                        25
Leu Asp Tyr Gln Ser Pro Leu Ala Thr Glu Arg Tyr Thr Gln Pro Glu
                     40
Leu Leu Asp Tyr Ser Gln Gln Leu Ile His Glu Ala Arg Lys Leu Ser
                55
                                 60
Ala Pro Gln Ile Ala Ser Leu Met Ser Ile Ser Asp Lys Leu Ala Asp
              70
                            75
Leu Asn Ala Thr Arg Phe His Glu Trp Gln Pro Asp Phe Thr Pro Ala
           8.5
                          90
Asn Ala Arg Gln Ala Leu Leu Ala Phe Lys Gly Asp Val Tyr Thr Gly
       100
                105 110
Leu Gln Ala Glu Thr Phe Ser Glu Ala Asp Phe Asp Phe Ala Gln Gln
    115 120 125
His Leu Arg Met Leu Ser Gly Leu Tyr Gly Val Leu Arg Pro Leu Asp
 130 135
                      140
Leu Met Gln Pro Tyr Arg Leu Glu Met Gly Ile Arg Leu Glu Asn Ala
145 150 155
Lys Gly Lys Asp Leu Tyr Gln Phe Trp Gly Asp Val Ile Thr Asp Lys
         165 170 175
Leu Asn Ala Ala Leu Gln Ala Gln Gly Asp Asn Val Val Ile Asn Leu
      180 185 190
Ala Ser Asp Glu Tyr Phe Lys Ser Val Lys Pro Lys Lys Leu Asp Ala
195 200
Asp Ile Ile Lys Pro Val Phe Leu Asp Glu Lys Asn Gly Lys Phe Lys
210 215 220
Val Ile Ser Phe Tyr Ala Lys Lys Ala Arg Gly Leu Met Ser Arg Phe
225 230
                             235
Ile Ile Gln Asn Arg Leu Thr Lys Pro Glu Gln Leu Thr Gly Phe Asn
      245 250 255
Ser Glu Gly Tyr Phe Phe Asp Glu Ala Ser Ser Gly Lys Asn Glu Leu
       260
Val Phe Lys Arg His Glu Gln
```

<210> 7022 <211> 188 <212> PRT

<213> Enterobacter cloacae

<400> 7022

His Pro Tyr Cys Leu Phe Asn Val Ser Cys Ala Arg Arg Leu Gly Leu Gly Met Thr Thr Asn Leu Leu Ile Leu His Asn Ile Gly Met Phe Pro Met Asp Gly Ile Ile Leu Pro Met Gly Ile Phe Tyr Gly Gly Ile Ala 4.0 Gln Ile Phe Ala Gly Leu Leu Glu Tyr Lys Lys Gly Asn Thr Phe Gly 55 60 Leu Thr Ala Phe Thr Ser Tyr Gly Ser Phe Trp Leu Thr Leu Val Ala 7.0 Ile Leu Leu Met Pro Lys Met Gly Leu Ala Glu Ala Ala Asn Ala His 85 90 Phe Leu Gly Val Tyr Leu Gly Leu Trp Gly Val Phe Thr Leu Phe Met 100 105 Phe Phe Gly Thr Leu Lys Ala Asn Arg Ala Leu Gln Phe Val Phe Leu 115 120 Ser Leu Thr Val Leu Phe Ala Leu Leu Ala Ile Gly His Leu Ala Asp

```
Asn Glu Gly Ile Val His Val Ala Gly Trp Val Gly Leu Val Cys Gly
                     155
         150
Ala Ser Ala Ile Tyr Leu Ala Met Gly Glu Val Leu Asn Glu Gln Phe
        165 170
Asp Arg Thr Ile Leu Pro Ile Gly Glu Lys His
        180
<210> 7023
<211> 302
<212> PRT
<213> Enterobacter cloacae
<400> 7023
Thr Thr Leu Phe Ala Ala Ala Leu Ala Val Val Gly Phe Cys Lys Thr
                         10
Ala Ser Ala Val Thr Tyr Pro Leu Pro Thr Asp Gly Ser Arg Leu Val
    20
                       25
                                     30
Gly Glu Asn Gln Val Val Thr Val Pro Glu Gly Asn Thr Gln Pro Leu
35
                 40
                        45
Glu Tyr Phe Ala Ala Gln Tyr Gln Leu Gly Leu Ser Asn Met Leu Glu
50 55
                     60
Ala Asn Pro Gly Val Asp Pro Tyr Leu Pro Lys Ala Gly Thr Val Leu
65 70 75
Asn Ile Pro Gln Gln Leu Ile Leu Pro Asp Thr Val His Glu Gly Ile
     85 90 95
Val Ile Asn Ser Ala Glu Met Arg Leu Tyr Tyr Tyr Pro Lys Gly Thr
     100 105 110
Asn Thr Val Ile Val Leu Pro Ile Gly Ile Gly Gln Leu Gly Lys Asp
115 120 125
Thr Pro Leu Asn Trp Thr Thr Lys Val Glu Arg Lys Lys Ala Gly Pro
130 135
                               140
Thr Trp Thr Pro Thr Ala Lys Met His Ala Glu Tyr Ile Ala Ala Gly
145 150 155
Glu Pro Leu Pro Thr Val Val Pro Ala Gly Pro Asp Asn Pro Met Gly
    165 170 175
Leu Tyr Ala Leu Tyr Ile Gly Arg Leu Tyr Ala Ile His Gly Thr Asn
    180 185 190
Ala Asn Phe Gly Ile Gly Leu Arg Val Ser His Gly Cys Val Arg Leu
 195 200
                                  205
Arg Asn Glu Asp Ile Lys Phe Leu Phe Asp Asn Val Pro Val Gly Thr
 210 215 220
Arg Val Gln Phe Ile Asn Glu Pro Val Lys Ala Thr Ser Glu Pro Asp
225 230 235 240
Gly Ser Arg Tyr Ile Glu Val His Asn Pro Leu Ser Thr Ser Glu Asp
         245
                         250 255
Gln Ile Asn Asn Asn Glu Ile Val Pro Ile Lys Leu Thr Ser Ala Val
        260 265 270
Gln Ser Val Thr Ser Gln Ala Asp Val Asp Thr Thr Ile Val Asp Gln
  275 280 285
Ala Ile Gln Asn Arg Ser Gly Met Pro Val Arg Leu Asn
                295
                                300
<210> 7024
<211> 336
<212> PRT
<213> Enterobacter cloacae
```

<sup>&</sup>lt;220> <221>UNSURE

<400> 7024 Ser Met Asn Val Thr Leu Ile Asp Thr Leu Val Thr Arg Ser Arg Gly Leu Ser Pro Trp Thr Gly Phe Tyr Phe Leu Gln Ser Leu Leu Ile Asn 20 25 Phe Ala Leu Gly Tyr Pro Phe Ser Leu Leu Tyr Ala Val Gly Phe Thr 4.0 Cys Ile Leu His Leu Leu Trp Arg Ser Ala Pro Arg Met Gln Lys Val 55 60 Leu Ile Gly Ile Cys Ser Leu Val Ala Ala Ala Tyr Phe Pro Phe Gly 70 7.5 Gln Ala Tyr Gly Ala Pro Asn Phe Asn Thr Leu Leu Ala Leu His Ser 85 90 95 Thr Asn Met Glu Glu Ser Thr Glu Ile Leu Thr Ile Phe Pro Trp Tyr 100 105 110 Asn Tyr Val Val Gly Leu Phe Ile Phe Ala Leu Gly Val Ile Ala Val 115 120 125 Arg Arg Lys Pro Val Gly Lys Lys Ala Trp Gly Lys Ile Glu Ser Leu 130 135 140 Cys Leu Ala Phe Ser Val Val Thr Phe Phe Val Ala Pro Val Gln Asn 145 150 155 160 Met Ala Trp Gly Gly Val Phe Lys Leu Lys Asp Thr Gly Tyr Pro Val 165 170 Phe Arg Phe Val Lys Asp Val Val Val Asn Asn Glu Glu Val Leu Asp 180 185 190 Glu Gln Ala Arg Met Ala Glu Leu Ser Thr Met Lys Asp Thr Trp Asn 195 200 205 Val Leu Ala Val Lys Pro Lys Tyr His Thr Tyr Val Val Val Ile Gly 210 215 220 Glu Ser Ala Arg Arg Asp Ala Leu Gly Ala Phe Gly Gly His Trp Asp 225 230 235 Asn Thr Pro Phe Ala Ser Ala Val Asn Gly Thr Leu Phe Thr Asp Tyr 245 250 255 Val Ala Ala Ser Gly Ser Thr Gln Lys Ser Leu Gly Leu Thr Leu Asn 260 265 270 Arg Val Val Asp Gly Lys Pro Gln Phe Gln Asp Asn Phe Val Thr Leu 280 285 Ala Asn Arg Ala Gly Phe Gln Thr Trp Trp Phe Ser Asn Gln Gly Gln 295 300 Ile Gly Glu Tyr Asp Thr Ala Ile Ala Ser Ile Lys Lys Arg Ala Asp 305 310 315 320 Glu Val His Phe Leu Phe Pne Xaa His Asp Ala Pro Asn Pro Arg Tyr 325 330

<210> 7025

<211> 370

<212> PRT

<213> Enterobacter cloacae

<400> 7025

Met Asn Ile Pro Gly Leu Gln Ala Leu Lys Arg Asp Arg Phe Phe His 1 5 10 15
Leu Leu Leu Ile Thr Gly Val Gly Leu Ser Val Phe Val Pro Phe Thr 20 30
Pro His Thr Trp Pro Ala Ala Ile Asp Trp Arg Thr Ile Ile Thr Leu 35 35
Ser Gly Leu Met Met Leu Thr Lys Gly Val Glu Leu Ser Gly Tyr Phe 50 Asp Val Leu Gly Arg Lys Met Val Arg Arg Phe Ala Thr Glu Arg Lys 65 70 75 80

```
3079
Leu Ala Leu Phe Met Val Phe Ser Ala Ala Leu Leu Ser Thr Phe Leu
            8.5
Thr Asn Asp Val Ala Leu Phe Ile Val Val Pro Leu Thr Leu Thr Leu
         100
                         105
Arg Lys Leu Cys Glu Ile Pro Val Thr Arg Leu Ile Ile Phe Glu Ala
      115
                     120
Leu Ala Val Asn Ala Gly Ser Leu Leu Thr Pro Ile Gly Asn Pro Gln
                  135
                                 140
Asn Ile Leu Leu Trp Gly Arg Ser Gly Leu Ser Phe Thr Ala Phe Thr
145
               150
                               155
Gly Gln Met Ala Pro Leu Ala Leu Ala Ile Val Ala Ser Leu Leu Ala
           165
                 170 175
Val Gly Trp Phe Ala Phe Pro Asn Lys Ser Leu Gln Tyr His Ser Gly
        180 185 190
Thr Thr Gly Pro Gln Trp Gln Pro Arg Leu Val Trp Ser Cys Leu Gly
          200
      195
                                    205
Leu Tyr Ile Val Phe Leu Ile Ala Leu Glu Leu Asn Gln Ala Leu Ala
 210
       215 220
Gly Ala Leu Leu Val Ala Cys Gly Phe Leu Phe Leu Ala Arg Arg Val
225 230 235
Leu Val Ser Val Asp Trp Thr Leu Leu Leu Val Phe Met Ala Met Phe
          245 250 255
Ile Asp Val His Leu Leu Ile Gln Leu Pro Val Leu Gln Asn Val Leu
 260 265
His Ser Val Gly Gly Leu Ser Gln Pro Gly Leu Trp Leu Thr Ala Ile
275 280 285
Gly Leu Ser Gln Val Ile Ser Asn Val Pro Ser Thr Ile Leu Leu Leu
 290 295 300
Asn Tyr Val Pro Pro Thr Val Leu Leu Ala Trp Ala Val Asn Val Gly
305 310 315
Gly Phe Gly Leu Leu Pro Gly Ser Leu Ala Asn Leu Ile Ala Leu Arg
        325 330
Met Ala Asn Asp Arg Arg Ile Trp Trp Arg Phe His Leu Trp Ser Ile
 340 345 350
Pro Met Leu Leu Trp Ser Ala Ala Val Gly Phe Gly Leu Phe Leu Leu
                     360
                                     365
 370
<210> 7026
<211> 517
<212> PRT
<213> Enterobacter cloacae
<400> 7026
Glu Arg Gly Glu Cys Arg Ser Thr Leu Met Ile His Arg Arg Leu His
```

10 15 Pro Leu Met Ile Met Met Leu Leu Val Gly Cys Ala Val Gly Pro Asp 25 Tyr Gln Gln Pro Ala Pro Pro Ala Thr Thr His Trp Asn Asp Lys Gly 4 0 4.5 Asp Ser Ala Val Lys Ser Gln Thr Ser Ser Ala Ala Thr Asn Pro Arg Trp Trp Lys Thr Phe Gly Ser Pro Gln Leu Asp Ser Leu Ile Glu Arg 70 7.5 Ala Ile Ala Gly Asn Leu Thr Leu Gln Gln Thr Val Leu Arg Ile Ala 8.5 90 Gly Ala Arg Glu Gln Ile Asn Gln Ala Gly Gly Ala Phe Phe Pro Ser 100 105

Val Asn Gly Asn Val Gln Ala Thr Arg Gln Gln Leu Gly Leu Glu Gly

```
Glu Leu Lys Ser His Gly Val Tyr Asp Gln Leu Asn Asn Val Asp Pro
                135
Glu Leu Arg Gly Ala Leu Gly Pro Leu Thr Gln Pro Ile Asn Leu Tyr
           150
                           155
Gin Gly Ser Phe Asp Ala Gin Trp Glu Ile Asp Leu Trp Gly Lys Val
          165 170 175
Arq Arg Gln Val Glu Ala Ala Glu Ala Gln Gln Arg Ala Ala Ile Glu
     180
            185 190
Gln Arg Asn Asp Val Leu Val Ser Leu Glu Ala Glu Val Ala Arg Ala
  195 200 205
Trp Leu Gln Leu Arg Gly Ala Gln Ser Ile Ile Ala Thr Leu Asn Thr
 210 215 220
Gln Ile Glu Ser Ala Gln Gln Tnr Leu Asp Leu Thr Glu Ser Arg Gln
225 230 235
Arg Gly Gly Leu Ser Pro Gln Met Asp Val Glu Asn Ala Arg Ala Gln
     245 250 255
Leu Gly Asn Leu Glu Ala Gln Leu Pro Gln Tyr Gln Ala Gln Glu Arg
 260 265 270
Gln Ala Met Asn Gly Leu Ala Ile Leu Leu Gly Lys Pro Pro Gly Ala
275 280 285
Leu Asp Ala Glu Leu Gln Ser Val Gln Pro Met Pro Ala Leu Pro Asp
290 295
                              300
Ile Val Gln Thr Gly Ile Pro Ser Thr Leu Ala Arg Arg Arg Pro Asp
305 310 315
Val Arg Glu Ala Glu Ala Asn Leu His Ala Ala Thr Ala Gln Ile Gly
     325 330 335
Val Ser Val Ala Glu Leu Phe Pro Ser Phe Thr Leu Ser Gly Gln Phe
 340 345 350
Gly Leu Arg Asn Ser Glu Ser Asn Trp Leu Thr Asp Trp Ser Ser His
355 360 365
Phe Tyr Ser Phe Gly Pro Gln Val Ser Ile Pro Ile Phe Gln Gly Gly
                375
370
                              380
Arg Leu Val Ser Ser Val Lys Val Ala Arg Ala Gln Gln Gly Ala Ala
385 390 395
Val Leu Asp Tyr Arg Gln Thr Val Leu Thr Ala Leu Gly Asp Val Glu
         405 410 415
Asn Ala Leu Val Ser Tyr Arg Thr Asp Gln Gln Arg Glu Ala Gly Leu
       420 425 430
Ala Lys Thr Ile Asp Ala Leu Gln Asn Ala Phe Asp Leu Ala Ser Asp
   435 440 445
Ser Tyr Arg Gln Gly Ile Ala Ser Phe Ile Asp Val Leu Asp Ala Gln
 450 455 460
Arg Gln Leu Ala Gln Ala Glu Gln Gln Arg Ala Gln Ala Gln Val Gln
465 470
                          475
Ser Ala Leu Asp Leu Val Ala Leu Tyr Lys Ala Leu Gly Gly Gly Trp
         485 490 495
Glu Pro Tyr Gln Gln Val Arg Leu Pro Asp Tyr Ser Val Phe Gly Asp
      500
               505
Ala Pro Arg Gly
     515
<210> 7027
<211> 242
<212> PRT
<213> Enterobacter cloacae
<400> 7027
```

Gly Arg Thr Met Ala Ala Lys Tyr Ile Thr Ile Ala Arg Glu Ile Lys I 5 10 15 Lys Arg Ile Ile Ser Gln Gln Tyr Ala Ala Asn Glu Pro Leu Pro Asp

25

Gln Phe Ala Leu Ala Ala Glu Phe Ser Thr Ser Arg Met Thr Ile Gln 35 Gln Ala Met Arg Gln Leu Ile Val Glu Gly Leu Val Tyr Thr Arg Gln Gly Gln Gly Thr Phe Ile Arg Lys Asn Phe Leu Gln Leu Ser Gln Trp 70 75 Asp Leu Ser Gly Ser Asp Tyr Phe Gly Ala Thr Lys Thr Trp Glu His 85 90 Leu Gly Thr Val Ser Ser Gln Val Val His Phe Glu Leu Arg Phe Pro 100 - 105 110 Asn Glu Lys Glu Gln Ala Ser Leu Met Ile Asn Pro Asp Thr Pro Ile 115 120 125 Tyr Asp Phe Ile Arg Leu Arg Leu Leu Asn Gly Glu Pro Met Ser Leu 130 135 140 Asp Ala Thr Val Met Pro Leu Asn Leu Val Pro Gly Leu Asn Lys Thr 145 150 155 160 His Leu Glu Ser Ser Val Phe Arg Tyr Val Gln Glu Thr Leu Gly Leu 165 170 175 Lys Ile Met Gly Ser Tyr Arg Val Val Arg Ala Leu Lys Pro Ser Ala 180 185 190 Leu Asp Met Gln His Leu Val Cys Glu Pro Thr Asp Ser Val Leu Glu 195 200 205 Val Glu Gln Val Ile Tyr Leu Glu Asp Gly Thr Pro Leu Glu Tyr Ala 210 215 220 His Cys His Tyr Arg Tyr Asp His Gly Gly Ile Val Ile Val Asn Asn 230 Gly

<210> 7028 <211> 161 <212> PRT

<213> Enterobacter cloacae

<400> 7028

Gly Ser Thr Met Asn Arg Arg Ala Gly Lys Pro Thr Thr Lys Lys Thr 10 Thr Gln Leu Val Asn Val Glu Glu His Val Glu Gly Phe Arg Gln Val 25 Arg Glu Ala His Arg Arg Glu Leu Ile Asp Asp Tyr Val Glu Leu Ile 40 Ser Asp Leu Ile Arg Glu Val Gly Glu Ala Arg Gln Val Asp Met Ala 50 55 Ala Arg Leu Gly Val Ser Gln Pro Thr Val Ala Lys Met Leu Lys Arg 70 75 Leu Ala Ser Val Gly Leu Ile Glu Met Ile Pro Trp Arg Gly Val Phe 90 95 Leu Thr Ala Glu Gly Glu Lys Leu Ala Gln Glu Ser Arg Glu Arg His 100 105 110 Gln Ile Val Glu Asn Phe Leu Leu Val Leu Gly Val Ser Pro Glu Ile 115 120 Ala Arg Arg Asp Ala Glu Gly Met Glu His His Val Ser Glu Glu Thr 130 135 140 Leu Val Lys Phe Arg Glu Phe Thr Leu Lys Tyr Gly Pro Ser Ala Glu 150 155

<sup>&</sup>lt;210> 7029 <211> 530

<sup>&</sup>lt;212> PRT

## <213> Enterobacter cloacae

<400> 7029 Thr Glu Gly His Arg Gly Met Thr Asp His Ser His Asp Asn Trp Lys Pro Ala Ser Asn Pro Trp Ala Val Ala Ile Val Val Thr Leu Ala Val 25 Phe Met Glu Ile Leu Asp Thr Thr Ile Val Asn Val Ala Leu Pro His 35 4.0 4.5 Val Ala Gly Ser Leu Ser Ala Ser Tyr Asp Glu Ser Thr Trp Val Leu 55 60 Thr Ser Tyr Leu Val Ala Asn Gly Ile Val Leu Pro Ile Ser Ala Phe 7.5 Leu Ser Arg Leu Phe Gly Arg Lys Gln Phe Phe Leu Ile Cys Ile Val 8.5 90 Met Phe Thr Ile Cys Ser Phe Leu Cys Gly Ile Ala Thr Glu Leu Trp 100 105 110 Gln Ile Ile Leu Phe Arg Val Met Gln Gly Phe Phe Gly Gly Leu 115 120 125 Gln Pro Thr Gln Gln Ser Val Leu Leu Asp Tyr Phe Lys Pro Glu Asp 130 135 140 Arg Gly Lys Ala Phe Gly Leu Ser Ser Ile Ala Ile Ile Val Ala Pro 145 150 155 Val Leu Gly Pro Thr Leu Gly Gly Trp Ile Thr Asp Asn Tyr Ser Trp 165 170 Arg Trp Val Phe Phe Ile Asn Ile Pro Val Gly Ile Val Thr Val Leu 180 185 190 Ala Ile Tyr Gln Leu Leu Glu Asp Pro Pro Trp Glu Lys Lys Ser Glu 195 200 205 Glu Lys Leu Thr Val Asp Trp Thr Gly Ile Gly Leu Ile Ala Leu Gly 210 215 220 Leu Gly Cys Leu Gln Val Met Leu Asp Arg Gly Glu Asp Asp Asp Trp 225 230 235 Phe Tyr Ser Asn Phe Ile Arg Thr Phe Ala Val Leu Thr Leu Val Gly 245 250 Ile Ile Gly Ala Ile Tyr Trp Leu Met Tyr Ala Arg Lys Pro Val Val 260 265 Asp Leu His Cys Met Lys Asp Arg Asn Phe Ala Ile Ser Ser Leu Leu 275 280 Met Ala Gly Met Ala Met Ile Leu Tyr Gly Ser Ser Val Val Ile Pro 290 295 300 Gln Leu Ala Gln Gln Asp Leu Gly Tyr Thr Ala Thr Trp Ser Gly Leu 305 310 315 Val Leu Ser Pro Gly Ala Val Leu Ile Val Leu Thr Ile Pro Leu Val 325 330 Leu Lys Leu Met Pro Val Val Gln Thr Arg Trp Ile Ile Ala Phe Gly 345 Phe Thr Cys Leu Ala Val Ser Phe Phe Trp Ser Arg Thr Leu Thr Pro 360 365 Asp Ile Asp Phe Glu Thr Leu Val Leu Phe Arg Ser Ala Gln Ser Ile 375 380 Gly Leu Gly Phe Leu Phe Val Pro Leu Thr Thr Ile Ala Phe Ile Ser 385 390 395 400 Ile Pro Arg Arg Leu Asn Ala Asp Ala Ala Ala Leu Phe Thr Met Phe 405 410 Arg Asn Val Ala Gly Ser Ile Gly Ile Ser Leu Ser Thr Ala Ala Ile 420 425 Thr Glu Arg Ser Gln Ala His Ser Ala His Leu Ala Tyr His Ala Ser 435 440 Pro Phe Asn Glu Gln Phe Gln Leu Ala Ile Arg Glu Ser Ala Gln Ala 455 460

Ile Gln Asn Phe Thr Thr Gln Val Gly Asp Pro Thr Gly Ile Ala Thr 465 470 Gly Arg Met Tyr Gln Thr Met Ile Glu Gln Ser Arg Phe Leu Ala Tyr 485 490 Ile Asp Val Phe Thr Ile Leu Ser Ala Val Ala Leu Leu Leu Ile Pro 500 505 Phe Cys Leu Leu Ser Pro Val Lys Ser Glu Gly Ser Ala Gly Ala 520 530 <210> 7030 <211> 466 <212> PRT <213> Enterobacter cloacae <400> 7030 Leu Val Ile Lys Gly Ala Thr Met Asn Lys Ser Leu Pro Ala Asn Phe 10 Leu Trp Gly Asn Ser Val Ser Ser Met Gln Thr Glu Gly Ala Trp Asn 20 25 Glu Gly Gly Lys Gly Met Ser Val Tyr Asp Ile Arg Glu Ala Gly Glu 35 40 45 Asn Ile Ser Asp Trp Lys Val Ala Thr Asp Ser Tyr His Arg Tyr Arg 50 55 60 Glu Asp Phe Asp Leu Met Gln Asp Leu Gly Met Asn Cys Tyr Arg Phe 7.5 7.0 Gln Ile Ser Trp Ser Arg Ile Cys Pro Gln Gly Asp Gly Glu Phe Asn 90 Asp Glu Gly Ile Ala Phe Tyr Asp Arg Phe Ile Asp Asp Leu Leu Ala 105 Arg Gly Ile Glu Pro Met Val Cys Leu Tyr His Phe Asp Met Pro Leu 115 120 125 Ala Leu Ala Gin Giu Tyr Asn Gly Phe Ile Asp Arg Arg Val Val Asp 135 140 Ala Phe Ile Arg Tyr Gly Lys Lys Met Ile Asp Cys Phe Ala Asp Arg 150 155 Val Lys Tyr Trp Leu Thr Phe Asn Glu Gln Asn Ile Phe His Met Pro 170 165 Glu Ala Phe Arg Ile Ser Gly Tyr Met Lys Gly Glu Gln Thr Leu Arg 180 185 190 Glu Leu Tyr Glu Leu Gln His His Ala Met Val Ala His Met Thr Leu 195 200 205 Thr Glu Tyr Leu His Gln Thr Lys Pro Gly Lys Leu Met Gly Gly Met 215 220 Leu Ala His Gln Leu Ile Tyr Pro Ala Thr Cys Lys Pro Arg Asp Ile 230 235 240 Phe Cys Ala Gln Gln Tyr Asp Glu Phe Leu Asn Gln Asn Leu Leu Arg 250 255 245 Val Phe Ala Gly Gln Gly Tyr Ser Pro Ala Val Met Ala Val Val Glu 260 265 270 Gln Glu Gly Phe Gly Asp Ile Tyr Arg Ala Asp Asp Leu Ala Leu Phe 280 275 285 Ala Arg Thr Lys Asn Asp Phe Met Ala Phe Ser Tyr Tyr Ala Ser Lys 290 295 Thr Leu Asp Ser Asp Ala Ile Pro Glu Gly Thr Pro Val Asn Tyr Tyr 305 310 315 320 Leu Leu His Gly Glu Lys Asn Asn Pro Tyr Leu Lys Ala Thr Glu Trp 325 330 335

Asn Trp Gln Ile Asp Pro Leu Gly Phe Arg Thr Ile Ile Thr Arg Tyr

345

350

```
Ala Asn Asp Trp Arg Met Pro Val Pne Pro Ile Glu Asn Gly Ile Gly
   355
                     360
Val Ile Glu Ser Trp Asp Gly Val Asn Pro Val Glu Asp Thr Tyr Arg
                  375
                                  380
Ile Asp Tyr His Arg Ala His Ile Glu Ala Met Lys Ala Ala Ile Phe
385
               390
                              395
Glu Asp Gly Ala Glu Val Met Gly Tyr Leu Gly Trp Gly Leu Ile Asp
           405
                           410
                                           415
Ile Leu Ser Ser Gln Gly Asp Met Arg Lys Arg Tyr Gly Val Val Tyr
                        425
        420
Val Asn Arg Glu Asn His Asp Leu Lys Asp Leu Lys Arg Val Pro Lys
 435 440
                            4.4.5
Lys Ser Tyr Ala Trp Leu Lys Gln Val Ile His Thr Asn Gly Arg Glu
       455
Met
465
<210> 7031
<211> 446
<212> PRT
<213> Enterobacter cloacae
<400> 7031
Trp Glu His Ser Ala Met Ser Glu Thr Lys Ile Thr Pro His Met Gln
                         10 15
Ser Phe Val Asp Lys Phe Val Glu Phe Ser Ala Arg Leu Ala Asn Gln
 20
             25
Val His Leu Arg Ser Leu Arg Asp Ala Phe Ala Thr Val Met Pro Ile
35 40
Phe Ile Leu Ala Gly Leu Ala Val Leu Val Asn Asn Val Val Phe Pro
50 55 60
Trp Ile Phe Ala Gly Asp Thr Leu Thr His Phe Lys Val Trp Gly Glu
65 70 75
Ala Ile Ile Asn Gly Thr Leu Asn Ile Ala Ala Leu Leu Leu Ala Pro
         85
               90 95
Met Ile Ala Trp Ser Leu Ala Arg Asn Lys Asp Phe Asp Asn Pro Val
        100 105 110
Ser Ala Val Val Ile Ala Val Ser Ser Phe Ile Ile Met Met Pro Met
 115 120 125
Arg Leu Gln Ile Thr Pro Val Gly Ser Glu Ala Thr Val Asn Ala Thr
 130 135
                                 140
Gln Val Leu Thr Phe Ala Asn Ile Gly Ser Thr Gly Ile Phe Ala Gly
145 150 155
                                             160
Val Leu Ile Gly Leu Leu Ser Thr Glu Val Phe Ile Ala Ile Ser Arg
           165 170
                                          175
Leu Lys Ala Leu His Ile Ser Leu Gly Glu Asn Val Pro Pro Ala Val
        180 185 190
Ser Lys Ser Phe Thr Ala Leu Ile Pro Thr Ile Leu Thr Leu Ser Leu
     195 200 205
Phe Ala Val Leu Ala Ala Ile Leu Ala Asn Val Leu His Thr Asp Leu
              215
                                 220
Ile His Leu Ile Thr Thr Phe Ile Gln Gln Pro Leu Arg Leu Ile Asn
               230
                            235
Thr Ser Leu Pro Gly Thr Ile Phe Ile Tyr Ser Phe Gly Asn Phe Leu
          245 250
                                           255
Phe Thr Leu Gly Ile His Gln Ser Val Val Asn Ser Val Val Leu Glu
      260
                        265
                                        270
Pro Phe Leu Leu Ile Asn Thr Asn Glu Asn Met Leu Ala Phe Ala Asn
                     280 285
Gly Gln Pro Ile Pro His Ile Ile Asn Asn Ile Phe Val Pro Thr Phe
```

295

```
Gly Met Val Gly Gly Thr Gly Ser Thr Ile Ser Leu Leu Ile Ala Ile
               310
                               315
Phe Ile Phe Ser Arg Gln Lys Ser Ala Lys Gln Val Ala Arg Leu Ser
            325
                            330
Leu Ala Pro Gly Leu Phe Asn Ile Asn Glu Pro Val Ile Phe Gly Leu
         340
                        345
Pro Ile Val Phe Asn Leu Pro Leu Met Ile Pro Phe Val Leu Leu Pro
                     360 365
      355
Ala Ile Gly Ile Tyr Phe Ala Trp Leu Cys Thr Thr Leu Gly Phe Met
                      380
                375
Ser Arg Cys Val Val Met Ile Pro Trp Thr Thr Pro Pro Ile Leu Ser
   390 395 400
Ala Trp Leu Ala Thr Ala Gly Asp Trp Arg Ala Val Val Gln Leu
         405 410 415
Ala Ile Ile Val Phe Gly Val Phe Phe Tyr Leu Pro Phe Leu Lys Val
      420 425 430
Ala Glu Arg Val Ala Leu Lys Asn Ser Gly Thr Glu His
                    440
```

<210> 7032 <211> 366 <212> PRT

<213> Enterobacter cloacae

<400> 7032

Thr Met Ala Glu Asp Gln Asn Pro Pro Ala Asp Glu Gln Asp Gln Asn 10 Asn Asn Glu Arg Lys Arg Pro Gly Lys Lys Pro Leu Ile Ile Leu Gly 20 2.5 Ile Val Val Ile Val Met Val Ile Val Ala Leu Val Trp Trp Phe Leu 35 40 45 Thr Arg Asn Glu Glu Thr Thr Asp Asp Ala Phe Thr Asp Gly Asp Val 50 55 Val Thr Ile Ala Pro Lys Thr Ala Gly Tyr Val Thr Glu Leu Arg Val 70 75 Arg Asp Asn Gln Arg Val Lys Lys Gly Asp Val Leu Val Val Ile Asp 85 90 Pro Arg Asp Thr Thr Ala Gln Arg Asp Gln Ala Gln Ala Gln Leu Gly 105 Leu Ala Leu Ala Gln Leu His Gln Ala Gln Ala Gln Leu Ala Leu Ser 115 120 125 Lys Val Gln Tyr Pro Ala Gln Arg Asp Glu Ala Lys Ala Gln Val Leu 130 135 140 Lys Ala Gln Ala Asp Met Ala Asn Ala Gln Ala Glu Tyr Arg Arg Gln 150 155 Arg Gly Val Asp Pro Arg Ala Thr Thr Gln Gln Ser Ile Asp Ala Ala 165 170 Asn Ala Gln Leu Arg Ser Ala Gln Ala Gly Leu Ala Ser Ala Gln Ala 180 185 190 Gln Leu Glu Val Ala Glu Gln Val Gln Leu Gln Ile Arg Gln Gln Glu 200 205 Thr Asn Val Glu Ala Arg Glu Arg Gln Val Asp Gln Ala Arg Ala Gln 215 220 Leu Glu Thr Ala Asn Leu Asn Leu Ser Tyr Thr Glu Val Arg Ala Pro 230 235 Phe Asp Gly Phe Val Thr Lys Arg Asn Val Gln Pro Gly Thr Leu Val 245 250 Gln Ala Gly Thr Ala Leu Phe Ser Leu Val Ser Pro Asn Val Trp Val 260 270 265 Val Ala Asn Phe Lys Glu Ser Gln Leu Glu Arg Met Lys Pro Gly Asp

280

```
Lys Val Thr Val Ser Val Asp Ala Trp Pro Asp Met Glu Leu Glu Gly
                   295
                                  300
His Ile Asp Ser Ile Gln Gln Gly Ser Gly Ser Arg Phe Ser Ala Phe
               310
                                315
Pro Ser Glu Asn Ala Thr Gly Asn Phe Val Lys Ile Val Gln Arg Val
                   330
            325
Pro Val Lys Ile Val Ile Asp Lys Gly Leu Asp Pro Asn Lys Pro Leu
         340
                        345
Pro Leu Gly Leu Ser Val Glu Pro Lys Val Thr Val Glu
<210> 7033
<211> 354
<212> PRT
<213> Enterobacter cloacae
<400> 7033
Gly Val Ser Cys Ala Asp Ala Ser Thr Ser Lys Asn Gln Asn Phe Ala
                           10
Thr Phe Ile Glu Arg Leu Phe Arg Asp Asn Thr Met Thr Lys Tyr Arg
 20
                    25
Leu Ser Asn Glu Thr Arg Leu Trp Arg Trp Gln Asp Gly Ser Thr Pro
35
                    40
Cys Thr Thr Pro Leu Arg Gln Ile Ile Ala Val Lys Asp Phe Asn Asp
 50 55
Val Thr Ser Gly Thr Lys Gly Gly Trp Val Glu Asp Glu His Ala Leu
             70
                         75
Ala Gln Asp Gly Asp Cys Trp Val Tyr Asp Glu Asn Ser Val Val Phe
           85
                          90
Ala Gly Ala Arg Ile Ser Gly Asn Ala Arg Leu Thr Gln Pro Cys Ile
       100 105 110
Val Ser His Arg Ala His Val Gly Gly Asn Gly Trp Leu Asp Ala Ala
 115 120 125
Glu Val Ser His Gly Ala Val Ile Ser Asp Asn Val Thr Ile Gln His
130 135 140
Ser Thr Val Arg Gly Glu Cys Arg Ile Ala Gly Asp Ala Arg Val Leu
145 150
                              155 160
His Asn Ser Leu Val Ile Ala Ala Lys Gly Leu Thr Pro Asp Arg Glu
          165 170 175
Gln Ile Leu Gln Ile Tyr Asp Arg Ala Tnr Val Ser Gln Ser Arg Ile
       180 185 190
Val His Gln Ala Gln Ile Tyr Gly Asp Ala Met Val Thr Trp Ala Phe
 195
                     200
                                     205
Val Glu His Arg Ala Glu Val Phe Asp Arg Ala Ile Leu Glu Gly Asn
 210 215
                                  220
Ala Leu Asn Asn Val Trp Val Cys Asp Cys Ala Lys Val Tyr Gly Asn
225 230 235
Ala Arg Leu Leu Ala Gly Leu Glu Asp Asp Ala Ile Pro Thr Val Arg
       245 250
Tyr Ser Ser Gln Val Ala Glu Asn Ala Leu Val Glu Gly Asn Cys Val
                        265
Ile Lys His His Val Leu Ile Gly Gly Glu Ala Trp Leu Arg Gly Gly
                     280
                                      285
Pro Ile Leu Ile Asp Asp Lys Val Val Ile Gln Gly Arg Ala Arg Ile
 290 295
                                  300
Ser Gly Asp Val Leu Ile Glu His Gln Val Glu Ile Thr Asp Asp Ala
    310
                               315
Val Ile Glu Ala Leu Glu Gly Glu Ser Ile His Val Arg Gly Ala Lys
            325
                            330
Val Ile Asn Gly Asp Thr Arg Ile Thr Arg Thr Pro Leu Leu Gly Ala
                         345
```

Leu

<210> 7034 <211> 418

```
<212> PRT
<213> Enterobacter cloacae
<400> 7034
Lys Ile Asn Thr Glu Gly Asn Thr Met Gly Ser Glu Leu Ser Arg Gln
                         10
Leu Thr Gln Arg Phe Phe Arg Tyr Leu Ala Ile Thr Ser Gln Ser Asp
                     25
Pro Lys Val Lys Thr Leu Pro Ser Thr Pro Gly Gln His Asp Met Ala
                 40
                                  45
Arg Glu Leu Ala Lys Glu Leu Lys Thr Leu Gly Leu Asp Asp Ile Val
 50 55
                               60
Ile Asp Glu Phe Ala Thr Val Thr Ala Val Lys Lys Gly Asn Val Pro
     70 75
Gly Ala Pro Arg Ile Gly Phe Ile Thr His Ile Asp Thr Val Asp Val
        85 90
Gly Leu Ser Pro Asp Ile His Pro Gln Ile Leu Thr Phe Thr Gly Asp
   100 105 110
Asp Leu Cys Leu Asn Lys Glu Lys Asp Ile Trp Leu Arg Val Lys Glu
 115 120 125
His Pro Glu Ile Leu Ala Tyr Pro Asp Glu Glu Ile Ile Phe Ser Asp
 130 135 140
Gly Thr Ser Val Leu Gly Ala Asp Asn Lys Ala Ala Val Thr Val Val
145 150 155
Met Thr Val Leu Glu Asn Leu Thr Ala Glu His Asn His Gly Asp Ile
      165 170 175
Val Val Ala Phe Val Pro Asp Glu Glu Ile Gly Leu Cys Gly Ala Lys
   180 185 190
Ala Leu Asp Leu Lys Arg Phe Asp Val Asp Phe Ala Trp Thr Ile Asp
 195 200 205
Cys Cys Glu Leu Gly Glu Ile Val Tyr Glu Asn Phe Asn Ala Ala Ala
 210 215 220
Ala Glu Ile Arg Phe Thr Gly Val Thr Ala His Pro Met Ser Ala Lys
225 230 235 240
Gly Val Leu Val Asn Pro Leu Leu Met Ala Thr Asp Phe Ile Ser His
      245 250 255
Phe Asp Arg Gln Gln Thr Pro Glu Cys Thr Glu Gly Arg Glu Gly Tyr
       260 265 270
Ile Trp Phe Asn Gly Ile Gln Ala Gly Gln Asn Glu Ala Ile Leu Lys
     275 280
Ala Asn Ile Arg Asp Phe Asp Lys Asp Gly Phe Ala Ala Arg Lys Gln
 290 295
                               300
His Ile Ala Asp Val Ala Ala Gln Ile Ala Ala Gln His Pro Thr Ala
305 310 315 320
Asn Val Glu Tyr Arg Ile Glu Asp Thr Tyr Ser Asn Ile Ser Asn Ala
          325 330
Ile Gly Glu Asp Arg Arg Ala Ile Asp Leu Met Phe Glu Ala Met Glu
                      345
Ser Leu Gly Ile Thr Pro Lys Pro Ile Pro Met Arg Gly Gly Thr Asp
                    360 365
Gly Ala Ala Leu Ser Ala Lys Gly Leu Leu Thr Pro Asn Phe Phe Thr
 370 375
                    380
Gly Ala His Asn Phe His Ser Lys Phe Glu Phe Leu Pro Leu Ser Ser
385 390
                            395
Phe Glu Ala Ser Cys Arg Thr Ala Leu Gln Leu Cys Leu Leu Ala Ala
           405
                         410
```

```
<210> 7035
<211> 282
<212> PRT
<213> Enterobacter cloacae
<400> 7035
Asp Met Ser Arg Arg Ser Phe Pro Leu Asn Ala Val Glu Thr Phe Ile
                          1.0
Val Thr Ala Arg His Leu Asn Leu Thr His Ala Ala Lys Glu Leu Cys
       20
                        2.5
Leu Thr Gln Gly Ala Val Ser Arg Lys Ile Ala Ser Leu Glu Ser Trp
                   40
                               4.5
Phe Gly Phe Pro Leu Phe Glu Arg His Ala Arg Gly Leu Arg Leu Ser
            55 60
Ser Gln Gly Ser Ala Leu Leu Pro Glu Leu Gln Ser Ala Phe Glu His
             70 75
Leu Leu Asn Val Ala Glu Gln Ala Arg Thr His Gln Thr Val Ile Arg
          85 90
Leu Lys Ala Pro Thr Cys Ala Met Arg Trp Leu Val Pro Arg Leu Leu
 100 105 110
Gln Val Glu Arg Glu Gln Pro Glu Leu Gln Ile Ala Leu Thr Thr
115 120 125
Thr Asp His Asn Val Asn Phe Lys Thr Glu Ser Cys Asp Ala Ala Ile
 130 135 140
Val Phe Gly Thr His Met Ser Ala Gly Asp Leu Leu Phe Glu Glu Ala
145 150 155
Leu Thr Pro Val Met Ser Pro Leu Arg Ala Gly Ser Ala Leu Glu Ala
       165 170 175
Leu Thr Phe Leu His Pro Thr Arg Asp Lys Thr Asp Trp Thr Leu Trp
 180 185 190
Leu Ala Lys Gln Pro Gly Pro Pro Pro Ala Met Leu Lys Asn Gln His
195 200 205
Phe Glu Thr Met Asp Leu Ala Ile Thr Ala Ala Ile Gln Gly Leu Gly
 210 215
                                  220
Ile Ala Ile Ala Asp Glu Thr Leu Val Glu Glu Asp Val Arg Ala Gly
225 230 235
                                            240
Arg Leu Met Arg Pro Phe Asp Thr Ser Ile Lys Thr Gly Ala Ser Tyr
           245 250
Arg Leu Val Leu Arg Asp Ala Pro Gly Pro Glu Asn Gly Leu Asp Ala
        260 265
Phe Arg Ala Cys Leu Leu Ser Arg Gly
<210> 7036
<211> 508
<212> PRT
<213> Enterobacter cloacae
<400> 7036
Trp Lys Lys Lys Val Gly Met Glu Asn Pro Ser Ala Pro Val Val Glu
                           10
Thr Arg Gln Gly Ala Leu Ile Gly Phe Thr Glu Gly Asp Thr His Val
                        25
Trp Cys Gly Ile Pro Tyr Ala Ala Pro Pro Val Gly Pro Trp Arg Trp
                     40
Arg Ser Pro Arg Pro Pro Ala Arg Trp Asp Gly Val Arg Pro Ala Thr
            55
Ala Phe Ser Ala Ser Ser Trp Gln Ser Ser Glu Ser Cys Gln Glu Leu
```

```
75
Gly Gly Gly Asp Pro Gly Gln Phe Ser Glu Asp Cys Leu Tyr Leu Asn
                    90
          85
Val Trp Ser Pro Val Ala Arg Ala Ala Pro Leu Pro Val Met Val Trp
              105 110
Leu His Gly Gly Gly Phe Thr Leu Gly Ala Gly Gly Leu Pro Pro Tyr
   115
           120
                       125
Asn Gly Arg Ala Leu Ala Lys Arg Gly Thr Val Val Val Thr Ile Asn
 130
        135
Tyr Arg Leu Gly His Leu Gly Phe Phe Ala His Pro Ala Leu Glu Gly
      150 155 160
Glu Glu Glu Arg Val Val His Asn Phe Ala Leu Leu Asp Gln Ile Gln
          165 170 175
Ala Leu Glu Trp Val Arg Asp Asn Ile Ala Ala Phe Gly Gly Asp Pro
      180 185 190
Glu Asn Ile Thr Val Phe Gly Glu Ser Ala Gly Ala Arg Ser Val Leu
 195 200 205
Ser Leu Met Ala Ser Pro Leu Ala Gly Gly Leu Phe His Lys Ala Ile
 210 215 220
Val Gln Ser Gly Tyr Thr Leu Pro Asp Thr Pro Arg Glu Gln Ala Met
225 230 235
His Lys Gly Glu Ala Ile Ala Ala His Phe Gly Leu His Asn Ala Thr
     245 250 255
Ala Glu Gln Leu Arg Ala Ile Pro Pro Glu Ala Phe Trp Pro Leu Thr
 260 265 270
Ser Pro Leu Asn Ile Ala Pro Ala Pro Ile Val Gly Asp Cys Val Leu
275 280 285
Pro Glu Ala Met Leu Asp Val Phe Phe Ala Ala Arg Gln His Pro Val
290 295 300
Pro Val Met Ile Gly Ser Asn Ser Asp Glu Ala Ser Val Met Ser Val
305 310 315 320
Phe Gly Val Asp Leu Ala Gly Gln Ile Gln Lys Leu Arg Arg Glu Arg
          325 330
Arg Phe Gly Leu Gly Leu Ile Lys Leu Leu Tyr Pro Gly Val Lys Gly
 340
                     345 350
Asp Glu Glu Leu Gly Arg Gln Val Cys Arg Asp Met Ala Phe Thr Thr
355 360
                       365
Met Gly Tyr Val Val Met Gln Ala Gln Gln Arg Ala Gly Gly Leu Cys
 370 375 380
Trp Arg Tyr Trp Phe Asp Tyr Val Ala Glu Ala Glu His Ala Thr Tyr
385 390
                 395 400
Ile Asn Gly Ala Trp His Gly Asn Glu Val Pro Tyr Val Phe Asp Thr
          405 410
Leu Gly Gln Val Glu Pro Ser Arg Gln Tyr Val Asn Glu Arg Asp Leu
       420 425
                           430
Ala Phe Ala Ala Gln Val Ala Asp Tyr Trp Val Ser Phe Ala Arg Asp
   435 440
Ala Gly Ala Arg Asp Ser Leu Ala Gly Pro Thr Arg Trp Pro Ala Cys
450 455
Arg Lys Gly Arg Asp Val Leu Leu Arg Ile Gly Val Asn Lys His Ala
465 470 475
Gly Phe Arg Leu Glu Asn Arg Phe Met Arg Ala Arg Met Ser Leu Phe
        485 490
Lys Arg Val Met Lys His His Val Ser Leu Asp
        500
                     505
```

<sup>&</sup>lt;210> 7037

<sup>&</sup>lt;211> 400 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 7037
Leu Cys Ile His His Glu Lys Gly Gln Arg Met Thr Leu Lys Thr Pro
Val Gln Thr Arg Ser Lys Leu Pro Asp Val Gly Thr Thr Ile Phe Thr
         20
                       25
Val Ile Gly Gln Leu Ser Ala Arg His Asn Ala Ile Asn Leu Ser Gln
                  40
                                 4.5
Gly Ala Pro Asn Phe Ser Cys Asp Pro Lys Leu Ile Ser Gly Val Thr
                 55
                          60
Arg Ala Met Glu Ala Gly Tyr Asn Gln Tyr Ala Ser Met Thr Gly Leu
            70
                       7.5
Gln Pro Leu Arg Glu Arg Ile Ala Asp Lys Ile Ala Thr Leu Tyr Gly
           85
                       90 95
Thr His Tyr Asp Pro Ala Ser Glu Val Leu Val Thr Ala Ser Ala Ser
        100 105 110
Glu Gly Leu Tyr Ser Ala Ile Ser Gly Leu Val His Pro Gly Asp Glu
   115 120 125
Val Ile Tyr Phe Glu Pro Ser Phe Asp Ser Tyr Ala Pro Ile Val Arg
      135 140
 130
Leu Gln Gly Ala Thr Pro Ile Ala Ile Lys Leu Thr Val Pro Asp Phe
   150 155
Ala Val Asn Trp Asp Glu Val Arg Ala Ala Ile Thr Pro Arg Thr Arg
      165 170
Met Ile Ile Val Asn Thr Pro His Asn Pro Ser Gly Gln Val Phe Ser
      180 185 190
Ala Ala Asp Leu His Gln Leu Ala Ala Leu Thr Arg His Thr Asp Ile
195 200 205
Ile Ile Leu Ser Asp Glu Val Tyr Glu His Val Val Phe Asp Gly Glu
 210 215
Pro His His Gly Met Ala Thr His Pro Gln Leu Ala Glu Arg Ser Val
225 230 235 240
Ile Ile Ser Ser Phe Gly Lys Thr Tyr His Val Thr Gly Trp Arg Val
      245 250
Gly Tyr Cys Val Ala Pro Ala Glu Leu Met Asp Glu Ile Cys Lys Val
     260
                      265
                                     270
His Gln Phe Leu Met Phe Ser Ala Asp Thr Pro Met Gln Tyr Ala Phe
275 280 285
Ala Glu His Met Thr Asp Pro Gln Thr Trp Leu Ser Leu Ala Ala Phe
290 295 300
Tyr Gln Arg Lys Arg Asp Leu Leu Gln Ser Leu Leu Ala Asp Ser Pro
305 310 315
Phe Arg Leu Leu Pro Ser Ala Gly Ser Phe Phe Leu Leu Ala Asp Tyr
           325 330 335
Ser Gly Phe Ser Asp Glu Arg Asp Ser Glu Met Val Lys Arg Leu Ile
      340
                       345
                                     350
Val Glu Tyr Gly Val Ala Thr Ile Pro Leu Ser Ala Phe Tyr Ala Asp
    355
                   360
                                   365
Gly Thr Asp Asn Lys Leu Ile Arg Leu Ser Phe Ala Lys Asp Glu Ala
                    380
            375
Thr Leu Arg Ala Gly Ala Gln Ala Leu Cys Arg Val Thr Pro Arg
                             395
```

<210> 7038

<211> 582 <212> PRT

<213> Enterobacter cloacae

<400> 7038

Pro Phe Leu Phe Arg Leu Cys Val Leu Ser Cys Arg His Phe Ala Ala 1 5 10 15 Arg Glu Thr His Ser His Asp His Lys Asp Val Phe Ser Gly Met Asn

Arg Arg Arg Phe Leu Lys Gly Ser Leu Ala Met Ala Ala Leu Ser Gly 4.0 Thr Ser Gly Leu Ala Ser Leu Phe Ser Gln Ala Ala Tyr Ala Ala Asp 55 Ser Asp Ile Ala Asp Gly Gln Ser Arg Arg Phe Asp Phe Ser Val Leu 70 75 Gln Ser Met Ala His Asp Leu Ala Lys Thr Ala Trp Gly Gly Ala Pro 85 90 Arg Pro Leu Pro Glu Thr Leu Ala Thr Met Thr Pro Gln Ala Tyr Asn 105 110 Ala Ile Arg Tyr Asp Glu Lys Gln Ser Leu Trp Asn Asn Ile Glu Gly 120 125 115 Arg Gln Leu Asp Ala Gln Phe Phe His Met Gly Met Gly Phe Arg Arg 135 140 Arg Val Arg Met Phe Ser Leu Asp Gln Thr Thr Ser Gln Ala Arg Glu 150 155 Ile His Phe Arg Pro Glu Leu Phe Ser Tyr Gly Asp Thr Gly Val Asp 165 170 175 Thr Lys Gln Leu Glu Gly Gln Ser Asp Leu Gly Phe Ala Gly Phe Arg 180 185 190 Val Phe Lys Ala Pro Glu Leu Ala Arg Arg Asp Ile Val Ser Phe Leu 195 200 205 Gly Ala Ser Tyr Phe Arg Ala Val Asp Asp Thr Tyr Gln Tyr Gly Leu 210 215 220 Ser Ala Arg Gly Leu Ala Val Asp Thr Phe Thr Asp Thr Pro Glu Glu 225 230 235 Phe Pro Asp Phe Thr Ser Phe Trp Phe Glu Thr Val Lys Pro Gly Asp 245 250 255 Thr Thr Phe Thr Val Tyr Ala Leu Leu Asp Ser Pro Ser Ile Thr Gly 260 265 270 Ala Tyr Lys Phe Val Ile His Cys Glu Lys Ser Gln Val Ile Met Asp 275 280 285 Val Glu Asn His Leu Tyr Ala Arg Lys Asp Ile Lys Gln Leu Gly Ile 290 295 300 Ala Pro Met Thr Ser Met Phe Ser Cys Gly Asn Asn Glu Arg Arg Met 305 310 315 Cys Asp Thr Ile His Pro Gln Ile His Asp Ser Asp Arg Leu Ala Met 325 330 335 Trp Arg Gly Asn Gly Glu Trp Ile Cys Arg Pro Leu Asn Asn Pro Gln 340 345 350 Lys Leu Gln Phe Asn Ala Tyr Leu Asp Lys Asn Pro Lys Gly Phe Gly 355 360 365 Leu Leu Gln Leu Asp Arg Asp Phe Ser His Tyr Gln Asp Val Met Gly 370 375 380 Trp Tyr Asn Lys Arg Pro Ser Leu Trp Val Glu Pro Arg Asn Asn Trp 390 395 400 Gly Lys Gly Ser Ile Ala Leu Met Glu Ile Pro Thr Thr Gly Glu Thr 405 410 Leu Asp Asn Val Val Cys Phe Trp Gln Pro Glu Lys Pro Val Gln Ala 420 425 430 Gly Asp Glu Leu Asp Phe Lys Tyr Arg Leu Tyr Trp Ser Ala Gln Pro 435 440 445 Pro Val Arg Ser Pro Leu Ala Asn Val Tyr Ala Thr Arg Thr Gly Met 455 460 Gly Gly Phe Pro Glu Gly Trp Ala Pro Gly Glu Asn Tyr Pro Lys Val 465 470 475 Trp Ala Arg Arg Phe Ala Ile Asp Phe Val Gly Gly Asp Leu Lys Ala 485 490 495 Ala Ala Pro Lys Gly Ile Glu Pro Val Ile Thr Leu Ser Ser Gly Glu

```
Ala Lys Gln Val Glu Ile Leu Tyr Val Glu Pro Phe Asp Gly Tyr Arg
                   520
Ile Leu Phe Asp Trp Tyr Pro Thr Ser Asp Ser Thr Glu Pro Val Asp
                    535
Met Arg Leu Phe Leu Arg Cys Gln Gly Asp Ala Ile Ser Glu Thr Trp
    550
                      555
Leu Tyr Gln Tyr Phe Pro Pro Ala Pro Asp Lys Arg Asn Tyr Val Asp
                    570
          565
Asp Arg Ile Met Arg
          580
<210> 7039
<211> 215
<212> PRT
<213> Enterobacter cloacae
<400> 7039
Ser Leu Trp Val Cys Ala Gly Trp Arg Leu Arg Leu Thr Arg Pro Ala
                             10
Leu Asp Ala Phe Val Gly Arg Val Ser Val Ser Ala Thr Arg Gln Leu
       20
                        25
Arg Gly Thr Met Ser Ser Glu Ile Ile Pro Val Asn Gln Glu Ile Glu
                     40
                                 4.5
Leu Arg Ala Val Glu Glu Arg Tyr Thr Thr Asp Leu His Asn Leu Val
           55
 5.0
                                 60
Ile Lys Asn Lys Thr Trp Leu Gln Thr Ala Phe Asp Trp Ala Gln His
              70 75
Val Gly Ser Glu Glu Asp Thr Arg Arg Asn Val Gln Ser Asn Gln Met
            8.5
                90 95
Leu His Gln Arg Gly Tyr Ala Lys Met Phe Leu Ile Phe Met Lys Asp
         100
              105 110
Glu Leu Val Gly Val Leu Ser Phe Asn Ala Ile Glu Pro Ala Asn Lys
 115
          120 125
Thr Gly Tyr Ile Gly Tyr Trp Leu Asp Glu Ala His Gln Gly Gln Gly
  130
                 135 140
Ile Leu Ser Gln Ala Leu Gln Ala Phe Met Arg Tyr Tyr Val Glu Arg
    150 155
Gly Glu Ile Arg Arg Phe Val Ile Lys Cys Arg Val Asp Asn Gln Ser
           165 170
Ser Asn Arg Val Ala Gln Arg Asn Gly Phe Thr Leu Glu Gly Cys Leu
       180 185 190
Arg Lys Ala Glu Met Leu Asn Gly Arg Tyr Asp Asp Val Asn Leu Tyr
   195 200
Ala Arg Ile Phe Pro Leu
   210
<210> 7040
<211> 201
<212> PRT
<213> Enterobacter cloacae
<400> 7040
Gly Lys Ile Met Thr Val Asp Glu Asn Tyr Phe Thr Glu Lys Tyr Gly
Leu Thr Arg Thr His Ser Clu Val Leu Leu Ser Ala Asp Ile Val Lys
Pro Gly Lys Thr Leu Asp Leu Gly Cys Gly Asn Gly Arg Asn Ser Leu
                      40
                                       45
Tyr Leu Ala Ala Asn Gly His Asp Val Thr Ala Trp Asp Lys Asn Pro
Met Ser Ile Asp Asn Ile Glu Arg Ile Lys Ala Ala Glu Gly Ile Ala
```

```
Asn Leu Gln Thr Ala Ile Lys Asp Leu Asn Asn Leu Thr Phe Asp Gly
             8.5
                           90
Glu Tyr Asp Phe Ile Leu Ser Thr Val Val Leu Met Phe Leu Glu Ala
          100
                         105
Asn Thr Ile Pro Gly Leu Ile Ala Asn Met Gln Arg Cys Thr Lys Pro
                 120
                             125
Gly Gly Tyr Asn Leu Ile Val Ala Ala Met Asp Thr Glu Asp Tyr Pro
           135 140
Cys Thr Val Gly Phe Pro Phe Ala Phe Lys Pro Gly Glu Leu Ser Asn
        150 155 160
Tyr Tyr Glu Gly Trp Glu Leu Ile Lys Tyr Asn Glu Glu Val Gly Glu
            165 170 175
Leu His Arg Thr Asp Ala Asn Gly Asn Arg Ile Lys Leu Arg Phe Ala
      180 185
Thr Met Leu Ala Arg Lys Pro Ala
     195
<210> 7041
<211> 287
<212> PRT
<213> Enterobacter cloacae
<400> 7041
Ser Val Ser Leu Leu Arg Lys Met Arg Arg Arg Tyr Gly Gln Val Pro
                              10
Arg Pro Phe Val Gly Leu His His Val Lys Glu Phe Glu Met Lys Leu
                          2.5
                                           3.0
Arg Ala Leu Val Val Gly Met Gly Leu Leu Cys Ser Phe Ser Ser Phe
35
                      4.0
Ala Ala Thr Glu Leu Arg Tyr Gly Leu Glu Ala Glu Tyr Pro Pro Phe
50
                  55
                                     60
Glu Ser Arg Asn Ala Ser Gly Glu Leu Glu Gly Phe Asp Val Glu Leu
                7.0
                                 75
Gly Asn Ala Ile Cys Lys Ala Ala Ala Leu Lys Cys Ser Trp Val Glu
           85
                              90
Thr Ser Phe Asp Ala Leu Ile Pro Gly Leu Val Ala Lys Lys Phe Asp
         100 105
                                            110
Ala Ile Asn Ser Ala Met Asn Ile Thr Glu Gln Arg Arg Lys Ser Ile
   115 120
Asp Phe Thr Gln Pro Ile Tyr Arg Ile Pro Ser Gln Leu Val Gly Lys
 130 135
                                     140
Ala Gly Ser Ala Val Glu Ala Thr Pro Glu Gly Leu Lys Gly Lys Thr
                150
                                 155
Ile Gly Val Leu Gln Gly Ser Ile Gln Glu Thr Tyr Ala Lys Glu His
             165
                              170
Trp Glu Lys His Gly Val Thr Val Val Ser Tyr Lys Asp Gln Asn Met
         180
                           185
                                           190
Ala Trp Gly Asp Leu Leu Asn Gly Arg Ile Asp Ala Ser Leu Val Met
      1.95
                       200
Ser Ala Ala Gly Gln Ala Gly Phe Leu Ser Lys Pro Gln Gly Lys Gly
                   215
Phe Gly Phe Ile Gly Lys Pro Val Ser Asp Asp Thr Ile Leu Gly Ser
                230
                                 235
Gly Ile Gly Phe Gly Leu Arg Lys Gly Asp Glu Ala Thr Lys Lys Gln
             245
                              250
Leu Asp Ala Ala Ile Asp Lys Val Arg Ala Asp Gly Thr Ile Ala Lys
       260
                           265
Leu Ala Asp Lys Tyr Phe Pro Gly Ile Asp Val Ser Val Lys
```

```
<210> 7042
<211> 336
<212> PRT
<213> Enterobacter cloacae
<400> 7042
Pro Leu Lys Lys Met His Asn Leu Asn Gln Arg Val Leu Asn Leu Pro
                      1.0
Ala Gly Tyr Phe Gly Met Val Leu Gly Thr Ile Gly Met Gly Phe Ala
                       25
Trp Arg Tyr Ala Ser Thr Ile Trp Pro Val Thr Arg Trp Pro Gly Glu
                  40
                         45
Ile Leu Val Ala Leu Ala Val Ala Ile Trp Phe Leu Leu Ser Val Ala
       5.5 60
Phe Leu Thr Arg Ala Val Arg Phe Pro His Ser Val Leu Ala Glu Met
    70 75
Arg His Pro Val Met Ser Ser Phe Val Ser Leu Phe Pro Ala Thr Thr
       85 90 95
Leu Leu Val Ala Ile Gly Phe Val Pro Trp Tyr Arg Pro Val Ala Leu
 100 105 110
Gly Leu Phe Ser Val Gly Val Val Ile Gln Leu Ala Tyr Ala Ala Trp
 115 120 125
Gln Ser Ala Gly Leu Trp Arg Gly Lys His Pro Glu Glu Ala Thr Thr
130 135 140
Pro Gly Leu Tyr Leu Pro Thr Val Ala Asn Asn Phe Ile Ser Ala Met
145 150 155
Ala Cys Gly Ala Leu Gly Phe His Asp Ala Gly Leu Val Phe Leu Gly
      165 170 175
Ala Gly Val Phe Ser Trp Leu Ser Leu Glu Pro Val Ile Leu Gln Arg
 180 185
                                      190
Leu Arg Ser Ala Gly Glu Leu Pro Ala Ala Leu Arg Thr Ser Leu Gly
195
                    200 205
Ile Gln Leu Ala Pro Ala Leu Val Ala Cys Ser Ala Trp Phe Ser Val
 210 215
                                220
Asn Gly Gly Glu Ala Asp Thr Phe Ala Lys Met Leu Phe Gly Tyr Gly
225 230 235
Leu Leu Gln Leu Leu Phe Met Leu Arg Leu Met Pro Trp Tyr Leu Ser
           245 250 255
Gin Pro Phe Asn Ala Ser Phe Trp Ser Phe Ser Phe Gly Val Ser Ala
        260 265
                                      270
Leu Ala Thr Thr Gly Leu His Leu Gly Gln Ser Ser Pro Ser Gly Phe
                  280
                                   285
Phe His Ala Leu Ala Val Pro Leu Phe Ile Phe Thr Asn Val Ile Ile
290 295
                                300
Ala Met Leu Leu Val Arg Thr Phe Ile Leu Leu Met Gln Gly Lys Leu
305 310 315
Leu Val Arg Ala Asp Lys Ala Leu Leu Met Gln Ser Glu Glu Lys
           325
                          330
                                         335
<210> 7043
<211> 533
<212> PRT
<213> Enterobacter cloacae
<400> 7043
Met Met Lys Ser Thr Phe Thr Met Ile Thr Leu Ala Leu Ala Ala Leu
Thr Val Ser Ser Thr Val Ala Ala Lys Thr Leu Val Tyr Cys Ser Glu
      20
                     25
                                     30
Gly Ser Pro Glu Asn Phe Asn Pro Gln Leu Tyr Thr Ser Gly Thr Ser
```

4.0

Val Asp Ala Ser Ala Val Pro Val Tyr Asn Arg Leu Val Asp Phe Lys 55 Pro Gly Thr Thr Glu Leu Val Pro Ser Leu Ala Glu Ser Trp Glu Val 70 7.5 Ser Glu Asp Gly Lys Val Tyr Thr Phe His Leu Arg Lys Gly Val Lys 85 90 Phe His Ser Asn Lys Leu Phe Thr Pro Thr Arg Asp Phe Asn Ala Asp 100 105 110 Asp Val Ile Phe Ser Phe Met Arg Gln Lys Asp Val Asn His Pro Tyr 120 125 115 His Asn Val Ser Asn Gly Ser Tyr Ser Asn Phe Glu Ser Leu Glu Phe 135 140 Gly Ser Leu Ile Thr Ala Ile Asp Lys Val Asp Asp Arg Thr Val Arg 145 150 155 160 Phe Thr Leu Ala His Pro Glu Ala Pro Phe Val Ala Asp Leu Ala Trp 165 170 175 Tyr Phe Ala Ser Ile Leu Ser Ala Glu Tyr Ala Asp Ala Met Leu Lys 180 185 Ala Gly Thr Pro Glu Lys Val Asp Met Gln Pro Ile Gly Thr Gly Pro 195 200 205 Phe Lys Leu Ser Gln Tyr Gln Lys Asp Ser Arg Ile Leu Phe Thr Ala 210 215 220 Phe Pro Asp Tyr Trp Gln Gly Lys Ser Lys Leu Asp Arg Leu Val Phe 225 230 235 Thr Ile Thr Pro Asp Ala Ser Val Arg Phe Ala Lys Val Glu Lys Asn 245 250 255 Glu Cys Gln Val Met Pro Phe Pro Asn Pro Ala Asp Leu Pro Arg Met 260 265 270 Lys Ala Asn Lys Asp Ile Asn Leu Met Ser Lys Ala Gly Leu Asn Thr 275 280 285 Gly Phe Leu Ala Phe Asn Thr Gln Lys Pro Pro Leu Asn Asn Val Lys 290 295 300 Val Arg Gln Ala Leu Ala Met Ala Ile Asn Lys Pro Ala Ile Ile Glu 305 310 315 320Ala Val Phe His Gly Thr Gly Thr Ala Ala Lys Asn Leu Leu Pro Pro 325 330 335 Gly Val Trp Ser Ala Asp Ser Glu Leu Lys Asp Tyr Asp Tyr Asp Pro 340 345 350 Glu Lys Ala Lys Ala Leu Leu Lys Glu Ala Gly Phe Ala Asn Gly Val 355 360 365 Ser Ile Asp Leu Trp Ala Met Pro Val Gln Arg Pro Tyr Asn Pro Asn 370 375 380 Ala Lys Arg Met Ala Glu Met Ile Gln Ala Asp Trp Ala Lys Val Gly 385 390 395 400 Val Gln Thr Lys Ile Val Thr Tyr Glu Trp Gly Glu Tyr Leu Lys Arg 410 415 405 Val Lys Gly Gly Glu His Gln Ala Ala Leu Met Gly Trp Thr Thr Ala 420 425 Thr Gly Asp Pro Asp Asn Phe Phe Gly Pro Leu Phe Thr Cys Thr Ser 435 440 445 Ala Asn Gly Gly Ser Asn Ser Ala Lys Trp Cys Tyr Lys Pro Phe Asp 455 460 Asn Leu Ile Ala Glu Ala Lys Ser Ile Thr Asp Arg Glu Lys Arg Val 470 475 Ala Leu Tyr Lys Gln Ala Gln Gln Met Met His Asp Gln Met Pro Ala 485 490 495 Val Met Ile Ala His Ser Thr Ile Phe Glu Pro Val Arg Lys Glu Val 500 505 510 Thr Gly Tyr Glu Ile Asp Pro Phe Gly Lys His Leu Phe Trp Gln Val 515 520 Asp Leu Lys Glu

530

```
<210> 7044
<211> 275
<212> PRT
<213> Enterobacter cloacae
<400> 7044
Leu Lys Lys Leu Lys Ile Asn Tyr Leu Leu Ile Gly Ile Val Thr Leu
                            10
Leu Leu Ala Val Ala Leu Trp Pro Ser Ile Pro Trp Phe Gly Lys Ala
    20
                         25
                                        3.0
Glu Asn Arg Ile Ala Ala Ile Gln Glu Arg Gly Glu Leu Arg Val Ser
    35
                     40
                                     45
Thr Leu Ser Ser Pro Leu Ile Tyr Asp Asp Ile Asn Gly Lys Thr Ile
                                  60
Gly Leu Asp Tyr Glu Leu Ala Gln Leu Phe Ala Asp Tyr Leu Gly Val
             70 75
Lys Leu Lys Val Thr Val Arg Gln Asn Ile Asn Gln Leu Phe Asp Asp
         85 90
Leu Asp His Asp Arg Ala Asp Ile Leu Ala Ala Gly Leu Val Tyr Asn
  100 105 110
Ser Glu Arg Ser Lys Asn Tyr Gln Pro Gly Pro Thr Tyr Tyr Ser Val
 115 120 125
Ser Gln Gln Val Val Tyr Arg Val Gly Ser Leu Arg Pro Arg Ser Leu
 130
                135
                                 140
Ala Asp Ile Thr Asp Gln Gln Leu Thr Ile Ala Pro Gly His Val Val
145 150
                              155
Ile Asp Asp Leu Arg Ala Leu Lys Glu Lys Lys Tyr Pro Asn Leu Ser
      165 170
Trp Thr Val Asp Pro Lys Leu Gly Thr Thr Glu Leu Leu Glu Gln Val
   180 185 190
Lys Asp Lys Lys Leu Ala Tyr Thr Ile Ala Asp Ser Val Ala Ile Ser
 195 200 205
Leu Phe Gln Arg Val His Pro Glu Ile Ala Val Ala Leu Asp Val Thr
 210 215 220
Asp Glu Gln Pro Val Thr Trp Phe Thr Gln Leu Asp Asp Asp Gln Thr
225 230
                              235 240
Val Ser Ala Ala Met Leu Asp Phe Phe Asn Ser Ile Asn Glu Asp Gly
          245 250 255
Thr Leu Ala Ser Ser Thr Thr Gly Val Glu Gly Ala Ala His Ser Val
Arg Trp Gln
     275
<210> 7045
<211> 259
<212> PRT
<213> Enterobacter cloacae
<400> 7045
Pro Lys Arg Gly Ser Cys Gln Pro Ser Trp Val Lys Thr Thr Arg Ala
                                        15
                        10
Phe Arg Ile Val Glu Lys Thr Pro Arg Ser Ala Leu Ile Thr Ser Phe
                        25
                                        30
Glu Phe Glu Pro Val Asp Gly Gln Pro Val Ala Asp Tyr Gln Pro Gly
```

40

55

Gln Tyr Leu Gly Val Trp Leu Lys Pro Glu Gly Phe Pro His Gln Glu

Ile Arg Gln Tyr Ser Leu Thr Arg Lys Pro Asp Gly Lys Gly Tyr Arg

Ile Ala Val Lys Arg Glu Glu Gly Gly Gln Val Ser Asn Trp Leu His 90 Asn Glu Ala Ser Val Gly Asp Val Val His Leu Ala Ala Pro Ala Gly 100 105 Asp Phe Phe Met Ala Val Glu Thr Asn Thr Pro Val Thr Leu Ile Ser 115 120 Ala Gly Val Gly Gln Thr Pro Met Leu Ala Met Leu Asp Thr Leu Ala 130 135 140 Lys Ala Asn His Ser Ala Gln Val Asn Trp Phe His Ala Ala Glu Asn 155 160 150 Gly Asp Val His Ala Phe Ala Asp Glu Val Lys Ala Leu Gly Ala Gly 165 170 175 Leu Pro His Phe Thr Ala His Thr Trp Tyr Arg Ser Pro Thr Glu Ala 180 185 190 Asp Arg Ala Ala Arg Phe Asp Ser Glu Gly Leu Met Asn Leu Gly 195 200 205 Gln His Glu Gly Ala Phe Ser Ala Pro Gly Met Gln Phe Tyr Val Cys 215 220 210 Gly Pro Val Ala Phe Met Gln Tyr Ala Ala Lys Gln Leu Val Asp Leu 225 230 235 240 Gly Val Asn Lys Asp Asn Ile His Tyr Glu Cys Phe Gly Pro His Lys 245 250

<210> 7046 <211> 262 <212> PRT

Val Leu

<213> Enterobacter cloacae

<400> 7046 Ile Ala Met Gly Ser Gly Asn Asn Ala His Val Asp Ile Asp Ile Ala 10 Val Ala Ala Lys Arg Thr His Phe Pro Leu Leu Gln His Ala Gln Gln 20 2.5 Phe Asp Leu Gln Arg Arg Gly His Ile Ala Asn Phe Ile Lys Glu Gln 35 40 Arg Ala Pro Leu Cys Arg Leu Glu Gln Pro Phe Thr Ala Ala His Arg 55 60 Ala Gly Lys Gly Ala Ala Gly Met Ala Glu Glu Leu Arg Leu Lys Gln 70 75 Leu Phe Arg Gln Arg Ala Thr Val Asp Gly Asn Lys Gly Ile Phe Thr 85 90 Ala Trp Ala Gly Val Val Asp Arg Leu Gly Gln Asp Leu Phe Pro Gly 100 105 Pro Ala Leu Ala Val Asp Gln His Ala Asn Val Gly Leu Arg His His 115 120 125 Pro Arg Leu Phe Gln Gln Ala Gln His His Arg Ala Thr Arg His Asp 130 135 140 Gly Phe Thr Pro Ala Val Val Ala Gly Trp Arg Arg Val Leu Lys Ser 155 150 Ala Val Asp Arg Phe Ile Glu Gly Val Phe Ile His Arg Phe Gly Glu 175 170 165 Glu Ala Glu Tyr Pro Leu Leu Arg Arg Gly His Arg Ile Arg Asn Arg 180 185 190 Ser Val Ser Gly Glu Asp Asn His Arg His Pro Gly Leu Leu Leu 200 Asp Leu Arg Glu Gln Leu Gln Ala Ile His Phe Ile His Ala Gln Ile 215 Ala Asp His Gln Ile Asp Phe Leu Ala Ala Glu His Phe Gln Pro Leu 230 235

Leu Pro Ala Phe Ser Gly Asp His Ala Val Ala Phe Ala Asp Gln Thr 245 250 His Pro Gln Gln Leu 260 <210> 7047 <211> 495 <212> PRT <213> Enterobacter cloacae <400> 7047 Arg Ala Asp Ser Val Thr Leu Ser Ser Asn Pro Asp Asp Glu Ser Asn 10 Val Leu Lys Arg Trp Pro Ala Phe Pro Arg Ser Leu Arg Gln Leu Val 20 25 Met Met Ala Phe Leu Leu Ile Leu Leu Pro Leu Leu Val Leu Ala Trp 35 40 45 Gln Ala Trp Gln Ser Leu Asn Ala Leu Ser Ala Gln Ala Ala Leu Thr 55 60 Asn Arg Thr Thr Leu Ile Asp Ala Arg Arg Ser Glu Ala Met Thr Asn 65 70 75 Ala Ala Leu Glu Met Glu Arg Ser Tyr Arg Gln Tyr Cys Val Leu Asp 85 90 Asp Arg Thr Leu Glu Arg Val Tyr Gln Asn Gln Arg Lys Arg Tyr Ser 100 105 110 Glu Met Leu Asp Ala His Ala Gly Val Leu Pro Asp Asp Lys Leu Tyr 115 120 125 Gln Ala Leu Arg Gln Asp Leu Asn Asp Leu Ala Arg Leu Gln Cys Lys 130 135 140 Asn Ser Gly Pro Asp Ala Ala Ala Ala Ala Arg Leu Glu Ala Phe Ala 145 150 155 Asn Ala Asn Thr Glu Met Val Gln Ser Thr Arg Thr Val Ile Phe Ser 165 170 Arg Gly Gln Gln Leu Gln Gln Glu Ile Ala Glu Arg Gly Gln Phe Phe 180 185 Gly Trp Gln Ala Leu Val Leu Phe Leu Val Ser Leu Gly Leu Val Leu 195 200 205 Leu Phe Thr Arg Met Ile Ile Gly Pro Val Lys Gly Ile Gln Arg Met 210 215 220 Ile Asn Arg Leu Gly Glu Gly Lys Ser Leu Gly Asp Thr Val Val Phe 225 230 235 Lys Gly Pro Arg Glu Leu Arg Ser Val Gly Gln Arg Ile Ile Trp Leu 245 250 Ser Glu Arg Leu Ala Trp Leu Glu Ser Gln Arg His Gln Phe Leu Arg 260 265 270 His Ile Ser His Glu Leu Lys Thr Pro Leu Ala Ser Met Arg Glu Gly 275 280 285 Thr Glu Leu Leu Ala Asp Glu Val Ala Gly Pro Leu Ser Pro Glu Gln 290 295 300 Lys Glu Ile Val Ala Ile Leu Asp Ala Ser Ser Arg Asn Leu Gln Lys 310 315 320 Leu Ile Glu Gln Leu Leu Asp Tyr Asn Arg Lys Leu Ala Asp Gly Ala 325 330 Val Val Leu Glu Ser Val Glu Ile Glu Pro Leu Val Asp Met Val Ile 340 345 Ser Ala His Ser Leu Pro Ala Arg Ala Lys Met Met His Thr Gln Val 355 360 Asp Leu Asn Ala Pro Ser Cys Leu Ala Glu Pro Met Leu Leu Met Ser 375 380 Val Leu Asp Asm Leu Tyr Ser Asm Ala Val His Tyr Gly Thr Glu Ser

390

```
13
13
1.79
111
27
13
1.3
15
112
1100
```

```
3099
Gly Thr Ile Tyr Ile Arg Ser Asn Asn Gly Ser Arg Val Phe Ile
               405
                                   410
Asp Val Ala Asn Thr Gly Ser Pro Ile Pro Asp Asp Glu Lys Thr Met
                               425
                                                  430
Ile Phe Glu Pro Phe Phe Gln Gly Ser His Gln Arg Lys Gly Ala Val
        435
                           440
Lys Gly Ser Gly Leu Gly Leu Ser Ile Ala Arg Asp Cys Ile Arg Arg
                     455
                                           460
Met Gln Gly Glu Leu Asn Ile Val Ser Asp Glu Arg Ala Asp Val Cys
                 470
                                   475
Phe Arg Ile Glu Leu Pro Leu Glu Pro Glu Lys Ser Met Lys
                                  490
<210> 7048
<211> 116
<212> PRT
<213> Enterobacter cloacae
<400> 7048
Gly Pro Thr Met Lys Lys Ile Asp Ala Ile Ile Lys Pro Phe Lys Leu
                                   10
Asp Asp Val Arg Glu Ala Leu Ala Glu Val Gly Ile Thr Gly Met Thr
         20
                              25
Val Thr Glu Val Lys Gly Phe Gly Arg Gln Lys Gly His Thr Glu Leu
                         4.0
Tyr Arg Gly Ala Glu Tyr Met Val Asp Phe Leu Pro Lys Val Lys Ile
                       55
Glu Ile Val Val Ser Asp Glu Ile Val Asp Thr Cys Val Asp Thr Ile
                   70
                                       75
Ile Arg Thr Ala Gln Thr Gly Lys Ile Gly Asp Gly Lys Ile Phe Val
               85
                                  90
Phe Asp Val Ala Arg Val Ile Arg Ile Arg Thr Gly Glu Glu Asp Asp
Ala Ala Ile
     115
<210> 7049
<211> 455
<212> PRT
<213> Enterobacter cloacae
<400> 7049
Asp Ala Glu Thr Arg Gly Cys Glu Ala Met Thr Ser Arg Lys Pro Ala
                                   1.0
His Leu Leu Leu Val Asp Asp Pro Gly Leu Leu Lys Leu Leu Gly
           2.0
                               25
Met Arg Leu Val Ser Glu Gly Tyr Ser Val Val Thr Ala Glu Ser Gly
                           4.0
Gln Glu Gly Leu Lys Val Leu Ser Arg Glu Lys Ile Asp Leu Val Ile
                       5.5
                                           60
Ser Asp Leu Arg Met Asp Glu Met Asp Gly Leu Gln Leu Phe Thr Glu
                   70
                                       75
Ile Gln Lys Gln Gln Pro Gly Met Pro Val Ile Ile Leu Thr Ala His
               8.5
Gly Ser Ile Pro Asp Ala Val Ala Ala Thr Gln Gln Gly Val Phe Ser
           100
                               105
Phe Leu Thr Lys Pro Val Asp Lys Asp Ala Leu Tyr Lys Ala Ile Asp
                           120
                                              125
Ser Ala Leu Glu His Ala Ala Pro Ser Gly Asp Asp Gly Trp Arg Glu
                      135
                                          140
Ser Ile Val Thr Arg Ser Pro Val Met Leu Arg Leu Leu Glu Gln Ala
```

```
150
Arg Met Val Ala Gln Ser Asp Val Ser Val Leu Ile Asn Gly Gln Ser
        165
                   170
Gly Thr Gly Lys Glu Ile Leu Ala Gln Ala Ile His Asn Ala Ser Pro
        180
                 185
Arg Ser Lys Asn Ala Phe Ile Ala Ile Asn Cys Gly Ala Leu Pro Glu
     195
          200
Gln Leu Leu Glu Ser Glu Leu Phe Gly His Ala Arg Gly Ala Phe Thr
     215 220
Gly Ala Val Ser Ser Arg Glu Gly Leu Phe Gln Ala Ala Glu Gly Gly
           230
                 235
Thr Leu Phe Leu Asp Glu Ile Gly Asp Met Pro Ala Pro Leu Gln Val
         245 250 255
Lys Leu Leu Arg Val Leu Gln Glu Arg Lys Val Arg Pro Leu Gly Ser
      260 265 270
Asn Arg Asp Ile Asp Ile Asn Val Arg Ile Ile Ser Ala Thr His Arg
275 280 285
Asp Leu Pro Lys Val Met Ala Arg Asn Glu Phe Arg Glu Asp Leu Tyr
 290 295 300
Tyr Arg Leu Asn Val Val Asn Leu Lys Ile Pro Ala Leu Ala Glu Arg
305 310 315
Ala Glu Asp Ile Pro Leu Leu Ala Asn His Leu Leu Arg Gln Ala Ala
       325 330 335
Asp Arg His Lys Pro Phe Val Arg Ala Phe Ser Thr Asp Ala Met Lys
 340 345 350
Arg Leu Met Thr Ala Ser Trp Pro Gly Asn Val Arg Gln Leu Val Asn
355 360 365
Val Ile Glu Gln Cys Val Ala Leu Thr Ser Ser Pro Val Ile Ser Asp
370 375 380
Ala Leu Val Glu Gln Ala Leu Glu Gly Glu Asn Thr Ala Leu Pro Thr
385 390 395
Phe Ala Glu Ala Arg Asn Gln Phe Glu Leu Asn Tyr Leu Arg Lys Leu
     405 410 415
Leu Gln Ile Thr Lys Gly Asn Val Thr His Ala Ala Arg Met Ala Gly
420 425 430
Arg Asn Arg Thr Glu Phe Tyr Lys Leu Leu Ser Arg His Glu Leu Glu
435
Ala Asn Asp Phe Lys Glu
```

<210> 7050 <211> 1306 <212> PRT

<213> Enterobacter cloacae

<400> 7050

Ala Pro Arg Arg Phe Glu Asp Glu Arg Leu Met Met Glu Ile Leu Arg 10 Gly Ser Pro Ala Leu Ser Ala Phe Arg Ile Thr Lys Leu Leu Ala Arg 25 Phe Gln Ala Ala Asp Leu Pro Val Ser Asn Ile Tyr Ala Glu Tyr Val 35 40 His Phe Ala Asp Leu Asn Ala Pro Leu Asn Ala Glu Glu Arg Val Gln 50 55 60 Leu Glu Arg Leu Leu Lys Tyr Gly Pro Ser Leu Ser Ser His Thr Pro 70 75 Thr Gly Lys Leu Ile Leu Ala Thr Pro Arg Pro Gly Thr Ile Ser Pro 90 Trp Ser Ser Lys Ala Thr Asp Ile Ala His Asn Cys Gly Leu Asn Gln 100 105 Ile Asn Arg Leu Glu Arg Gly Val Ala Tyr Tyr Val Glu Ala Ser Thr

120 Leu Ser Asp Ala Gln Trp Gln Ala Val Ala Ala Glu Leu His Asp Arq 135 140 Met Met Glu Ser Val Phe Asp Ser Leu Asp Asp Ala Gln Lys Leu Phe 150 155 Ser His His Gln Pro Ala Pro Val Gln Ser Val Asp Leu Leu Gly Gln 165 170 175 Gly Arg Gln Ala Leu Ile Asp Ala Asn Leu Arg Leu Gly Leu Ala Leu 180 185 190 Ala Glu Asp Glu Ile Asp Tyr Leu Gln Asp Ala Phe Val Lys Leu Asn 195 200 205 Arg Asn Pro Asn Asp Ile Glu Leu Tyr Met Phe Ala Gln Ala Asn Ser 210 215 220 Glu His Cys Arg His Lys Ile Phe Asn Ala Asp Trp Ile Ile Asp Gly 225 230 235 240 Glu Gln Gln Pro Lys Ser Leu Phe Lys Met Ile Lys Asn Thr Met Glu 245 250 255 Gln Thr Pro Asp His Val Leu Ser Ala Tyr Lys Asp Asn Ala Ala Val 260 265 270 Met Glu Gly Ser Glu Val Gly Arg Phe Phe Ala Asp Arg Glu Ala Gly 275 280 285 Arg Tyr Asp Phe His Gln Glu Pro Ala His Ile Leu Met Lys Val Glu 290 295 300 Thr His Asn His Pro Thr Ala Ile Ser Pro Trp Pro Gly Ala Ala Thr 305 310 315 Gly Ser Gly Gly Glu Ile Arg Asp Glu Gly Ala Thr Gly Arg Gly Ala 325 330 335 Lys Pro Lys Ala Gly Leu Val Gly Phe Ser Val Ser Asn Leu Arg Ile 340 345 350 Pro Gly Phe Glu Gln Pro Trp Glu Glu Asp Phe Gly Lys Pro Glu Arg 355 360 365 Ile Val Tor Ala Leu Asp Ile Met Thr Glu Gly Pro Leu Gly Gly Ala 370 375 380 Ala Phe Asn Asn Glu Phe Gly Arg Pro Ala Leu Asn Gly Tyr Phe Arg 385 390 395 400 Thr Tyr Glu Glu Lys Val Asp Ser His Asn Gly Glu Glu Leu Arg Gly 405 410 415 Tyr His Lys Pro Ile Met Leu Ala Gly Gly Ile Gly Asn Ile Arg Ala 420 425 430 Asp His Val Gln Lys Gly Glu Ile Val Val Gly Ala Lys Leu Ile Val 435 440 445 Leu Gly Gly Pro Ala Met Asn Ile Gly Leu Gly Gly Gly Ala Ala Ser 455 460 Ser Met Ala Ser Gly Gln Ser Asp Ala Asp Leu Asp Phe Ala Ser Val 465 470 475 Gln Arg Asp Asn Pro Glu Met Glu Arg Arg Cys Gln Glu Val Ile Asp 485 490 Arg Cys Trp Gln Leu Gly Asp Ala Asn Pro Ile Leu Phe Ile His Asp 500 505 510 Val Gly Ala Gly Gly Leu Ser Asr. Ala Met Pro Glu Leu Val Ser Asp 515 520 Gly Gly Arg Gly Gly Arg Phe Asn Leu Arg Asp Ile Leu Ser Asp Glu 530 535 540 Pro Gly Met Ser Pro Leu Glu Ile Trp Cys Asn Glu Ser Gln Glu Arg 550 555 Tyr Val Leu Ala Val Ala Ala Asp Gln Leu Pro Leu Phe Asp Glu Leu 565 570 Cys Arg Arg Glu Arg Ala Pro Tyr Ala Val Ile Gly Glu Ala Thr Glu - 590 585 Glu Gln His Leu Ser Leu Ser Asp Thr His Phe Asp Asn Gln Pro Ile 600 605

```
Asp Leu Pro Leu Asp Val Leu Leu Gly Lys Thr Pro Lys Met Thr Arg
          615
 610
Asp Val Gln Thr Arg Lys Ala Ala Gly Lys Ala Leu Asp Arg Gln Gly
              630
                              635
Ile Thr Val Ala Glu Ala Val Asn Arg Val Leu His Leu Pro Ala Val
           645
                          650 655
Ala Glu Lys Thr Phe Leu Val Thr Ile Gly Asp Arg Thr Val Thr Gly
        660
                        665
Met Val Ser Arg Asp Gln Met Val Gly Pro Trp Gln Ile Pro Val Ala
                    680
Asn Cys Ala Val Thr Thr Ala Ser Leu Asp Ser Tyr Tyr Gly Glu Ala
 690 695 700
Met Ala Leu Gly Glu Arg Thr Pro Val Ala Leu Leu Asp Phe Ala Ala
   710 715 720
Ser Ala Arg Leu Ala Val Gly Glu Ala Leu Thr Asn Ile Ala Ala Thr
          725 730 735
Gln Ile Gly Asp Ile Lys Arg Ile Lys Leu Ser Ala Asn Trp Met Ala
        740 745 750
Ala Ala Gly His Pro Gly Glu Asp Ala Gly Leu Tyr Glu Ala Val Lys
     755 760 765
Ala Val Gly Glu Glu Leu Cys Pro Ala Leu Gly Leu Thr Ile Pro Val
 770 775 780
Gly Lys Asp Ser Met Ser Met Lys Thr Arg Trp Gln Glu Gly Asn Glu
785 790 795
Gln Arg Glu Met Thr Ser Pro Leu Ser Leu Val Ile Thr Ala Phe Ala
       805 810 815
Arg Val Glu Asp Val Arg His Thr Val Thr Pro Gln Leu Ser Thr Glu
 820 825
Asp Asn Ala Leu Leu Leu Ile Asp Leu Gly Lys Gly His Asn Ala Leu
835 840 845
Gly Ala Thr Ala Leu Ala Gln Val Tyr Arg Gln Leu Gly Asp Lys Pro
                 855 860
Ala Asp Val Arg Asp Val Ala Gln Leu Lys Gly Phe Tyr Asp Ala Ile
865 870 875 880
Gln Ala Leu Val Ala Gln Arg Lys Leu Leu Ala Tyr His Asp Arg Ser
           885 890
Asp Gly Gly Leu Leu Val Thr Leu Ala Glu Met Ala Phe Thr Gly His
        900
                       905
Cys Gly Val Glu Ala Asn Ile Ala Thr Leu Gly Glu Asp Arg Leu Ala
     915
                    920
                                    925
Ala Leu Phe Asn Glu Glu Leu Gly Ala Val Ile Gln Val Arg Ala Ala
                 935
                                 940
Asp Arg Asp Ala Val Glu Ala Ile Leu Ala Gln His Gly Leu Ala Asp
              950
                              955
Cys Val His Tyr Leu Gly Lys Ala Val Gln Gly Asp Arg Phe Val Ile
           965
                          970
Glu Ala Asp Gly His Ala Val Phe Ser Glu Ser Arg Thr Thr Leu Arg
                       985
Met Trp Trp Ala Glu Thr Thr Trp Gln Met Gln Arg Leu Arg Asp Asn
                     1000 1005
Pro Glu Cys Ala Asp Gln Glu His Asn Ala Lys Ala Asn Asp Asn Asp
  1010 1015 1020
Pro Gly Leu Asn Val Lys Leu Ser Phe Asp Ile Asn Glu Asp Ile Ala
1025 1030 1035 104
Ala Pro Tyr Ile Ala Thr Gly Ala Arg Pro Lys Val Ala Val Leu Arg
                           1050 1055
            1045
Glu Gln Gly Val Asn Ser His Val Glu Met Ala Ala Ala Phe His Arg
        1060 1065 1070
Ala Gly Phe Asp Ala Ile Asp Val His Met Ser Asp Leu Leu Ala Gly
                    1080 1085
Arg Thr Gly Leu Asp Asp Phe Gln Ala Leu Val Ala Cys Gly Gly Phe
```

```
1095
                               1100
Ser Tyr Gly Asp Val Leu Gly Ala Gly Glu Gly Trp Ala Lys Ser Ile
1105 1110 1115
Leu Phe Asn Ser Arg Val Arg Asp Glu Phe Glu Thr Phe Phe His Arg
      1125 1130 1135
Pro Gln Thr Leu Ala Leu Gly Val Cys Asn Gly Cys Gln Met Met Ser
      1140 1145 1150
Asn Leu Arg Glu Leu Ile Pro Gly Ser Glu Ala Trp Pro Arg Phe Val
 1155 1160 1165
Arg Asn Gln Ser Asp Arg Phe Glu Ala Arg Phe Ser Leu Val Glu Val
  1170 1175
                        1180
Thr Gln Ser Pro Ser Leu Leu Gln Gly Met Val Gly Ser Gln Met
1185 1190 1195 1200
Pro Ile Ala Val Ser His Gly Glu Gly Gln Val Glu Met Arg Asp Ala
      1205 1210 1215
Ala His Leu Ala Gln Leu Glu Ser Lys Gly Leu Val Ala Leu Arg Phe
   1220 1225 1230
Val Asp Asn Phe Gly Lys Val Tar Glu Thr Tyr Pro Ala Asn Pro Asn
 1235 1240 1245
Gly Ser Ala Asn Gly Ile Thr Ala Val Thr Ser Glu Ser Gly Arg Val
1250 1255 1260
Thr Ile Met Met Pro His Pro Glu Arg Val Phe Arg Thr Val Ser Asn 1265 1270 1275 1280
Ser Trp His Pro Glu Asn Trp Gly Glu Asp Ser Pro Trp Met Arg Ile
   1285 1290 1295
Phe Arg Asn Ala Arg Lys Gln Leu Gly
      1300
<210> 7051
<211> 257
<212> PRT
<213> Enterobacter cloacae
<400> 7051
Ala Gly Lys Ile Asn Glu Met Asn Asn Asn Leu Val Ser Met Ser His
        5
               10 15
Val Phe Tyr Arg Ala Leu Arg Ala Val Phe Ser Ser Lys Asn Val Arg
      20 25
Leu Ser Leu Pro Cys Leu Leu Leu Ala Gly Cys Val Thr His Ala Pro
             40
Lys Ser Ala Ile Ser His Lys Gln Glu Asp Lys Trp Pro Gln Lys Gln
50 55 60
Leu Ala Asp Phe Leu Ser Thr Arg Cys Asp Asp Ile Trp Ser Leu Ser
65 70 75
Gly Arg Asp Val Glu Ser Asn Pro Leu Phe Trp Leu Arg Gly Ile Asp
         85
                         90
Cys Ala Gln Arg Leu Ala Pro Ala Glu Ala Arg Ala Gln Ala Ala Met
       100 105 110
Leu Met Asp Asp Thr Trp Gln Asp Ala Phe Lys Arg Gly Ile Val Met
115 120 125
Ala Asp Ala Arg Ile Thr Pro Val Glu Arg Arg Ala Asn Val Thr Arg
               135 140
Leu Asp Thr Tyr Val Ile Asn Ile Pro Pro Gln Val Arg Pro Val Tyr
145 150 155 160
Gln Leu Trp Arg Asp Gly Gln Thr Leu Gln Leu Gln Leu Ser Glu Glu
                         170 175
           165
Arg Phe Arg Tyr Ser Lys Leu Gln Gln Ser Ser Asp Ser Glu Leu Asp
      180 185 190
Ala Leu Arg Gln Gln Gln Ser Leu Arg Glu Gln Leu Glu Thr Thr
   195 200 205
Thr Arg Lys Leu Glu Asn Leu Thr Asp Ile Glu Arg Gln Leu Ser Thr
```

210 215 220 248 249 Pro Ala Gly Ser Tyr Leı Pro Asp Gly Ser Lys Gly Asn Ser 225 230 230 235 240 Ala Thr Thr Pro Asp Ser Glu Thr Pro Lys Gln Glu Asp Val Lys Pro 245 255

<210> 7052 <211> 431 <212> PRT <213> Enterobacter cloacae

<400> 7052 His Lys Ile Ser Asn Asn Gln Lys Arg Ser Lys Glu Arg Leu Met Glu 10 Ser Lys Val Val Pro Ala Glu Gly Lys Lys Ile Thr Leu Gln Asn 20 25 Gly Lys Ile Asn Val Pro His Asn Pro Ile Ile Pro Phe Ile Glu Gly 35 40 Asp Gly Ile Gly Val Asp Val Thr Pro Ala Met Leu Lys Val Val Asp 55 60 Ala Ala Val Glu Lys Ala Tyr Lys Gly Glu Arg Lys Ile Ser Trp Met 70 7.5 Glu Ile Tyr Thr Gly Glu Lys Ser Thr Gln Val Tyr Gly Gln Asp Val 90 Trp Leu Pro Ala Glu Thr Leu Asp Leu Ile Arg Asp Tyr Arg Val Ala 100 105 110 Ile Lys Gly Pro Leu Thr Thr Pro Val Gly Gly Gly Ile Arg Ser Leu 115 120 125 Asn Val Ala Leu Arg Gln Glu Leu Asp Leu Tyr Val Cys Leu Arg Pro 135 140 Val Arg Tyr Tyr Gln Gly Thr Pro Ser Pro Val Lys His Pro Glu Leu 150 155 Thr Asp Met Val Ile Phe Arg Glu Asn Ser Glu Asp Ile Tyr Ala Gly 165 170 Ile Glu Trp Lys Ala Asp Ser Ala Asp Ala Glu Lys Val Ile Lys Phe 180 185 Leu Arg Glu Glu Met Gly Val Lys Lys Ile Arg Phe Pro Glu His Cys 205 200 Gly Ile Gly Ile Lys Pro Cys Ser Glu Glu Gly Thr Lys Arg Leu Val 215 220 Arg Ala Ala Ile Glu Tyr Ala Ile Thr Asn Asp Arg Asp Ser Val Thr 230 235 Leu Val His Lys Gly Asn Ile Met Lys Phe Thr Glu Gly Ala Phe Lys 245 250 Asp Trp Gly Tyr Gln Leu Ala Thr Glu Glu Phe Gly Gly Glu Leu Ile 260 265 270 Asp Gly Gly Pro Trp Gln Lys Ile Lys Asn Pro Asn Thr Gly Lys Glu 280 285 Ile Ile Ile Lys Asp Val Ile Ala Asp Ala Phe Leu Gln Gln Ile Leu 295 300 Leu Arg Pro Ala Glu Tyr Asp Val Ile Ala Cys Met Asn Leu Asn Gly 305 310 315 Asp Tyr Ile Ser Asp Ala Leu Ala Ala Gln Val Gly Gly Ile Gly Ile 325 330 335 Ala Pro Gly Ala Asn Ile Gly Asp Glu Cys Ala Leu Phe Glu Ala Thr 345 340 350 His Gly Thr Ala Pro Lys Tyr Ala Gly Gln Asp Lys Val Asn Pro Gly 355 360 365 Ser Ile Ile Leu Ser Ala Glu Met Met Leu Arg His Met Glu Trp Phe

3105 375 Glu Ala Ala Asp Leu Ile Val Lys Gly Met Glu Gly Ala Ile Asn Ala 395 390 Lys Thr Val Thr Tyr Asp Phe Glu Arg Leu Met Glu Gly Ala Lys Leu 405 410 Leu Lys Cys Ser Glu Phe Gly Asp Ala Ile Ile Ala Asn Met 420 425 <210> 7053 <211> 100 <212> PRT <213> Enterobacter cloacae

<400> 7053

Gln Arg Glu Pro Glu Gly Ser Arg Phe Leu Cys Thr Gln Asp Gly Asn Asn Ala Met Thr His Asp Ile Pro Leu Lys Tyr Tyr Asp Ile Val Asp 20 25 3.0 Glu Tyr Ala Thr Glu Thr Ala Lys Pro Val Glu Glu Ala Glu Arg Thr 35 40 45 Pro Leu Ala His Tyr Phe Gln Leu Leu Leu Thr Arg Leu Tyr Asn Asn

50 55 60 Glu Glu Ile Ser Glu Glu Ala Gln Arg Glu Met Ala Val Gln Ala Glu 70 7.5 Ile Asp Glu Ala Arg Ile Asp Asp Ile Ala Asn Phe Leu Asn Gln Trp

90

Gly Asn Glu

100

<210> 7054

<211> 345 <212> PRT

<213> Enterobacter cloacae

8.5

<400> 7054 Arg His Ile Asp Gly Asn Ile Pro Ala Ile Gly Phe Ile Ser His Val 10 Asp Thr Ser Pro Asp Phe Ser Gly Lys His Val Asn Pro Gln Ile Val 25 Glu Asn Tyr Arg Gly Gly Asp Ile Ala Leu Gly Ile Gly Asp Glu Val 35 4.5 Leu Ser Pro Val Met Phe Pro Val Leu His Gln Leu Leu Gly Gln Thr Leu Ile Thr Thr Asp Gly Lys Thr Leu Leu Gly Ala Asp Asp Lys Ala 75 Gly Ile Ala Glu Ile Met Thr Ala Leu Ala Val Leu Lys Gly Lys Asn 90 Ile Pro His Gly Asp Ile Arg Val Ala Phe Thr Pro Asp Glu Glu Val 100 105 110 Gly Lys Gly Ala Lys His Phe Asp Val Glu Ala Phe Asn Ala Gln Trp 120 125 Ala Tyr Thr Val Asp Gly Gly Gly Val Gly Glu Leu Glu Tyr Glu Asn 135 140 Phe Asn Ala Ala Ser Val Thr Ile Lys Ile Val Gly Asn Asn Val His 155 150 160 Pro Gly Ser Ala Lys Gly Val Met Val Asn Ala Leu Ser Leu Ala Ala 170 165 Arg Ile His Ala Glu Val Pro Ala Glu Glu Ser Pro Glu Met Thr Glu 180 185 190 Gly Tyr Glu Gly Phe Tyr His Leu Thr Ser Ile Lys Gly Thr Val Asp

```
Ser Ala Gln Met His Tyr Ile Val Arg Asp Phe Asp Arg Lys Ala Phe
210
                  215
Glu Ala Arg Lys Arg Lys Met Met Glu Ile Ala Lys Lys Val Gly Lys
               230
                               235
Gly Leu His Pro Asp Cys Tyr Ile Glu Leu Ile Ile Glu Asp Ser Tyr
            245
                           250
Tyr Asn Met Arg Glu Lys Val Met Glu His Pro His Ile Leu Asp Ile
        260
                        265
Ala Gln Gln Ala Met Arg Asp Cys Asp Ile Glu Pro Val Met Lys Pro
          280
                         285
     275
Ile Arg Gly Gly Thr Asp Gly Ser Gln Leu Ser Phe Met Gly Leu Pro
290 295 300
Cys Pro Asn Leu Phe Thr Gly Gly Tyr Asn Tyr His Gly Lys His Glu
305 310 315
Phe Val Thr Leu Glu Gly Met Glu Lys Ala Val Gln Val Ile Val Arg
      325 330
Ile Ala Glu Leu Thr Ala Lys Arg
      340
```

<210> 7055 <211> 94 <212> PRT

<213> Enterobacter cloacae

<400> 7055

Phe Asn Asp Lys Asn His Thr Glu Arg Lys Ala Met Gly Ile Leu Ser 1 5 10 15

Trp Ile Ile Phe Gly Leu Ile Ala Gly Ile Leu Ala Lys Trp Ile Met 20 25 30

Pro Gly Lys Asp Gly Gly Gly Phe Ile Val Thr Ile Ile Leu Gly Ile 45

Val Gly Ala Val Val Gly Gly Trp Ile Ser Thr Leu Phe Gly Phe Gly 50 55

Arg Val Asp Gly Phe Asn Phe Gly Ser Phe Val Val Ala Val Ile Gly 65

Arg Val Leu Phe Ile Tyr Arg Lys Ile Lys Ser

<210> 7056

<211> 223 <212> PRT

<213> Enterobacter cloacae

<400> 7056

Ala Ile Met Arg Gln Leu Ile Thr Pro Glu Asn Thr Met Thr Lys Thr 10 Ser Phe Arg Lys His Arg Val Glu Arg Phe Ser Ser Arg Gln Ala Thr 20 25 30 Arg Arg Thr Pro Glu Pro Gln Pro Thr Arg Val Ile Leu Phe Asn Lys 35 4.0 4.5 Pro Tyr Asp Val Leu Pro Gln Phe Thr Asp Glu Ala Gly Arg Ser Thr 50 55 60 Leu Lys Asp Phe Ile Pro Val Gln Gly Val Tyr Ala Ala Gly Arg Leu 70 Asp Arg Asp Ser Glu Gly Leu Leu Val Leu Thr Asn Asp Gly Val Leu 85 90 95 Gln Ala Arg Leu Thr Gln Pro Gly Lys Arg Thr Gly Lys Ile Tyr Tyr 100 105 110 Val Gln Val Glu Gly Glu Pro Asp Asp Ala Ser Leu Ala Lys Leu Arg 115 120 Asn Gly Val Thr Leu Asn Asp Gly Pro Thr Leu Pro Ala Gly Ile Glu

135 Arg Val Asn Glu Pro Glu Trp Leu Trp Pro Arg Asn Pro Pro Ile Arg 150 155 Glu Arg Lys Ser Ile Pro Thr Ser Trp Leu Lys Ile Thr Leu Tyr Glu 170 165 175 Gly Arg Asn Arg Gln Val Arg Arg Met Thr Ala His Val Gly Phe Pro 180 185 190 Thr Leu Arg Leu Ile Arg Tyr Ala Met Gly Ser Tyr Thr Leu Asp Ser 195 200 205 Leu Ala Asn Gly Glu Trp Arg Asp Val Thr Pro Lys Glu Asn 210 215 <210> 7057 <211> 429 <212> PRT <213> Enterobacter cloacae <400> 7057 Thr Arg Gln Thr Cys Ala Arg His Trp Leu Arg Lys Ala Ser Ala Ala 1.0 Gly Ser Leu Arg Arg Ala Cys Arg Trp Met Ser Leu Gln Asn Leu Thr 20 25 Gly Arg Leu Gln Arg Val Ser Met Val Gly Gly Arg Asp Arg Ile Arg 35 40 4.5 Arg Leu Glu Val Gln Cys Arg Glu Tyr Ser Met Ser Asp Asn Ser Gln 55 60 Lys Lys Val Ile Val Gly Met Ser Gly Gly Val Asp Ser Ser Val Ser 65 70 75 Ala Tyr Leu Leu Gln Gln Gln Gly Tyr Lys Val Glu Gly Leu Phe Met 85 90 95 Lys Asn Trp Glu Glu Asp Asp Gly Glu Glu Tyr Cys Thr Ala Ala Ala 100 105 Asp Leu Ala Asp Ala Gln Ala Val Cys Asp Lys Leu Gly Ile Glu Leu 115 120 125 His Thr Val Asn Phe Ala Ala Glu Tyr Trp Asp Asn Val Phe Glu Leu 130 135 140 Phe Leu Glu Glu Tyr Lys Ala Gly Arg Thr Pro Asn Pro Asp Ile Leu 145 150 150 155 160 Cys Asn Lys Glu Ile Lys Phe Lys Ala Phe Leu Glu Phe Ala Ala Glu 165 170 175 Asp Leu Gly Ala Asp Tyr Ile Ala Thr Gly His Tyr Val Arg Arg Ala 180 185 190 Asp Val Asn Gly Lys Ser Gln Leu Leu Arg Gly Leu Asp Gly Asn Lys 195 200 205 Asp Gln Ser Tyr Phe Leu Tyr Thr Leu Ser His Glu Gln Ile Ala Gln 215 220 Ser Leu Phe Pro Val Gly Glu Leu Glu Lys Pro Glu Val Arg Lys Ile 225 230 235 Ala Glu Asp Leu Asp Leu Ile Thr Ala Lys Lys Lys Asp Ser Thr Gly 245 250 255 Ile Cys Phe Ile Gly Glu Arg Lys Phe Arg Glu Phe Leu Gly Arg Tyr 260 265 270 Leu Pro Ala Gln Pro Gly Lys Ile Val Thr Val Asp Gly Asp Glu Ile 275 280 285 Gly Gln His Gln Gly Leu Met Tyr His Thr Leu Gly Gln Arg Lys Gly 295 300 Leu Gly Ile Gly Gly Thr Lys Glu Gly Ser Glu Asp Pro Trp Tyr Val 315 305 310 Val Asp Lys Asp Val Glu Asn Asn Ile Leu Val Val Ala Gln Gly His

325

330 Asp His Pro Arg Leu Met Ser Val Gly Leu Ile Ala Gln Gln Leu His

50

```
345
          340
Trp Val Asp Arg Glu Pro Leu Glu Gly Thr Leu Arg Cys Thr Val Lys
                 360
      355
                                        365
Thr Arg Tyr Arg Gln Thr Asp Ile Pro Cys Thr Val Thr Ala Leu Asp
                    375
                                    380
Asp Asp Arg Ile Asp Val Arg Phe Asp Glu Pro Val Ser Ala Val Thr
          390 395
Pro Gly Gln Ser Ala Val Phe Tyr Ser Gly Glu Ile Cys Leu Gly Gly
         405 410
Gly Ile Ile Glu Gln Arg Leu Pro Leu Pro Ala Val
<210> 7058
<211> 219
<212> PRT
<213> Enterobacter cloacae
<400> 7058
Thr Val Cys Thr His Lys Gly Asp Arg Val Ala Lys Asn Tyr Tyr Asp
                             10
Ile Thr Leu Ala Leu Ala Gly Ile Cys Gln Ser Ala Arg Leu Val Gln
                          2.5
Gln Leu Ala His Gln Gly His Cys Asp Ala Asp Ala Leu His Val Ser
                      40
Leu Asn Ser Val Ile Asp Leu Asn Pro Gly Ser Thr Leu Gly Val Phe
                55
Gly Gly Ser Glu Thr Asn Leu Arg Leu Gly Leu Glu Thr Leu Leu Gly
                7.0
                                 75
Val Leu Asn Ala Ser Asn Arg Gln Gly Leu Asn Ala Glu Leu Thr Arg
       85 90
Tyr Thr Leu Ser Leu Met Val Leu Glu Arg Lys Leu Asn Ala Ala Lys
   100 105 110
Gly Ala Met Asn Thr Leu Gly Asp Arg Ile Ala Gly Leu Gln Arg Gln
115
                       120
                                       125
Leu Asp His Phe Asp Leu Gln Ser Glu Thr Leu Leu Ser Ala Met Ala
130 135 140
Gly Ile Tyr Val Asp Val Ile Ser Pro Leu Gly Pro Arg Ile Gln Val
145 150 155
                                               160
Thr Gly Ser Pro Ala Val Leu Gln Ser Pro Gln Val Gln Ala Lys Val
             165
                              170
                                              175
Arg Ala Ser Leu Leu Ala Gly Ile Arg Ala Ala Val Leu Trp Gln Gln
         180 185 190
Val Gly Gly Gly Arg Leu Gln Leu Met Phe Ser Arg His Arg Leu Thr
     195 200
Thr Gln Ala Lys Gln Ile Leu Ala His Cys
 210
                    215
<210> 7059
<211> 381
<212> PRT
<213> Enterobacter cloacae
<400> 7059
Glu Pro Ala Glu Tyr Ile Asn Met Asp Tyr Gln Leu Thr Leu Asn Trp
Pro Asp Phe Ile Glu Arg Tyr Trp Gln Lys Arg Pro Val Val Leu Lys
                          25
Arg Gly Ile Ser Asn Phe Ile Asp Pro Ile Ser Pro Asp Glu Leu Ala
                      40
                                        45
Gly Leu Ala Met Glu Asn Glu Val Asp Ser Arg Leu Val Ser His Gln
```

```
Asp Gly Lys Trp Gln Val Ser His Gly Pro Pne Glu Ser Tyr Asp His
              70
Leu Gly Glu Asn Asn Trp Ser Leu Leu Val Gln Ala Val Asn Asn Trp
           8.5
                         90
His Glu Pro Thr Ala Ala Leu Met Arg Pro Phe Arg Ala Leu Pro Asp
        100
                       105
Trp Arg Met Asp Asp Leu Met Ile Ser Phe Ser Val Pro Gly Gly Gly
   115 120
                                   125
Val Gly Pro His Leu Asp Gln Tyr Asp Val Phe Ile Ile Gln Gly Thr
 130 135 140
Gly Arg Arg Arg Trp Arg Val Gly Glu Lys Val Pro Met Lys Gln His
145 150 155 160
Cys Pro His Pro Asp Leu Leu Gln Val Asp Pro Phe Glu Gly Ile Ile
      165 170 175
Asp Glu Glu Leu Glu Pro Gly Asp Ile Leu Tyr Ile Pro Pro Gly Phe
        180 185 190
Pro His Glu Gly Tyr Ser Leu Glu Asn Ser Leu Asn Tyr Ser Val Gly
195 200 205
Phe Arg Ala Pro Ser Gly Arg Glu Met Ile Ser Gly Phe Ala Asp Tyr
 210
                215 220
Val Leu Gln Arg Glu Leu Gly Ser Tyr Arg Tyr Ser Asp Pro Asp Val
225 230 235 240
Pro Ala Arg Glu His Pro Ala Asp Ile Leu Pro Glu Glu Leu Asp Lys
     245 250 255
Leu Arg Gly Met Met Leu Asp Leu Ile Asn Glu Pro Glu His Phe Arg
 260 265 270
Gln Trp Phe Gly Glu Phe Ile Ser Gln Ser Arg His Glu Leu Asp Val
                    280 285
 275
Ala Pro Pro Glu Pro Pro Tyr Gln Ala Asp Glu Ile Tyr Asp Ala Leu
290 295
                                300
Gln Gln Gly Asp Lys Leu Val Arg Leu Gly Gly Leu Arg Val Leu Arg
              310 315 320
Ile Gly Glu Glu Val Phe Val Asn Gly Glu Arg Leu Asp Ser Pro His
           325 330
Arg Pro Ala Leu Glu Ser Ile Ala Ser Gln Met Val Leu Thr Ala Asp
        340 345
Thr Phe Gly Asp Ala Leu Asp Asp Pro Ser Phe Leu Ala Met Leu Ala
 355 360 365
Ala Leu Val Asn Ser Gly Tyr Trp Phe Phe Glu Asp
  370
                  375
```

<210> 7060

<211> 475

<212> PRT

<213> Enterobacter cloacae

100

<400> 7060 Arg Leu Arg Gln Asn Lys Phe Leu Leu Ile Val Asn Leu Pro Glu Leu 10 1.5 Arg Ile Met Glu Leu Ser Ser Leu Thr Ala Val Ser Pro Val Asp Gly 20 30 Arg Tyr Gly Asp Lys Val Ser Ala Leu Arg Gly Ile Phe Ser Glu Tyr 35 40 Gly Leu Leu Lys Phe Arg Val Gln Val Glu Val Arg Trp Leu Gln Lys 55 60 Leu Ala Ala Gln Thr Ala Ile Lys Glu Val Pro Ala Phe Asp Ala Lys 7.0 75 Ala Asn Asp Tyr Leu Asp Lys Ile Val Ala Glu Phe Ser Glu Glu Asp 85 90 Ala Ala Arg Ile Lys Thr Ile Glu Arg Thr Thr Asn His Asp Val Lys 105

```
Ala Val Glu Tyr Phe Leu Lys Glu Lys Val Ala Cys Val Pro Ala Leu
                    120
     115
                                   125
His Ala Val Ser Glu Phe Ile His Phe Ala Cys Thr Ser Glu Asp Ile
                  135
                                 140
Asn Asn Leu Ser His Ala Leu Met Leu Phe Thr Ala Arg Lys Glu Val
              150
                   155
Val Leu Pro Tyr Trp Arg Lys Ile Ile Asp Ala Val Lys Ala Leu Ser
           165
                          170
Val Glu Tyr Arg Asp Ile Pro Leu Leu Ser Arg Thr His Gly Gln Pro
                      185
        180
                                       190
Ala Thr Pro Ser Thr Met Gly Lys Glu Met Ala Asn Val Ala Tyr Arg
                    200
   195
                                    205
Met Glu Arg Gln Tyr Arg Gln Leu Glu Gln Val Glu Ile Leu Gly Lys
 210 215 220
Ile Asn Gly Ala Val Gly Asn Tyr Asn Ala His Ile Ala Ala Tyr Pro
     230 235
Glu Val Asp Trp His Gln Phe Ser Glu Glu Phe Val Thr Ser Leu Gly
       245 250 255
Ile Gln Trp Asn Pro Tyr Thr Thr Gln Ile Glu Pro His Asp Tyr Ile
        260 265 270
Ala Glu Leu Phe Asp Cys Ile Ala Arg Phe Asn Thr Ile Leu Ile Asp
275
                    280 285
Phe Asp Arg Asp Val Trp Gly Tyr Ile Ala Leu Asn His Phe Lys Gln
                 295
                      300
 290
Lys Thr Ile Ala Gly Glu Ile Gly Ser Ser Thr Met Pro His Lys Val
   310
                              315
Asn Pro Ile Asp Phe Glu Asn Ser Glu Gly Asn Leu Gly Leu Ala Asn
           325
                          330 335
Ala Val Leu Gln His Met Ala Ser Lys Leu Pro Val Ser Arg Trp Gln
                        345 350
        340
Arg Asp Leu Thr Asp Ser Thr Val Leu Arg Asn Leu Gly Val Gly Ile
 355
                    360
                                    365
Gly Tyr Ala Leu Ile Ala Tyr Gln Ser Tnr Leu Lys Gly Val Ser Lys
                 375
                                 380
Leu Glu Val Asn Arg Asp Arg Leu Leu Asp Glu Leu Asp His Asn Trp
              390
                              395
Glu Val Leu Ala Glu Pro Ile Gln Thr Val Met Arg Arg Tyr Gly Ile
           405
                           410
Glu Lys Pro Tyr Glu Lys Leu Lys Glu Leu Thr Arg Gly Lys Arg Val
        420
                        425 430
Asp Ala Glu Gly Met Lys Gln Phe Ile Asp Gly Leu Ala Leu Pro Glu
                    440 445
Glu Glu Lys Ala Arg Leu Lys Glu Met Thr Pro Ala Asn Tyr Ile Gly
                 455
Arg Ala Ile Thr Met Val Asp Glu Leu Lys
               470
<210> 7061
<211> 99
<213> Enterobacter cloacae
```

<212> PRT

<400> 7061

Arg Arg Arg Leu Leu Ala Gly Leu Gly Gly Asp Glu Ile Leu Val Ala 10 15 Arg Leu Ser His Ser Asp Asp Asp Thr Arg Thr Glu Ile Asn Ala 20 25 30 Ile Lys Thr Arg Leu Asn Gly Leu Ile Ala Gly Glu Tyr Gly Leu Gly 40 Asn Ala Thr Ile Leu Tyr Pro Gly Ala Ser Leu Gly Val Val Ile Val 50 55

Asp Pro His Ser Thr Asp Glu Asp Ser Ala Leu Arg Thr Ala Asp Leu 65 70 75 80 Ala Met Tyr Glu Asp Lys Lys Gly Lys Ser Lys Thr Gly Phe Val Ala 85 90 95

Leu Asp

<210> 7062 <211> 516 <212> PRT

<213> Enterobacter cloacae

<400> 7062

Pro Val Ile Arg Ser Leu His Leu Arg Thr Trp Arg Asp Ser Arg Lys 5 10 Met Lys Lys Ala Ile Ala Val Ala Ile Ile Ser Thr Leu Met Val Val 20 30 25 Leu Ser Leu Tyr Ala Val Asn Ala Ile Ile Ala Glu Gln Gln Lys Asn 35 40 45 Arg Gln Arg Glu Ile Ser His Thr Leu Leu Ser Tyr Ser Glu Glu Leu 55 60 Thr Gln Asn Ile Ala Ser Thr Leu Lys Asn Thr Thr Val Gln Gly Cys 65 70 75 Asp Ser Ala Ser Leu Asn Val Tyr Arg Lys Leu Lys Met Arg Ser Leu 85 90 Tyr Phe Ala Asp Val Gly Phe Ile Glu Lys Gly Lys Ile Thr Cys Thr 100 105 110 Ala Phe Trp Gly Lys Leu Ala Asn Pro Ile Ala Leu Pro Pro Glu Leu 115 120 125 His Lys Thr His Asn Gly Phe Ser Leu Ala Gln Phe Ser Gln Lys Asp 130 135 140 Phe Phe Ile Gly Asn Ala Thr Ile Tyr Asn His Leu Ile Ile Phe Thr 150 155 160 Ser Arg Ser Ala Tyr Asp Lys Phe Ala Pro Val Thr Ala Asn Tyr Ser 165 170 175 Leu Arg Ser Ser Thr Lys Asp Phe Gly Arg Thr Phe Phe Thr Val Thr 180 185 190 Pro Pro Ser Glu Asn Phe Ser Arg Lea Gln Ser Lea Lea Phe Thr Lea 195 200 205 Ala Val Thr Glu Cys Ser Thr Arg Trp Asp Leu Cys Val Thr Val Thr 210 215 220 His His Asp Ala Gly Leu Ala Ser Leu Ser His Val Val Met Val Leu 230 235 Leu Cys Leu Phe Leu Tyr Phe Ile Trp Val Ser Leu Thr Leu Phe Ser 245 250 Leu Arg Leu Tyr Glu Asp Arg Arg Ser Leu Glu Arg Thr Leu Val Lys 265 270 260 Ala Val Lys Ala Asn Thr Ile Ser Val His Phe Gln Pro Val Ile Arg 280 285 Val Ala Asp Lys Lys Ile Val Gly Val Glu Val Leu Ser Arg Trp Gln 295 300 Asp Asn Asn His Lys Glu Val Ser Pro Glu Leu Phe Ile Pro Leu Ile 305 310 315 Lys Lys Ile Gly Leu Tyr Asn Val Tyr Tyr Gln Asn Met Ile Lys Lys 325 330 335 Ser Leu Ala Glu Ile Ala Ala Leu Ala Ala Glu His Gln Leu Met Ile 340 345 350 Ser Leu Asn Val Gly Arg Thr Glu Ile Glu Asp Gly Lys Phe Leu Ser 365 360 Val Leu Arg His Ala Cys Ser Glu Asn Ala Ile Pro Leu Ser Leu Ile 375 380

```
Lys Val Glu Leu Ser Glu Asn Gly Val Ser Thr Ser Ala Ile Leu Glu
385
                 390
                                  395
Glu Phe Cys Glu Glu Leu Lys Ser Ala Gly Val Lys Ile Ser Ile Asp
             405
                            410
Asp Phe Gly Val Gln Asn Ser Asn Leu Ala Arg Leu Thr Asn Leu Lys
          420
                          425
Tyr Asp Glu Ile Lys Val Asp Lys Ser Leu Val Asp Gly Ile Ser Glu 435 440 445
His Tyr Lys Gln Asp Ile Leu Val Ile Phe Ser Asp Ala Leu Ala Lys
                          460
                    455
Leu Asn Lys Thr Leu Val Phe Glu Gly Val Glu Ser Glu Thr Gln Phe
           470 475
Gln Phe Ile Ala Gln Arg Tyr Pro Asp Ala Leu Val Gln Gly Trp Tyr
       485 490 495
Phe Ser Lys Ser Leu Thr Arg His Asp Leu Ala Arg Leu Leu Ala Asp
               505
Ser Ala Arg
  515
<210> 7063
<211> 161
<212> PRT
<213> Enterobacter cloacae
<400> 7063
Gly Glu Leu Met Phe Lys Pro His Val Thr Val Ala Cys Val Val His
                              10
Ala Gln Gly Lys Phe Leu Val Val Glu Glu Thr Ile Asn Gly Lys Ala
        20
                          25
Leu Trp Asn Gln Pro Ala Gly His Leu Glu Ala Asn Glu Thr Leu Leu
 35
                      40
Gln Ala Ala Lys Arg Glu Leu Trp Glu Glu Thr Gly Ile Arg Ala Glu
                  55
Pro Gln His Phe Ile Arg Met His Gln Trp Ile Ala Pro Asp Gln Thr
               7.0
                                7.5
                                                   80
Pro Phe Leu Arg Phe Leu Phe Ala Val Glu Leu Asn Glu Thr Cys Ala
            8.5
                              90
Thr Glu Pro His Asp Asp Asp Ile Asp Arg Cys Leu Trp Val Thr Ala
        100 105
                                           110
Glu Glu Ile Leu Asn Ala Pro Asn Leu Arg Ser Pro Leu Val Ala Glu
                       120 125
Ser Ile Arg Cys Trp Gln Ser Thr Ala Arg Leu Pro Leu Asp Val Ile
 130 135 140
Ala Glu Phe Asn Trp Pro Phe Thr Glu Gly Val Asn Gly Gly Gly Ala
                                 155
<210> 7064
<211> 240
<212> PRT
<213> Enterobacter cloacae
<400> 7064
```

```
Ile Val Asp Leu Gly Leu Pro Asp Glu Asp Gly Leu Ser Leu Ile Arg
                                75
                70
Arg Trp Arg Ser His Asp Val Ser Leu Pro Val Leu Val Leu Thr Ala
            85
Arg Glu Gly Trp Gln Asp Lys Val Glu Val Leu Ser Ala Gly Ala Asp
         100
              105
Asp Tyr Val Thr Lys Pro Phe His Ile Glu Glu Val Ala Ala Arg Met
    115
             120
                            125
Gln Ala Leu Leu Arg Arg Asn Ser Gly Leu Ala Ser Gln Val Ile Ser
 130 135
                        140
Leu Pro Pro Phe Gln Val Asp Leu Ser Arg Arg Glu Phe Ser Ile Asn
      150 155 160
Asp Glu Val Ile Lys Leu Thr Ala Phe Glu Tyr Thr Ile Met Glu Thr
        165 170 175
Leu Ile Arg Asn Asn Gly Lys Val Val Ser Lys Asp Ser Leu Met Leu
      180 185 190
Gln Leu Tyr Pro Asp Ala Glu Leu Arg Glu Ser His Thr Ile Asp Val
 195 200 205
Leu Met Gly Arg Leu Arg Lys Lys Ile Gln Ala Gln Tyr Pro His Asp
210 215 220
Val Ile Thr Thr Val Arg Gly Gln Gly Tyr Leu Phe Glu Leu Arg
<211> 488
<212> PRT
<213> Enterobacter cloacae
<400> 7065
Met Lys Gly Ile Leu Arg His Ile Leu Pro Leu Ser Leu Arg Val Arg
                            10
Phe Leu Leu Ala Thr Ala Ala Val Val Leu Val Leu Ser Leu Ser Tyr
                         2.5
Gly Met Val Ala Leu Val Gly Tyr Ser Val Ser Phe Asp Lys Thr Thr
                      40
Phe Arg Leu Leu Arg Gly Glu Ser Asn Leu Phe Tyr Thr Leu Ala Lys
 50 55 60
Trp Glu Asn Asn Arg Ile Thr Val Glu Met Pro Glu Asn Leu Asn Gln
                                75
Gln Ser Pro Thr Leu Ala Leu Ile Tyr Asp Glu Lys Gly Lys Leu Leu
                             90
            85
Trp Ala Gln Arg Asp Val Pro Trp Leu Lys Lys Arg Ile Arg Pro Glu
                         105
         100
                                          110
Trp Leu Lys Thr Asn Gly Phe His Glu Ile Glu Ala Asp Leu Asn Ser
    115
                      120
Thr Ser Ser Leu Leu Arg Asp Asp Arg Ala Leu Gln Ile Lys Leu Asn
                   135
                                   140
Glu Ile Arg Ala Glu Asp Asp Thr Glu Met Thr His Ser Val Ala
               150
                      155
Ile Asn Leu Tyr Pro Ala Thr Leu Asn Met Pro Gln Leu Thr Ile Val
            165
                            170
Val Ile Asp Thr Ile Pro Val Glu Leu Lys Arg Ser Tyr Met Val Trp
                                       190
Asn Trp Phe Val Tyr Val Leu Ala Ala Asn Leu Leu Leu Val Ile Pro
     195
                     200
Leu Leu Trp Val Ala Ala Trp Trp Ser Leu Arg Pro Ile Glu Ser Leu
 210
                  215
                                   220
Ala Lys Glu Val Arg Glu Leu Glu Glu His His Arg Glu Lys Leu Asn
                       235
```

Pro Glu Thr Thr Arg Glu Leu Thr Ser Leu Val Arg Asn Leu Asn Arg

```
245
                         250
Leu Leu Lys Ser Glu Arg Glu Arg Tyr Asp Lys Tyr Arg Thr Thr Leu
        260
                      265
                                     270
Thr Asp Leu Thr His Ser Leu Lys Thr Pro Leu Ala Val Met Gln Ser
                  280
                           285
Thr Leu Arg Ser Met Arg Ser Ser Lys Met Ser Val Asp Asp Ala Glu
 290
                295
                       300
Pro Val Ile Leu Glu Gln Ile Ser Arg Ile Ser Gln Gln Ile Gly Tyr
      310
                  315
Tyr Leu His Arg Ala Ser Met Arg Ser Gly Ser Ala Leu Leu Ser Arg
           325
               330 335
Glu Leu His Pro Val Ala Pro Leu Leu Asp Asn Leu Thr Ser Ala Leu
            345 350
        340
Asn Lys Val Tyr Gin Arg Lys Gly Val Asn Ile Ser Leu Asp Ile Ser
     355 360 365
Pro Glu Ile Ser Phe Val Gly Glu Lys Asn Asp Phe Met Glu Val Met
 370 375 380
Gly Asn Leu Leu Asp Asn Ala Cys Lys Tyr Cys Leu Glu Phe Val Glu
385 390 395 400
Val Ser Ala Arg Val Thr Asp Asn Glu Leu His Ile Ile Val Glu Asp
      405 410 415
Asp Gly Pro Gly Ile Pro Arg Asn Lys Arg Glu Val Val Phe Asp Arg
 420
           425 430
Gly Gln Arg Ala Asp Thr Leu Arg Pro Gly Gln Gly Val Gly Leu Ser
435 440 445
Val Ala Arg Glu Ile Val Asp Gln Tyr Glu Gly Lys Ile Glu Thr Gly
450 455 460
Glu Ser Leu Leu Gly Gly Ala Arg Met Glu Val Ile Phe Gly Arg Gln
465 470
His Pro Val Ser Asn Asp Ser
           485
```

<212> PRT <213> Enterobacter cloacae

<210> 7066 <211> 477

<400> 7066 Pro Arg Cys Gln Ile Ser Gln Leu Leu Thr Phe Ser Ser Trp Leu Thr 10 Leu Phe Thr Glu His Leu Lys Asn Lys Pro Tyr Thr Gly Lys Val Asn 25 Thr Met Thr Glu Ile Ile Thr Arg Lys Glu Lys Ile Ser Tyr Gly Leu 40 Gly Asp Met Ala Ser His Ile Gly Leu Asp Asn Val Ile Ile Phe Leu 5.5 60 Thr Phe Tyr Tyr Thr Asp Val Val Gly Leu Pro Ala Ala Phe Val Gly 7.0 7.5 Thr Met Phe Leu Leu Ala Arg Thr Ala Asp Ala Ile Ile Asp Pro Ala 85 90 Met Gly Tyr Ile Ala Asp Arg Thr Arg Thr Arg Trp Gly Lys Phe Arg 105 110 Pro Trp Met Leu Trp Leu Ala Leu Pro Phe Gly Ala Ser Cys Leu Leu 115 120 Thr Tyr Ala Val Pro Ala Ser Leu Asp Leu His Gly Lys Met Ile Phe 135 140 Ala Thr Val Ser Tyr Thr Leu Met Met Leu Met Tyr Thr Ala Ile Asn 150 155 Ile Pro Tyr Cys Ser Met Gly Ala Val Ile Thr Pro Asp Asn Asp Ala 165 170 Arg Ile Ser Leu Gln Ser Tyr Arg Phe Phe Leu Ala Thr Leu Gly Gly

```
13
13
113
1.79
1,3
14
14
10
```

```
3115
          180
                          185
Ala Leu Ser Thr Phe Phe Met Met Pro Leu Ala Glu Phe Leu Gly Gly
      195
                 200
                                       205
Asp Asp Lys Leu Leu Gly Tyr Arg Trp Ala Met Ala Ile Met Ala Thr
                   215
                             220
Val Ala Val Val Met Phe Trp Ile Cys Phe Ala Asn Thr Arg Glu Arg
                230
                        235
Ile Lys Ala Pro Ala Thr His Asn Asn Tyr Leu Ala Glu Leu Arg Asp
           245
                    250 255
Leu Leu Arg Asn Asp Gln Trp Arg Ile Val Ala Val Leu Val Leu Thr
         260
                     265 270
Asn Ile Gly Phe Gly Val Ile Arg Leu Gly Ala Met Met Tyr Phe Val
      275
                      280 285
Thr Tyr Tyr Leu Gly Ser Ala Ser Tyr Phe Met Trp Met Leu Gly Ala
              295 300
His Ile Leu Gly Lys Ala Ala Gly Ser Ala Leu Ala Lys Arg Leu Thr
         310 315
Gln Asn Val Ser Lys Val Gln Met Phe Gly Tyr Cys Ser Val Leu Ala
          325 330
Gly Val Leu Ser Ile Ala Leu Phe Phe Ala Pro Lys Ser Val Leu Ile
       340
             345 350
Leu Val Pro Met Thr Phe Ile Val Ser Thr Leu Tyr Gln Ala Thr Thr
 355 360
Thr Leu Met Trp Val Met Met Ala Asp Val Ala Asp Tyr Gly Glu Trp
 370 375 380
Lys Gln Gly Lys Arg Met Asp Gly Val Ile Phe Ser Thr Phe Leu Ala
               390
                                395 400
Val Leu Lys Leu Gly Met Ala Ile Ser Gly Ala Ile Val Gly Trp Thr
            405 410
Leu Gly Leu Ser Gly Tyr Val Ala Asn Ala Pro Glu Gln Thr Asn Thr
       420 425 430
Ala Met Tyr Cys Ile Ile Ala Leu Phe Thr Val Val Pro Gly Val Leu
 435 440 445
Ser Leu Cys Ala Phe Ala Thr Leu Arg Trp Tyr Lys Leu Asp Asp Ser
450 455 460
Thr Met Gln Ser Ile His Leu Ala Lys His Pro Val
                470
<210> 7067
<211> 684
<212> PRT
<213> Enterobacter cloacae
<400> 7067
Lys Asp Ala Leu Ser Met Ser Glu Leu Ile Gln His Ser Asn Ser Ile
Glu Trp Arg Phe Glu Arg Gln Ile Leu Arg Ile Glu Pro Trp Gly Glu
                          25
                                          30
Asn Ser Leu Arg Val Arg Ala Thr Cys Ser Pro Ala Phe Glu Asp Ala
                      40
Leu Gln Ala Leu Leu Pro Ala Ala Pro Cys Gln Ala Glu Ile Ile Ala
                  5.5
Glu Ala Glu Ser Leu Thr Leu Arg Asn Gly Asn Ile Thr Ala Thr Leu
               7.0
                                75
Asn Leu Lys Gly Gln Leu Ala Phe Tyr Asn Gln Arg Gly Glu Leu Leu
           85
                             90
Leu Glu Glu Met Trp Arg Gln Arg Ser Thr Val Gly Ile Gly Ala Ser
                         105
Glu Lys Ser Gln Asp Lys Tyr Val Ser Ala Leu Lys Leu Asp Gly Arg
                     120
Glu Phe Lys Pro Leu Met Gly Gly Lys Tyr Gln Leu Thr Val Arg Phe
```

135 Glu Ser Arg Pro Asp Glu Arg Ile Tyr Gly Met Gly Gln Tyr Gln Gln 150 155 Pro Trp Leu Asp Leu Lys Gly Cys Thr Leu Glu Leu Ala Gln Arg Asn 165 170 175 Ser Gln Ala Ser Val Pro Phe Met Gln Ser Ser Leu Gly Tyr Gly Leu 180 185 190 Leu Trp Asn Asn Pro Ala Ile Gly Glu Ala Ser Phe Ala Lys Asn Gln 195 200 205 Thr Glu Trp Arg Ala Arg Val Thr Gly Glu Met Asp Tyr Trp Ile Thr 210 215 220 Ala Ala Asp Thr Val Ala Asp Ile Thr Arg Gln Tyr Val Lys Ala Thr 230 235 Gly Thr Pro Pro Ala Ala Pro Ala Phe Ile Ser Gly Leu Trp Gln Cys 245 250 255 Lys Leu Arg Tyr Arg Thr Gln Gln Glu Val Leu Glu Val Ala Arg Glu 260 265 270 Tyr Arg Arg Arg Asn Leu Pro Leu Ser Val Met Val Ile Asp Phe Phe 275 280 285 His Trp Pro Asn Gln Gly Thr Trp Cys Phe Asp Pro Val Asp Trp Pro 290 295 300 Asp Pro Glu Gly Met Val Asp Glu Leu Arg Glu Met Gly Ile Ala Leu 305 310 315 Met Val Ser Val Trp Pro Thr Val Glu Ala Arg Ser Pro Leu Tyr Pro 325 330 335 Leu Met Lys Ala Lys Gly Trp Leu Val Ser Ser Glu Arg Gly Val Gln 340 345 350 Val Asn Leu Asp Phe Met Gly Asn Thr Thr Phe Phe Asp Ala Thr His 355 360 365 Pro Glu Ala Arg Lys Pne Val Trp Asp Thr Val Lys Lys Asn Tyr Tyr 370 375 380 Asp Met Gly Ile Lys Leu Phe Trp Leu Asp Glu Ala Glu Pro Glu Tyr 385 390 395 400 Arg Ala Tyr Asp Phe Asp Asn Tyr Arg Tyr His Ala Gly Pro Val Leu 405 410 415 Glu Val Gly Asn Arg Tyr Pro Arg Asp Phe Ala Gln Gly Phe Tyr Asp 420 425 430 Gly Leu Gln Ala Asn Gly Glu Thr Asp Ile Val Asn Leu Val Arg Cys 435 440 445 Ala Trp Ala Gly Ser Gln Arg Phe Gly Val Leu Ala Trp Ser Gly Asp 450 455 460 Val His Ser Ser Phe His Ala Phe Arg Asn Gln Leu Ala Ala Gly Leu 465 470 475 Asn Met Gly Leu Ala Gly Ile Pro Trp Trp Thr Thr Asp Ile Gly Gly 485 490 495 Phe Gln Gly Gly Asn Val Asn Asp Pro Ala Phe His Glu Leu Leu Ile 500 505 510 Arg Trp Phe Gln Trp Ala Val Phe Thr Pro Val Leu Arg Met His Gly 515 520 525 Tyr Arg Glu Pro Gln Ile Gln Pro Pro Glu Arg Tyr Arg Asp Gly Ile 530 535 540 Pro Gln Cys Asn Ser Gly Ser Pro Asn Glu Leu Trp Ser Tyr Gly Glu 545 550 555 Glu Asn Tyr Ala Ile Met Gln Arg Trp Leu Thr Val Arg Glu Thr Leu 570 Arg Pro Tyr Ile Asp Ala Leu Tyr Gln Glr Ala His Leu His Gly Asp 580 585 590 Pro Leu Met Arg Pro Leu Phe Trp His Tyr Pro Gln Asp Lys Gln Ser 595 600 605 Trp Ala Cys Glu Asp Gln Tyr Leu Phe Gly Glu Asp Leu Leu Val Ala 620

```
Pro Val Met Gln Ala Gly Gln Arg Glu Arg Asp Val Trp Leu Pro Thr
                         635
                 630
Gly Asn Ser Trp Val Ala Leu Asn Gly Glu Arg Tyr Ala Gly Gly Glu
              645
                                650
                                                   655
His Ile Arg Val Pro Ala Ala Leu Glu Thr Ile Pro Val Phe Ile Arg
          660 665
Glu Gly Ser Pro Leu Ile Gln Gln Leu Val Asp
       675
             680
<210> 7068
<211> 137
<212> PRT
<213> Enterobacter cloacae
<400> 7068
Ile Gly Trp Ile Lys Ala Gly Cys Tyr Ser Val Leu Ala Glu Arg Arg
                                 1.0
Thr Ala Gly Gly Lys Arg Met Ile Gln Cys Lys Arg Val Tyr Glu Gln
           20
                          25
                                               3.0
Ala Thr Ser Asp Asp Gly Tyr Arg Val Leu Val Asp Arg Leu Trp Pro
     35
                       40
                                           4.5
Arg Gly Ile Lys Lys Thr Asp Leu Ala Cys Asp Glu Trp Cys Lys Ser
                   55
 50
Leu Thr Pro Ser Ser Glu Leu Arg Lys Ala Phe His Ser Glu Thr Ile
               70
                            75
Asp Phe Thr Ala Phe Ser Glu Ala Tyr Arg Lys Glu Leu Ala Gln His
             85
                                90
Gln Asp Glu Gly Lys Arg Leu Ala Ala Leu Ala Arg Gln Gln Thr Val
          100 105
Thr Leu Leu Tyr Gly Ala Lys Asn Arg Glu Gln Asn His Ala Arg Val
 115
                        120
Leu Ala Asp Trp Leu Arg Lys Leu
 130
<210> 7069
<211> 93
<212> PRT
<213> Enterobacter cloacae
<400> 7069
Ser Gly Glu Lys Arg Met Gly Gln Leu Val Thr Leu His Glu Trp Ala
                                10
Ser Gly Pro Asn Gly Phe Lys Tyr Pro Leu Ser Asn Ser Ala Leu Asn
        20
                            25
                                               3.0
Lys Ile Ala Lys Thr Lys Gln Thr Tyr Pro Pro Ala Leu Lys Gln Gly
      35
                         40
                                           4.5
Arg Arg Trp Val Ile Asp Glu Asp Ala Arg Phe Val Gly Met Val Gly
  50
                    55
                                       60
Ser Val Asp Ile Ser Ser Ser Leu Ser Asp Lys Ala Arg Gln Leu Val
                 70
                                   75
Glu Lys Ala Ile Asn Gly Ser Ser Pro Gln Lys Thr
              85
<210> 7070
<211> 171
<212> PRT
<213> Enterobacter cloacae
<400> 7070
Ser Leu Pro Ala Asp Ala Phe Ala Arg Lys Val Ser Arg Leu Thr Ile
                                10
```

```
Phe Gly Lys Asp Pro Val Met Phe Asp Pro Thr Leu Leu Ile Leu Leu
                           25
         20
Ala Leu Ala Ala Leu Gly Phe Val Ser His Asn Thr Thr Val Ala Ile
                       40
Ser Ile Leu Val Leu Ile Ile Val Arg Val Thr Pro Leu Asn Thr Phe
                    5.5
Phe Pro Trp Ile Glu Lys Gln Gly Leu Thr Ile Gly Ile Ile Leu
                 7.0
                                  75
Thr Ile Gly Val Met Ala Pro Ile Ala Ser Gly Thr Leu Pro Ala Ser
            8.5
                             90
Thr Leu Leu His Ser Phe Val Asn Trp Lys Ser Leu Val Ala Ile Ala
         100 105 110
Val Gly Val Phe Val Ser Trp Leu Gly Gly Arg Gly Val Thr Leu Met
    115 120 125
Ser Ser Gln Pro Ser Leu Val Ala Gly Leu Leu Val Gly Thr Val Leu
 130 135 140
Gly Val Ala Leu Phe Arg Gly Val Pro Val Gly Pro Leu Ile Ala Ala
145 150 155
Gly Leu Val Ser Leu Phe Ile Gly Lys Ser
    165
<210> 7071
<211> 237
<212> PRT
<213> Enterobacter cloacae
<400> 7071
Pro Leu Pro His Pro Leu Ser Glu Glu Ser Ile Lys Leu Ile Leu Phe
                            10
Met Phe Tyr Tyr Asp Arg Ser Leu Asn Phe Gln His Asn Met Gln Ile
                                           3.0
Gln Arg Ser Ser Ala Trp Glu Ser Thr Cys Leu Met Ser Asp Ile Ile
                 4.0
                              4.5
Leu Ala Arg Val Ser Glu Thr Leu Ser Thr Glu Gln Ser Leu Asp Ser
                   55
                        60
Leu Val Arg Gln Leu Leu Glu Met Leu Glu Ile Val Thr Asp Met Glu
    70
                                75
Ser Thr Tyr Leu Thr Lys Ile Asp Ile Asn Ala Arg Leu Gln His Ile
           8.5
                          90
Leu Tyr Ala Arg Asn Ser Lys Gln Met Gln Ile Pro Glu Gly Phe Ser
      100
                        1.05
                                          110
Val Pro Trp Asp Glu Thr Leu Cys Lys Arg Ala Met Asp Ser Asp Thr
   115
                       120
Leu Phe Ser Asn Glu Val Pro Asp Arg Trp Pro Glu Cys Glu Ala Ala
                   135
                                    140
Lys Ala Leu Gly Ile Thr Thr Tyr Met Ser Val Pro Val His Leu Ala
                150
145
                                 155
Asp Gly Ser Leu Tyr Gly Thr Leu Cys Ala Ala Ser Thr Ala Gln Lys
            165
                             170
Gln Phe Ser Glu Arg Gly Glu Gln Val Ile Arg Leu Phe Ala Gly Leu
         180
                          185
Ile Gly Gln Tyr Ile Gln Lys Glu Ser Leu Val Leu Gln Leu Arg Glu
      195
                       200
                              205
Ala Asn Ala Ala Leu Ile Thr His Ser Tyr Thr Asp Ala Leu Thr Gly
 210
                   215
                       220
Leu Pro Asn Arg Arg Ala Ile Phe Glu Asn Leu Thr Thr
```

<210> 7072 <211> 381 <212> PRT

<213> Enterobacter cloacae

```
<400> 7072
Met Ala Ala Arg Pro Arg Lys His Asn Val Lys Ile Pro Asn Leu Tyr
                          10
Cys Lys Leu Asp Lys Arg Thr Ser Lys Ile Tyr Trp Gln Tyr Arg His
      20
                        25
                                    30
Pro Val Thr Gly Ser Phe Ile Gly Phe Gly Thr Asp Asp Glu Ala Ala
                   4.0
                         45
Lys Ala Ala Ala Ile Glu Met Asn Arg Ile Thr Ala Glu Gln Glu Thr
                55
                     60
Gln Gln Ser Tyr Ala Leu Ile Asp Met Ala Met Lys Ser Ser Gly Lys
         70 75
Lys Asp Gln Asp Ile Arg Val Ser Glu Trp Ile Lys Lys Tyr Ile Glu
        85 90 95
Ile Gln Met Glu Arg Leu Arg Asp Gly Glu Ile Lys Asn Pro Thr Val
    100 105 110
Lys Ser Arg Arg Leu Cys Ser Gln Ile Leu Ala Asp Arg Val Pro Asn
   115 120 125
Leu Arg Leu Lys Asp Val Asp Thr Arg Leu Ile Ala Lys Ile Ile Asp
130 135 140
Glu Tyr Lys Ala Glu Gly Lys His Arg Met Gly Gln Leu Ile Arg Ser
145 150 155
Val Leu Asn Asp Val Phe Lys Glu Ala Gln His Ala Gly Glu Val Asp
      165 170
Pro Gly Tyr Asn Pro Ala Leu Ala Val Lys Asn Pro Ile Ala Lys Val
      180 185
                           190
Lys Arg Ser Arg Leu Ser Ile Glu Gln Trp Lys Leu Ile Phe Glu Ser
                    200
                         205
Ala Gly Ser Leu Pro Pro Cys Ala Gln Asn Ser Met Leu Leu Ala Leu
210 215
                                220
Val Thr Gly Gln Arg Ile Gly Asp Ile Val Glu Met Lys Phe Ser Asp
225 230 235
Ile Trp Asp Asn His Leu His Val Thr Gln Asn Lys Thr Gly Met Lys
         245
                          250
Leu Ala Ile Pro Leu Asn Leu Arg Cys Asp Ala Ile Gly Leu Thr Leu
        260 265 270
Ala Asp Val Ile Ser Lys Cys Arg Asp Arg Val Val Ser Pro Tyr Leu
     275 280
                                    285
Ile His His Val Lys His His Ala Tyr Gly Lys Ala Gly Ser His Val
                 295
                                 300
Pro Glu Lys Thr Ile Ser Arg Tyr Phe Lys Glu Ala Arg Asp Lys Ala
                  315
              310
                                             320
Asn Ile Thr Trp Pro Lys Asp Cys Thr Ala Leu Pro Pro Phe His Glu
           325
                           330
                                          335
Gln Arg Ser Leu Ser Ser Arg Thr Tyr Lys Ala Gln Gly Ile Asp Val
                       345
       340
Lys Thr Leu Leu Gly His Lys Thr Glu Ala Met Ser Val Met Tyr Gly
     355
                    360
Asp Asp Arg Gly Leu Glu Trp Lys Lys Val Val Ile
                 375
```

<210> 7073 <211> 179

<212> PRT

<213> Enterobacter cloacae

<400> 7073

Gln Ala Thr Tyr Trp Gln Ile Thr Gly Glu Ile Val Met Ser Asp Asp 10 Val Thr Gly Thr Thr His Gln Arg Leu Ile Ser Leu Leu Thr Glu

Gln Glu Ala Arg Phe Arg Val Val Ala His Glu Ala Val Gly Lys Cys 4.0 Glu Ala Val Ser Glu Ile Arg Gly Thr Asp Leu Arg Gln Gly Ala Lys 5.5 Ala Leu Val Cys Lys Val Lys Gly Asn Gly Val Lys Lys His Ile Leu Ala Ile Leu Ala Ala Asp Arg Gln Ala Asp Leu Ser Leu Leu Ala Ser 8.5 90 His Phe Gly Gly Leu Lys Ala Ser Leu Ala Ser Pro Ala Glu Val Asp 100 105 Ala Leu Thr Gly Cys Val Phe Gly Ala Ile Pro Pro Phe Ser Phe His 120 125 115 Pro Asp Leu Thr Leu Val Ala Asp Pro Leu Leu Phe Glu Arg Phe Asp 135 140 Glu Ile Ala Phe Asn Ala Gly Leu Leu Glu Lys Ser Val Ile Met Asp 150 155 160 Thr Gln Asp Tyr Leu Arg Ile Ala Arg Pro Glu Leu Val Thr Phe Arg 165 Lys Gln

<210> 7074 <211> 399 <212> PRT

<213> Enterobacter cloacae

<400> 7074 Glu Thr Ile Met Thr Thr Ala Ile Gln Pro Ser Gly Lys Gln Gly Ala 10 Leu Leu Val Ala Gly Ile Leu Met Ile Ala Thr Thr Leu Arg Val Thr 20 2.5 Phe Thr Gly Val Ala Pro Leu Leu Asp Thr Ile Arg Gln Asp Tyr Gly 35 40 Leu Ser Thr Ala Gln Thr Gly Leu Leu Thr Thr Leu Pro Leu Leu Ala 50 55 Phe Ala Phe Ile Ser Pro Leu Ala Ala Gly Val Ala Arg Arg Leu Gly 7.0 7.5 Met Glu Arg Ser Leu Phe Ile Ala Leu Leu Leu Ile Cys Ile Gly Ile 85 90 Gly Val Arg Ser Leu Pro Ser Ala Ala Leu Leu Phe Ile Gly Thr Ala 100 105 Ile Val Gly Cys Gly Ile Ala Leu Gly Asn Val Leu Leu Pro Gly Leu 120 125 Ile Lys Arg Asp Phe Pro Gly Gln Val Ala Lys Leu Thr Gly Ala Tyr 135 140 Ser Leu Thr Met Gly Ala Ala Ala Ala Gly Ser Ala Leu Ile Val 150 155 Pro Leu Ser Leu Gly Ser Gly Gly Trp His Gly Ala Leu Leu Met Leu 165 170 Met Phe Phe Pro Leu Val Ala Leu Leu Leu Trp Leu Pro Gln Trp Arg 185 190 Gln Arg Pro Ala Ala Thr Leu Thr Gly Ala Gly Ala Leu His Asn Arg 200 Ala Ile Trp Arg Ser Ala Leu Ala Trp Gln Val Thr Leu Phe Met Gly 215 Ile Asn Ser Leu Ile Tyr Tyr Val Ile Ile Gly Trp Leu Pro Ala Ile 230 235 Leu Leu Ser His Gly Tyr Ser Glu Thr Gln Ala Gly Ser Met His Gly 245 250 Leu Leu Gln Leu Ala Thr Ala Val Pro Gly Leu Ala Ile Pro Leu Ile

```
265
Leu His Arg Leu Asn Asp Gln Arg Gly Ile Ala Gly Leu Val Ala Leu
                     280
                                    285
Met Cys Ala Val Ser Ala Ala Gly Phe Trp Phe Ala Pro Gly Leu Ala
                 295
                            300
Val Val Trp Thr Leu Val Phe Gly Phe Gly Ser Gly Ala Thr Met Ile
              310
                      315
Leu Gly Leu Thr Phe Ile Gly Leu Arg Ala Ser Ser Ala His Gln Ala
         325
                           330
Ala Ala Leu Ser Gly Met Ala Gln Ser Ile Gly Tyr Leu Leu Ala Ala
       340
                  345
Cys Gly Pro Pro Leu Met Gly Lys Ile His Asp Thr Ala Gly Asp Trp
     355 360
                         365
Arg Ile Pro Leu Leu Ala Cys Ala Leu Ala Ala Val Val Met Ala Leu
 370 375 380
Cys Gly Met Leu Ala Gly Arg Asp Arg Glu Ile Thr Pro Arg
<210> 7075
<211> 251
<212> PRT
<213> Enterobacter cloacae
<400> 7075
Gly Ser Leu Cys Tyr Leu Lys Ile Leu Arg His Lys Glu Ser Leu Met
                     10
Glu Leu Ser Pro Val Lys Thr Thr Leu Arg Ile Ala Leu Val Gly Asp
20
                25
Phe Asn Pro Asp Val Ile Ala His Gln Ala Ile Pro Leu Ala Ile Asp
35
               40
Asp Ala Ala Val Leu Asp Leu Thr Ala Asp Tyr Asp Trp Leu Ala
50 55
Thr Pro Glu Leu Thr Ser Pro Glu Asp Leu Val Gly Tyr Asp Ala Ile
65 70 75
Trp Leu Val Pro Ala Ser Pro Tyr Lys Asn Thr Glu Ala Ala Phe Ile
85 90 95
Ala Ala Arg Tyr Ala Arg Glu Asn Ser Ile Pro Phe Leu Gly Thr Cys
     100 105 110
Gly Gly Phe Gln His Ala Leu Ile Glu Tyr Ala Arg Asn Val Leu Gly
     115 120
                                   125
Trp His Asp Ala Gly His Ala Glu Thr Asp Thr Glu Gly Arg Met Val
 130 135 140
Ile Ala Pro Leu Thr Cys Ser Leu Val Glu Lys Thr Asp Ala Ile Glu
145 150 155
Leu Arg Asn Asn Thr Leu Ile Ala Lys Ala Tyr Gly Lys Pro Glu Ile
     165 170 175
Gln Glu Gly Tyr His Cys Asn Tyr Gly Val Ser Ser Glu Phe Ala Ser
        180 185 190
Gln Leu Glu Arg Gly Asp Met Arg Val Thr Gly Trp Asp Glu Gln Gly
   195 200
                                 205
Glu Ile Arg Ala Ala Glu Leu Ile Thr His Pro Phe Phe Val Ile Thr
210 215
                                220
Leu Phe Gln His Glu Arg Ala Ala Leu Gln Gly Arg Pro Val Val Leu
225 230 235
Val Gln Ala Met Leu Arg Ala Ala Gln Gly
           245
<210> 7076
```

<210> 707 <211> 89

<211> 89 <212> PRT

<213> Enterobacter cloacae

```
<400> 7076
Arg Ile Met Ile Met Lys Tyr Leu Leu Leu Ala Leu Val Val Pro Leu
Ala Ala Cys Ser Thr Lys Thr Thr Pro Pro Asp Ala Pro Gln Pro Pro
          20
His Ala Ile Gly Met Ala Asn Pro Ala Ser Val Tyr Cys Leu Glu Lys
                        40
Gly Gly Glu Gln Ile Pro Val Gln Ser Pro Gln Gly Val Arg Thr Glu
                     55
                                60
Cys Lys Leu Pro Gly Gly Glu Val Ile Asp Glu Trp Asp Leu Tyr Arg
                 70
                        75
Arg Asp His Pro Gln Pro Thr Arg
    85
<210> 7077
<211> 275
<212> PRT
<213> Enterobacter cloacae
```

<400> 7077 Asn Asp Ser Leu Ser Leu Ile Ser Asp Asn Phe Met Tyr Gly Leu Gly 1.0 Leu Asp Gly Tyr Asp Pro Asp Ser Gin His Asp Ala Ala Val Ala Phe 20 25 Arg Ile Arg Val Val Ala Gln Glu Gln Phe Ile Pro Leu His Gln His 35 40 Arg Lys Gly Gln Leu Ile Met Ala Leu Gly Gly Ala Ile Thr Cys Glu 5.0 Val Glu Ser Ala Met Leu Met Val Pro Pro Gln Tyr Ala Val Trp Ile 70 75 Pro Gly Gln Thr Pro His Ser Asn Lys Ala Thr Pro Gly Ala Gln Leu 85 90 Cys Leu Leu Phe Ile Glu Pro Gly Ala Leu Glu Leu Pro Thr Arg Thr 100 105 110 Cys Thr Leu Lys Ile Ser Pro Leu Val Arg Glu Leu Val Leu Ala Leu 115 120 125 Ala Asp Arg Ser Arg Glu Glu Leu Pro Leu Pro Ala Thr Gly Arg Leu 130 135 140 Val Asp Val Leu Phe Asp Glu Leu Pro Leu Gln Pro Gln Glu His Leu 145 150 155 160 Gln Leu Pro Val Ser Pro His Pro Lys Ile Arg Leu Met Ser Glu Thr 165 170 175 Met Ala Asn Glu Pro Ala Ala Trp Gln Thr Leu Ala Gln Trp Ala Ser 180 185 190 His Phe Ala Met Ser Glu Arg Asn Leu Ala Arg Leu Val Val Lys Glu 195 200 205 Thr Gly Leu Ser Phe Arg Arg Trp Arg His Gln Leu Gln Leu Ile Val 210 215 220 Ala Leu Gln Phe Leu Ile Gly Gly Lys Ser Val Gln Gln Ala Ala Gln 225 230 235 Ala Leu Gly Tyr Asp Ser Thr Thr Ala Phe Ile Thr Met Phe Lys Lys 245 250 255 Gly Leu Gly Gln Thr Pro Ala Arg Tyr Ile Ala Ser Leu Thr Thr Thr 265

275

<210> 7078 <211> 189 <212> PRT

## <213> Enterobacter cloacae

```
<400> 7078
Thr Gln Arg Pro Ala Asp Cys Thr Phe Thr Asn His Ala Phe Asp Ser
Leu Ile Pro Ser Leu Lys Phe Lys Lys Tyr Asp Ala Val Ile Ser Gly
                          25
                                           30
Met Asp Ile Thr Pro Glu Arg Ser Lys Gln Val Ala Phe Thr Asp Pro
   35
                      4.0
                                       4.5
Tyr Tyr Ala Asn Ser Ala Val Val Ile Ala Lys Lys Gly Ala Tyr Lys
                 55
 50
Ser Phe Asp Glu Leu Lys Gly Lys Arg Ile Gly Met Glu Asn Gly Thr
              7.0
                              7.5
Thr His Gln Lys Tyr Leu Gln Asp Lys His Pro Glu Val Lys Thr Val
            8.5
                             90
                                              95
Ala Tyr Asp Ser Tyr Gln Asn Ala Ile Ile Asp Leu Lys Asn Gly Arg
         100 105
Ile Asp Gly Val Phe Gly Asp Thr Ala Val Val Asn Glu Trp Leu Lys
      115
                             125
          120
Thr Asn Pro Gln Leu Gly Thr Ala Thr Glu Lys Val Thr Asp Pro Gln
130 135
Tyr Phe Gly Thr Gly Leu Gly Ile Ala Val Arg Pro Asp Asn Lys Ala
145 150
                     155
Leu Leu Glu Lys Leu Asn Gly Ala Leu Lys Ala Ile Lys Ala Asp Gly
             165 170
                                               175
Thr Tyr Gln Lys Ile Ser Glu Gln Trp Phe Pro Gln
         180
                          185
```

<210> 7079 <211> 111 <212> PRT

<213> Enterobacter cloacae

<400> 7079

Arg Gln Val Ile Val His Tyr Arg Cys Tyr Ser Pro Ser Gly Leu Phe 10 Phe Glu Glu Arg Glu Met Phe Ala Val Ile Phe Gly Arg Pro Gly Cys 20 25 Pro Tyr Cys Val Arg Ala Lys Glu Leu Ala Glu Lys Leu Thr Glu Glu 35 4.0 Arg Asp Asp Phe Asn Phe Arg Tyr Val Asp Ile His Ala Glu Gly Ile 50 55 60 Thr Lys Ala Asp Leu Glu Lys Thr Val Gly Lys Pro Val Glu Thr Val 70 75 Pro Gln Ile Phe Leu Asp Gln Lys His Ile Gly Gly Cys Thr Asp Phe 85 90 Glu Ala Tyr Ala Lys Glu His Leu Gly Leu Phe Ala Ala Gln 100 105

<210> 7080 <211> 294 <212> PRT <213> Enterobacter cloacae

35

13

```
Leu Thr Thr Ala Ile Lys Pro Ile Ala Gln Asn Tyr Glu Thr Tyr Ile
Leu Leu Ile Ser Leu Val Ile Gly Val Ser Leu Gly Ile Val Val Phe
                70
                                75
Ser Ile Val Asp Leu Ile Val Leu Thr Ile Tyr Glu His Leu Ile Ser
                            90
Lys Lys Lys Ser Gln Ser Glu Leu Lys Ala Ile Lys Glu Lys Asn
       100 105 110
Ile Arg Asp Glu Val Ile Phe Ser Asn Phe Lys Thr Ala Tyr Phe His
   115 120 125
Leu Ser Ile Asp Lys Ile Asn Ile Ile Arg Ser Leu Ile Thr Phe Pro
 130 135 140
Ser Leu Ser Phe His Ser Glu His Glu Asp Val Lys Phe Leu Glu Lys
   150 155 160
Ser Gly Trp Ile Glu Ala Leu Thr Tyr Ile Ser Asp Glu Glu Lys Val
        165 170 175
Tyr Gln Leu Asn Gln Thr Ile Arg Leu Tyr Ala Asp Asp Arg Trp Asn
   180 185 190
Glu Glu Val Asn Phe Asn Thr Asp His Phe His Ser Phe Asp Ala Glu
 195 200 205
Thr Ala Ile Ser Ile Ile Asn Ala Met Ser Asp Val Lys Ile Lys Ala
210 215 220
Glu Leu Asp Glu Phe Asn Phe Ser Phe Tyr Lys Ser Asp Ile Glu Lys 225 \phantom{\bigg|}230\phantom{\bigg|}235\phantom{\bigg|}235\phantom{\bigg|}
Cys Phe Glu Val Ser Glu Phe Thr Glu Thr Leu Tyr Ser Leu Arg Phe
            245 250 255
Lys Glu Arg Tyr Glu Lys Lys Phe Ser Glu Leu His Leu Lys Pro Phe
      260 265 270
Arg Ser Glu Arg Leu Phe Ser Ile Lys Val Arg Glu Asn Ile Pro Asp
                     280
Leu Asp Ile Pro Phe
  290
```

<210> 7081 <211> 601 <212> PRT

<213> Enterobacter cloacae

165

<400> 7081 Cys Leu Gly Tyr Leu Ser Gly Ser Arg Glu Met Gln Ser Asp Ser Leu 10 15 Thr Leu Lys Thr Val Ala Gln Ile Val Leu Ser Phe Asn Asn Leu Leu 25 Val Asn Lys Lys Leu Ala Ser Val Asn Ile Asn Val Ala Asp Leu Leu 4.0 45 Asn Gly Asn Tyr Ile Leu Leu Leu Phe Val Val Leu Ala Leu Gly Leu 55 Cys Leu Gly Lys Leu Arg Leu Gly Ser Val Gln Leu Gly Asn Ser Ile 70 75 Gly Val Leu Val Val Ser Leu Leu Leu Gly Gln Gln His Phe Ser Ile 85 90 Asn Thr Asp Ala Leu Asn Leu Gly Phe Met Leu Phe Ile Phe Cys Val 100 105 110 Gly Val Glu Ala Gly Pro Asn Phe Phe Ser Ile Phe Phe Arg Asp Gly 115 120 125 Lys Asn Tyr Leu Met Leu Ala Leu Val Met Val Gly Ser Ala Leu Leu 135 130 140 Ile Ala Leu Gly Leu Gly Lys Leu Phe Gly Trp Asp Ile Gly Leu Thr 145 150 155 Ala Gly Met Leu Ala Gly Ser Met Thr Ser Thr Pro Val Leu Val Gly

```
Ala Gly Asp Thr Leu Arg His Ser Gly Met Ala Gly Thr Pro Leu Ser
         180
                      185
Ser Ala Leu Asp Asn Leu Ser Leu Gly Tyr Ala Leu Thr Tyr Leu Ile
                    200
                           205
Gly Leu Val Ser Leu Ile Val Gly Ala Arg Tyr Leu Pro Lys Leu Gln
   210
                215
                      220
His Gln Asp Leu Gln Thr Ser Ala Gln Thr Ile Ala Arg Glu Arg Gly
225
        230
                            235 240
Leu Asp Thr Asp Ser Lys Arg Lys Val Tyr Leu Pro Val Ile Arg Ala
           245 250 255
Tyr Arg Val Gly Pro Glu Leu Val Ala Trp Thr Asp Gly Lys Asn Leu
      260 265 270
Arg Glu Leu Gly Ile Tyr Arg Gln Thr Gly Cys Tyr Ile Glu Arg Ile
         280 285
Arg Arg Asn Gly Ile Leu Ala Asn Pro Asp Gly Asp Ala Val Leu Gln
 290 295 300
Met Gly Asp Asp Ile Ala Leu Val Gly Tyr Pro Asp Ala His Ala Arg
305 310 315 320
Leu Asp Pro Ser Phe Arg Asn Gly Lys Glu Val Phe Asp Arg Asp Leu
     325
                         330 335
Leu Asp Met Arg Ile Val Thr Glu Glu Ile Val Val Lys Asn His Asn
 340
                      345 350
Ala Val Gly Arg Arg Leu Ala Gln Leu Lys Leu Thr Asp His Gly Cys
355
         360 365
Phe Leu Asn Arg Val Ile Arg Ser Gln Ile Glu Met Pro Ile Asp Asp
370
                375
                               380
Asn Val Val Leu Asn Lys Gly Asp Val Leu Gln Val Ser Gly Asp Ala
385 390
                            395
Arg Arg Val Lys Thr Val Ala Asp Arg Ile Gly Phe Ile Ser Ile His
      405 410 415
Ser Gln Val Thr Asp Leu Leu Ala Phe Cys Ala Phe Phe Ile Val Gly
        420 425 430
Leu Met Ile Gly Met Ile Thr Phe Gln Phe Ser Asn Phe Ser Phe Gly
                   440
                                445
Ile Gly Asn Ala Ala Gly Leu Leu Phe Ala Gly Ile Met Leu Gly Phe
 450 455
                               460
Leu Arg Ala Asn His Pro Thr Phe Gly Tyr Ile Pro Gln Gly Ala Leu
     470
                          475
Asn Met Val Lys Glu Phe Gly Leu Met Val Phe Met Ala Gly Val Gly
          485 490
                                       495
Leu Ser Ala Gly Ser Gly Ile Gly Asn Gly Leu Gly Ala Val Gly Trp
        500
                      505 510
Gln Met Leu Val Ser Gly Leu Ile Val Ser Leu Val Pro Val Val Ile
                 520 525
Cys Phe Leu Phe Gly Ala Tyr Val Leu Arg Met Asn Arg Ala Leu Leu
                535 540
Phe Gly Ala Met Met Gly Ala Arg Thr Cys Ala Pro Ala Met Glu Ile
             550
                            555
Ile Ser Asp Thr Ala Arg Ser Asn Ile Pro Ala Leu Gly Tyr Ala Gly
           565
                         570 575
Thr Tyr Ala Ile Ala Asn Val Leu Leu Thr Leu Ala Gly Thr Leu Ile
       580 585
                                     590
Ile Ile Ile Trp Pro Gly Leu Gly
                   600
<210> 7082
<211> 160
```

<212> PRT

<213> Enterobacter cloacae

<400> 7082

Pro Lys Val Gly Trp Phe Ala Arg Arg Lys Pro Ser Met Ile Pro Ala Asn Ser Arg Pro Ala Ala Leu Pro Met Pro Lys Leu Lys Leu Leu Asn 25 Trp Lys Val Ile Ile Pro Ile Ile Arg Pro Thr Met Lys Lys Ala Gln 40 Lys Ala Asn Arg Ser Val Thr Trp Leu Trp Ile Glu Ile Lys Pro Ile 55 60 Arg Ser Ala Thr Val Leu Thr Arg Arg Ala Ser Pro Leu Thr Cys Asn 7.0 7.5 Thr Ser Pro Leu Leu Ser Thr Thr Leu Ser Ser Ile Gly Ile Ser Ile 85 90 Trp Leu Arg Ile Thr Arg Leu Arg Lys Gln Pro Trp Ser Val Ser Phe 100 105 110 Ser Cys Ala Arg Arg Arg Pro Thr Ala Leu Trp Phe Phe Thr Thr Ile 115 120 125 Ser Ser Val Thr Ile Arg Met Ser Ser Arg Ser Arg Ser Asn Thr Ser 130 135 140 Phe Pro Leu Arg Lys Leu Gly Ser Arg Arg Ala Trp Ala Ser Gly 145 150 <210> 7083 <211> 176 <212> PRT <213> Enterobacter cloacae <400> 7083 Gln Ser Val Ser Leu Ile Val 11e Ala Thr Asp Ser His Leu Leu Ser His Asp Phe Cys Ala Cys Phe Gly Lys Asp Cys Arg Ile Ala Leu Ser Asp Trp Ala Ser Thr Gly Arg Phe Leu Tyr Leu Ile Glu Ile Ser Gln Glu Asp Ser Leu Asn Phe Lys Arg Asn Trp Ala Gly Val Ile Ser Cys 5.5 Phe Leu Leu Phe Thr Val Val Cys Met Ser Leu Ala Phe Asn Val Lys 7.0 7.5 Gly Ala Phe Arg Ala Ser Gly His Pro Glu Leu Gly Leu Leu Phe Phe 85 90 Ile Leu Pro Gly Val Val Ala Gly Phe Leu Ser Arg Lys Gly Glu Val 100 105 110 Val Met Pro Leu Ile Gly Ala Met Leu Ala Ala Pro Leu Cys Leu Leu 120 125 Leu Met Arg Val Leu Phe Leu Ser Ser Arg Ser Val Trp Gln Glu Val 135 140 Ala Trp Leu Leu Ser Gly Val Phe Trp Cys Ala Leu Gly Ala Leu Cys 145 150 155 160 Phe Leu Phe Thr Arg Ser Leu Leu Gln Gln Arg Lys His Arg Lys 170

<210> 7084 <211> 362 <212> PRT <213> Enterobacter cloacae

 $<\!400>7084$  Arg Val Thr Ala Thr Thr Ala Ala Thr Pro Gly Ala Thr Ile Phe Val I 5 10 15 Ala Pro Leu Ser Arg Arg Thr Ala Arg Ser Phe Ser Thr Thr Cys Thr 20 25 30 Asn Arg Ala Gly Gln Arg Gly Ser Pro Phe Leu Leu Arg Leu Val Tyr

```
Asp Arg Gln Ala Phe Thr Met Ser Leu Glu Arg Cys Arg Val Lys Ile
Ala Ile Leu Ser Arg Asp Gly Thr Leu Tyr Ser Cys Lys Arg Leu Arg
                70
Glu Ala Ala Ala Lys Arg Gly His Gln Val Glu Ile Leu Asp Pro Met
                      90
Ser Cys Tyr Met Asn Ile Asp Pro Ala Ala Ser Ser Ile His Tyr Lys
         100 105
Gly Arg Lys Leu Pro His Pne Asp Ala Val Ile Pro Arg Ile Gly Ser
           120
                             125
Gln Ile Thr Tyr Tyr Gly Thr Ala Ala Leu Arg Gln Phe Glu Met Leu
          135 140
Gly Ser Tyr Pro Leu Asn Glu Ser Val Ala Ile Ser Arg Ala Arg Asp
       150 155
Lys Leu Arg Ser Leu Gln Leu Leu Ala Arg Gln Gly Ile Asp Leu Pro
        165 170 175
Val Thr Gly Ile Ala His Ser Pro Asp Asp Thr Ser Asp Leu Ile Asp
         180 185 190
Met Val Gly Gly Ala Pro Leu Val Ile Lys Leu Val Glu Gly Thr Gln
    195
          200 205
Gly Ile Gly Val Val Leu Ala Glu Thr Arg Gln Ala Ala Glu Ser Val
 210 215 220
Ile Asp Ala Phe Arg Gly Leu Asn Ala His Ile Leu Val Gln Glu Tyr
225 230 235
Ile Lys Glu Ala Lys Gly Cys Asp Ile Arg Cys Phe Val Val Gly Asn
       245 250
Glu Val Val Ala Ala Ile Glu Arg Gln Ala Lys Glu Gly Asp Phe Arg
  260 265 270
Ser Asn Leu His Arg Gly Gly Ile Ala Arg Val Ala Leu Ile Ser Glu
 275 280
Arg Glu Arg Glu Ile Ala Val Lys Ala Ala Gln Thr Leu Gly Leu Asp
 290 295 300
Val Ala Gly Val Asp Leu Leu Arg Ala Asp Arg Gly Pro Leu Val Met
305 310 315
Glu Val Asn Ala Ser Pro Gly Leu Glu Gly Val Glu Lys Thr Thr Gly
         325 330 335
Val Asp Ile Ala Gly Lys Met Ile Ala Trp Ile Glu Cys His Ala Thr
       340 345
Pro Gly Phe Cys Leu Lys Thr Gly Gly
<210> 7085
<211> 171
<212> PRT
<213> Enterobacter cloacae
<400> 7085
Ser Gly Gln Arg Phe Tyr Leu Arg Gly Cys Thr Ala Met Asp Leu Gln
                            10
Val Val Pro Thr Leu Asp Thr Leu Arg Gln Trp Leu Asp Asp Ala Gly
Ile Thr Phe Phe Glu Cys Asp Ser Cys Gln Ala Leu His Leu Pro His
                     4.0
Met Gln Asn Phe Asp Gly Ile Phe Asp Ala Lys Ile Asp Leu Ile Asn
Asp Val Ile Leu Phe Ser Ala Leu Ala Glu Val Lys Pro Ser Ala Leu
                              7.5
Leu Ala Leu Ala Ser Asp Leu Ser Ala Ile Asn Ala Ser Ser Leu Thr
                            90
Val Lys Ala Phe Leu Asp Ile Gln Asp Asp Asn Leu Pro Lys Leu Val
```

<400> 7087

```
105
         100
Val Cys Gln Ser Leu Phe Ser Gly Ala Gly Leu Ser Phe Lys Gln Phe
     115
             120
                             125
Ala Trp Phe Met Arg Leu Ser Glu Glu Gln Ile Ser Met Val Met Met
 130
              135
                         140
Glu Ala Asn Ala His His Leu Leu Tyr Ser Ala Glu Asp Asp Ala Glu
145 150 155
Asn Asn Asp Ala Ser Pro Asn Phe Leu His
           165 170
<210> 7086
<211> 292
<212> PRT
<213> Enterobacter cloacae
<400> 7086
Thr Ser Ala Glu Thr Asp Gly Arg Pro Arg Met Asn Asn Leu Pro Val
1 5
                        10
Val Arg Ser Pro Trp Arg Ile Ala Ile Leu Ile Ile Gly Phe Thr Phe
20
                       25
Leu Tyr Ala Pro Met Leu Met Leu Val Ile Tyr Ser Phe Asn Ser Ser
35
                    4.0
Lys Leu Val Thr Val Trp Ala Gly Trp Ser Thr Arg Trp Tyr Ser Glu
                55 60
Leu Phe His Asp Asp Ala Met Met Ser Ala Val Gly Leu Ser Leu Thr
              7.0
                             75
Ile Ala Ala Leu Ala Ala Thr Met Ala Cys Val Leu Gly Thr Ile Ala
         85 90
Ala Leu Val Met Val Arg Phe Gly Arg Phe Arg Gly Ala Asn Gly Phe
 100 105 110
Ala Phe Met Ile Thr Ala Pro Leu Val Met Pro Asp Val Ile Thr Gly
115 120
                        125
Leu Ser Leu Leu Leu Phe Val Ala Leu Ala His Ala Ile Gly Trp
130 135
                                 140
Pro Ala Asp Arg Gly Met Leu Thr Ile Trp Leu Ala His Val Thr Phe
   150 155 160
Cys Thr Ala Tyr Val Ala Val Val Ile Ser Ser Arg Leu Arg Glu Leu
         165
                          170 175
Asp Arg Ser Ile Glu Glu Ala Ala Met Asp Leu Gly Ala Thr Pro Leu
        180 185
                              190
Lys Val Phe Phe Ile Ile Thr Leu Pro Met Ile Met Pro Ala Val Ile
                  200 205
Ser Gly Trp Leu Leu Ala Phe Thr Leu Ser Leu Asp Asp Leu Val Ile
 210
                                 220
Ala Ser Phe Val Ser Gly Pro Gly Ala Thr Thr Leu Pro Met Leu Val
              230
                             235
Phe Ser Ser Val Arg Met Gly Val Asn Pro Glu Ile Asn Ala Leu Ala
           245
                           250
Ser Ile Ile Leu Gly Val Val Gly Ile Val Gly Phe Ile Ala Trp Tyr
        260
                       265 270
Leu Met Ala Arg Ala Glu Lys Gln Arg Val Arg Asp Ile Gln Arg Ala
 275
                   280
Arg Arg Gly
  290
<210> 7087
<211> 173
<212> PRT
<213> Enterobacter cloacae
```

Cys Ala Ala Tyr Asp Ala Ala Leu Phe Phe Arg Glu Val Lys Thr Leu 10 Gly Phe Leu Gln Lys Thr Arg His Ser His Ala Arg Pro Asn Val Pro 25 Ala Leu Val Gln Val Ala Ala Leu Ala Ile Ile Met Ile Arg Cys Leu 4.0 Asp Val Leu Met Ile Met Asn Thr Leu Gly Pro Arg Gly Met Gly Glu 55 60 Phe Ile His Arg Ser Ala Gln Thr Trp Asn Leu Thr Leu Val Phe Leu 75 80 Ser Ser Leu Met Leu Val Phe Ile Glu Ile Tyr Cys Ala Phe Ser Leu 85 90 Val Lys Gly Arg Asn Trp Ala Arg Trp Val Tyr Leu Leu Thr Gln Ile 100 105 110 Thr Ala Ala Gly Tyr Leu Trp Ala Ala Ser Leu Gly Tyr Gly Tyr Pro 115 120 Glu Leu Phe Ser Ile Pro Gly Gla Ser Arg Arg Glu Ile Phe His Ser 130 135 140 Leu Val Met Gln Lys Leu Pro Asp Met Leu Val Leu Phe Leu Leu Phe 145 150 155 Ala Pro Ala Ser Ser Arg Arg Phe Phe Arg Leu Gln 165

<210> 7088 <211> 514 <212> PRT

<213> Enterobacter cloacae

<400> 7088 Lys Lys Met Pro Pro Ser Arg Arg Ser Phe Ala Pro Ser Gly Ala Lys 1 5 Ala Thr Asn Ser Arg Ser Arg Ile Met Met Arg Arg Phe Ser Leu Ser 25 3.0 Gln Arg Leu Thr Leu Leu Phe Thr Val Leu Leu Leu Cys Ala Thr 40 45 Val Ala Cys Ala Val Gln Leu Tyr Ile Ser Met Gln Tyr Gly Asn Ala Met Val Gln Arg Leu Ser Gly Gly Leu Ala Gln Gln Ile Val Gln Arg 70 7.5 Glu Ala Ile Leu Asp Ser Gln Gly Arg Val Asp Arg Ser Ala Leu Lys 8.5 9.0 Pro Leu Phe Asp Arg Leu Met Thr Phe Asn Pro Ser Val Glu Leu Tyr 100 105 110 Val Val Ser Pro Asp Gly Asp Ile Leu Ala Asp Ala Ala Pro Pro Gly 120 His Ile Gln Arg Gln Lys Ile Asp Leu Ala Pro Ile Gln Asn Phe Leu 135 140 Ser Gly Thr Val Met Pro Val Phe Gly Asp Asp Pro Arg Ser Gln Asn 150 155 Lys Lys Val Phe Ser Ala Thr Pro Leu Arg Gln Asp Gly Glu Leu Lys 165 170 175 Gly Tyr Leu Tyr Ile Ile Leu Gln Gly Glu Glu Ser Asn Ala Leu Ala 180 185 190 Glu Met Ala Trp His Lys Ala Leu Trp Ser Thr Ala Leu Trp Ser Met 200 205 Leu Leu Val Ala Leu Phe Gly Leu Leu Ala Gly Val Leu Leu Trp Tyr 210 215 Trp Val Thr Arg Pro Val Lys Glu Leu Thr Leu Asp Val Ala Gly Leu 230 225 235 Glu Gln Asp Ser Ile Ser Ala Ile Lys Gln Leu Ala Ala Gln Pro Leu 245 250

Glu Pro Ala Gly Gln Asp Glu Val Ala Ile Leu Arg Asn Thr Phe Ile 260 265 Glu Leu Ala Arg Lys Ile Thr Ser Gln Trp Asp Arg Leu Ala Asp Ser 275 280 285 Asp Arg Gln Arg Arg Glu Phe Ile Ala Asn Ile Ser His Asp Leu Arg 290 295 300 Thr Pro Leu Thr Ser Leu Leu Gly Tyr Leu Glu Thr Leu Ser Leu Lys 310 315 320 Ser Ala Thr Leu Ser Pro Gln Glu His Gln Gln Tyr Leu Ala Thr Ala 325 330 335 Leu Arg Gln Gly Gln Lys Val Arg His Leu Ser Gln Gln Leu Phe Glu 340 345 350 Leu Ala Arg Leu Glu His Gly Gly Ile Lys Pro Gln Arg Glu Arg Phe 355 360 365 Ala Met Ala Glu Leu Ile Ser Asp Val Ala Gln Lys Phe Glu Leu Thr 370 375 380 Ala Arg Thr Arg Glu Val Asn Leu Arg Ile Asp Val Pro Gly Arg Leu 390 395 Pro Leu Val Asn Ala Asp Val Ser Met Ile Glu Arg Val Val Thr Asn 405 410 415 Leu Leu Asp Asn Ala Ile Arg His Thr Pro Ser Gly Gly Glu Ile Arg 420 425 430 Leu Ala Val Trp Gln Glu Asr Glu Arg Leu Gln Val Glu Val Ala Asp 435 440 445 Asn Gly Thr Gly Val Asp Ala Ser Leu Arg Asp Asp Leu Phe Gln Arg 450 450 Pro Ser Ala Leu Asn Pro Gln Ala Ser Arg Glu Asn Arg Gly Gly Leu 465 470 475 Gly Leu Leu Ile Val Lys Arg Met Leu Glu Leu His Gly Gly Gly Ile 485 490 495 Arg Leu Met Glu Ser Val Ser Gly Ala Arg Phe Arg Phe Phe Val Pro 500 505

<210> 7089 <211> 406 <212> PRT <213> Enterobacter cloacae

<213> Enteropacter cloacae

<400> 7089

Ala Gly Gln Ala Leu Ala Pro Pro Gly Asp Ala His Pro Asp Gly Ala Phe Ala Pro Val Leu Ile Tyr Ala Gly Glu His Pro Val Asn Asp Ala 30 Ile Pro Arg Pro Gln Ala Lys Val Arg Lys Ala Leu Thr Pro Leu Leu 40 Glu Ile Arg Asn Leu Thr Lys Ser Phe Asp Gly Gln His Ala Val Asp 55 Asp Val Ser Leu Thr Ile Tyr Lys Gly Glu Ile Phe Ala Leu Leu Gly 70 75 Ala Ser Gly Cys Gly Lys Ser Thr Leu Leu Arg Met Leu Ala Gly Phe 90 95 Glu Gln Pro Thr Ala Gly Gln Ile Val Leu Asp Gly Val Asp Leu Ser 100 105 110 Ser Val Pro Pro Tyr Gln Arg Pro Ile Asn Met Met Phe Gln Ser Tyr 115 Ala Leu Phe Pro His Met Thr Val Glu Gln Asn Ile Ala Phe Gly Leu 135 140 Lys Gln Asp Lys Leu Pro Lys Ala Glu Ile Thr Ala Arg Val Ala Glu 150 155

```
Met Leu Ser Leu Val His Met Gln Glu Phe Ala Lys Arg Lys Pro His
          165
                           170
Gln Leu Ser Gly Gly Gln Arg Gln Arg Val Ala Leu Ala Arg Ser Leu
         180
                        185
Ala Lys Arg Pro Lys Leu Leu Leu Asp Glu Pro Met Gly Ala Leu
     195
                    200
                          205
Asp Lys Leu Arg Asp Arg Met Gln Leu Glu Val Val Asp Ile Leu 210 215
Glu Arg Val Gly Val Thr Cys Val Met Val Thr His Asp Gln Glu Glu
               230
                           235
Ala Met Thr Met Ala Gly Arg Ile Ala Ile Met Asn Arg Gly Lys Phe
           245 250 255
Val Gln Ile Gly Glu Pro Glu Glu Ile Tyr Glu His Pro Thr Thr Arg
        260
            265 270
Tyr Ser Ala Glu Phe Ile Gly Ser Val Asn Val Phe Glu Gly Leu Leu
   275
                     280
Lys Glu Arg Gln Asp Asp Gly Leu Val Ile Glu Ser Pro Gly Leu Val
290 295
                                 300
His Pro Leu Lys Val Asp Ser Asp Asn Ser Val Val Asp Asn Val Pro
   310 315
Val Tyr Val Ala Leu Arg Pro Glu Lys Ile Met Leu Cys Asp Glu Pro
           325 330 335
Pro Ala Asp Gly Tyr Asn Phe Ala Val Gly Glu Val Val His Ile Ala
        340
            345
Tyr Leu Gly Asp Leu Ser Ile Tyr His Val Arg Leu Lys Ser Gly Gln
355 360
                                    365
Met Leu Ser Ala Gln Leu Gln Asn Glu His Arg Tyr Arg Lys Gly Gln
370 375 380
Pro Thr Trp Gly Asp Glu Val Ser Leu Cys Trp Asp Ala Asp Ser Cys
                              395
Val Val Leu Thr Val
           405
```

<210> 7090 <211> 321 <212> PRT

<213> Enterobacter cloacae

<400> 7090

Gly Ala Val Met Ser Thr Leu Glu Pro Pro Ala Arg Val Lys Lys Pro 10 Gly Gly Phe Ala Leu Trp Leu Ala Arg Met Gln Met Ala His Gly Arg 20 25 Lys Leu Val Ile Ala Met Pro Tyr Ile Trp Leu Ile Leu Leu Phe Leu Leu Pro Phe Leu Ile Val Phe Lys Ile Ser Leu Ala Glu Met Ala Arg 55 Ala Ile Pro Pro Tyr Thr Asp Leu Trp Glu Trp Ala Asp Gly Gln Leu 75 70 Thr Leu Thr Val Asn Leu Gly Asn Phe Leu Gln Leu Thr Asp Asp Pro Leu Tyr Phe Glu Ala Tyr Leu Gln Ser Leu Gln Val Ala Ala Ile Ser 100 105 Thr Ile Cys Cys Leu Leu Met Gly Tyr Pro Leu Ala Trp Ala Val Ala 115 120 His Ser Lys Pro Ser Thr Arg Asn Ile Leu Leu Leu Leu Val Ile Leu 130 135 Pro Ser Trp Thr Ser Phe Lea Ile Arg Val Tyr Ala Trp Met Gly Ile 150 155 Leu Lys Asn Asn Gly Ile Leu Asn Asn Phe Leu Leu Trp Leu Gly Val 165 170

<210> 7091

<211> 379 <212> PRT

<213> Enterobacter cloacae

245

Ile Asp Gln Pro Leu Thr Ile Leu His Thr Asn Leu Ala Val Tyr Ile 180 185 Gly Ile Val Tyr Ala Tyr Leu Pro Phe Met Val Leu Pro Ile Tyr Thr 195 200 205 Ala Leu Thr Arg Ile Asp Tyr Ser Leu Val Glu Ala Ser Leu Asp Leu 210 215 220 Gly Ala Arg Pro Leu Lys Thr Phe Phe Ser Val Ile Val Pro Leu Thr 230 235 Lys Gly Gly Ile Ile Ala Gly Ser Met Leu Val Phe Ile Pro Ala Val 245 250 255 Gly Glu Phe Val Ile Pro Glu Leu Leu Gly Gly Pro Asp Ser Ile Met 260 265 270 Ile Gly Arg Val Leu Trp Gln Glu Phe Phe Asn Asn Arg Asp Trp Pro 275 280 285 Val Ala Ser Ala Val Ala Ile Val Met Leu Leu Leu Leu Ile Val Pro 290 295 300 Ile Met Trp Phe His Lys His Gln Gln Lys Gln Met Gly Asp His Gly 305 310 315

<400> 7091 Gly Phe His Met Gln Cys Ala Leu Tyr Asp Ala Gly Arg Cys Arg Ser 1 5 10 Cys Gln Trp Ile Glu Gln Pro Val Ser Gln Gln Leu Thr Ala Lys Met 20 25 Ala Asn Leu Gln Gln Leu Leu Ala Ala His Ala Val Gly Glu Trp Cys 35 40 4.5 Ala Pro Val Ser Gly Pro Glu Gln Gly Phe Arg Asn Lys Ala Lys Met 55 Val Val Ser Gly Ser Val Glu Lys Pro Leu Leu Gly Met Leu His Arg 70 75 Asp Gly Thr Pro Glu Asp Leu Thr Asp Cys Pro Leu Tyr Pro Ala Ser 85 90 Phe Glu Pro Val Phe Ser Ala Leu Lys Pro Phe Ile Ala Arg Ala Gly 100 105 110 Leu Thr Pro Tyr Asn Val Ala Arg Arg Arg Gly Glu Leu Lys Tyr Leu 125 Leu Leu Thr Glu Ser Gln Ile Asp Gly Gly Met Met Leu Arg Phe Val 135 140 Leu Arg Ser Glu Thr Lys Leu Glu Gln Leu Arg Ala Ala Leu Pro Gly 145  $1\overline{50}$   $15\overline{5}$   $16\overline{0}$ Leu Gln Gln Gln Leu Pro Gln Leu Lys Val Ile Thr Ala Asn Ile Gln 165 170 Pro Val His Met Ala Ile Met Glu Gly Glu Lys Glu Ile Phe Phe Thr 185 190 Glu Gln His Ala Leu Glu Glu Arg Phe Asn Gly Val Pro Leu Trp Ile 195 200 205 Arg Pro Gln Ser Phe Phe Gln Thr Asn Pro Thr Val Ala Ser Ala Leu 210 215 220 Tyr Thr Thr Ala Arg Asp Trp Val Arg Ala Leu Gln Val His His Met 225 230 235

Trp Asp Leu Phe Cys Gly Val Gly Gly Phe Gly Leu His Cys Ala Thr

Pro Asp Met Gln Leu Thr Gly Ile Glu Ile Ser Ala Glu Ala Ile Ala 260 265 270

250

```
Cys Ala Lys Gln Ser Ala Ala Glu Leu Gly Leu Thr Asn Leu His Phe
          280
 275
Gln Ala Leu Asp Ser Thr Gln Phe Ala Thr Gly Gln Gly Asn Val Pro
 290
               295
                                300
Glu Leu Val Leu Val Asn Pro Pro Arg Arg Gly Ile Gly Gln Ala Leu
305 310
                  315
Cys Asp Tyr Leu Ser Gln Met Ala Pro Glu Tyr Ile Val Tyr Ser Ser
           325 330 335
Cys Asn Ala Gln Thr Met Ala Lys Asp Ile Ala Ser Leu Pro Gly Tyr
        340
            345 350
Arg Ile Ala Arg Val Gln Leu Phe Asp Met Phe Pro His Thr Ala His
     355 360 365
Tyr Glu Val Leu Thr Leu Leu Thr Lys Ala
  370 375
<210> 7092
<211> 271
<212> PRT
<213> Enterobacter cloacae
<400> 7092
Tyr Ser Gln Ala Met Phe Arg Gln Leu His Gln Val Glu His Cys Leu
1 5
Tyr Trp Leu Pro Tyr Val Leu Arg Asn Thr Lys Arg Asp Lys Met Thr
 20
              25
                           30
Pro Thr Ile Asp Leu Leu Arg Ser His Arg Ser Ile Arg His Phe Thr
35 40
                                4.5
Asp Glu Pro Ile Thr Gln Ala Gln Arg Asp Ala Ile Ile Asp Ser Ala
50 55 60
Arg Gly Thr Ser Ser Ser Phe Leu Gln Cys Ser Ser Ile Ile Arg
65 70
                           75
                                            80
Ile Thr Asp Pro Ala Met Arg Glu Gln Leu Val Thr Leu Thr Gly Gly
         85 90
Gln Lys His Val Ala Gln Ala Ala Glu Phe Trp Val Phe Cys Ala Asp
 100
                    105 110
Phe Asn Arg His Leu Gln Ile Cys Pro Glu Ala Glu Leu Gly Leu Ala
115 120 125
                                  125
Glu Gln Leu Leu Gly Val Val Asp Thr Ala Leu Met Ala Gln Asn
130 135
                                140
Ala Phe Thr Ala Ala Glu Ser Leu Gly Leu Gly Gly Val Tyr Ile Gly
145 150 155
Gly Leu Arg Asn Asn Ile Glu Ser Val Thr Glu Leu Leu Lys Leu Pro
           165 170
Lys His Val Leu Pro Leu Phe Gly Leu Cys Leu Gly Trp Pro Ala Asp
      180
                      185
                                      190
Asn Pro Asp Leu Lys Pro Arg Ile Pro Ala Ala Met Leu Val His Glu
195 200 205
Asn His Tyr Gln Pro Val Asp Gln Asp Val Leu His Gln Tyr Asp Glu
210 215 220
Glu Leu Ala Asn Tyr Tyr Leu Thr Arg Asp Ser Asn Asn Arg Arg Asp
              230
                             235
Thr Trp Ser Asp His Ile Arg Arg Thr Ile Ile Lys Glu Asn Arg Pro
           245
                          250
Phe Ile Leu Asp Tyr Leu His Lys Gln Gly Trp Ala Thr Arg
        260
                       265
<210> 7093
<211> 379
```

<sup>&</sup>lt;211> 3/9 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 7093
Arg Thr Phe Arg Arg Asn Asn Met Ile Ala Leu Asn Lys Lys Trp
                             1.0
Leu Ser Gly Leu Val Ala Gly Ala Leu Met Ala Val Ser Ala Gly Thr
         2.0
                         25
Leu Ala Ala Glu Gln Lys Thr Leu His Val Tyr Asn Trp Ser Asp Tyr
                      40
Ile Ala Pro Asp Thr Val Ala Asn Phe Glu Lys Glu Thr Gly Ile Lys
                   55
Val Val Tyr Asp Val Phe Asp Ser Asn Glu Val Leu Glu Gly Lys Leu
                               75
Met Ala Gly Ser Thr Gly Phe Asp Leu Val Val Pro Ser Ala Ser Phe
                          90
Leu Glu Arg Gln Leu Thr Ala Gly Val Phe Gln Pro Leu Asp Lys Ser
                      105
         100
Lys Leu Pro Asn Trp Lys Asn Leu Asp Pro Asp Val Leu Lys Leu Val
             120
     115
                          125
Ala Lys His Asp Pro Asp Asn Lys Tyr Ala Met Pro Tyr Leu Trp Ala
 130
          135
                        140
Thr Thr Gly Ile Gly Tyr Asn Val Asp Lys Val Lys Ala Ala Leu Gly
         150 155
Pro Asp Val Lys Leu Asp Ser Trp Asp Val Val Leu Lys Pro Glu Asn
            165 170 175
Leu Glu Lys Leu Lys Ser Cys Gly Val Ser Phe Leu Asp Ala Pro Glu
        180 185 190
Glu Ile Phe Ala Thr Val Leu Asn Tyr Leu Gly Lys Asp Pro Asn Ser
 195 200 205
Ser Lys Ala Asp Asp Tyr Thr Gly Pro Ala Thr Asp Leu Leu Lys
                215 220
Leu Arg Pro Asn Ile Arg Tyr Phe His Ser Ser Gln Tyr Ile Asn Asp
    230 235
Leu Ala Asn Gly Asp Ile Cys Val Ala Ile Gly Trp Ala Gly Asp Val
            245 250
Trp Gln Ala Ala Asn Arg Ala Lys Glu Ala Lys Asn Gly Val Asn Val
   260
                         265
Ser Tyr Phe Ile Pro Lys Glu Gly Ala Leu Ala Phe Phe Asp Val Phe
                     280
Ala Met Pro Ala Asp Ala Lys Asn Lys Glu Glu Ala Tyr Gln Phe Leu
  290 295 300
Asn Tyr Leu Met Arg Pro Asp Val Ile Ala His Ile Ser Asp His Val
305 310
                               315
Tyr Tyr Ala Asn Gly Asn Lys Ala Ser Glu Pro Leu Val Ser Glu Glu
         325
                            330
Ile Arg Asn Asn Pro Ala Ile Tyr Pro Pro Ala Asp Val Phe Ala Lys
                        345
Leu Phe Thr Leu Lys Val Gln Glu Pro Lys Ile Asp Arg Val Arg Thr
                     360
                                      365
Arg Ala Trp Thr Lys Val Lys Ser Gly Lys
<210> 7094
```

```
<211> 243
<212> PRT
<213> Enterobacter cloacae
```

Glu Thr Gln Pro Trp Asp Ala Val Ile Leu Asp Leu Met Leu Pro Asn 55 Val Asp Gly Leu Glu Ile Cys Arg Arg Ile Arg Gln Met Thr Arg Tyr 75 Leu Pro Ile Ile Ile Ser Ala Arg Ser Ser Glu Thr Asp Arg Ile 85 Thr Gly Leu Glu Thr Gly Ala Asp Asp Tyr Leu Ala Lys Pro Phe Ser 100 105 110 Val Gln Glu Leu Ile Ala Arg Ile Lys Ala Leu Phe Arg Arg Gln Gln 115 120 Ala Met Gly Gln Ala Gln Thr Asp Gly Ile Ile Gln Ala His Gly Leu 130 135 140 Thr Ile Asp Pro Leu Ala Arg Thr Val Arg Leu Asn Gly Gln His Val 150 155 Asp Leu Thr Pro Arg Glu Phe Glu Leu Leu Tyr Phe Phe Ala Arg His 165 170 175 Pro Gly Glu Val Phe Ser Arg Leu Ala Leu Leu Glu Gln Val Trp Gly 180 185 190 Tyr Gln His Glu Gly Tyr Glu His Thr Val Asn Thr His Ile Asn Arg 195 200 205 Leu Arg Ile Lys Ile Glu Lys Asp Ala Ala Glu Pro Glu Ile Val Arg 210 215 220 Thr Val Trp Gly Lys Gly Tyr Lys Phe Ala Glu Gln Asn His Asp Ala Ser Leu

<210> 7095 <211> 699 <212> PRT <213> Enterobacter cloacae

<400> 7095 Leu Met Asn Lys Leu Phe Leu Leu Ser Gly Leu Ala Leu Ala Ile Ser Ser Ala Cys His Ala Glu Leu Arg Thr Trp Pro Asp Pro Thr Gly Pro 20 25 Ser Gln Ser Asp Phe Gly Gly Thr Gly Leu Met Gln Met Pro Asp Ala 4.0 45 Arg Phe Gly Arg Glu Gly Glu Phe Ser Val Asn Tyr Arg Asp Asn Asn 60 Gln Tyr Arg Phe Tyr Ser Ser Ser Val Val Leu Phe Pro Trp Leu Glu 70 7.5 Gly Thr Ile Arg Tyr Thr Asp Val Arg Thr Arg Lys Tyr Ser Ser Asn 90 Glu Asp Phe Ser Gly Asp Gln Ser Tyr Lys Asp Lys Ser Phe Asp Phe 105 Lys Val Arg Leu Trp Glu Glu Asp Tyr Ser Leu Pro Gln Val Ala Leu 120 125 Gly Lys Arg Asp Ile Ala Gly Tar Gly Leu Phe Asp Gly Glu Tyr Leu 135 140 Val Ala Ser Lys Met Ala Gly Pro Val Asp Phe Thr Phe Gly Ile Ala 150 155 Trp Gly Tyr Pro Gly Asn Ser Asp Asn Val Gly Asn Pro Leu Cys His 165 170 Asp Asn Asn Lys Tyr Cys Thr Arg Gly Glu Ser His Asp Ala Gly Asp 180 185 190 Ile Ser Phe Ser Asp Met Phe Arg Gly Pro Ala Ser Leu Phe Gly Gly 200

Leu Gln Tyr Gln Thr Pro Trp Gln Pro Leu Arg Leu Lys Leu Glu Tyr

```
Asp Gly Asn Asn Tyr Ala Asp Asp Phe Ala Gly Ser Ile Lys Gln Ser
        230
                     235
Ser His Ile Asn Val Gly Ala Val Tyr Arg Val Ala Asp Trp Ala Asp
        245
                 250 255
Leu Asn Leu Ser Tyr Glu Arg Gly Asn Thr Leu Met Phe Gly Phe Thr
   260
             265
Leu Arg Thr Asn Phe Asn Asp Leu Arg Pro Ala Leu Arg Asp Asn Pro
 275 280 285
Lys Pro Ala Trp Gln Pro Ala Pro Ala Gly Glu Thr Leu Asp Tyr Thr
      295 300
Ser Ala Ala Asn Gln Leu Thr Ala Leu Lys Tyr Asn Ala Gly Phe Asp
   310 315 320
Ala Pro Glu Ile Leu Gln His Gly Asn Thr Leu Tyr Met Thr Gly Glu
          325 330 335
Gln Tyr Arg Tyr Arg Asp Pro Arg Glu Ala Val Asp Arg Ala Asn Arg
       340 345 350
Ile Leu Ile Asn Asn Leu Pro Asp Gly Val Asp Thr Ile Ala Ile Thr
 355 360 365
Gln Gln Arg Asp His Leu Pro Leu Val Thr Thr Gln Thr Asp Val Ala
 370 375 380
Ser Leu Arg Lys Gln Leu Ala Gly Gln Pro Leu Gly Gln Glu Glu Ala
385 390 395 400
Leu Arg Gln Gln Arg Val Glu Pro Val Asp Thr Thr Ala Phe Gly Arg
   405 410 415
Gly Tyr Arg Ile Arg Ala Asp Arg Phe Ser Tyr Ser Val Lys Pro Thr
 420 425 430
Leu Ala Gln Ser Leu Gly Gly Pro Glu Asp Phe Tyr Met Phe Gln Val
435 440 445
Gly Val Met Ala Ser Ala Ser Tyr Trp Leu Thr Asp Arg Leu Leu Leu
450 455 460
Asp Gly Gly Val Phe Ala Asn Leu Tyr Asn Asn Tyr Asp Lys Phe Lys
465 470 475 480
Ser Ser Leu Leu Pro Ala Asp Ser Ser Leu Pro Arg Val Arg Thr His
    485 490 495
Ile Arg Asp Tyr Val Ser Asn Asp Val Tyr Ile Asn Asn Leu Gln Ala
      500 505 510
Asn Tyr Val Asp Ala Leu Gly Asn Gly Phe Tyr Ala Gln Ile Tyr Gly
515 520 525
Gly Tyr Leu Glu Thr Met Tyr Gly Gly Val Gly Ala Glu Ala Leu Trp
 530 535 1 540
Arg Pro Leu Asp Ser Asp Trp Ala Leu Gly Val Asp Ala Asn Tyr Val
545 550 555
Lys Gln Arg Asp Trp Asp Asp Met Met Arg Phe Thr Asp Tyr Ser Val
        565 570
Pro Thr Gly Phe Ile Thr Ala Tyr Trp Asn Pro Ala Lys Leu Asn Ser
                    585
Val Leu Met Lys Leu Ser Val Gly Gln Tyr Leu Ala Lys Asp Lys Gly
595 600 605
Ala Thr Leu Asp Val Ala Lys Arg Phe Asp Ser Gly Val Thr Val Gly
610 615 620
Val Trp Ala Ala Leu Thr Asn Val Ser Lys Glu Asp Tyr Gly Glu Gly
625 630
                          635
Gly Phe Ser Lys Gly Phe Tyr Ile Ser Ile Pro Leu Asp Leu Met Thr
         645
                        650 655
Ile Gly Pro Asn Arg Asn Arg Ala Val Val Ser Trp Thr Pro Leu Thr
      660 665 670
Arg Asp Gly Gln Met Leu Gly Arg Lys Tyr Gln Leu Tyr Asp Met 675 680 685
Thr Ser Glu Arg Glu Thr Pro Val Gly Gln
```

<210> 7096 <211> 159 <212> PRT <213> Enterobacter cloacae

<400> 7096 Asn Arg Glu Ile Tyr Gln Asn Met Ala Lys Leu Thr Phe Asn Ala Ile Leu Val Ile Cys Thr Gly Asn Ile Cys Arg Ser Pro Ile Gly Glu Arg 25 30 Leu Leu Arg Arg Leu Leu Pro Ala Ala Arg Val Asp Ser Ala Gly Thr 40 4.5 Cys Gly Leu Glu Gly Arg Thr Ala Asp Ser Gln Ala Thr Glu Ile Ala 55 Ala Glu Arg Gly Thr Leu Leu Glu Gly His Val Ala Arg Arg Leu Thr 7.5 70 Pro Ala Met Val Arg Asp Tyr Asp Leu Ile Leu Ala Met Glu Leu Glu 85 9.0 His Ile Glu Gln Phe Tnr Ala Ile Ala Pro Glu Ala Arg Gly Lys Met 105 100 110 Met Leu Phe Gly His Trp Thr Gly Lys Lys Glu Ile Pro Asp Pro Thr 115 120 Val Lys Pro Gly Thr His Leu Asn Met Phe Met Gly Cys Trp Ser Arg 130 135 140 Pro Val Trp Asn Gly Arg Asn Gly Ser Val Asn His Thr Gly

<210> 7097 <211> 729 <212> PRT <213> Enterobacter cloacae

<400> 7097 Leu Arg Phe Met Ser Thr Asn Asn Leu His Ala His Asp Ala Ser Ala 10 Ala Asn Asn Glu Ile Asp Leu Val Arg Leu Leu Gly Glu Leu Leu Asp 20 25 His Arg Lys Phe Ile Leu Ile Leu Thr Ala Leu Phe Thr Leu Val Ala 35 40 Leu Leu Tyr Ala Leu Phe Ala Thr Pro Val Tyr Gln Ala Asp Ala Leu 55 Ile Gln Val Glu Gln Lys Gln Gly Asn Ala Leu Leu Ser Asn Leu Ser 70 7.5 Glu Phe Ile Pro Asp Ser Ser Pro Glu Ser Ala Pro Glu Leu Gln Leu 85 90 Leu Gln Ser Arg Met Ile Leu Gly Lys Thr Ile Asp Asp Leu Asn Leu 100 105 110 Arg Thr Gln Val Ser Glu Asn Tyr Phe Pro Phe Val Gly Arg Gly Trp 115 120 Ala Arg Leu Thr Gly Gln Gln Pro Gly Ile Val Asp Ile Arg Met Leu 130 135 140 Asn Leu Pro Pro Val Ala Gly Arg Ala Gln Lys Leu Thr Leu Thr Val 145 150 155 Gly Glu Lys Gly His Tyr Gln Leu Glu Gly Asp Asn Val Thr Leu Gln 165 170 Gly Val Val Gly Gln Pro Leu Ser Ala Ala Asn Ile Ala Ile Thr Ile 185 190 Ala Asp Ile Gln Ala Lys Pro Gly Thr Gln Phe Thr Ile Thr Gln Gln 200 205 Ser Glu Leu Glu Ala Ile Asp Ala Leu Gln Leu Arg Phe Ser Val Ser

```
Glu Arg Ser Lys Asp Ser Gly Met Leu Gly Leu Thr Ile Thr Gly Glu
                        235
              230
Asp Pro Asp Glu Met Ala Arg Val Leu Asn Cys Ile Ala Asp Asn Tyr
         245
                        250
Leu Gln Gln Asn Val Ala Arg Gln Ala Ala Gln Asp Ala Lys Ser Leu
      260
            265 270
Gln Phe Leu Lys Gln Gln Leu Pro Gln Val Arg Ser Glu Leu Asp Gln
 275
         280 285
Ala Glu Glu Lys Leu Asn Arg Tyr Arg Gln Gln Asn Asp Ser Val Asp
  290 295 300
Leu Asn Leu Glu Ala Lys Ala Val Leu Glu Gln Ile Val Asn Ala Asp
    310 315 320
Asn Gln Leu Asn Glu Leu Thr Phe Arg Glu Ala Glu Ile Ser Gln Leu
       325 330 335
Tyr Lys Lys Asp His Pro Thr Tyr Arg Ala Leu Ile Glu Lys Arg Gln
      340 345 350
Thr Leu Glu Gln Glu Lys Asn Arg Leu Asn Lys Arg Val Ser Ser Met
 355 360 365
Pro Ser Thr Gln Glu Val Leu Arg Leu Ser Arg Asp Val Glu Ser
 370 375 380
Gly Arg Val Ile Tyr Gln Gln Leu Leu Asn Arg Glu Gln Glu Leu Ser
385 390 395
Ile Ala Arg Ser Ser Ala Ile Gly Asn Val Arg Ile Ile Asp Pro Ala
     405 410 415
Val Thr Arg Pro Gln Pro Val Lys Pro Lys Lys Ala Leu Val Val Val
 420 425 430
Leu Gly Val Leu Leu Gly Leu Phe Val Ser Ala Gly Trp Ile Leu Ala
435 440 445
Arg Ser Met Leu Arg Met Gly Ile Glu Thr Pro Glu Gln Leu Glu Glu
 450 455 460
His Gly Ile Asn Val Tyr Ala Thr Val Pro Leu Ser Glu Trp Leu Ala 465 470 475 480
Lys Lys Met Arg Leu Arg Lys Lys Asp Phe Met Ser Pro Gly Leu Arg
          485 490 495
His Lys Thr Lys His Ile Pro Phe Leu Ala Ala Asp Asn Pro Val Asp
   500 505 510
Leu Ser Val Glu Ala Ile Arg Gly Leu Arg Thr Ser Leu His Phe Ala
515 520 525
Met Met Glu Ser Ala Asn Asn Ile Leu Met Ile Ser Gly Ala Thr Pro
 530 535
                               540
Asp Ser Gly Lys Thr Phe Val Ser Ser Thr Leu Ala Ala Val Val Ala
            550
                          555 560
Gln Ala Gly Gln Lys Val Leu Tyr Ile Asp Ala Asp Met Arg Arg Gly
           565 570
Tyr Ala His Asp Leu Phe Lys Leu Asp Asn Thr Cys Gly Leu Ser Glu
      580 585 590
Ile Leu Ser Gly Lys Ala Glu Tyr Thr Gln Gly Val Gln Thr Phe Asp
   595 600
Lys Gly Gly Phe Asp Thr Ile Val Arg Gly Gln Ile Pro Pro Asn Pro
 61.0
      615
                               620
Ala Glu Leu Leu Met His Thr Arg Phe Gln Gln Leu Leu Asp Trp Ala
                 635
   630
Asn Glu Arg Tyr Asp Leu Val Ile Ile Asp Thr Pro Pro Ile Leu Ala
               650
          645
Val Thr Asp Ala Ala Val Val Gly Arg Arg Ala Gly Thr Thr Leu Leu
        660
                      665
Val Ala Arg Phe Gly Met Asn Ser Val Lys Glu Met Leu Val Cys Val
     675 680
Gln Arg Leu Glu Gln Ser Gly Val Asn Thr Lys Gly Val Ile Leu Asn
                 695
```

10

Gly Val Val Lys Arg Ala Ser Asn Ala Tyr Gly Tyr Gly Tyr His His 710 Tyr Gly Tyr Asn Tyr Ser Ser Asn

<210> 7098 <211> 606 <212> PRT

<213> Enterobacter cloacae

<400> 7098 Leu Asn Phe Ala Cys Arg Phe Gln Leu Leu Pro Ser Phe Cys Cys Asn 20 50 55

Lys Asn Asn Ala Leu Lys Arg Ala Arg Lys Met His Phe Cys Ser Trp 25 Ser Ala Ala Pro Gly Gln Gly Ile Pro Phe Ala Lys Gln Gly Gly Val 35 40 45 Ile Met Val Lys Trp Ile Ser Ile Leu Met Ile Phe Leu Ser Ser Gly Ala Met Ala Ile Cys Pro Val Trp Ser Pro Ala Lys Ala Gly Gln Glu 65 70 75 Ile Ala Ala Leu Lys Ala Gln Leu Thr Arg Trp Asn Glu Asp Tyr Trp 85 90 Lys Gln Gly Ser Ser Glu Val Ser Asp Asp Val Tyr Asp Arg Leu Asn 100 105 110 Ala Arg Leu Lys Gln Trp Gln Arg Cys Phe His Asp Glu Pro Leu His 115 120 125 Asp Asp Pro Pro Ala Ala Ser Gly Thr Val Lys His Pro Phe Ala His 130 135 140 Thr Gly Val His Lys Val Glu Ser Lys Gln Ala Leu Ser Arg Trp Met 145 150 155 Ala Thr Gln Gln Asp Leu Trp Val Gln Pro Lys Val Asp Gly Val Ala 165 170 175 Val Thr Leu Val Tyr Lys Asn Gly Lys Leu Ala Gln Ala Ile Ser Arg 180 185 190 Gly Asp Gly Leu Gln Gly Glu Glu Trp Thr Ala Gln Ala Arg Met Ile 195 200 205 Pro Ala Ile Pro Gln Thr Leu Ala Gly Pro Leu Ala Asn Ser Val Leu 210 215 220 Gln Gly Glu Leu Phe Leu Leu Arg Glu Gly His Ile Gln Gln Arg Met 225 230 235 Gly Gly Met Asn Ala Arg Ala Lys Val Ala Gly Ala Met Met Arg Ala 245 250 255 Thr Asp Arg Ala Ala Leu Lys Gin Thr Gly Ile Phe Ile Trp Ala Trp 265 260 270 Pro Asn Gly Pro Lys Val Met Lys Ala Arg Leu Ser Ala Leu Ala Glu 280 285 Ala Gly Phe Thr Leu Thr Ala Arg Tyr Thr Leu Pro Val Lys Asn Ala 295 Ala Asp Val Glu Ala Gln Arg Thr Ala Trp Phe Lys Ala Ser Leu Pro 310 315 Phe Ala Thr Asp Gly Ile Val Val Arg Ala Ser Ala Glu Pro Pro Gly 325 330 Glu Glu Trp Leu Pro Gly Glu Gly Ser Trp Val Val Ala Trp Lys Tyr 350 340 345 Leu Pro Val Ala Gln Val Thr Glu Val Lys Ala Ile His Phe Thr Val 355 360 365 Gly Arg Thr Gly Arg Ile Thr Ala Ile Ala Gln Leu Glu Pro Leu Met 375 380 Leu Asp Asp Lys Arg Val Gln Arg Val Ser Leu Gly Ser Val Asn Arg 390 395

Trp Gln Arg Leu Asp Ile Ala Pro Gly Asp Gln Val Leu Val Ser Leu 405 Ala Gly Gln Gly Ile Pro Arg Leu Asp Asn Val Val Trp Arg Asn Val 420 425 Asp Arg Arg Lys Pro Gln Pro Pro Ser Ser Arg Tyr Asn Gly Leu Thr 440 445 Cys Phe Tyr Ala Ser Pro Glu Cys Met Glu G1n Phe Phe Ala Arg Leu 455 460 Thr Trp Leu Ser Ser Arg Gln Ala Leu Asp Ile Glu Gly Met Gly Glu 470 475 Ser Gly Trp Arg Thr Leu Tyr Gln Ala His Arg Phe Glu His Leu Phe 485 490 495 Ser Trp Leu Gln Leu Thr Gln Ala Gln Leu Thr Ala Thr Pro Gly Ile 500 505 510 Ser Ala Ser His Gly Ala Ala Leu Trp His Gln Phe Asn Leu Ala Arg 515 520 525 Glu Arg Pro Phe Ile Arg Trp Ile Thr Ala Met Gly Ile Pro Leu Ala 530 535 540 Arg Ser Thr Leu Lys Ala Ala Gly Asp Arg Thr Trp Gln Ala Leu Ile 545 550 555 Gln Arg Ser Glu Ala Glu Trp Arg Met Leu Pro Gly Val Gly Gln Glu 565 570 575 Lys Ala Arg Gln Ile Val Asn Trp Leu His Gln Pro Gln Ile Asp Ala 580 585 590 Leu Ala Lys Trp Leu Ala Ala Glu His Ile Gly Gly Phe 600

<210> 7099 <211> 275 <212> PRT

<213> Enterobacter cloacae

<400> 7099 Phe Arg Tyr Arg Pro Gly Thr Pro Glu Arg Thr Asp Ala Arg Arg Gly Arg Ile Pro Cys Arg His Asp Asp Val Glu Ala Arg Pro Met Asn Arg Leu Arg Lys Trp Leu Pro Gly Val Gly Leu Ser Leu Phe Ser Leu Ser 35 40 Ala Leu Cys Ala Ser Val Val Thr Val His Gln Pro Gly Lys Thr Trp 55 60 Ser Ala Glu Pro Ala Asp Thr Leu Ser Arg Leu Val Thr Gln Pro Gln 70 75 Leu Asn Asn Val Trp Trp Gln Gly Ala Val Ile Ala Thr Pro Ser Ala 90 Thr Leu Arg Ala Gln Gln Thr Gln Gln Val Leu Ala Ser Leu Ser 100 105 Val Trp Gln Asn Arg Thr Asp Asp Glu Arg Ile Ala Thr Ile Arg Ala 115 120 Val Ala Ala Gln Ile Arg Ser Leu Arg Ile Val Gly Arg Gln Phe Val 130 135 140 Ser Leu Asp Pro Asp Ala Val Arg Thr Asp Ala Arg Gly Asp Arg Phe 145 150 155 160 Leu Glu Gly Arg Tyr Asp Leu Trp Leu Ser Pro Ala Pro Arg Thr Val 170 165 Thr Leu Met Gly Ala Val Val Thr Pro Gly Lys Arg Ala Trp Arg Pro 180 185 190 Gly Ala Ser Ile Arg Asp Tyr Leu Gln Gly Gln Leu Arg Leu Ala Gly 200 Ala Asp Arg Asn Asn Val Thr Val Ile Asp Pro Asp Gly Ser Thr Val 215 220

Val Ala Pro Val Ala Tyr Trp Asn Ala Arg His Ile Glu Ala Glu Pro 230 235 Gly Ala Val Leu Trp Val Gly Phe Asp Pro Arg Ala Val Pro Asp Asp 245 250 Phe Thr Gly Leu Asn Glu Gln Ile Val Ala Leu Leu Thr Arg Arg Ile 260 265 Pro Asp

275

<210> 7100 <211> 378

<212> PRT

<213> Enterobacter cloacae

<400> 7100 Met Lys Asn Val Lys Phe Ser Val Leu Ala Leu Ala Met Met Ala Leu 10 Ser Gly Cys Thr Ile Val Pro Gly Gln Gly Leu Ser Thr Gln Gly Lys 25 20 Asp Ile Ile Asp Leu Pro Asp Ser Asn Tyr Asp Leu Asn Lys Met Val 35 40 Asn Val Tyr Pro Leu Thr Pro Gly Leu Val Glu Gln Leu Leu Pro Gly 55 60 Lys Val Asp Ser Arg Ala Asn Pro Glu Leu Asp Arg Gln Leu Gln Asn 65 70 75 Tyr Gln Tyr Cys Ile Gly Val Gly Asp Val Leu Met Val Thr Val Trp 85 90 Asp His Pro Glu Leu Thr Thr Pro Ala Gly Gln Tyr Arg Ser Ala Ser 100 105 110 Asp Thr Gly Asn Trp Val Asn Ala Asp Gly Thr Ile Phe Tyr Pro Tyr 115 120 125 Ile Gly Lys Ile Arg Val Val Gly Lys Thr Leu Ala Gln Val Arg Asp 130 135 140 Glu Ile Ala Ala Arg Leu Asp Ser Val Ile Glu Ser Pro Gln Val Asp 145 150 155 Val Ser Val Ala Ala Phe Arg Ser Gln Lys Ala Tyr Val Thr Gly Glu 165 170 Val Ala Lys Ser Gly Gln Gln Pro Ile Thr Asn Ile Pro Leu Thr Ile 180 185 190 Met Asp Ala Ile Asn Ala Ala Gly Gly Leu Thr Ser Glu Ala Asp Trp 195 200 205 Arg His Val Val Leu Thr His Asn Gly Gln Asp Thr His Ile Ser Leu 210 215 220 Tyr Ala Leu Met Gln Arg Gly Asp Leu Thr Gln Asn Lys Leu Leu Tyr 225 230 235 Pro Gly Asp Ile Leu Phe Ile Pro Arg Asn Asp Asp Leu Lys Val Phe 245 250 255 Val Met Gly Glu Val Gly Lys Gln Ser Thr Gln Lys Met Asp Arg Ser 260 265 270 Gly Met Thr Leu Ala Glu Ala Leu Gly Asn Ala Gln Gly Val Asn Gln 280 285 Asp Met Ala Asp Ala Thr Gly Iie Phe Val Ile Arg Pro Leu Gln Gly 295 300 Lys Gln Asn Gly Lys 11e Ala Asn Val Tyr Gln Leu Asn Ala Arg Asp 310 315 Ala Thr Ala Met Val Leu Ser Thr Glu Phe Gln Leu Glu Pro Tyr Asp 325 330 Ile Val Tyr Val Thr Thr Ala Pro Leu Val Arg Trp Asn Arg Val Ile 350 345 Ser Gln Leu Val Pro Thr Ile Thr Gly Val His Asp Leu Thr Glu Thr

```
3142
Gly Arg Tyr Ile Arg Thr Trp Pro Asn
  370
<210> 7101
<211> 226
<212> PRT
<213> Enterobacter cloacae
<400> 7101
Leu Ile Ser Met Leu Phe Asn Gln Gly Phe Leu Val Arg Leu Phe Ile
                            10
Leu Leu Ile Met Thr Leu Leu Ile Gln Gly Cys Thr Pro Ser Gln Gln
                         25
Ser Ile Ile Glu Thr Phe Asn Ala Ser Leu Asp Gly Arg Gln Asp Val
                    40
                                     45
Thr Val Thr Asp Gly Gln Ile Gln Ala Phe Pro Tyr Ser Thr Met Tyr
                            60
 50 55
Leu Arg Leu Asp Asn Gly Pro Arg Ile Leu Val Val Leu Gly Tyr Ile
         70
                    75
Glu Gln Gly Asn Ser Lys Trp Leu Ser Gln Asp Asn Ala Met Ile Val
                 90
          8.5
Thr His Asn Gly Arg Leu Ile His Thr Leu Lys Leu Pro Tyr Asn Leu
      100 105 110
Leu Glu Val Thr Asn Leu Glu His Asp Pro Leu Arg His Thr Pro Gln
115 120 125
Leu Arg Asp Gly Ser Gln Trp Ser Arg Asp Val Arg Trp Gln Glu Glu
 130 135 140
Gly Arg Tyr Arg Ser Ala His Leu Asn Ser Arg Phe Ser Leu Ser Gly
145 150 155 160
Thr Glu Asn Leu Thr Leu Ala Gly Asn Thr Leu Arg Cys Gln Val Trp
         165 170 175
Gln Glu Ala Val Gln Ala Asp Gly Leu Asp Arg Arg Trp His Asn Thr
 180 185 190
Phe Trp Ile Asp Ser Ala Thr Gly Gln Val Arg Gln Ser Glu Gln Met
195 200 205
Leu Gly Ala Gly Val Phe Pro Val Ala Met Thr Met Leu Lys Pro Ala
210 215
Pro
225
<210> 7102
<211> 83
<212> PRT
<213> Enterobacter cloacae
<400> 7102
Gly Pro Arg Gly Ala Gln Ala His Pro Arg His Gly Ala Arg Leu Arg
Ser Asp Ser Gly Asp Gly Ala Gly Thr Tyr Arg Ala Val His Gly Tyr
                        25
Arg Thr Gly Gly Ala Arg Gln Asn Asp Ala Leu Trp Ser Leu Asp Gly
                     4.0
                                     45
Gln Lys Arg Asp Pro Gly Pro His Arg Lys Thr Arg Asp Ala Phe Glu
          55
                             60
Tyr Val Tyr Gly Leu Leu Glu Gln Ala Ser Leu Glu Trp Ala Lys Arg
Leu Ser
```

<210> 7103 <211> 280

```
<212> PRT
<213> Enterobacter cloacae
<400> 7103
Thr Phe Pro Phe Leu Lys Glu Arg Trp Gly Asp Tyr Ser Phe Gln Gly
                             1.0
Leu Leu Arg Ile Gly Ile Ser Val Leu Tyr Pro Tyr Asn Ala Gln Pro
         20
                           25
His Ser Phe Gln Ala Gly Glu Ser Ile Met Arg Pro Ala Gly Arg Asn
                            45
                       40
Ala Asn Gln Val Arg Pro Val Thr Leu Thr Arg Asn Tyr Thr Lys His
 50
                55
                        60
Ala Glu Gly Ser Val Leu Val Glu Phe Gly Asp Thr Lys Val Leu Cys
                70
                     75 80
Thr Ala Ser Ile Glu Lys Gly Val Pro Arg Phe Leu Lys Gly Gln Gly
          85 90
Gln Gly Trp Ile Thr Ala Glu Tyr Cys Met Leu Pro Arg Ala Thr His
       100 105 110
Thr Arg Asn Ala Arg Glu Ala Ala Lys Gly Lys Gln Gly Gly Arg Thr
 115 120 125
Met Glu Ile Gln Arg Leu Ile Ala Arg Ala Leu Arg Ala Ala Val Asp
130 135
                                    140
Leu Lys Thr Leu Gly Glu Phe Thr Ile Thr Leu Asp Cys Asp Val Ile
               150
                                155
Gin Ala Asp Gly Gly Thr Arg Thr Ala Ser Ile Thr Gly Ala Cys Val
           165
                             170
                                            175
Ala Leu Ala Asp Ala Leu Asn Lys Leu Val Ala Ala Gly Lys Leu Lys
        180
                          185
                                           190
Thr Asn Pro Met Lys Gly Met Val Ala Ala Val Ser Val Gly Ile Val
    195 200
                                       205
Asn Gly Glu Ala Leu Cys Asp Lea Glu Tyr Val Glu Asp Ser Ala Ala
210 215
                                    220
Glu Thr Asp Met Asn Val Val Met Thr Glu Asp Gly Arg Ile Ile Glu
225 230
                                 235
Val Gln Gly Thr Ala Glu Gly Glu Pro Phe Thr His Glu Glu Leu Leu
             245 250
Thr Leu Leu Ala Leu Ala Arg Gly Gly Ile Glu Ser Ile Val Ala Thr
        260
                          265
Gln Lys Ala Ala Leu Glu Asn
<210> 7104
<211> 230
<212> PRT
<213> Enterobacter cloacae
<400> 7104
Val Ala Phe Phe Leu Pro Val Arg Leu Lys Arg Gln Arg Ser Lys Ser
Met Lys Ser Tyr Gln Arg Gln Phe Ile Glu Phe Ala Leu Asn Lys Gln
                          25
Val Leu Lys Phe Gly Glu Phe Thr Leu Lys Ser Gly Arg Lys Ser Pro
     35
                 4.0
Tyr Phe Phe Asn Ala Gly Leu Phe Asn Thr Gly Arg Asp Leu Ala Leu
Leu Gly Arg Phe Tyr Ala Glu Ala Leu Val Asp Ser Gly Ile Asp Phe
                70
Asp Leu Leu Phe Gly Pro Ala Tyr Lys Gly Ile Pro Ile Ala Thr Thr
          8.5
                             90
Thr Ala Val Ala Leu Ala Glu His His Asp Arg Asp Val Pro Tyr Cys
```

105

```
3144
Phe Asn Arg Lys Glu Ala Lys Thr His Gly Glu Gly Gly Asn Leu Val
   115
                        120
Gly Ser Ala Leu Gln Gly Arg Val Met Leu Val Asp Asp Val Ile Thr
   130
                    135
Ala Gly Thr Ala Ile Arg Glu Ser Met Glu Ile Ile Gln Ala Asn Gly
                 150
                      155
Ala Thr Leu Ala Gly Val Leu Ile Ser Leu Asp Arg Gln Glu Arg Gly
             165
                               170
Arq Gly Asp Ile Ser Ala Ile Gln Glu Val Glu Arg Asp Tyr Asn Cys
         180
                           185
                                190
Lys Val Thr Ser Ile Ile Thr Leu Lys Asp Leu Ile Ala Tyr Leu Glu
                      200 205
      195
Glu Lys Pro Glu Met Ala Asp His Leu Ala Ala Val Arg Gln Tyr Arg
 210
                   215 220
Glu Glu Phe Gly Val
<210> 7105
<211> 73
<212> PRT
```

<213> Enterobacter cloacae

<400> 7105

Arg Thr Pro Asp Ile Val Ala Gly Val Ala Ala Leu Lys Thr Leu Val 10 Pro Asn Val Val Gly Phe Ala Ala Glu Thr Asn Asn Val Glu Glu Tvr 20 25 Ala Arg Gln Lys Arg Thr Arg Lys Asn Leu Asp Leu Ile Cys Ala Asn 40

4.5

Asp Val Ser Leu Ser Thr Gln Gly Phe Asn Ser Asp Arg Gln Arg Ile 5.5

Ala Pro Phe Leu Ala Gly Trp Arg

<210> 7106

<211> 228

<212> PRT <213> Enterobacter cloacae

<400> 7106

Cys Asn Asn Lys Pro Gln Thr Ser Val Cys Gly Ser Leu Cys Gly Cys 10 Gln Pro Asp Lys Cys Leu Phe Ser Gly Val Phe Cys Asn Met Ala Glu 25 30 Lys Gln Thr Ala Lys Arg Asn Arg Arg Glu Glu Ile Leu Gln Ser Leu 40 Ala Leu Met Leu Glu Ser Ser Asp Gly Ser Gln Arg Ile Thr Thr Ala 55 60 Lys Leu Ala Ala Ser Val Gly Val Ser Glu Ala Ala Leu Tyr Arg His 70 75 Phe Pro Ser Lys Thr Arg Met Phe Asp Ser Leu Ile Glu Phe Ile Glu 85 90 Asp Ser Leu Ile Thr Arg Ile Asn Leu Ile Leu Lys Asp Glu Lys Asp 100 Thr Ser Thr Arg Leu Arg Leu Ile Val Leu Leu Ile Leu Gly Phe Gly 115 120 Glu Arg Asn Pro Gly Leu Thr Arg Ile Leu Thr Gly His Ala Leu Met 130 135 140 Phe Glu Gln Asp Arg Leu Gln Gly Arg Ile Asn Gln Leu Phe Glu Arg 155 150

Ile Glu Ala Gln Leu Arg Gln Val Leu Arg Glu Lys Lys Met Arg Glu

```
165
                             170
Asp Glu Gly Tyr Asn Thr Asp Glu Thr Leu Leu Ala Ser Gln Ile Leu
         180
                    185
                                   190
Ala Phe Cys Glu Gly Met Leu Ser Arg Phe Val Arg Ser Glu Phe Lys
             200
Tyr Arg Pro Thr Asp Asp Phe Asp Ala Arg Trp Pro Leu Val Ala Ala
 210
              215
Gln Leu Gln
225
<210> 7107
<211> 306
<212> PRT
<213> Enterobacter cloacae
<400> 7107
Glu Ala Pro Glu Ser Tyr Asn Pro Pro Ile Ser Pro Leu Lys Thr Gly
                         10
Met Ser Met Ile Arg Ser Met Thr Ala Tyr Ala Arg Arg Glu Ile Lys
 20
                         25
Gly Ser Trp Gly Ser Ala Thr Trp Glu Met Arg Ser Val Asn Gln Arg
35 40
Tyr Leu Glu Thr Tyr Phe Arg Met Pro Glu Gln Phe Arg Ser Leu Glu
             5.5
Pro Val Val Arg Glu Arg Ile Arg Thr Arg Leu Thr Arg Gly Lys Val
65 70
                                75
Glu Cys Asn Leu Arg Phe Glu Pro Asp Ala Ser Ala Gln Gly Glu Leu
      85
                            90
Ile Leu Asn Glu Lys Leu Ala Lys Gln Leu Val Asn Ala Ala Asn Trp
 100
                         105
                                         110
Val Lys Met Gln Ser Asp Glu Gly Glu Ile Asn Pro Val Asp Ile Leu
 115
                     120 125
Arg Trp Pro Gly Val Met Ala Ala Gly Glu Gln Asp Leu Asp Ala Ile
130 135 140
Thr Ala Glu Ile Leu Ala Ala Leu Asp Gly Thr Leu Asp Asp Phe Ile
145 150 155
Val Ala Arg Glu Thr Glu Gly Gln Ala Leu Lys Ala Met Ile Glu Gln
            165
                            170 175
Arg Leu Glu Gly Val Ser Ala Glu Val Ala Lys Val Arg Ala His Met
         180
                         185
Pro Glu Val Leu Gln Trp Gln Arg Glu Arg Leu Val Ala Lys Leu Glu
                      200
                                      205
Glu Ala Glu Val Gln Leu Glu Asn Asn Arg Leu Glu Gln Glu Leu Val
                  215
                                   220
Leu Met Ala Gln Arg Val Asp Val Ala Glu Glu Leu Asp Arg Leu Glu
               230
                               235
Ala His Val Lys Glu Thr Tyr Asn Ile Leu Lys Lys Lys Glu Ala Val
            245
                            250
Gly Arg Arg Leu Asp Phe Met Met Gln Glu Phe Asn Arg Glu Ser Asn
         260
                         265 270
Thr Leu Ala Ser Lys Ser Ile Asn Ala Glu Val Thr Asn Ser Ala Ile
                      280
                            285
Glu Leu Lys Val Leu Ile Glu Gln Met Arg Glu Gln Ile Gln Asn Ile
                   295
Glu
305
<210> 7108
<211> 193
<212> PRT
<213> Enterobacter cloacae
```

<400> 7108 His Ile Gln Lys Thr Leu Met Ala Gln Gly Thr Leu Tyr Ile Val Ser Ala Pro Ser Gly Ala Gly Lys Ser Ser Leu Ile Gln Ala Leu Leu Lys 25 Thr Gln Pro Leu Tyr Asp Thr Gln Val Ser Val Ser His Thr Thr Arg 35 40 45 Ala Pro Arg Pro Gly Glu Val His Gly Glu His Tyr Phe Phe Val Asn 55 His Asp Glu Phe Arg Ala Met Ile Gly Arg Asp Ala Phe Leu Glu His 75 7.0 Ala Glu Val Phe Gly Asn Tyr Tyr Gly Thr Ser Arg Glu Thr Ile Glu 85 90 95 Gln Val Leu Ala Thr Gly Val Asn Val Phe Leu Asp Ile Asp Trp Gln 100 105 110 Gly Ala Gln Gln Ile Arg Lys Lys Met Pro Asp Ser Arg Ser Ile Phe 115 120 125 Ile Leu Pro Pro Ser Lys Asp Glu Leu Asp Arg Arg Leu Arg Gly Arg 130 135 140 Gly Gln Asp Ser Glu Glu Val Ile Ala Lys Arg Met Ala Gln Ala Val 145 150 155 Ala Glu Met Ser His Tyr Ala Glu Tyr Asp Tyr Leu Ile Val Asn Asp 165 170 Asp Phe Asp Ala Pro Leu Ser Asp Arg Phe His Gln Arg Arg Pro Glu 180 185 Gly

<211> 215 <212> PRT <213> Enterobacter cloacae

<210> 7109

<400> 7109 Ser Pro Ser Leu His Ser Gly Gly Phe Met Leu Leu His Ile Leu Tyr 10 15 Leu Ile Gly Ile Thr Ala Glu Ala Met Thr Gly Ala Leu Ala Ala Gly 20 25 Arg Arg Arg Met Asp Thr Phe Gly Val Ile Ile Ile Ala Thr Ala Thr 35 40 4.5 Ala Leu Gly Gly Gly Ser Val Arg Asp Ile Leu Leu Gly His Tyr Pro 5.5 Leu Gly Trp Val Lys Asn Pro Glu Tyr Val Ile Ile Val Ala Thr Ala 70 75 Ala Val Leu Thr Thr Ile Val Ala Pro Val Met Pro His Leu Arg Arg 85 90 Val Phe Leu Val Leu Asp Ala Leu Gly Leu Ile Val Phe Ser Ile Ile 100 105 110 Gly Ala Gln Ile Ala Leu Asp Met Gly Glu Gly Pro Val Ile Ala Thr 120 Ile Ala Ala Val Ile Thr Gly Val Phe Gly Gly Val Leu Arg Asp Met 135 140 Phe Cys Lys Arg Ile Pro Leu Val Phe Gln Lys Glu Leu Tyr Ala Gly 150 155 Ile Ser Phe Ala Ala Ala Val Leu Tyr Val Ala Leu Gln His Tyr Val 165 170 175 Thr Ser His Asp Val Val Val Ile Ser Thr Leu Leu Phe Gly Phe Thr 190 180 185 Ala Arg Met Leu Ala Leu Arg Leu Lys Leu Gly Leu Pro Val Phe His 200 205

```
3147
Tyr Lys His Asn Ala His
   210
<210> 7110
<211> 190
<212> PRT
<213> Enterobacter cloacae
<400> 7110
Gln Arg Gln Ala Thr His Cys Thr Phe Ser Gly Arg Met Glu Ile Lys
                               10
Ser Tyr Arg Leu Ser Ala Lys Asn Ser Trp Ala Asn Thr Tyr Trp Thr
Arg Ser Leu Pro Val Met Met Lys Lys Ile Asp Val Lys Ile Leu Asp
                        40
                                         4.5
Pro Arg Val Gly Glu Gln Phe Pro Leu Pro Thr Tyr Ala Thr Ser Gly
              5.5
                            60
Ser Ala Gly Leu Asp Leu Arg Ala Cys Leu Asp Asp Ala Val Glu Leu
                70
                            75
Ala Pro Gly Ala Thr Thr Leu Ile Pro Thr Gly Leu Ala Ile His Ile
             8.5
                            90
Ala Asp Pro Ser Leu Ala Ala Val Ile Leu Pro Arg Ser Gly Leu Gly
        100 105
His Lys His Gly Val Val Leu Gly Asn Leu Val Gly Leu Ile Asp Ser
 115 120 125
Asp Tyr Gln Gly Gln Leu Met Val Ser Val Trp Asn Arg Gly Gln Asp
 130 135 140
Ser Phe Thr Ile Glu Pro Gly Glu Arg Ile Ala Gln Met Val Phe Val
145 150 155 160
Pro Val Val Glm Ala Glu Phe Asn Leu Val Ala Asp Phe Asp Ala Thr
       165 170
Asp Arg Gly Glu Gly Gly Phe Gly His Ser Gly Arg Lys
          180
<210> 7111
<211> 526
<212> PRT
<213> Enterobacter cloacae
<400> 7111
Phe Ala Ala Gly Glu Cys Phe Pro Arg Met Arg Ile Ser Phe Ser Val
                              1.0
Leu Ala Ser Pro Ser Asp Asp Phe Met Asp Ala Leu Leu Gln Leu Lys
                           25
Gly Ile Asp Lys Ser Phe Pro Gly Val Lys Ala Leu Ser Gly Ala Ala
      35
                       40
                                        4.5
Leu Asn Val Tyr Ser Gly Arg Val Met Ala Leu Val Gly Glu Asn Gly
            5.5
                                     60
Ala Gly Lys Ser Thr Met Met Lys Val Leu Thr Gly Ile Tyr Gln Arg
                70
                                  75
Asp Ala Gly Ser Leu Leu Trp Leu Gly Lys Glu Thr Thr Phe Asn Gly
             85
                              90
Pro Lys Ser Ser Gln Glu Ala Gly Ile Gly Ile Ile His Gln Glu Leu
         100
                           105
                                            110
Asn Leu Ile Pro Gln Leu Thr Ile Ala Glu Asn Ile Phe Leu Gly Arg
                       120
```

Glu Phe Val Asn Arg Phe Gly Lys Ile Asp Trp Lys Thr Met Tyr Ala 135

Glu Ala Asp Lys Leu Leu Ala Lys Leu Asn Leu Arg Phe Lys Ser Asp

Arg Leu Val Gly Asp Leu Ser Ile Gly Asp Gln Gln Met Val Glu Ile

155

150

```
170
Ala Lys Val Leu Ser Phe Glu Ser Lys Val Ile Ile Met Asp Glu Pro
         180
                         185
                                        190
Thr Asp Ala Leu Thr Asp Thr Glu Thr Glu Ser Leu Phe Arg Val Ile
      195
                   200
                                   205
Arg Glu Leu Lys Ser Gln Gly Arg Gly Ile Val Tyr Ile Ser His Arg
           215 220
Met Lys Glu Ile Phe Glu Ile Cys Asp Asp Val Thr Val Phe Arg Asp
          230 235
Gly Gln Phe Ile Ala Glu Arg Glu Val Ala Thr Leu Thr Glu Asp Ser
          245 250 255
Leu Ile Glu Met Met Val Gly Arg Lys Leu Glu Asp Gln Tyr Pro His
       260 265 270
Leu Glu Lys Ala Pro Gly Glu Ile Arg Leu Lys Val Asp Asn Leu Cys
   275 280
Gly Pro Gly Val Asn Asp Val Ser Phe Thr Leu Arg Lys Gly Glu Ile
 290 295 300
Leu Gly Val Ala Gly Leu Met Gly Ala Gly Arg Thr Glu Leu Met Lys
305 310 315
Val Leu Tyr Gly Ala Leu Pro Arg Thr Ser Gly Tyr Val Thr Leu Asp
            325 330
Gly His Glu Val Val Thr Arg Ser Pro Gln Asp Gly Leu Ala Asn Gly
      340 345 350
Ile Val Tyr Ile Ser Glu Asp Arg Lys Arg Asp Gly Leu Val Leu Gly
                         365
355 360
Met Ser Val Lys Glu Asn Met Ser Leu Thr Ala Leu Gly Tyr Phe Ser
370 375
                                  380
Arg Ser Gly Gly Ser Leu Lys His Lys Asp Glu Gln Gln Ala Val Ser
385 390 395
Asp Phe Ile Arg Leu Phe Asn Val Lys Thr Pro Ser Met Glu Gln Ala
           405 410
Ile Gly Leu Leu Ser Gly Gly Asn Gln Gln Lys Val Ala Ile Ala Arg
        420 425
                                        430
Gly Leu Met Thr Arg Pro Lys Val Leu Ile Leu Asp Glu Pro Thr Arg
                   440
                          445
Gly Val Asp Val Gly Ala Lys Lys Glu Ile Tyr Gln Leu Ile Asn Gln
 450 455
                                  460
Phe Lys Ala Asp Gly Leu Ser Ile Ile Leu Val Ser Ser Glu Met Pro
    470
                            475 480
Glu Val Leu Gly Met Ser Asp Arg Ile Ile Val Met His Glu Gly His
           485 490
Leu Gly Gly Glu Phe Thr Arg Glu Gln Ala Thr Gln Glu Val Leu Met
         500 505
Ala Ala Ala Val Gly Lys Leu Asn Arg Val Asn Gln Glu
                     520
<210> 7112
<211> 90
<212> PRT
<213> Enterobacter cloacae
<400> 7112
Ser Ser Pro Ser Ala Ala Val Gly Cys Gly Leu Ala Ser Met Ala Lys
Val Val Ala Cys Arg Ala Leu Arg Ser Lys Pro Leu Ile Pro Ser Pro
Gln Gly Asp Thr Phe Asn Gly Ala Leu Val Thr Ala Leu Leu Glu Gly
     35
                     40
Lys Ala Met Asp Asp Ala Ile Arg Phe Ala His Ala Ala Ala Ile
Ala Val Thr Arg Lys Gly Ala Gin Pro Ser Val Pro Trp Arg Lys Glu
```

```
7.0
                                           8.0
Ile Asp Glu Phe Leu Ser Gln Gln Gly
           85
<210> 7113
<211> 332
<212> PRT
<213> Enterobacter cloacae
<400> 7113
Arg Leu Ala Thr Met Lys Asp Val Ala Arg Met Ala Gly Val Ser Thr
                    10
         5
Ser Thr Val Ser His Val Ile Asn Asn Asp Arg Phe Val Ser Glu Ala
   20
                  25
Ile Arg Glu Lys Val Asp Ala Ala Ile Lys Glu Leu Asn Tyr Ala Pro
 35 40
                        4.5
Ser Ala Leu Ala Arg Ser Leu Lys Leu Asn Gln Thr Arg Thr Ile Gly
 50 55 60
Met Leu Ile Thr Ala Ser Thr Asn Pro Phe Tyr Ser Glu Leu Val Arg
65 70 75
Gly Val Glu Arg Ser Cys Phe Glu Arg Gly Tyr Ser Leu Val Leu Cys
     85
               90
Asn Thr Glu Gly Asp Glu Gln Arg Met Asn Arg Asn Leu Glu Thr Leu
       100 105 110
Met Gln Lys Arg Val Asp Gly Leu Leu Leu Cys Thr Glu Thr His
115 120 125
Gln Pro Ser Lys Glu Ile Ile Gln Arg Tyr Pro Ser Ile Pro Thr Val
130 135 140
Met Met Asp Trp Ala Pro Phe Asp Gly Thr Ser Asp Leu Ile Gln Asp
145 150 155
Asn Ser Leu Leu Gly Gly Asp Met Ala Thr Gln His Leu Ile Asp Lys
          165 170 175
Gly His Thr Arg Ile Ala Cys Ile Thr Gly Pro Leu Asp Lys Thr Pro
        180 185 190
Ala Arg Leu Arg Leu Glu Gly Tyr Leu Ser Ala Met Glu Arg Ala Gly
195 200 205
Leu Ala Ile Pro Asp Gly Tyr Arg Ile Thr Gly Asp Phe Glu Phe Asn
 210 215 220
Gly Gly Phe Glu Ala Met Gln Lys Leu Leu Ala Gln Glu Pro Arg Pro
             230 235
225
Gln Ala Val Phe Ile Gly Asn Asp Ala Met Ala Phe Gly Ala Tyr Gln
     245
                         250 255
Ala Leu Tyr Gln Ala Gly Leu Arg Val Pro Asp Asp Met Ala Ile Val
                      265 270
Gly Tyr Asp Asp Ile Glu Leu Ala Arg Tyr Met Thr Pro Pro Leu Thr
   275 280
                                285
Thr Ile His Gln Pro Lys Asp Glu Leu Gly Glu Leu Ala Ile Asp Val
                295 300
Leu Ile His Arg Met Ala Gln Pro Thr Leu Gln Gln Gln Arg Leu Gln
305 310 315
Leu Thr Pro Val Leu Met Glu Arg Gly Ser Val
           325
<210> 7114
<211> 624
<212> PRT
<213> Enterobacter cloacae
<400> 7114
Ser Met Ser Thr Asp Asn Lys Glr Ser Leu Pro Ala Val Thr Leu Ala
                          10
```

Ala Ile Gly Val Val Tyr Gly Asp Ile Gly Thr Ser Pro Leu Tyr Thr 20 25 Leu Arg Glu Cys Leu Ser Gly Gln Phe Gly Phe Gly Val Glu Arg Asp Ala Val Phe Gly Phe Leu Ser Leu Ile Phe Trp Leu Leu Ile Leu Val 55 Val Ser Leu Lys Tyr Leu Ser Phe Val Met Arg Ala Asp Asn Ala Gly 7.0 75 Glu Gly Gly Ile Leu Thr Leu Met Ser Leu Ala Gly Arg Asn Thr Ser 90 95 Ala Arg Met Thr Ser Val Leu Val Ile Ile Gly Leu Ile Gly Gly Ser 100 105 110 Phe Phe Tyr Gly Glu Val Val Ile Thr Pro Ala Ile Ser Val Met Ser 115 120 125 Ala Ile Lys Gly Leu Glu Ile Val Ala Pro Gln Leu Asp Thr Trp Val 130 135 140 Val Pro Leu Ala Ile Ile Val Leu Thr Leu Leu Phe Ala Ile Gln Lys 150 155 160 His Gly Thr Gly Leu Val Gly Lys Leu Phe Ala Pro Ile Met Leu Ala 165 170 175 Trp Phe Leu Ile Leu Ala Ala Leu Gly Leu Arg Ser Ile Ile Ala Asn 180 185 Pro Asp Val Leu His Ala Leu Asn Pro Leu Trp Ala Val His Phe Phe 195 200 205 Leu Lys Tyr Lys Val Val Ser Phe Val Ala Leu Gly Ala Val Val Leu 210 215 220 Ser Ile Thr Gly Val Glu Ala Leu Tyr Ala Asp Met Gly His Phe Gly 225 230 235 240 Lys Leu Pro Ile Arg Val Ala Trp Phe Ser Val Val Leu Pro Ser Leu 245 250 255 Val Leu Asn Tyr Phe Gly Gln Gly Ala Leu Leu Leu Ala His Pro Glu 260 265 270 Ala Ile Lys Asn Pro Phe Phe Leu Leu Ala Pro Asp Trp Ala Leu Val 275 280 285 Pro Met Leu Ile Leu Ala Thr Leu Ala Thr Val Ile Ala Ser Gln Ala 290 295 300 Val Ile Ser Gly Val Phe Ser Leu Thr Arg Gln Ala Val Arg Leu Gly 305 310 315 Tyr Leu Ser Pro Met Arg Ile Ile His Thr Ser Glu Met Glu Ser Gly 325 330 Gln Ile Tyr Ile Pro Phe Val Asn Trp Leu Leu Tyr Phe Ala Val Val 345 Ile Val Ile Val Ser Phe Glu His Ser Ser Asn Leu Ala Ala Ala Tyr 360 365 Gly Ile Ala Val Thr Gly Thr Met Val Leu Thr Ser Ile Leu Ser Thr 375 380 Thr Val Ala Tyr Arg Asn Trp His Trp Asn Lys Phe Leu Val Gly Leu 395 Ile Leu Val Gly Phe Leu Cys Ile Asp Val Pro Leu Phe Ser Ala Asn 405 410 Leu Asp Lys Ile Val Ser Gly Gly Trp Leu Pro Leu Thr Leu Gly Leu 420 425 Val Met Phe Ile Val Met Thr Thr Trp Lys Ser Glu Arg Phe Arg Leu 440 Leu Arg Arg Met His Glu His Gly Asn Ser Leu Glu Ala Met Ile Ala 455 460 Ser Leu Glu Lys Ser Pro Pro Val Arg Val Pro Gly Thr Ala Val Tyr 470 475 Met Ser Arg Ala Leu Asn Val Ile Pro Phe Ala Leu Met His Asn Leu 485 490 Lys His Asn Lys Val Leu His Glu Arg Val Ile Leu Leu Thr Leu Arg

```
500
                       505
Thr Glu Asp Ala Pro Tyr Val His Asn Val Arg Arg Val Gln Ile Glu
   515
                 520
                                525
Gln Leu Ser Pro Thr Phe Trp Arg Val Val Ala Ser Tyr Gly Trp Arg
 530
                 535
                               540
Glu Thr Pro Asn Val Glu Glu Val Phe His Arg Cys Gly Leu Glu Gly
                    555
              550
Leu Ser Cys Arg Met Met Glu Thr Ser Phe Phe Met Ser His Glu Ser
           565 570 575
Leu Ile Ile Gly Lys Arg Pro Trp Tyr Leu Arg Leu Arg Gly Lys Leu
        580 585 590
Tyr Leu Ile Leu Gln Arg Asn Ala Leu Arg Ala Pro Asp Gln Phe Glu
   595 600 605
Ile Pro Pro Asn Arg Val Ile Glu Leu Gly Thr Gln Val Glu Ile
<210> 7115
<211> 277
<212> PRT
<213> Enterobacter cloacae
<400> 7115
Ile Arg Ser Lys Lys Met Thr Thr Gln Ala Val Ser Gly Arg Arg Tyr
         - 5
               10
Phe Thr Lys Ala Trp Leu Met Glu Gln Lys Ser Leu Ile Ala Leu Leu
 20 25
Val Leu Ile Ala Ile Val Ser Tor Met Ser Pro Asn Phe Phe Thr Val
35 40 45
Asn Asn Leu Phe Asn Ile Leu Gln Gln Thr Ser Val Asn Ala Ile Met
50 55 60
Ala Val Gly Met Thr Leu Val Ile Leu Thr Ser Gly Ile Asp Leu Ser
65 70
                             7.5
Val Gly Ser Leu Leu Ala Leu Thr Gly Ala Ile Ala Ala Ser Ile Val
      85
                         90
Gly Ile Glu Val Asn Ala Leu Val Ala Val Ala Ala Ala Leu Ala Ala
   100 105
Gly Ala Ala Ile Gly Ala Val Thr Gly Val Ile Val Ala Lys Gly Arg
 115 120
                        125
Val Gln Ala Phe Ile Ala Thr Leu Val Met Met Leu Leu Leu Arg Gly
 130 135
                               140
Val Thr Met Val Tyr Thr Asn Gly Ser Pro Ile Asn Thr Gly Phe Thr
145 150 155
Asp Asn Ala Asp Leu Phe Gly Trp Phe Gly Ile Gly Arg Pro Leu Gly
     165 170 175
Val Pro Thr Pro Val Trp Ile Met Ala Ile Val Phe Leu Ala Ala Trp
       180 185
                                     190
Tyr Met Leu His His Thr Arg Leu Gly Arg Tyr Ile Tyr Ala Leu Gly
  195 200
                                  205
Gly Asn Glu Ala Ala Thr Arg Leu Ser Gly Ile Ser Val Asn Lys Val
 210 215
                               220
Lys Ile Ile Val Tyr Ser Leu Cys Gly Leu Leu Ala Ser Leu Ala Gly
              230 235 240
Ile Ile Glu Val Ala Arg Leu Ser Ser Ala Gln Pro Thr Ala Gly Thr
          245 250 255
Gly Tyr Glu Leu Asp Ala Ile Ala Ala Val Val Leu Gly Gly Thr Ser
       260
                      265
                                      270
Pro Cys Gly Arg
```

<210> 7116 <211> 332

<212> PRT <213> Enterobacter cloacae <400> 7116 Ile Met Lys Thr Ala Tyr Ile Ala Lys Gln Arg Gln Ile Ser Phe Val 1.0 Lys Ser His Phe Ser Arg Gln Leu Glu Glu Lys Leu Gly Leu Ile Glu 20 Val Gln Ala Pro Ile Leu Ser Arg Val Gly Asp Gly Thr Gln Asp Asn 40 Leu Ser Gly Cys Glu Lys Ala Val Gln Val Lys Val Lys Thr Leu Pro 5.5 60 Asp Ala Gln Phe Glu Val Val His Ser Leu Ala Lys Trp Lys Arg Gln 70 75 Thr Leu Gly Gln His Asp Phe Ser Ala Gly Glu Gly Leu Tyr Thr His 8.5 90 Met Lys Ala Leu Arg Pro Asp Glu Asp Arg Leu Ser Pro Ile His Ser 100 105 110 Val Tyr Val Asp Gln Trp Asp Trp Glu Arg Val Met Gly Asp Gly Glu 115 120 125 Arg His Val Gly Thr Leu Lys Ser Thr Val Glu Ala Ile Tyr Ala Gly 130 135 140 Ile Lys Ala Thr Glu Ala Ala Val Ser Lys Glu Phe Gly Leu Ala Pro 145 150 155 Phe Leu Pro Glu Thr Ile His Phe Val His Ser Gln Glu Leu Leu Ser 165 170 Arg Phe Pro Asp Leu Asp Ala Lys Gly Arg Glu Arg Ala Ile Ala Lys 180 185 Glu Leu Gly Ala Val Phe Leu Ile Gly Ile Gly Gly Lys Leu Ser Asp 195 200 205 Gly Lys Arg His Asp Val Arg Ala Pro Asp Tyr Asp Asp Trp Ser Thr 210 215 220 Val Gly Glu Ser Glu Tyr Ala Gly Leu Asn Gly Asp Ile Leu Val Trp 225 230 235 Asn Pro Val Leu Glu Asp Ala Phe Glu Leu Ser Ser Met Gly Ile Arg 245 250 Val Asp Ala Glu Ala Leu Lys Arg Gln Leu Ala Val Thr Gly Asp Glu 260 265 270 Asp Arg Leu Gln Leu Glu Trp His Gln Ala Leu Leu Arg Gly Glu Met 275 280 285 Pro Gln Thr Ile Gly Gly Gly Ile Gly Gln Ser Arg Leu Thr Met Leu 290 295 300 Leu Leu Gln Leu Ser His Ile Gly Gln Val Gln Cys Gly Val Trp Pro 305 310 315 Gln Gln Val Arg Glu Ser Val Gly Ser Leu Leu 325 <210> 7117 <211> 150 <212> PRT <213> Enterobacter cloacae <400> 7117 Arg Asn Val Ser Leu Val Glu Gln Lys Met Lys Lys Gly Thr Val Leu 10 15 Asn Ser Glu Ile Ser Ser Val Ile Ser Arg Leu Gly His Thr Asp Thr 25 30 Leu Val Val Cys Asp Ala Gly Leu Pro Val Pro Arg Ser Thr Thr Arg 4.0 Ile Asp Met Ala Leu Thr Gln Gly Val Pro Ser Phe Met Gln Val Leu 50

```
Glu Val Val Thr Ala Glu Met Gln Val Glu Ala Ala Ile Leu Ala Ala
                  70
Glu Ile Lys Gln His Asn Pro Gln Leu His Glu Thr Leu Leu Ser His
              85
                                90
Ile Glu Gln Leu Gln Gln His Gln Gly Asn Thr Ile Glu Ile Arg Tyr
          100
                            105
Thr Thr His Glu Gln Cys Lys Gln His Thr Ala His Ser His Ala Val
       115
                    120
                             125
Ile Arg Ser Gly Gly Met Phe Pro Pro Tyr Ala Asn Ile Ile Leu Cys
                  135
Ala Gly Val Thr Phe
145
<210> 7118
<211> 182
<212> PRT
<213> Enterobacter cloacae
<400> 7118
Pro Trp Cys Thr Pro Thr Ala Ala Arg Leu Ile Pro Ala Leu Pro Ile
           5
Thr Pro Ile Cys Leu Ala Gly Ser Val Ser Val Ala Arg Trp Val Ser
          20
                         25
Arg Pro Arg Ser Gly Ser Trp Leu Ser Phe Ser Trp Arg Arg Gly Thr
35
                  40
                                        4.5
Cys Cys Thr Ile Pro Val Trp Val Val Ile Ser Met Arg Trp Ala Val
                     5.5
                                      60
Thr Lys Arg Gln Arg Ala Cys Pro Val Ser Ala Leu Ile Lys Ser Lys
                 7.0
                                   75
Leu Ser Phe Thr Pro Cys Ala Ala Cys Trp Arg Leu Trp Arg Ala Ser
           85
                              90
Ser Lys Trp Arg Ala Ser Leu Pro His Ser Gln Arg Arg Val Arg Ala
       100 105
                                             110
Met Ser Trp Met Pro Ser Arg Glr Trp Phe Trp Ala Val Arg Val Leu
 115
                        120
                                       125
Ala Gly Gly Lys Gly Arg Ile Val Gly Thr Leu Ile Gly Ala Leu Ile
 130 135
                                       140
Leu Gly Phe Leu Asn Asn Gly Leu Asn Leu Leu Gly Val Ser Ser Tyr
145 150
                                  155
                                                     160
Tyr Gln Met Ile Val Lys Ala Val Val Ile Leu Leu Ala Val Leu Val
           165
Asp Asn Lys Lys Gln
          180
<210> 7119
<211> 306
<212> PRT
<213> Enterobacter cloacae
<400> 7119
Leu Thr Thr Leu Gln Asp Ile Leu Asp Met Asn Met Lys Lys Leu Ala
                               1.0
Thr Leu Val Ser Ala Val Ala Leu Ser Ala Thr Val Ser Ala Asn Ala
          20
Met Ala Lys Asp Thr Ile Ala Leu Val Val Ser Thr Leu Asn Asn Pro
      35
                        40
Phe Phe Val Ser Leu Lys Asp Gly Ala Gln Lys Glu Ala Asp Lys Leu
                    55
Gly Tyr Asn Leu Val Val Leu Asp Ser Gln Asn Asn Pro Ala Lys Glu
               7.0
Leu Ala Asn Val Gln Asp Leu Thr Val Arg Gly Thr Lys Ile Leu Leu
```

```
Ile Asn Pro Thr Asp Ser Asp Ala Val Gly Asn Ala Val Lys Met Ala
                           110
       100
                      105
Asn Gln Ala Lys Ile Pro Val Ile Thr Leu Asp Arg Gln Ala Thr Lys
   115
            120
                        125
Gly Asp Val Val Ser His Ile Ala Ser Asp Asn Val Leu Gly Gly Lys
  130
         135
                    140
Ile Ala Gly Asp Tyr Ile Ala Lys Lys Ala Gly Glu Gly Ala Lys Val
    150 155 160
Ile Glu Leu Gln Gly Ile Ala Gly Thr Ser Ala Ala Arg Glu Arg Gly
      165 170 175
Glu Gly Phe Gln Gln Ala Val Ala Ala His Lys Phe Asn Val Leu Ala
     180 185 190
Ser Gln Pro Ala Asp Phe Asp Arg Thr Lys Gly Leu Asn Val Met Gln
 195 200 205
Asn Leu Leu Thr Ala His Pro Asp Val Gln Ala Val Phe Ala Gln Asn
210 215 220
Asp Glu Met Ala Leu Gly Ala Leu Arg Ala Leu Gln Thr Ala Gly Lys
225 230 235
Ser Asp Val Met Val Val Gly Phe Asp Gly Thr Pro Asp Gly Glu Lys
       245 250 255
Ala Val Asn Asp Gly Lys Leu Ala Ala Thr Ile Ala Gln Leu Pro Glu
260 265 270
Gln Ile Gly Ala Thr Gly Val Gln Thr Ala Asp Lys Val Leu Lys Gly
275 280 285
Glu Lys Val Gln Ala Lys Tyr Pro Val Asp Leu Lys Leu Val Ile Lys
                              300
305
```

<211> 299 <212> PRT <213> Enterobacter cloacae <400> 7120

<210> 7120

Gly Thr Pro Asn Lys Arg Lys Val Trp His Thr Pro Pro Gly Asn Thr 1.0 Gly Gly Ala Leu Arg Trp Thr Pro Gln Tyr Met Lys Thr Ala Gly Asn 25 3.0 Leu Val Val Leu Gly Ser Ile Asn Ala Asp His Ile Leu Asn Leu Glu 4.0 45 Thr Phe Pro Thr Pro Gly Glu Thr Val Thr Gly Asn Gln Tyr Gln Val 55 60 Ala Phe Gly Gly Lys Gly Ala Asn Gln Ala Val Ala Ala Gly Arg Ser 7.0 75 Gly Ala Asn Ile Ala Phe Ile Ala Cys Thr Gly Asp Asp Asp Thr Gly 85 90 Glu Arg Val Arg Lys Gln Leu Ala Ser Asp Asn Ile Asp Ile Ala Pro 100 105 Val Ser Val Val Ala Gly Glu Ser Thr Gly Val Ala Leu Ile Phe Val 120 Asn Ala Glu Gly Glu Asn Val Ile Gly Ile His Ala Gly Ala Asn Ala 130 135 140 Ala Leu Thr Thr Glu Arg Val Glu Ala Gln Arg Gly Ile Ile Ala Gly 150 155 1.60 Ala Glu Ala Leu Leu Met Gln Leu Glu Ser Pro Val Glu Ser Val Leu 165 170 175 Ala Ala Ala Lys Ile Ala His Glu Asn His Thr Ser Val Val Leu Asn 185 180 Pro Ala Pro Ala Arg Val Leu Ser Asp Glu Leu Leu Ala Leu Val Asp

```
200
Ile Ile Thr Pro Asn Glu Thr Glu Ala Glu Lys Leu Thr Gly Ile Arg
                     215
                                   220
Val Glu Asn Asp Asp Asp Ala Ala Arg Ala Ala Leu Ala Leu His Asp
                 230
                           235
Lys Gly Ile Gly Thr Val Ile Ile Thr Leu Gly Ser Arg Gly Val Trp
             245
                      250 255
Ala Ser Val Asn Gly Glu Gly Arg Arg Val Pro Gly Phe Lys Val Lys
        260
               265 270
Ala Ile Asp Thr Ile Ala Ala Gly Arg His Leu Gln Arg Cys Ala Gly
    275
              280
Asn Gly Ala Ala Gly Arg Lys Ser Asn Gly
  290
                     295
<210> 7121
<211> 147
<212> PRT
<213> Enterobacter cloacae
<400> 7121
Lys Leu Thr Trp Trp Arg Thr Glu Asp Asn Phe Asn Gln Val Val Asp
             5
                              1.0
His Phe Leu Val Met Arg Ser Ser Leu Glu Pro Gln Ala Cys Leu Leu
20
                            25
Ala Ala Thr Leu Gly Thr Ala Glu Gln Lys Ala Gln Leu Asn Thr Leu
                        40
                                         45
Met Glu Glu Met Val Asp Leu Lys Lys His Phe Asn Arg Glu Arg Trp
                     55
                                      60
Ile Ala Val Asp Met Ala Trp His Glu His Ile Tyr Asn Met Ser Gly
65 70
                                                  80
                                  7.5
Asn Pro Phe Leu Thr Ser Phe Ala Ser Leu Phe His Ser Val Tyr His
      85
                              90
Thr Tyr Phe Thr Ser Ile Thr Gln Asp Glu Val Val Lys Leu Asn Leu
       100 105
His Gln Ala Ile Val Asp Ala Ile Gln Glu Ser Asp Gly Gln Arg Ala
 115 120 125
Leu Ser Ala Cys Gln Ala Leu Leu Ala Ala Pro Thr His Gln Gln Val
 130
                  135
                                      140
Asn Lys
145
<210> 7122
<211> 488
<212> PRT
<213> Enterobacter cloacae
<400> 7122
Thr Gly Ala Ser Met Leu Thr Leu Asp Thr Leu Asn Val Met Leu Ala
                        10
Val Ser Glu Glu Gly Leu Ile Glu Glu Val Val Ile Thr Leu Leu Ala
          20
                           25
Ser Pro Gln Leu Ala Ala Phe Phe Glu Lys Phe Pro Lys Leu Arg Lys
                     4.0
Ala Met Thr Asp Asp Leu Pro Arg Trp Arg Asp Asn Leu Arg Gln Arg
                  55
Phe Lys Glu Thr Glu Val Pro Pro Glu Leu Thr Glu Glu Val Ala Gly
                7.0
                                  75
Tyr Gln Gln Cys Gln Arg Leu Ser Thr Pro Gln Phe Ile Ala Gln Leu
            85
                            90
Gln Gln Thr Leu Thr Leu Leu Asp Asn Val His Ser Pro Phe Ala Ser
          100
                           105
```

```
Gln Ala Arg Ala Leu Val Thr Asp Asn Pro Ser Phe Thr Pro Ala Leu
 115
                   120
His Thr Leu Phe Leu Gln Arg Trp Arg Leu Ser Leu Val Val Gln Ala
 130
              135
                               140
Thr Ala Leu Asn Gln Gln Leu Leu Asp Glu Glu Arg Glu Gln Leu Leu
      150 155 160
145
Ser Glu Val Gln Glu Arg Met Thr Leu Ser Gly Gln Leu Glu Gln Val
         165 170 175
Leu Val Glu Asn Glu Asn Ala Ala Gly Arg Leu Trp Asp Met Ser Ala
      180 185 190
Gly Gln Leu Lys Arg Gly Asp Tyr Gln Leu Ile Val Lys Tyr Gly Asp
 195 200 205
Phe Leu Ala Gln Gln Pro Glu Leu Met Lys Leu Ala Glu Gln Leu Gly
 210 215 220
Arg Ser Arg Glu Ala Arg Ser Val Pro Lys Lys Asp Ala Pro Met Glu 225 230 235 240
Thr Phe Arg Thr Leu Val Arg Lys Pro Ser Thr Val Pro Glu Gln Val
     245 250 255
Asp Gly Leu Gln Gln Ser Asp Asp Ile Leu Arg Leu Leu Pro Thr Glu
 260 265 270
Leu Ser Thr Leu Gly Met Thr Glu Leu Glu Tyr Glu Phe Tyr Arg Arg
275 280 285
Leu Val Glu Lys Gln Leu Ile Thr Tyr Arg Leu His Gly Glu Ala Trp
290
                295
                               300
Arg Glu Lys Ile Ser Gln Arg Pro Val Val His Gln Asp Phe Asp Glu
305
             310
                            315
Gln Pro Arg Gly Pro Phe Ile Val Cys Val Asp Thr Ser Gly Ser Met
          325
                         330 335
Gly Gly Phe Asn Glu Gln Cys Ala Lys Ala Phe Cys Leu Ala Leu Met
      340
                      345
                                     350
Arg Val Ala Leu Ala Asp Arg Arg Arg Cys Tyr Ile Met Leu Phe Ser
                   360
                                  365
Ser Glu Val Val Gly Tyr Glu Leu Thr Ser Pro Gln Gly Leu Glu Gln
               375
                               380
Ala Ile Arg Phe Leu Ser Gln Arg Phe Arg Gly Gly Thr Asp Leu Ala
385 390 395
Ser Cys Phe Arg Ser Ile Ile Glu Arg Met Gln Gly Gly Asp Trp Tyr
         405 410
                                        415
Asp Ala Asp Ala Val Val Ile Ser Asp Phe Ile Ala Gln Arg Leu Pro
        420 425 430
Asp Glu Val Val Asn Lys Val Lys Glu Met Gln Arg Val His Gln His
 435 440
                                  445
Arg Phe His Ala Val Ala Met Ser Ala His Gly Lys Pro Gly Ile Met
 450 455 460
Arg Ile Phe Asp His Ile Trp Arg Phe Asp Thr Gly Leu Arg Ser Arg
465 470
                      475
Leu Leu Arg Arg Trp Arg Arg
           485
```

<210> 7123 <211> 478

<212> PRT <213> Enterobacter cloacae

<400> 7123

Met Thr Glu Lys Lys Ala Arg Ser Met Ala Gly Leu Pro Trp Ile Ala 1 5 10 15 Ala Met Ala Phe Phe Met Gln Ala Leu Asp Ala Thr Ile Leu Asn Thr 20 25 30 Ala Leu Pro Ala Ile Ala Gln Ser Leu Asn Arg Ser Pro Leu Ala Met 35 40 45

```
Gln Ser Ala Ile Ile Ser Tyr Thr Leu Thr Val Ala Met Leu Ile Pro
               55
Val Ser Gly Trp Leu Ala Asp Arg Phe Gly Thr Arg Lys Val Phe Met
              7.0
Leu Ala Val Thr Leu Phe Thr Leu Gly Ser Leu Ala Cys Ala Leu Ser
           85
                          90
Thr Ser Leu Thr Glu Leu Val Ile Phe Arg Val Leu Gln Gly Ile Gly
   100
                       105
Gly Ala Met Met Met Pro Val Ala Arg Leu Ala Leu Leu Arg Ala Tyr
   115
                    120 125
Pro Arg Ser Glu Leu Leu Pro Val Leu Asn Phe Val Thr Met Pro Gly
 130 135
                      140
Leu Val Gly Pro Ile Leu Gly Pro Val Leu Gly Gly Val Leu Val Thr
            150 155
Trp Ala Ser Trp His Trp Ile Phe Leu Ile Asn Ile Pro Ile Gly Val
           165 170 175
Ala Gly Leu Ile Tyr Ala Arg Lys Tyr Met Pro Asn Phe Thr Thr Pro
      180 185 190
Arg Arg Ser Phe Asp Met Gly Gly Phe Phe Leu Phe Gly Leu Ser Leu
 195 200 205
Val Leu Phe Ser Ser Gly Met Glu Leu Phe Gly Glu Lys Ile Val Ser
 210 215 220
Thr Trp Leu Ala Leu Ala Val Ile Leu Ser Gly Ile Leu Leu Phe Leu
   230 235 240
Leu Tyr Ile Arg His Ala Arg Arg His Pro Thr Pro Leu Ile Ser Leu
      245 250 255
Ser Leu Phe Asn Thr Arg Thr Phe Ser Val Gly Ile Ala Gly Asn Ile
 260 265 270
Ala Ser Arg Leu Gly Thr Gly Cys Val Pro Phe Leu Met Pro Leu Met
275 280 285
Leu Gln Val Gly Phe Gly Tyr Pro Ala Leu Ile Ala Gly Cys Met Met 290 295 300
Ala Pro Thr Ala Met Gly Ser Ile Leu Ala Lys Ser Thr Val Thr Gln
305 310 315 320
Val Leu Arg Trp Phe Gly Tyr Arg Lys Thr Leu Val Gly Val Thr Ile
     325 330 335
Phe Ile Gly Leu Met Ile Ala Gln Phe Ser Leu Gln Ser Ala Ala Leu
     340 345 350
Pro Ile Trp Met Leu Ile Leu Pro Leu Phe Val Leu Gly Met Ala Met
 355 360 365
Ser Thr Gln Phe Thr Ser Met Asn Thr Ile Thr Leu Ala Asp Leu Thr
 370 375
Asp Glu Asn Ala Ser Ser Gly Asn Ser Val Leu Ala Val Thr Gln Gln
385 390 395 400
Leu Ser Ile Ser Leu Gly Val Ala Val Ser Ala Ala Val Leu Arg Phe
      405 410 415
Tyr Glu Gly Phe Asp Gly Thr Asn Thr Val Glu Gln Phe His Tyr Thr
        420 425 430
Phe Ile Thr Met Gly Ala Leu Thr Val Val Ser Ala Val Val Phe Met
 435
                   440 445
Leu Leu Lys Pro Lys Asp Gly Arg Asn Leu Ile Lys Glu Arg His Lys
 450 455 460
Glu Lys Ala Lys Pro Asn Arg Val Pro Ser Glu Gln Glu
             470
<210> 7124
<211> 529
<212> PRT
```

<213> Enterobacter cloacae

Arg Arg Thr Ser Ala Tyr Tyr Gln Ala Arg Pro Lys Arg Leu Tyr Ser 10 Leu Gln Leu Ala Ala Thr Thr Ala Lys Gly Cys Lys Thr Ile Met Ala His Ser His Leu Leu Ala Glu Arg Ile Ser Arg Leu Ser Ser Ala Leu 35 40 Glu Lys Gly Leu Tyr Glu Arg Ser His Ala Ile Arg Leu Cys Leu Leu 5.5 60 Ala Ala Leu Ser Gly Glu Ser Val Phe Leu Leu Gly Pro Pro Gly Ile 70 75 Ala Lys Ser Leu Ile Ala Arg Arg Leu Lys Phe Ala Phe Gln Asn Ala 85 90 Arg Ala Phe Glu Tyr Leu Met Thr Arg Phe Ser Thr Pro Glu Glu Val 100 105 110 Phe Gly Pro Leu Ser Ile Gln Ala Leu Lys Asp Glu Gly Arg Tyr Glu 115 120 125 Arg Leu Thr Ala Gly Tyr Leu Pro Glu Ala Glu Ile Val Phe Leu Asp 135 Glu Ile Trp Lys Ala Gly Pro Ala Ile Leu Asn Thr Leu Leu Thr Ala 145 150 155 Ile Asn Glu Arg Arg Phe Arg Asn Gly Ala Ser Glu Glu Lys Ile Pro 165 170 175 Met Arg Leu Leu Val Ala Ala Ser Asn Glu Leu Pro Glu Ala Asp Ser 180 185 Ser Leu Glu Ala Leu Tyr Asp Arg Met Leu Ile Arg Leu Trp Leu Asp 195 200 205 Lys Val Gln Asp Lys Ser Asn Phe Arg Ser Met Leu Val Ser Gln Gln 210 215 220 Asp Glu Asn Glu Asn Pro Val Ala Ala Ser Leu Gln Val Thr Asp Glu 225 230 235 Glu Tyr His Gln Trp Gln Glu Glu Ile Gly Lys Ile Lys Leu Pro Asp 245 250 Pro Val Phe Glu Leu Ile Phe Met Leu Arg Gln Gln Leu Asp Leu Leu 260 265 Pro Ser Ala Pro Tyr Val Ser Asp Arg Arg Trp Lys Lys Ala Ile Arg 275 280 285 Leu Leu Gln Ala Ser Ala Leu Phe Ser Gly Arg Asp Ala Val Ala Pro 295 300 Ile Asp Leu Ile Leu Leu Lys Asp Cys Leu Trp His Asp Ala Glu Gly 310 315 Met Asn Leu Met Gln Gln Gln Leu Asp Val Leu Met Thr Gly His Ala 325 330 335 Trp Gly Gln Gln Ser Met Leu Asn Gln Leu Gly Ala Ile Ala Gln Arg 340 345 Arg Leu Gln Leu Gln Gln Gln Ser Asp Lys Thr Ala Leu Lys Val 355 360 365 Asn Arg Leu Gly Gly Met Phe Ala Arg Lys Pro His Tyr Glu Leu Pro 375 380 Ala Gly Leu Thr Asp Ala Ser Leu Thr Leu Leu Gln Gln Pro Leu 390 395 Lys Leu His Asp Met Gln Val Val His Val Thr Ile Glu Arg Val Ala 405 410 Leu Val Gln Trp Leu Asp Lys Gly Gly Glu Ile Arg Gly Lys Leu Asn 420 425 430 Gly Ile Gly Phe Ala Gln Pro Leu Ser Met Glu Val Asp Ser Ser Gln 435 440 His Leu Val Ile Arg Asp Val Ser Leu Gln Gly Ser Arg Leu Ala Leu 450 455 460 Pro Gly Thr Ala Ser Asp Thr Val Pro Glu Glu Ile Lys Gln Gln Leu 470 475 Asp Ala Leu Asp Asn Glu Trp His Gln Gln His Thr Arg Phe Ser Glu

3159 485 490 Gln Gln Lys Cys Leu Phe Ile His Ser Asp Trp Leu Gly Arg Ile Glu 500 505 510 Ala Ser Leu Gln Asp Val Ser Ala Gln Ile Lys Gln Ala Arg Gln Cys 520 <210> 7125 <211> 156 <212> PRT <213> Enterobacter cloacae <400> 7125 Glu Lys Pro Met Glu Asn Tyr Gln Ile Asp Asn Leu Asp Arg Gly Ile 1.0 Leu Glu Ala Leu Met Ala Asn Ala Arg Thr Ala Tyr Ala Glu Leu Asp 2.5 Lys Gln Phe Gly Val Ser Pro Gly Thr Ile His Val Arg Val Glu Lys 35 4.0 4.5 Met Lys Gln Ala Gly Ile Ile Thr Giy Ala Arg Ile Asp Val Ser Pro 50 55 60 Lys Gln Phe Gly Tyr Asp Val Cys Cys Phe Ile Gly Ile Ile Met Lys 65 · 70 7.5 Ser Ala Lys Asp Tyr Pro Ser Ala Leu Glu Lys Leu Asn Ala Leu Asp 85 90 Glu Val Thr Glu Ala Tyr Tyr Thr Thr Gly His Tyr Ser Ile Phe Ile 100 105 110 Lys Val Met Cys Arg Ser Ile Asp Ala Leu Gln Gln Val Leu Ile Asn 115 120 125 Lys Ile Gln Thr Ile Asp Glu Ile Gln Ser Thr Glu Thr Leu Ile Ser 130 135 140 Leu Gln Asn Pro Ile Met Arg Thr Ile Arg Pro 150 <210> 7126 <211> 180 <212> PRT <213> Enterobacter cloacae <400> 7126 Ser Gly Asn Phe Ile Pro Thr Phe Ser Thr Gly Arg Ser Gln Leu Val 10 His Ser Val Gln Trp Pro Pro Leu Tyr Leu Ser Glu Arg Ser Met Ala Asp Ile Thr Leu Ile Ser Gly Ser Thr Leu Gly Gly Ala Glu Tyr Val 4.0 Ala Glu His Leu Ala Glu Lys Leu Glu Asp Ala Gly Phe Ser Thr Gln 5.5 Thr Leu His Gly Pro Leu Leu Glu Asp Leu Pro Thr Asp Gly Val Trp 75 70 80 Leu Leu Ile Thr Ser Thr His Gly Ala Gly Asp Leu Pro Asp Asn Leu 90 95 Gln Pro Leu Tyr Asp Glu Leu Leu Glu Gln Gln Pro Asp Leu Ser Asn 100 105 Val Arg Phe Gly Ala Val Gly Ile Gly Ser Arg Glu Tyr Asp Thr Phe 115 120 Cys Gly Ala Ile Glu Lys Val Glu Ala Ala Val Thr Ala Cys Gly Ala 135 140 Lys Gln Leu Gly Glu Thr Leu Lys Ile Asn Ile Leu Asp His Asp Ile

150

```
Pro Glu Asp Pro Ala Glu Ile Trp Leu Ala Glu Trp Lys Asn Leu Leu
           165
                          170
Lys Asn Asp
         180
<210> 7127
<211> 326
<212> PRT
<213> Enterobacter cloacae
<400> 7127
Trp His Val Val Ser Arg Ser Leu Arg Tyr Leu His Arg Leu Tyr Ile
Gly Ser Thr Ile Leu Ser Gln Ser Lys Phe Gln Arg Ala Phe Leu His
                      25
                                      30
Pro Arg Tyr Trp Phe Thr Trp Phe Gly Leu Gly Val Leu Trp Leu Leu
     35
                   40
                                 45
Val Gln Leu Pro Tyr Pro Val Ile Arg Phe Leu Gly Ser Lys Leu Gly
 50
               55 60
Ser Ala Ser Arg His Phe Leu Lys Arg Arg Glu Ser Ile Ala Arg Lys
         70 75
Asn Leu Glu Leu Cys Phe Pro His Tyr Asn Ala Gln Gln Arg Glu Thr
         8.5
              90
Leu Ile Ala Glu Asn Phe Lys Ser Ile Gly Met Ala Leu Leu Glu Thr
 100 105 110
Gly Met Ala Trp Phe Trp Pro Asp Glu Arg Val Arg Lys Trp Phe Asp
 115 120 125
Val Glu Gly Leu Asp Asn Leu Lys Arg Ala Gln Met Gln Asn Arg Gly
 130 135 140
Val Met Val Val Gly Leu His Phe Met Ser Leu Glu Leu Gly Gly Arg
145 150 155
Val Met Gly Leu Cys Gln Pro Met Met Ala Thr Tyr Arg Pro His Asn
         165 170
Ser Ala Leu Met Glu Trp Val Gln Thr Arg Gly Arg Met Arg Ser Asn
   180 185 190
Lys Ala Met Ile Ser Arg Asn Asn Leu Arg Gly Met Val Gly Ala Leu
 195 200 205
Lys Lys Gly Glu Ala Val Trp Phe Ala Pro Asp Gln Asp Tyr Gly Pro
 210 215 220
Lys Gly Ser Ser Phe Ala Pro Phe Phe Ala Val Lys Asp Val Ala Thr
225 230 235 240
Thr Asn Gly Thr Phe Val Ile Ser Arg Leu Ser Gly Ala Ala Met Leu
         245 250
Thr Val Thr Met Val Arg Lys Ala Asp Lys Ser Gly Tyr Arg Leu His
       260 265
Ile Ser Pro Glu Met Ala Asn Tyr Pro Glu Asp Glu Ser Glu Ala Ala
   275 280 285
Thr Phe Ile Asn Lys Val Ile Glu Phe Glu Ile Met Arg Ala Pro Glu
 290 295 300
Gln Tyr Leu Trp Met His Arg Arg Phe Lys Thr Arg Pro Leu Gly Glu
305 310
                          315
Ala Ser Leu Tyr Ile
           325
<210> 7128
<211> 245
<212> PRT
<213> Enterobacter cloacae
<400> 7128
Gln Met Lys Val Ile Ile Val Glu Asp Glu Phe Leu Ala Gln Glu
```

Leu Ser Trp Leu Ile Lys Thr His Ser Gln Met Glu Ile Val Gly Cys Phe Glu Asp Gly Leu Asp Val Leu Lys Phe Leu Gln His Asn Arg Val 4.0 Asp Ala Ile Phe Leu Asp Ile Asn Ile Pro Ser Leu Asp Gly Val Leu 5.5 Leu Ala Gln Asn Ile Asn Gln Phe Ala His Lys Pro Phe Ile Val Phe 75 70 Val Thr Ala Trp Lys Glu His Ala Val Glu Ala Phe Glu Leu Glu Ala 8.5 90 Phe Asp Tyr Ile Leu Lys Pro Tyr Gln Glu Ser Arg Ile Ile Ser Met 100 105 Leu His Lys Leu Glu Ala Ala Trp Gln Gln Gln Ser Leu Pro Ala Ser 115 120 125 Ala Ser Pro Val Ala Arg Glu Asn Asp Thr Ile Asn Leu Val Lys Asp 135 140 Glu Arg Ile Ile Val Thr Pro Val Asp Asp Ile Tyr Tyr Ala Glu Ala 145 150 155 His Glu Lys Met Thr Phe Val Tyr Thr Arg Arg Glu Ser Tyr Val Met 165 170 175 Ala Met Asn Ile Thr Glu Phe Cys Asn Lys Leu Pro Ala Ala His Phe 180 185 190 Phe Arg Cys His Arg Ser Phe Cys Val Asn Leu Asn Lys Ile Arg Glu 195 200 205 Ile Glu Pro Trp Phe Asn Asn Thr Tyr Ile Leu Arg Leu Lys Asp Leu 210 215 220 Asp Phe Gln Val Pro Val Ser Arg Ser Arg Val Lys Glu Phe Arg Gln 230 Leu Met His Leu

245

<210> 7129 <211> 420 <212> PRT

<213> Enterobacter cloacae

<400> 7129 Ala Val Leu Tyr Lys Glu Ile Ile Met Leu His Pro Arg Ala Arg Thr 1.0 Met Leu Leu Ala Val Pro Ala Leu Ile Ile Gly Val Ala Ser Ser 20 2.5 Leu Val Leu Ile Val Val Met Lys Val Ala Ala Val Leu Gln Thr Ile 35 40 Leu Trp Thr Ala Leu Pro Val Lys Leu Gly Ile Ser Ile Asp Ser Pro 50 55 Gly Trp Ile Met Val Met Leu Thr Leu Thr Gly Ile Ala Val Gly Leu 70 75 Val Ile Arg Tyr Ser Pro Gly His Ala Gly Pro Asp Pro Ala Leu Glu 90 Pro Leu Ile Gly Ala Pro Val Ser Pro Ser Ala Leu Pro Gly Leu Ile 105 110 Ile Ala Leu Ile Ile Gly Leu Ala Gly Gly Val Ser Leu Gly Pro Glu 115 120 125 His Pro Ile Met Ala Val Asn Ile Ala Leu Ala Val Phe Leu Gly Ala 135 140 Arg Leu Phe Pro Arg Val Gly Ala Leu Asp Trp Thr Ile Leu Ala Ser 150 155 160 Ala Gly Thr Ile Gly Ala Leu Phe Gly Thr Pro Val Ala Ala Ala Leu 165 170 Ile Phe Ser Gln Thr Leu Ser Ser Asp His Glu Val Pro Leu Trp Asp

```
180
                          185
Lys Leu Phe Ala Pro Leu Met Ala Ala Ala Ala Gly Ala Leu Thr Thr
                       200
                                       205
Ser Leu Phe Phe His Pro His Phe Ser Leu Ser Ile Pro His Tyr Gly
                 215
                                    220
Gln Met Gln Leu Thr Asp Ile Phe Ser Gly Ala Val Val Ala Ile
                230
                                 235
Ala Ile Ala Leu Gly Met Val Ala Val Trp Cys Leu Pro Arg Leu His
             245
                    250
Arg Leu Met His Arg Leu Lys His Pro Val Leu Ile Leu Gly Met Gly
         260
                         265
Gly Phe Ile Leu Gly Val Leu Gly Ala Ile Gly Gly Thr Val Thr Leu
      275
                      280
                               285
Phe Lys Gly Leu Asp Glu Met Gln Gln Leu Ala Phe Ser Gln Val Phe
                295
                             300
Ser Val Ser Asp Tyr Leu Leu Phe Ala Leu Val Lys Leu Ala Ala Leu
             310
                     315
Val Val Ala Ala Ala Cys Gly Phe Arg Gly Gly Arg Ile Phe Pro Ala
             325
                  330
Val Phe Val Gly Val Ala Leu Gly Leu Met Leu His Glu His Val Asp
         340
              345 350
Ala Val Pro Ala Ala Ile Thr Val Ser Cys Ser Ile Leu Gly Leu Val
      355
           360
                           365
Leu Val Val Thr Arg Asp Ala Trp Leu Ser Leu Phe Met Ala Ala Val
 370
       375 380
Val Val Pro Asp Thr Thr Leu Leu Pro Leu Leu Cys Ile Val Met Leu
385 390 395 400
Pro Ala Trp Leu Leu Ala Gly Lys Pro Met Leu Met Ala Trp Arg
                             410
Asn Asp Arg
         420
<210> 7130
<211> 319
<212> PRT
<213> Enterobacter cloacae
<400> 7130
Met Ser Asn Tyr Pro Glu Gly Ala Val Met Lys Asp Ile Asn Glu Glu
            5
                          1.0
Lys Ile Gly Glu Asn Asn Glu Glu Leu Glu Ile Glu Ser Glu Glu Lys
         20
                         2.5
Asp Arg Gly Glu Glu Ile Glu Val Asp Glu Asp Arg Leu Pro Ser Arg
 35
                      40
Ala Met Ala Ile His Glu His Ile Arg Gln Asp Gly Glu Lys Glu Met
 50 55
Glu Arg Asp Ala Met Ala Leu Leu Trp Ser Ala Ile Ala Ala Gly Leu
               70
                                 7.5
Ser Met Gly Ala Ser Leu Leu Ala Lys Gly Ile Phe His Val Gln Leu
            85
                             90
Glu Gly Val Pro Gly Gly Phe Leu Leu Glu Asn Leu Gly Tyr Thr Phe
         100
                         105 110
Gly Phe Ile Ile Val Ile Met Ala Arg Gln Gln Leu Phe Thr Glu Asn
          120
                           125
Thr Val Thr Ala Val Leu Pro Val Met Gln Asn Pro Thr Leu Gly Asn
                   135
                                    140
Phe Gly Leu Leu Met Arg Leu Trp Ser Val Val Leu Leu Gly Asn Leu
              150
                              155
                                               1.60
Ile Gly Thr Gly Ile Ala Ala Trp Ala Phe Glu Tyr Met Pro Ile Phe
            165
                            170
                                          175
Asp Glu Pro Thr Arg Asp Ala Phe Val Lys Ile Gly Met Asp Val Met
```

```
180
                            185
Lys Asn Thr Pro Val Glu Met Phe Ser Asn Ala Ile Ile Ser Gly Trp
   195
                       200
                                  205
Ile Ile Ala Thr Met Val Trp Met Phe Pro Ser Ala Gly Ser Ala Lys
                  215
                             220
Ile Val Val Ile Ile Leu Met Thr Trp Leu Ile Ala Leu Ala Asp Thr
                230
                        235 240
Thr His Ile Val Val Gly Thr Val Glu Ile Leu Tyr Leu Val Phe Asn
           245 250 255
Gly Thr Leu His Trp Ser Asp Phe Phe Trp Pro Phe Ala Leu Pro Thr
        260
              265 270
Leu Ala Gly Asn Ile Cys Gly Gly Thr Phe Ile Phe Ala Leu Leu Ser
 275 280 285
His Ala Gln Ile Arg Asn Asp Met Ser Asn Lys Arg Lys Ala Glu Leu
 290 295 300
Lys Ala Gln Glu Lys Lys Asp Lys Thr Ala Glu Lys Ser Ala
                310
<210> 7131
<211> 127
<212> PRT
<213> Enterobacter cloacae
<400> 7131
His Asn Gln Lys Phe Ile Ala Ala Val Ala Lys Asn Val Ile Thr Gly
Ser His Val Val Val Glu Arg Ala Gly Asp Phe Ser Gln Asp Leu Val
 20
                           25
                                            30
Pro Gly Ile Val Pro Pro Gly Ile Val Asp Leu Phe Lys Phe Val Asp
35
                       40
Val Asn Gln Gln Arg Arg Glu Leu Cys Ser Arg Pro Gly Gly Val Gln
                 55
Asp Phe Ala Phe Glu Asp Gly Trp Gln Glu Thr Ala Ile Gln Gln Ala
                                  75
              7.0
Gly Gln Asp Ile Asn Pro His Leu Val Ser Arg His Phe Val Lys Gln
             8.5
                              90
Phe Ala Gln Lys Arg Asp Asp Leu Arg Glu Arg Ile Thr His Ser Leu
          100 105 110
Gln Glu Phe Ile Pro Leu Arg Phe Ile Thr Gln Thr Leu Pro
                       120
<210> 7132
<211> 575
<212> PRT
<213> Enterobacter cloacae
<400> 7132
Ile Phe Pro Val Phe Pro Gly Leu Thr Val His Glu Ile Phe Asn Met
                              10
Leu Leu Ala Val Phe Asp Arg Ala Ala Leu Met Leu Ile Cys Leu Phe
         20
                           25
Phe Leu Ile Arg Ile Arg Leu Phe Arg Glu Leu Leu His Lys Ser Ala
                                      4.5
His Ser Pro Lys Glu Leu Leu Ala Val Thr Phe Ile Phe Ser Met Phe
Ala Leu Phe Ser Thr Trp Ser Gly Val Pro Val Glu Gly Ser Leu Val
                                  7.5
Asn Val Arg Ile Ile Ala Val Met Ser Gly Gly Ile Leu Phe Gly Pro
                              90
Trp Val Gly Ile Ile Thr Gly Ile Ile Ala Gly Thr His Arg Tyr Leu
                           105
```

Ile Asp Ile Gly Gly Val Thr Ala Val Pro Cys Phe Ile Thr Ser Ile 115 120 Ile Ala Gly Leu Leu Ser Gly Trp Ile Asn Arg Lys Ile Pro Lys Lys Gln His Trp Arg Ala Gly Ile Ile Ala Gly Met Val Cys Glu Thr Leu 150 155 Thr Met Ile Leu Val Ile Val Trp Ala Pro Thr Val Ala Leu Gly Leu 165 170 175 Asp Ile Val Ser Lys Ile Gly Ile Pro Met Ile Leu Gly Ser Val Cys 180 185 190 Ile Gly Phe Ile Val Leu Leu Val Gln Ser Val Glu Gly Glu Lys Glu 200 205 195 Ala Ser Ala Ala Arg Gln Ala Lys Leu Ala Leu Asp Ile Ala Asn Lys 210 215 220 Thr Leu Pro Leu Phe Arg His Val Asn Ala Glu Ser Leu Arg Gln Val 230 235 Cys Asp Ile Ile Arg Arg Asp Ile His Ala Asp Ala Val Ala Ile Thr 245 250 255 Asn Ile Asp His Val Leu Ala Tyr Val Gly Val Gly Glu His Asn Tyr 260 265 270 Arg Asp Ser Asp Asp Thr Ile Ser Pro Thr Thr Arg Gln Ala Ile Asn 275 280 285 Tyr Gly Lys Ile Ile Ile Lys Asn Asn Asp Glu Ala His Arg Thr Pro 290 295 300 Glu Ile His Ser Met Leu Val Ile Pro Leu Trp Glu Lys Gly Val Val 305 310 315 320 Thr Gly Thr Leu Lys Ile Tyr Tyr Cys His Ala His Gln Ile Thr Ser 325 330 335 Ser Leu Gln Glu Met Ala Ile Gly Leu Ser Gln Ile Ile Ser Thr Gln 340 345 350 Leu Glu Val Ser Arg Ala Glu Gln Leu Arg Glu Met Ala Asn Lys Ala 355 360 365 Glu Leu Arg Ala Leu Gln Ser Lys 1le Asn Pro His Phe Leu Phe Asn 370 375 380 Ala Leu Asn Ala Ile Ser Ser Ser Ile Arg Leu Asn Pro Asp Thr Ala 385 390 395 Arg Gln Leu Ile Phe Asn Leu Ser Arg Tyr Leu Arg Tyr Asn Ile Glu 405 410 415 Leu Lys Asp Asp Glu Gln Ile Asp Ile Lys Lys Glu Leu Tyr Gln Ile 425 430 Lys Asp Tyr Ile Ala Ile Glu Gln Ala Arg Phe Gly Asp Lys Leu Thr 440 445 Val Ile Tyr Asp Ile Asp Glu Glu Val Asn Cys Val Ile Pro Ser Leu 455 460 Leu Ile Gln Pro Leu Val Glu Asn Ala Ile Val His Gly Ile Gln Pro 470 475 Cys Lys Gly Lys Gly Val Val Thr Ile Ser Val Thr Glu Ser Gly Asn 485 490 495 Arg Val Arg Ile Ala Val Arg Asp Thr Gly His Gly Ile Asp Pro Lys 505 Val Ile Glu Arg Val Lys Ser Asn Glu Met Pro Gly Asn Lys Ile Gly 520 Leu Leu Asn Val His His Arg Val Lys Leu Leu Tyr Gly Asp Gly Leu 535 540 His Ile His Arg Leu Glu Pro Gly Thr Glu Ile Ala Phe Tyr Val Pro 545 550 555 Asn Glu Arg Thr Pro Val Asn Ala Pro Ile Ser Leu Leu Pro 565 570

<210> 7133 <211> 437

Arg Asn Asn Ala 435

<212> PRT <213> Enterobacter cloacae

<400> 7133 Arg Trp Ala Asn Gly Glu Ser Gly His Phe Tyr His Met Ser Glu Pro 10 Ile Thr Val Ala Gln Ala Val Leu Thr Glu Gln Asn Ala Cys Tyr Glu 25 Ile Asp Arg Val Leu Thr Thr Met Leu Arg Glu Arg Arg Pro Gly Tyr 40 4.5 Leu Met Leu Pro Ala Asp Val Ala Lys Lys Ala Ala Thr Pro Pro Val 55 60 Ser Ala Leu Thr Val Asn Pro Ala Pro Ala Asp Ser Ala Cys Leu Gln 70 75 80 Ala Phe Arg Glu Ala Ala Glu Lys Arg Leu Ser Thr Ser Lys Arg Thr 85 90 Ala Leu Leu Ala Asp Phe Leu Val Leu Arg His Gly Leu Arg Ala Ala 100 105 110 Leu Gln Thr Trp Val Lys Glu Val Pro Met Ala His Ala Thr Met Leu 115 120 125 Met Gly Lys Gly Ile Phe Asp Glu Arg Gln Ser Gly Phe Tyr Gly Thr 130 135 140 Tyr Ser Gly Ser Ala Ser Ala Ala Pro Val Lys Glu Ala Ile Glu Gly 145 150 155 160 Ala Asp Thr Val Leu Cys Ile Gly Thr Arg Phe Thr Asp Thr Leu Thr 165 170 175 Ala Gly Phe Thr His Gln Leu Thr Pro Asp Gln Thr Ile Glu Val Gln 180 185 190 Pro His Ala Ser Arg Val Gly Asp Val Trp Phe Thr Gly Ile Pro Met 195 200 205 Arg Glu Ala Ile Glu Thr Leu Thr Ala Leu Cys Lys Thr Tyr Val Arg 210 215 220 Asp Thr Arg Ala Pro Ser Asp His Ser Gly Phe Ser Phe Pro Thr Ile 225 230 235 Glu Gly Ala Leu Thr Gln Glu Ser Phe Trp Arg Thr Leu Gln Thr Phe 245 250 255 Ile Arg Pro Gly Asp Ile Ile Leu Ala Asp Gln Gly Thr Ser Ala Phe 260 265 270 Gly Ala Ile Asp Leu Arg Leu Pro Ala Asp Val Asn Phe Ile Val Gln 275 280 285 Pro Leu Trp Gly Ser Ile Gly Tyr Thr Leu Ala Ala Ala Phe Gly Ala 295 300 Gln Thr Ala Cys Pro Asn Arg Arg Val Ile Val Leu Thr Gly Asp Gly 305 310 315 Ala Ala Gln Leu Thr Ile Gln Glu Leu Gly Ser Met Leu Arg Asp Lys 325 330 335 Gln Arg Pro Ile Ile Leu Val Leu Asn Asn Glu Gly Tyr Thr Val Glu 345 Arg Ala Ile His Gly Pro Glu Gln Arg Tyr Asn Asp Ile Ala Leu Trp 360 365 Asn Trp Thr Gln Ile Pro Gln Ala Leu Ser Leu Ala Pro Gln Ala Glu 375 380 Cys Trp Arg Val Ser Glu Ala Glu Ala Leu Ala Glu Val Leu Asp Lys 390 395 400 Val Ala His His Glu Arg Leu Ser Leu Ile Glu Val Met Leu Pro Lys 405 410 415 Ala Asp Ile Pro Pro Leu Leu Ser Ala Leu Thr Lys Ala Leu Glu Ala 420 425

<210> 7134 <211> 418 <212> PRT <213> Enterobacter cloacae <400> 7134 Arg Asp Ser Glu Glu Ser Met Ala Glu Phe Ser Pro Glu Arg Arg Phe 10 Thr Arg Ile Asp Arg Leu Pro Pro Tyr Val Phe Asn Ile Thr Ala Glu 20 30 Leu Lys Met Ala Ala Arg Arg Arg Gly Glu Asp Ile Ile Asp Phe Ser 35 40 4.5 Met Gly Asn Pro Asp Gly Pro Thr Pro Pro His Ile Val Glu Lys Leu 50 55 60 Cys Thr Val Ala Gln Arg Pro Asp Thr His Gly Tyr Ser Thr Ser Arg 70 75 80 Gly Ile Pro Arg Leu Arg Arg Ala Ile Ser Arg Trp Tyr Gln Asp Arg 85 90 1 95 Tyr Gln Val Asp Ile Asp Pro Glu Asn Glu Ala Ile Val Thr Ile Gly 100 105 110 Ser Lys Glu Gly Leu Ala His Leu Met Leu Ala Thr Leu Asp His Gly 115 120 125 Asp Thr Val Leu Val Pro Asn Pro Ser Tyr Pro Ile His Ile Tyr Gly 130 135 140 Ala Val Ile Ala Gly Ala Gln Val Arg Ser Val Pro Leu Val Glu Gly 145 150 155 160 Val Asp Phe Phe Asn Glu Leu Glu Arg Ala Ile Arg Glu Ser Tyr Pro 165 170 175 Lys Pro Lys Met Met Ile Leu Gly Phe Pro Ser Asn Pro Thr Ala Gln 180 185 190 Cys Val Glu Leu Glu Phe Phe Glu Lys Val Val Ala Leu Ala Lys Arg 195 200 205 Tyr Asp Val Leu Val Val His Asp Leu Ala Tyr Ala Asp Ile Val Tyr 210 215 220 Asp Gly Trp Lys Ala Pro Ser Ile Met Gln Val Pro Gly Ala Arg Asp 225 230 235 Val Ala Val Glu Phe Phe Thr Leu Ser Lys Ser Tyr Asn Met Ala Gly 245 250 - 255 Trp Arg Ile Gly Phe Met Val Gly Asn Lys Thr Leu Val Ser Ala Leu 260 265 270 Ala Arg Ile Lys Ser Tyr His Asp Tyr Gly Thr Phe Thr Pro Leu Gln 275 280 285 Val Ala Ala Ile Ala Ala Leu Glu Gly Asp Gln Gln Cys Val Leu Asp 290 295 300 Ile Ala Ala Gln Tyr Lys Arg Arg Arg Asp Val Leu Val Lys Gly Leu 305 310 315 His Glu Ala Gly Trp Met Val Glu Met Pro Lys Ala Ser Met Tyr Val 325 330 335 Trp Ala Lys Ile Pro Glu Pro Tyr Ala Ala Met Gly Ser Leu Glu Phe \$340\$ \$345\$Ala Lys Lys Leu Leu Gln Asp Ala Lys Val Cys Val Ser Pro Gly Ile 355 360 365 Gly Phe Gly Asp Tyr Gly Asp Thr His Val Arg Phe Ala Leu Ile Glu 370 375 380 Asn Ser Asp Arg Ile Arg Gln Ala Val Arg Gly Ile Lys Ser Met Phe

385 390 395 400 Arg Ala Asp Gly Leu Leu Ala Ala Lys Ser Val Ala Glu Gln Pro Glu

410

415

405

Ser

```
<210> 7135
<211> 327
<212> PRT
<213> Enterobacter cloacae
<400> 7135
Arg Ser Ser Arg Arg Met Thr Lys Tyr Ala Leu Val Gly Asp Val Gly
                           1.0
Gly Thr Asn Ala Arg Leu Ala Leu Cys Asp Val Asn Ser Gly Glu Ile
      20
                                       3.0
Ser Gln Ala Lys Thr Tyr Ser Gly Leu Asp Tyr Pro Ser Leu Glu Ala
      35
                   40
                                  4.5
Val Val Arg Val Tyr Leu Glu Glu His Lys Val Ser Val Glu Asp Gly
 50
                5.5
                                 60
Cys Ile Ala Ile Ala Cys Pro Ile Thr Gly Asp Trp Val Ala Met Thr
               70
                              75
Asn His Thr Trp Ala Phe Ser Ile Ala Glu Met Arg Lys Asn Leu Gly
         85 90 95
Phe Ser His Leu Glu Ile Ile Asn Asp Phe Thr Ala Val Ser Met Ala
      100 105
Ile Pro Met Leu Lys Pro Glu His Leu Ile Gln Phe Gly Gly Thr Ala
 115 120 125
Pro Val Glu Gly Lys Pro Ile Ala Val Tyr Gly Ala Gly Thr Gly Leu
130 135 140
Gly Val Ala His Leu Val His Val Asp Lys Arg Trp Val Ser Leu Pro
145 150 155 160
Gly Glu Gly Gly His Val Asp Phe Ala Pro Asn Ser Glu Glu Glu Gly
     165 170 175
Ile Ile Leu Glu Glu Leu Arg Ala Glu Ile Gly His Val Ser Ala Glu
     180
                       185 190
Arg Val Leu Ser Gly Pro Gly Leu Val Asn Leu Tyr Arg Ala Ile Val
195 200 205
Lys Ser Asp Gly Arg Leu Pro Glu Asn Leu Gln Pro Lys Asp Val Thr
210 215 220
Glu Arg Ala Leu Ala Asp Ser Cys Ile Asp Cys Arg Arg Ala Leu Ser
225 230 235
Leu Phe Cys Val Ile Met Gly Arg Phe Gly Gly Asn Leu Ala Leu Asn
         245
                         250
Leu Gly Thr Phe Gly Gly Val Tyr Ile Ala Gly Gly Ile Val Pro Arg
        260
                        265
                                       270
Phe Leu Asp Phe Phe Thr Ala Ser Gly Phe Arg Gly Gly Phe Glu Asp
     275
                     280
                                    285
Lys Gly Arg Phe Arg Ser Tyr Val Gln Asp Ile Pro Val Tyr Leu Ile
 290 295
                      300
Val His Asp Asn Pro Gly Leu Leu Gly Ser Gly Ala His Leu Arg Gln
305 310
                             315
                                             320
Val Leu Gly Gln Ile Leu
            325
<210> 7136
<211> 472
<212> PRT
<213> Enterobacter cloacae
<400> 7136
Ile Cys Val Pro Ala Cys Leu Leu Lys Val Gln Thr Met Glu Thr Tyr
                     10
Leu Gln Thr Val Lys Glu Glu Trp Val Lys Leu Ile Asn Glu Thr Asp
        20
                     25
                                  30
Pro Asp Val His Arg Leu Ala Thr Glu Leu Ala Arg Asp Asn Ala Thr
                     4.0
                                    45
```

```
Pro Leu Val Ala Glu Phe Tyr Arg Val Val Leu Ala Asp Pro Ser Ala
Ala Glu Phe Leu Thr Thr Glu Gln Val Glu Arg Gln Leu Gln Glu Ala
               70
                              7.5
Leu Arg Arg Trp Leu Ile Asp Val Leu Ser Cys Arg Val Glu Gln Val
          8.5
                          90
Glu Glu Gln Met Arg Ala Gln Gln Arg Ala Ala Asp Val His Ala Arg
            105 110
       100
Ile Gly Ile Ser Val Asp Leu Val Glu Met Gly Phe Arg Val Leu Lys
     115 120 125
Lys Leu Leu Pro Val Ile Thr Thr Ser Ala His Ser Pro Glu Val
 130 135 140
Lys Leu His Ile Tyr His Tyr Ala Ile Asn Ser Ile Asp Leu Ala Met
145 150 155 160
Glu Val Met Ser Arg Ala Tyr Val Phe Ser Glu Asn Asn Ala Ala Lys
165 170 175
Glu Asp Glu Asn Tyr Arg Ile Phe Ser Leu Met Glu Asn Ala Glu Glu
    180 185 190
Glu Lys Glu Arg Gln Thr Ala Ala Leu Leu Ser Trp Glu Met Val Leu
 195 200 205
Leu Tyr Lys Ile Thr Leu Asn Ser Ser Ile Gly Asn Ser Leu Pro Leu
210 215 220
Gly Gln Ser Glu Phe Gly Leu Trp Phe Ser His Lys Gly Arg His Tyr
225 230 235
Phe Ser Gly Ile Ala Glu Ala Gly His Ile Ser Arg Leu Ile Gln Glu
           245 250 255
Phe Asp Asp Leu Phe Asn Glu Val Arg Leu Ser Gly Gln Gly Leu Ser
 260 265 270
Asp Lys Ala Gln Arg Asp Lys Phe Leu Gln Arg Met Arg Asn Thr Leu
 275 280 285
Ser Gln Ile Ile Thr Leu Leu Arg Glu Leu Phe Asp Glu Val Ser Arg
 290 295 300
His Glu Val Gly Val Asp Val Leu Thr Arg Leu Leu Asn Arg Arg Phe
              310
                             315
Leu Pro Thr Ile Phe Lys Arg Glu Ile Leu His Ala Thr Arg Ala Gly
           325
                          330
Thr Lys Leu Ser Thr Leu Leu Ile Asp Val Asp Lys Phe Lys Gln Ile
        340
                       345 350
Asn Asp Thr Trp Gly His Asn Thr Gly Asp Glu Ile Leu Arg Lys Val
     355 360
                                    365
Ser Gly Ala Phe Tyr Asp Asn Val Arg Thr Cys Asp Tyr Val Phe Arg
  370 375
                                380
Tyr Gly Gly Asp Glu Phe Leu Ile Val Leu Thr Glu Ile Ser Glu Val
              390
                             395
Asp Ala Leu Arg Ile Ala Glu Arg Ile Arg Arg Arg Val Glu Lys Ile
           405
                          410 415
Lys Val Asn Ser Pro Thr Gly Asp Ile Ile Pro Leu Ser Leu Ser Ile
      420
                       425
                           430
Gly Val Ala Met Phe Asn Gly His Pro Asp Tyr Glu Arg Leu Ile Gln
                    440
Ala Ala Asp Glu Ala Leu Tyr Gly Val Lys Arg Arg Gly Arg Asn Cys
 450 455
Val Glu Leu Trp Lys Gly Ala
            470
<210> 7137
<211> 296
<212> PRT
<213> Enterobacter cloacae
```

<400> 7137

Arg Glu Arg Val Val Ile Val Leu Val Asp Ile Gly Lys Arg Ala Val Thr Ile Thr Cys Thr Phe Gln Ala Glu His His Arg Leu Arg His Arg 25 Trp His Ser Thr Ile Ala Ile Leu Asn Arg Glu Lys Phe Met Lys Leu 35 Arg Leu Ser Ala Leu Ala Leu Gly Val Thr Met Leu Val Gly Cys Ala 55 Ser Ser Gly Glu Gln Thr Gly Arg Ser Asp Pro Leu Glu Gly Phe Asn 7.0 7.5 Arg Ser Met Tyr Ser Phe Asn Tyr Asn Val Leu Asp Pro Tyr Leu Val 8.5 90 Arg Pro Val Ala Val Ala Trp Arg Asp Tyr Val Pro Gln Pro Ala Arg 100 105 110 Asn Gly Leu Ser Asn Phe Thr Ser Asn Leu Glu Glu Pro Ala Val Met 115 120 Val Asn Tyr Phe Leu Gln Gly Asp Pro Tyr Gln Gly Met Val His Phe 135 140 Thr Arg Phe Phe Leu Asn Ser Leu Leu Gly Met Gly Gly Leu Ile Asp 150 155 Val Ala Gly Met Ala Asn Pro Lys Leu Gln Arg Glu Gln Pro His Arg 165 170 Phe Gly Ser Thr Leu Gly His Tyr Gly Val Gly Tyr Gly Pro Tyr Val 180 185 190 His Leu Pro Phe Tyr Gly Ser Phe Thr Val Arg Asp Asp Gly Gly Asp 205 200 Met Val Asp Thr Leu Tyr Pro Val Leu Ser Trp Leu Thr Trp Pro Leu 215 220 Ser Ile Gly Lys Trp Thr Val Glu Gly Ile Glu Thr Arg Ala Gln Leu 230 235 Leu Asp Ser Asp Gly Leu Leu Arg Gln Ser Ser Asp Pro Tyr Ile Met 245 250 Val Arg Glu Ala Tyr Phe Gln Asn His Asp Phe Ile Ala Asn Gly Gly 260 265 Lys Leu Lys Pro Glu Asp Asn Pro Asn Ala Lys Ala Ile Glu Asn Glu 275 280 285 Leu Lys Asp Ile Asp Ser Glu

290 <210> 7138 <211> 175 <212> PRT

<213> Enterobacter cloacae

<400> 7138 Tyr Gly His Glu Trp Arg Trp Met Pro Gly Asn Arg Pro His Tyr Gly 10 Arg Trp Pro Gln His Asp Phe Pro Pro Phe Lys Lys Leu Arg Pro Gln 2.0 25 Ser Val Thr Ser Arg Ile Gln Pro Gly Ser Asp Val Ile Val Cys Ala 4.0 Glu Met Asp Glu Gln Trp Gly Tyr Val Gly Ala Lys Ser Arg Gln Arg 55 Trp Leu Phe Tyr Ala Tyr Asp Arg Leu Arg Lys Thr Val Val Ala His 70 Val Phe Gly Glu Arg Thr Met Ala Thr Leu Gly Arg Leu Met Ser Leu 85 90 Leu Ser Pro Phe Asp Val Val Ile Trp Met Thr Asp Gly Trp Pro Leu 100 105 110 Tyr Glu Ser Arg Leu Lys Gly Lys Leu His Val Ile Ser Lys Arg Tyr

Thr Gln Arg Ile Glu Arg His Asn Leu Asn Leu Arg Gln His Leu Ala 130 135 Arg Leu Gly Arg Lys Ser Leu Ser Phe Ser Lys Ser Val Glu Leu His 150 155 Asp Lys Val Ile Gly His Tyr Leu Asn Ile Lys His Tyr Gln 170 165 <210> 7139 <211> 78 <212> PRT <213> Enterobacter cloacae <400> 7139 Cys Cys Gln Leu Thr Asp Leu Val Tyr Asp Gly Val Phe Glu Val Leu Gln Trp Leu Leu Phe Leu Ser Ala Val Pro Pro Val Gln Leu Leu Thr 20 25 30 Gly Trp Cys Val Thr Val Lys Val Leu Pro Asp Ile Ser Ala Ile Ser 35 40 4.5 Ala Leu Thr Ala Val Lys His Gly Ser Tyr Ser Ser His Thr Gln Pro 55 Leu Asn Pro Val Arg Thr Arg Lys Ser Leu Ile Trp Pro 7.0 <210> 7140 <211> 314 <212> PRT <213> Enterobacter cloacae <400> 7140 Pro Gly Arg Asn Pro Ser Cys Ile Pro Ser Trp Ser Gly Leu Glu Gln 10 Arg Ala Arg Leu Ala Ala Glu Phe Met Tyr Gly Leu Leu Ser Arg Gln 20 25 3.0 Gly Val Ile Asp Thr Ala Phe Ala Ser Leu Thr Thr Lys Pro His Leu 35 40 4.5 Thr Gln Asp Gln Gln Ala Leu Ile Gln Asp Ile Leu Thr Asp Ile Arg 55 60 Ile Tyr Gly Gln Pro His Phe Asp Val Thr Ala Phe Tyr Asn Gly Met 70 75 Leu Ser Tyr Leu Asn Arg Gly Arg Phe Arg Ala Thr Gly Glu Leu Thr 8.5 90 Thr Gln Asp Arg Leu Arg Glu Val Phe Arg Ile Ser Ser Ile Asp Glu 100 105 110 Phe Arg Ala Leu Leu Ala Asn Glu Pro Met Leu Val Leu Pro Glu Cys 120 125 Pro Asp Asn Lys Leu Thr Leu Glu Ala Phe Phe Trp Arg Asp Glu Tyr 135 140 Phe Asn Ser Gln Gly Pro Asp Ala Leu Leu Ser Tyr Leu Phe Ser Pro 150 155 160 Glu Gln Ile Gln Arg Tyr Leu Asn Val Arg Ala Glu Phe Glu Asp Lys 165 170 175 Gly Lys Thr Val Glu Lys Leu Ser Ala Gly Gln Arg Gly Thr Phe Tyr 180 185 190 Val Cys Leu Lys Leu Ala Ala Asp Ala Phe Gly Ser Pro Phe Val Phe 200 195 205 Asp Gln Pro Glu Asp Asp Leu Asp Asn Glu Phe Ile Met His Ser Leu 215 Val Pro Leu Phe Arg Lys Ile Lys Gln Tyr Arg Gln Val Ile Ile Val 230 235 Thr His Asn Ala Asn Leu Val Val Asn Cys Asp Ala Glu Gln Val Ile

250 Ile Ala Ala Asn Asn Asp Glu Val Ile Ser Tyr Arg Ser Gly Ala Leu 260 265 Glu Tyr Gly Asp His Gly Ala Pro Asn Ser Met Cys Lys Ala Ile Cys 275 280 285 Asp Val Leu Glu Gly Gly Arg Gln Ala Phe Glu Ala Arg Glu Gln Lys 290 295 Tyr Gly Met Val Trp Leu Asn Ala Ile 310 <210> 7141 <211> 95 <212> PRT <213> Enterobacter cloacae <400> 7141 Gly Ala Pro Val Ala Ser Val Ser Ile Ser Cys Pro Ser Cys Ser Ala 10 Thr Asp Gly Val Val Arg Asn Gly Lys Ser Thr Ala Gly His Gln Arg 20 2.5 Tyr Leu Cys Ser His Cys Arg Lys Thr Trp Gln Leu Gln Phe Thr Tyr 35 40 Thr Ala Ser Gln Pro Gly Thr His Gln Lys Ile Ile Asp Met Ala Met 50 55 60 Asn Gly Val Gly Cys Arg Ala Thr Ala Arg Ile Met Gly Val Gly Leu 65 70 75 Asn Thr Ile Phe Arg His Leu Lys Asn Ser Gly Arg Ser Arg <210> 7142 <211> 175 <212> PRT <213> Enterobacter cloacae <400> 7142 Tyr Gly His Glu Trp Arg Trp Met Pro Gly Asn Arg Pro His Tyr Gly 10 Arg Trp Pro Gln His Asp Phe Pro Pro Phe Lys Lys Leu Arg Pro Gln 25 Ser Val Thr Ser Arg Ile Gln Pro Gly Ser Asp Val Ile Val Cys Ala 40 Glu Met Asp Glu Gln Trp Gly Tyr Val Gly Ala Lys Ser Arg Gln Arg 5.5 Trp Leu Phe Tyr Ala Tyr Asp Arg Leu Arg Lys Thr Val Val Ala His 70 75 Val Phe Gly Glu Arg Thr Met Ala Thr Leu Gly Arg Leu Met Arg Leu 90 Leu Ser Pro Phe Asp Val Val Ile Trp Met Thr Asp Gly Trp Pro Leu 105 110 Tyr Glu Ser Arg Leu Lys Gly Lys Leu His Val Ile Ser Lys Arg Tyr \$115\$Thr Gln Arg Ile Glu Arg His Asn Leu Asn Leu Arg Gln His Leu Ala 130 135 140 Arg Leu Gly Arg Thr Ser Leu Ser Phe Ser Lys Ser Val Glu Leu His 150 155 Asp Lys Val Ile Gly His Tyr Leu Asn Ile Lys His Tyr Gln 170 165

<210> 7143 <211> 78 <212> PRT

## <213> Enterobacter cloacae

<210> 7144 <211> 95 <212> PRT

<213> Enterobacter cloacae

<400> 7144

Asn Thr Ile Phe Arg His Leu Lys Asn Ser Gly Arg Ser Arg 85 90 95

<210> 7145 <211> 243

<212> PRT

<213> Enterobacter cloacae

165

<400> 7145

Cys Thr His His Leu Asn Thr Phe Asp Gly Gly Val Ser Arg Leu His 5 Gly Phe Lys Ser Gln Arg Gly Ala Asp Tyr Pro Phe Gln Phe Ala Met 25 30 Ile Ala Phe Asn His Val Val Pro Val Leu Asn Leu Ser Val Phe Asn 40 Val Arg Arg Ala Pro Ala Phe Ala Phe Glu Gln Ser Lys Arg Ala Thr 55 60 Ile Gly Gly Arg Phe Ile Arg Val Asp Glu Ser Arg Asp Leu Pro Leu 7.0 7.5 Leu His Val Val Glu Asp Phe Thr Gln Lys Pro Val Cys Ser Phe Ala 85 90 Val Thr Thr Gly Gly Glu Ile Lys Ile Asp Ser Ala Ala Pro Ala Val 100 105 Asp Gly Pro Val Gln Ile Arg Pro Ala Ala Ile Asp Leu His Val Gly 115 120 Phe Ile His Val Pro Arg Ala Lys Ile Gly Arg Val Thr Pro Val Pro 135 140 Ala Gln Pro Phe Phe His Phe Arg Arg Ile Thr Leu Asn Pro Ala Val 150 155 Asn Arg Gly Val Ile Asp Ile His Ser Ala Phe Ser Gln His Leu Leu

Gln Leu Thr Val Thr Asp Ala Val Phe Ala Val Pro Ala Tyr Gly Pro 185 180 190 Gln Asn Asp Val Thr Leu Lys Met Pro Ala Phe Glu Trp Val His Val 195 200 Gln Leu His Gln Gln Lys Gly Met Ile Ser Leu Ser Pro Pro Thr Ile 215 220 Cys Asn Ser Ala Asn Arg Asn Asp Lys Asn Glu Pro Pro Gly Cys Asp 225 230 Gly Leu

<210> 7146 <211> 99 <212> PRT

<213> Enterobacter cloacae

<400> 7146

Cys Pro Met Thr Leu Ser Cys Ser Ser Thr Asp Phe Glu Asn Asp Ser 1.0 Asp Val Arg Pro Ser Arg Ala Arg Cys Cys Leu Arg Phe Arg Leu Cys 25 Arg Ser Ile Arg Cys Val Tyr Arg Leu Leu Ile Thr Cys Ser Phe Pro 40 Phe Arg Arg Asp Ser Tyr Ser Gly Gln Pro Ser Val Ile His Ile Thr Thr Ser Lys Gly Asp Ser Ser Leu Ile Arg Arg Pro Ser Val Ala Ile

Val Arg Ser Pro Asn Thr Cys Ala Thr Thr Val Phe Arg Ser Leu Ser

Tyr Ala

<210> 7147

<211> 227 <212> PRT

<213> Enterobacter cloacae

<400> 7147

Ala Ile Asn Pro Met Arg Ile Leu Leu Val Glu Asp Asp Pro Met Val 10 Gly Glu Val Val Thr Ser Ser Leu Lys Asp Asn Ala Trp Ala Val Asp 3.0 Trp Val Lys Ser Gly Asn Asp Ala Cys Val Gly Phe Ser Thr Trp Gln 35 40 Tyr Asp Val Ile Leu Leu Asp Leu Gly Leu Pro Gly Lys Asp Gly Leu 5.5 Thr Val Leu Ala Glu Ile Arg Gln Lys Ala Leu Pro Val Pro Val Leu 7.0 80 Ile Leu Thr Ala Arg Asp Ala Leu Glu Asp Arg Leu Lys Gly Leu Asp 8.5 90 95 Gly Gly Ala Asp Asp Tyr Ile Leu Lys Pro Phe Glu Met Ser Glu Leu 100 105 110 Leu Ala Arg Ile Arg Ala Val Ile Arg Arg Asn Thr Gly Asn Gly Asn 120 Pro Val Leu Ser Asn Gly Val Leu Thr Leu Asp Pro Val Thr His Glu 135 130 140 Ala Ser Ile Ser Glu Thr Gln Gln Lys Phe Leu Leu Ser Asn Arg Glu 150 155 Tyr Ala Leu Leu Glu Ala Leu Met Leu Arg Pro Gly Gly Ile Leu Ser 165 170 Arg Ser Ala Leu Glu Asp Arg Ile Tyr Gly Trp Gly Asp Glu Val Glu

185 Ser Asn Ala Ile Glu Phe Leu Ile His Ala Leu Arg Lys Lys Leu Gly 195 200 205 Arg Asp Ala Ile Lys Asn Val Arg Gly Val Gly Trp Leu Val Ser Lys 210 215 Asn Gly 225 <210> 7148 <211> 471 <212> PRT <213> Enterobacter cloacae <400> 7148 Thr Met Phe Gly Leu Asp Ala Phe His Leu Ala Arg Val Gln Phe Ala 10 Phe Thr Val Ser Phe His Ile Ile Phe Pro Ala Ile Thr Ile Gly Leu 25 Ala Ser Phe Leu Ala Val Leu Glu Gly Leu Trp Leu Lys Thr Arg Asn 35 40 Asp Thr Tyr Lys Glu Leu Tyr His Phe Trp Ser Lys Ile Phe Ala Val 55 60 Asn Phe Gly Met Gly Val Val Ser Gly Leu Val Met Ala Tyr Gln Phe 70 75 Gly Thr Asn Trp Ser Gly Phe Ser Gln Phe Ala Gly Ser Ile Thr Gly 8.5 90 Pro Leu Leu Thr Tyr Glu Val Leu Thr Ala Phe Phe Leu Glu Ala Gly 105 1.00 Phe Leu Gly Val Met Leu Phe Gly Trp Asn Arg Val Gly Pro Gly Leu 115 120 125 His Phe Phe Ala Thr Cys Met Val Ala Leu Gly Thr Leu Phe Ser Thr 135 140 Phe Trp Ile Leu Ser Ser Asn Ser Trp Met Gln Thr Pro Gln Gly Tyr 150 155 145 Ala Ile Glu Asn Gly Val Val Ile Pro Val Asp Trp Leu Lys Ile Ile 165 170 175 Phe Asn Pro Ser Phe Pro Phe Arg Leu Leu His Met Ser Thr Ala Ala 190 180 185 Phe Leu Ala Ser Ala Phe Phe Val Gly Ala Ser Ala Ala Trp His Leu 195 200 205 Leu Lys Gly Asn Asp Thr Pro Ala Ile Arg Lys Met Phe Ser Met Ala 215 210 220 Leu Trp Met Ala Leu Ile Val Ser Pro Ile Gln Ala Val Ile Gly Asp 230 235 Ala His Gly Leu Asn Thr Leu Glu His Gln Pro Ala Lys Ile Ala Ala 245 250 Ile Glu Gly His Trp Glu Asn Lys Pro Gly Glu Ala Thr Pro Leu Val 260 265 270 Leu Phe Gly Leu Pro Asp Met Asn Ala Glu Glu Thr Lys Tyr Lys Ile 285 275 280 Glu Val Pro Tyr Leu Gly Ser Ile Ile Leu Thr His Ser Leu Asp Lys 290 295 300 Gln Val Pro Ala Leu Lys Ser Phe Pro Lys Glu Asp Arg Pro Asn Ser 310 315 Thr Ile Ile Phe Trp Ser Phe Arg Val Met Ala Gly Leu Gly Met Leu 325 330 Met Ile Leu Leu Gly Val Val Ser Val Trp Leu Arg Trp Arg Lys Arg 345 340 350 Leu Tyr Thr Ser Lys Pro Phe Leu Tyr Phe Ser Leu Phe Met Gly Pro 360 Ser Gly Leu Ile Ala Leu Leu Ala Gly Trp Phe Thr Thr Glu Ile Gly

```
Arg Gln Pro Trp Val Val Tyr Gly Val Gln Arg Thr Lys Asp Ala Val
                390
                                  395
Ser Ala His Gly Asp Leu His Met Ser Ile Ser Leu Leu Ala Phe Leu
             405
                               410
Leu Val Tyr Thr Ser Val Phe Gly Val Gly Tyr Ile Tyr Leu Val Arg
                          425
Leu Ile Lys Lys Gly Pro Val His Ala Glu Glu His Gln Glu Val Thr
      435
               440
                                    445
Asp Gly Thr Pro Ala Arg Pro Leu Ser Ala Val Asn Glu Gly Leu Ala
 450
        455
Thr Arg Gly Arg Asp Lys
465
<210> 7149
<211> 246
<212> PRT
<213> Enterobacter cloacae
<400> 7149
Thr Tyr His Pro Leu Leu Leu Met Glu Leu His Met Asn Pro Phe Lys
          5
                   10
Gly Arg His Phe Gln Arg Asp Ile Ile Leu Trp Ala Val Arg Trp Tyr
         20
                           2.5
Cys Lys Tyr Gly Ile Ser Tyr Arg Glu Leu Gln Glu Met Leu Ala Glu
 35
                       4.0
Arg Gly Val Asn Val Asp His Ser Thr Ile Tyr Arg Trp Val Gln Arg
                   55
Tyr Ala Pro Glu Met Glu Lys Arg Leu Arg Trp Tyr Trp Arg Asn Pro
                70
                                  7.5
Ser Asp Leu Cys Pro Trp His Met Asp Glu Thr Tyr Val Lys Val Asn
            85
                              90
Gly Arg Trp Ala Tyr Leu Tyr Arg Ala Val Asp Ser Arg Gly Arg Thr
        100 105
Val Asp Phe Tyr Leu Ser Ser Arg Arg Asn Ser Lys Ala Ala Tyr Arg
                        120
Phe Leu Gly Lys Ile Leu Asn Asn Val Lys Lys Trp Gln Ile Pro Arg
                    135
                                      140
Phe Ile Asn Thr Asp Lys Ala Pro Ala Tyr Gly Arg Ala Leu Ala Leu
                150 155
Leu Lys Arg Glu Gly Arg Cys Pro Ser Asp Val Glu His Arg Gln Ile
                               170
             165
Lys Tyr Arg Asn Asn Val Ile Glu Cys Asp His Gly Lys Leu Lys Arg
                           185
                                             190
Ile Ile Gly Ala Thr Leu Gly Phe Lys Ser Met Lys Thr Ala Tyr Ala
      195
                       200
                                         205
Thr Ile Lys Gly Ile Glu Val Met Arg Ala Leu Arg Lys Gly Gln Ala
                    215
                            220
Ser Ala Phe Tyr Tyr Gly Asp Pro Leu Gly Glu Met Arg Leu Val Ser
             230
                                  235
Arg Val Phe Glu Met
              245
<210> 7150
<211> 99
<212> PRT
<213> Enterobacter cloacae
<400> 7150
Cys Pro Met Thr Leu Ser Cys Ser Ser Thr Asp Phe Glu Asn Asp Ser
                               10
```

<210> 7151 <211> 462 <212> PRT <213> Enterobacter cloacae

<400> 7151 Lys Cys Gin Gly Ser Arg Met Ala Gly Phe Lys Lys Arg Met Lys Thr Ser Val Gln Leu Arg Leu Ser Leu Ala Leu Gly Ile Ala Ile Leu Leu Thr Ala Val Ile Ser Gly Gly Ile Thr Phe Tyr Leu Ala Leu Asp Glu 3.5 4.0 Ala Arg Glu Leu Gln Asp Asp Thr Leu Lys Gln Ile Ala Tyr Val Thr Lys Ser Pro Gly His Asn Ala Leu Pro Glu Ile Lys Gly Gln Lys Arg 7.0 Ala Asp Glu Asp Ser Asp Gly Lys Ile Leu Val Glu Tyr Leu Thr Val 8.5 Ser Gly Thr Gln Asn Asp Asp Thr Gly Ile Thr Phe His Leu Pro Ala Pro Val Arq Glu Gly Phe Gln Asn Ala Thr Ile Thr Gly Val Gln Tyr Arg Val Leu Val His Arg Leu Thr Pro Glu Gln Phe Val Ile Val Gly Gln Gln Thr Glu Val Arg Asp Glu Ile Ala Phe Ala Ser Ala Leu Arg Thr Leu Ile Pro Phe Ile Leu Leu Leu Pro Val Leu Leu Leu Val Thr Thr Asp Leu Ile Lys Lys Ser Phe Arg Pro Val Leu Asn Leu Ala Ala Gly Val Tyr Arg Arg Asp Glu Arg Asp Leu Thr Pro Leu Arg Asp Asp Asn Ile Pro Asp Glu Ile Arg Pro Phe Val Glu Ser Ile Asn Arg Leu Leu His Lys Val Asn Asn Tor Ile Gln Ala Gln Lys Arg Phe Ile Ala Asp Ala Ala His Glu Leu Arg Thr Pro Leu Thr Ala Leu Ser Leu Gln Ala Glu Arg Leu Ser Gly Ser Asp Met Ser Ala Glu Ala Arg Glu Arg Leu Ala Ala Leu Arg Leu Gly Leu Thr Arg Glu Lys Asn Leu Leu Glu Gln Leu Leu Ser Leu Ala Arg Glu Gln Gln Pro Leu Gln Thr Gln Gly Thr Glu Ala Val Ser Leu Asn Glu Val Phe Arg Gln Val Ile Glu Thr Leu Leu Pro Leu Ala Leu Glu Lys Gly Ile Asp Ile Gly Val Val Glu 

```
Thr Pro Tyr Gln Ala Glu Ser Gln Val Ile Thr Glu Lys Asn Thr Leu
          340
                            345
Tyr Thr Ala Leu Lys Asn Leu Val Glu Asn Ala Ile His Tyr Ile Pro
                         360
       355
                                            365
Glu Asn Gly Gln Ile Asp Leu Arg Leu Gln Phe Ile Asp Asn Ser Ala
                     375
                                        380
Val Ile Asp Val Glu Asp Asn Gly Pro Gly Ile Ala Ala Glu Gln Arg
                  390
                                    395
Glu Arg Val Phe Asp Ala Phe Tyr Arg Pro Ala Gly Thr Glu Lys Pro
             405 .
                                410
Gly Ser Gly Leu Gly Leu Ser Ile Val Lys Ala Cys Val His Arg Leu
          420
                          425
Gly Gly Thr Ile Ile Leu Ala Pro Ser Ser His Phe Pro Ser Gly Leu
           440 445
      435
Arg Ala Arg Ile Ile Leu Pro Val Glu Ser His Ser Gly
            455
<210> 7152
<211> 116
<212> PRT
<213> Enterobacter cloacae
<400> 7152
Arg Tyr Arg Gly Cys Pro Val Pro Pro Gly Ser Leu Cys Ile Arg Ala
             5
                             10
Arg Asn Ser Met Lys Asp Glu Ile Ala Arg Gln Ile Ala Gly Leu Ile
   20
                            2.5
                                               30
Glu Leu Asn Lys Phe Asn Gly Tyr Thr Leu Val Ser Gly Glu Asp Trp
                         40
                                           45
Gln Lys Pro Thr Val Thr Glu Ile Leu Leu Val Arg Gly Phe Ile Pro
                  5.5
Leu Thr Asp Asn Gln Leu Ala Asn Arg Leu Asp Val Asp Glu Arg Thr
65 70
                                75
Ile Arg Lys Trp Lys Ser Gly Glu Thr Ser Met Val Tyr Thr Thr Trp
             85
                           90
Cys Cys Leu Cys Trp Leu Ala Gly Leu Gly Met Pro Leu Asp Asn Ile
Ile Ser Glv
      115
<210> 7153
<211> 347
<212> PRT
<213> Enterobacter cloacae
<400> 7153
Gly Phe Gly Asn Thr Trp Glu Arg Gln Ile Met Gly Ile Asp Leu Ser
                                 10
Ile Ile Trp Phe Val Ile Ile Val Phe Ala Thr Leu Met Tyr Ile Val
                             25
                                                30
Met Asp Gly Phe Asp Leu Gly Ile Gly Ile Leu Phe Pro Phe His Lys
      3.5
                         4.0
                                            4.5
His Asp Val Asp Arg Asp Thr Met Met Asn Thr Val Ala Pro Val Trp
                    55
                                        60
Asp Gly Asn Glu Thr Trp Met Val Leu Gly Gly Ala Ala Leu Tyr Gly
                  70
Ala Phe Pro Leu Ala Tyr Ala Val Ile Ile Asp Ala Leu Ser Ile Pro
                                 90
                                                   9.5
Leu Thr Ala Met Leu Leu Gly Leu Ile Phe Arg Gly Val Ala Phe Glu
          100
                             105
                                               110
```

Phe Arg Phe Lys Ala Ile Pro Glu His Arg Pro Ile Trp Asp Lys Ala

```
120
      115
Phe Ile Val Gly Ser Val Leu Ala Thr Phe Ser Gln Gly Val Ala Val
 130
           135
                          140
Gly Thr Leu Leu Asn Gly Leu Ser Val Ser Gly Arg Ala Phe Ser Gly
   150 155
Ser Ala Leu Val Trp Leu Ala Pro Phe Pro Leu Phe Cys Gly Leu Gly
       165 170 175
Leu Val Leu Ala Tyr Ala Leu Leu Gly Cys Thr Trp Leu Ile Met Lys
    180 185 190
Thr Glu Asp Ser Phe His Arg Arg Met Ser Glu Leu Ala Thr Pro Leu
 195 200 205
Thr Ile Gly Leu Leu Ala Val Ile Ala Ile Ile Ser Val Trp Thr Pro
 210 215 220
Leu Thr His Pro Glu Ile Ala Ser Arg Trp Phe Ser Met Pro Asn Val
225 230 235 240
Ile Phe Phe Leu Pro Val Pro Leu Leu Val Leu Val Cys Cys Trp Gly
          245 250 255
Ile Val Arg Ser Val Tyr Ser Arg Arg Ser Ser Phe Gly Pro Phe Met
         260
             265 270
Leu Thr Leu Gly Leu Ile Phe Leu Gly Phe Ser Gly Leu Gly Ile Ser
      275
                   280
Ile Trp Pro Tyr Ile Ile Pro Pro Ser Val Thr Ile Trp Gln Ala Ala
 290
                  295
                                  300
Ser Pro Pro Gln Ser Gln Gly Phe Met Leu Ile Gly Gly Leu Leu Ile
305 310 315
Ile Pro Val Ile Leu Met Tyr Thr Cys Trp Ser Tyr Tyr Val Phe Arg
                            330
                                           335
            325
Gly Lys Val Lys Thr Gly Asp Gly Tyr His
         340
<210> 7154
<211> 167
<212> PRT
<213> Enterobacter cloacae
<400> 7154
Ile Ile Tyr Ile Ser Thr Ile Tyr Met Thr Ser Leu Arg Leu Phe Arg
Ala Cys Thr Thr Leu Gln Arg His Phe Glu Leu Tyr Asn Ile Phe Cys
      20
                        25
                                        3.0
Glu Phe Ser Ser Lys Leu Tyr Thr Tyr Asn His Met Ile Asn Ile Tyr
 35
                     40
                                     45
Phe Ile Lys Tyr Ile Ile Lys Tyr Leu Lys Asn Cys Thr Phe Leu Met
         55
                                  60
Tyr Arg Phe Glu Asn Tyr Val Tyr Leu Lys Cys Asn Val Thr Asp Tyr
      70 75
                                              80
Glu Asn Leu Gln Glu Arg Asn Met Gln Gln Asn Gly His Leu Ala Asp
            85
                            90
Thr Ala Thr Ala Ile Ala Gln Tyr Phe Glu Lys Ala Ala Leu Pro Thr
                         105
Gln Gln Glu Thr Leu Gly Gln Val Val Val Glu Ile Leu Ser Asp Gly
                     120
```

Arg Asn Leu Asn Arg Lys Ser Leu Cys Thr Lys Leu Leu Ser Arg Leu

Glu Lys Ala Asn Gly Pro Glu Glu Glu His His Tyr His Met Leu Leu

155

140

135

<210> 7155 <211> 127

145 150

Gly Leu Leu Phe Glu Arg 165

```
<212> PRT
<213> Enterobacter cloacae
<400> 7155
Glu Gln Met Arg Gln Asn Ile Gln Leu Gln Pro Glu Tyr His Ser Ala
                           10
Phe Leu Asp Ser Ala Leu Ser Glu Tyr Phe Arg His Ala Gly Asp Arg
 20
                           25
                                            30
Phe Ala Glu Glu Ser Ala Ile Phe Ser Thr Ala Val Arg Cys Val Leu
35
                      4.0
                                        45
Ala Ser Glu Gly His Leu Thr Asn Lys Ser Ile Ile Leu Trp Leu Ile
             55
                                    60
Gin Thr Leu Glu Ser Thr Asp Asp Val Val Lys Ala Asp Val Ile Arg
65 70
                    7.5
Lys Thr Leu Glu Ile Val Val Gly Tyr Thr Met Asp Asp Leu Tyr Arg
       85 90 95
Leu Thr Leu Pro Ile Ser Ser Asp Ser Val Ser Ser Ser Ile Leu Thr
         100 105 110
Asn Gly Leu Thr Ile Thr Cys Pro Leu Ser Pro Asn Ala Leu
                       120 125
<210> 7156
<211> 728
<212> PRT
<213> Enterobacter cloacae
<400> 7156
Thr Leu Leu His Phe Leu Thr Gly Leu Leu Met Lys Lys Ile Ala
                             10
Ser Val Cys Pro Tyr Cys Gly Ala Gly Cys Lys Leu Asn Leu Val Val
       20
Lys Asn Asn Arg Ile Ile Arg Ala Glu Ala Ala Asp Gly Val Thr Asn
35
                      4.0
Gln Gly Thr Leu Cys Leu Lys Gly Phe Tyr Gly Trp Asp Phe Leu Asn
                    55
                                    60
Asp Thr Arg Leu Leu Thr Pro Arg Leu Thr Gln Pro Met Ile Arg Tyr
                               7.5
              70
Ser Lys Gly Glu Ala Phe Thr Pro Val Thr Trp Glu Glu Ala Ile Arg
             85
                              90
Tyr Thr Ala Tyr Arg Leu Lys Ser Ile Lys Glu Gln Tyr Gly Pro Arg
          100 105 110
Ser Ile Met Thr Thr Gly Ser Ser Arg Gly Thr Gly Asn Glu Thr Asn
                       120
                                        125
      115
Tyr Val Met Gln Lys Phe Ala Arg Ala Val Leu Asn Thr Asn Asn Val
  130
                    135
                                     140
Asp Cys Cys Ala Arg Val Cys His Gly Pro Ser Val Ala Gly Leu Gln
                150
                                 155
145
Glu Thr Leu Gly Asn Gly Ala Met Ser Asn Ser Ile Asn Asp Ile Glu
                              170
             165
Asn Ser Lys Cys Leu Leu Val Phe Gly Tyr Asn Cys Ala Asp Ser His
          180
                           185
                                            190
Pro Ile Val Ala Arg Arg Val Leu Lys Ala Arg Glu Asn Gly Ala Lys
       195
                        200
                                     205
Ile Ile Val Cys Asp Pro Arg His Ile Glu Thr Ala Arg Ile Ala Asp
                    215
Leu His Leu Gln Leu Lys Asn Gly Ser Asn Met Ala Leu Val Asn Ala
              230
                               235
Phe Gly Tyr Val Leu Leu Glu Glu Glu Leu Tyr Asp Lys Asn Tyr Val
             245
                              250
                                                255
Ala Arg Phe Thr Glu Gly Leu Glu Ala Tyr Arg Leu Thr Val Lys Asp
```

265

```
Tyr Ala Pro Glu Gln Val Glu His Leu Thr Gly Ile Pro Ala Arg Asp
          280
   275
Val Arg Gln Ala Met Arg Met Phe Ala Ala Ala Pro Ser Ala Thr Val
               295
                                 300
Met Trp Gly Met Gly Val Thr Gln Phe Gly Gln Ala Val Asp Val Val
305
    310 315 320
Lys Gly Leu Ser Ser Leu Ala Leu Leu Thr Gly Asn Leu Gly Arg Pro
      325 330 335
Ala Val Gly Val Gly Pro Val Arg Gly Gln Asn Asn Val Gln Gly Ala
        340 345 350
Cys Asp Met Gly Val Leu Pro Asn Met Phe Pro Gly Tyr Gln Asp Val
 355 360 365
Thr Asp Pro Ala Val Arg Leu Lys Phe Ala Asp Ala Trp Lys Ile Asn
370 375 380
Val Asn Arg Met Asp Asp Arg Val Gly Thr Arg Ile Thr Glu Val Pro
385 390 395 400
His Leu Ala Leu Glu Gly Lys Ile Lys Ala Tyr Tyr Ile Met Gly Glu
           405 410 415
Asp Pro Leu Gln Thr Glu Ala Asp Leu Gly Leu Val Arg Arg Gly Phe 420 425 430
Glu Ala Leu Asp Phe Val Val Val Gln Asp Ile Phe Met Thr Lys Thr
    435 440 445
Ala Glu Leu Ala Asp Val Leu Leu Pro Ala Thr Ser Trp Gly Glu His
450 455
                                 460
Ala Gly Val Phe Thr Cys Ala Asp Arg Gly Phe Gln Arg Phe Gly Lys
465 470 475
Ala Ile Glu Pro Ser Gly Asn Val Arg Arg Asp Trp Glu Ile Ile Ser
     485 490 495
Leu Leu Ala Thr Glu Met Gly Tyr Pro Met His Tyr Glu Asp Asn Gln
        500
                       505 510
Gln Ile Trp Asp Glu Met Arg Glu Leu Cys Pro Leu Phe Tyr Gly Val
515 520 525
Thr Tyr Glu Lys Met Gly Glu Met Gly His Val Gln Trp Pro Cys Pro
530 535
                                 540
Thr Leu Asp His Pro Gly Thr Pro Tyr Leu Tyr Lys Asp Asn Gln Phe
              550 555
Asp Thr Pro Thr Gly Lys Gly Gln Leu Phe Ala Ala Pro Trp Arg Ala
           565 570 575
Pro Ala Glu Thr Pro Asp Ala Asp Tyr Pro Leu Val Leu Cys Thr Val580 \hspace{0.5cm} 590 \hspace{0.5cm} 595 \hspace{0.5cm}
Arg Glu Val Gly His Tyr Ser Cys Arg Ser Met Thr Gly Asn Cys Ala
                  600 605
 595
Ala Leu Gln Ser Leu Ala Asp Glu Pro Gly Arg Val Gln Ile Asn Pro
 610 615
                                 620
Ala Asp Ala Asp Glu Arg Gly Ile Ala Glu Gly Gln Leu Val Trp Val
625 630 635
Arg Ser Arg Arg Gly Lys Val Ile Thr Arg Ala Ser Ile Ser Glu Arg
           645
                           650
Ile Asn Ala Gly Ala Ile Tyr Met Thr Tyr Gln Trp Trp Ile Gly Ala
        660 665
                                       670
Cys Asn Glu Leu Thr Gln Asp Asn Leu Asp Pro Ile Ser Arg Thr Pro
                    680 685
Glu Thr Lys Tyr Cys Ala Val Glr Leu Glu Ala Ile Glu Asp Gln Arg
 690 695 700
Trp Ala Glu Asp Phe Ala Ala Ser Ala Tyr Gln Thr Met Lys Thr Arg
705 710
                      715
Leu Ile Ala Ala Val Asn Val
```

<210> 7157 <211> 229 <212> PRT <213> Enterobacter cloacae <400> 7157 Gly Lys Lys Met Arg Phe Ile Thr Thr Thr Gly Leu Val Met Ala Leu 10 Leu Pro Leu Thr Leu Thr Ser Ala Ser Ala Gly Val Ile Ile Gly Gly 20 Thr Arg Val Ile Phe Asp Gly Ala Lys Lys Glu Ala Ser Ile Asn Ile 35 40 Thr Asn Pro Asp Asn Gly Pro Tyr Leu Ile Gln Ser Trp Ile Asp Val 55 60 Gln Asp Glu Gln Ser Gly Lys Ala Pro Phe Ile Ile Thr Pro Pro Leu 70 75 Tyr Arg Leu Asp Gly Gly Gln Lys Asn Leu Glu Arg Ile Val Met Thr 85 90 Gly Ser Leu Pro Gln Gly Gln Glu Ser Leu Phe Trp Leu Asn Ile Lys 100 105 110 Ala Ile Pro Ser Ala Ser Lys Gln Met Asn Ser Leu Gln Ile Ala Val 115 120 125 Lys Thr Arg Ile Lys Leu 1le Tyr Arg Pro Glu Ala Leu Arg Ala Ser 130 135 140 Thr Pro Glu Glu Gln Ala Asn Lys Leu Thr Trp Arg Arg Ala Gly Asn 150 155 160 Thr Leu Leu Val Asn Asn Pro Thr Pro Tyr Val Ile Asn Phe Asn Glu 165 170 175 Ile Thr Leu Gly Asn Lys Lys Leu Asp Asp Val Thr Tyr Val Met Pro 180 185 190 Ser Gly Thr Ala Arg Phe Pro Leu Pro Asn Gly Thr Ser Gly Asn Thr 195 200 205 Leu Thr Phe Lys Val Ile Asn Asp Tyr Gly Ser Pro Gly Glu Leu His 210 215 220 Arg Ala Ser Leu 225 <210> 7158 <211> 857 <212> PRT <213> Enterobacter cloacae <400> 7158 Ser Leu Arg Val Asn Gln Val Leu Val Met Thr Thr Ala Leu Asn Thr 10 Met Gln Pro Ala Arg Leu Ala Ile Phe Ile Ala Leu Ala Leu Ala Gly 25 20 Val Ser Pro Thr Leu Tyr Ala Ser Glu Thr Phe Asn Thr Glu Leu Val 35 40 Glu Leu Asp Asn Pro Gly Met Gly Lys Ala Asp Leu Ser Ala Phe Glu 55 Ser Gly Ser Gln Ala Pro Gly Thr Tyr His Val Asp Ile Ile Leu Asp 70 7.5 Asp Arg Leu Leu Glu Thr Arg Asp Ile Arg Phe Met Ala Val Lys Asp 90 8.5 Ala Asn Gly Ser Glu Thr Leu Gln Pro Cys Leu Ser Ile Gly Gln Leu 100 105 Lys Ala Trp Gly Val Lys Thr Ala Leu Phe Pro Gln Leu Asp Ala Gly 125 120 115 Glu Gly Glu Cys Ala Asp Leu Arg Ala Ile Pro Gln Ala Ser Ala Asp

135

150

Phe Gln Phe Gly Ala Gln Arg Leu Ala Ile Ser Ile Pro Gln Ala Ala

140

Ile Asp Leu Pro Ala Arg Gly Tyr Val Pro Pro Asp Met Trp Asp Glu 170 165 Gly Ile Thr Ala Ala Met Leu Asn Tyr Ser Leu Ser Gly Ala Asn Ser 190 180 185 Arg Ala Arg Ser Gly Ala Gly Thr Arg Ser Asp Ser Gln Tyr Ala Asn 200 195 Leu Arg Pro Gly Ile Asn Val Gly Pro Trp Arg Leu Arg Asn Tyr Thr 220 215 Thr Trp Ser Arg Asp Ala Ser Gly Leu Asp Lys Trp Asp Asn Val Tyr 225 230 235 Thr Leu Met Gln Arg Ala Ile Ile Pro Leu Gln Ala Gln Leu Thr Leu 245 250 255 Gly Asp Ser Ser Ala Pro Ala Asp Val Pne Asp Ser Met Pro Phe Arg 260 265 270 Gly Val Gln Leu Ala Ser Asp Asp Met Leu Pro Asp Ser Leu Lys 285 275 280 Gly Tyr Ala Pro Val Val Arg Gly Ile Ala Arg Thr Asn Ala Gln Val 290 295 300 Val Val Arg Gln Asn Gly Tyr Gln Ile Tyr Gln Ser Tyr Val Ala Pro 305 310 315 Gly Ala Phe Glu Ile Ala Asp Met Tyr Pro Thr Gly Gly Ala Gly Asp 325 330 335 Leu Asp Val Thr Ile Val Glu Ala Asp Gly Ser Glu Gln His Phe Thr 340 345 350 Leu Pro Tyr Ala Ser Leu Pro Val Leu Gln Arg Glu Gly Arg Leu Lys 355 360 365 Tyr Ala Leu Thr Ala Gly Gln Tyr Arg Ser Tyr Asn Arg Ser Val Glu 375 380 Lys Thr Pro Phe Gly Gln Leu Thr Gly Ile Tyr Gly Leu Pro His Gly 385 390 395 400 Ile Thr Leu Tyr Gly Gly Val Gln Gly Ala Asp Lys Tyr Gln Ser Ala 405 410 415 Ala Leu Gly Met Gly Lys Asn Met Gly Asp Leu Gly Ala Val Ser Ala  $420 \hspace{1.5cm} 425 \hspace{1.5cm} 430$ Asp Val Thr Leu Gly Trp Ser Thr Pro Glu His Thr Ala Lys Thr Asn 435 440 445 Gly Gln Ser Trp Arg Ala Arg Tyr Ser Lys Asn Phe Ile Thr Thr Gly 450 455 460 Thr Asn Phe Ser Ile Ala Gly Tyr Arg Tyr Ser Thr Arg Gly Tyr Tyr 465 470 475 Gly Met Gln Asp Val Leu Gly Ser Tyr Gly Asp Ser Ser Ala Leu Gln 485 490 495 Asp Arg Arg Asn Arg Ala Glu Leu Thr Met Ser Gln Thr Leu Gly 500 505 510 Asp Asn Leu Gly Ala Leu Thr Leu Ser Ala Ala Arg Glu Asp Tyr Trp 515 520 525 Asn Asp Gly Lys Ser Met Ala Ser Trp Ser Val Gly Tyr Ser Asn Tyr 530 535 540 Trp His Asn Ile Ser Tyr Gly Leu Thr Trp Thr Tyr Ser Lys Asn Val 550 555 Arg Ser Ala Ser Glu Asn Arg Lys Ser Gln Lys Asn Ala Asp His Asn 565 570 575 Gln Leu Leu Ser Phe Asn Val Ser Ile Pro Leu Asp Lys Phe Leu Pro 580 585 590 Gln Thr Trp Ala Asn Tyr Gly Met Asn Ala Ser Ser Asn Asn Gly Thr 600 605 595 Thr His Asn Val Gly Leu Asn Gly Val Ala Leu Glu Asn Arg Ala Leu 610 615 620 Ser Trp Asn Val Gln Gln Gly Tyr Gly Thr Glu Gly Val Gly Asn Thr 630 635 Gly Asn Val Asn Ala Asp Tyr Lys Gly Thr Tyr Gly Glu Val Thr Ala

645 Gly Tyr Gly Tyr Asp Lys Asn Ser Glu Arg Leu Asn Tyr Gly Leu Gln 660 665 Gly Gly Ile Leu Ala His Ala Asp Gly Ile Thr Leu Ser Gln Pro Leu 675 680 685 Gly Glu Thr Ser Val Leu Ile Lys Ala Pro Gly Ala Tyr Asp Val Asp 690 695 700 Ile Arg Asn Gln Pro Gly Val Arg Thr Asp Phe Arg Gly Tyr Thr Val 705 710 715 Val Ser Asn Leu Ser Val Tyr Arg Lys Asn Asp Leu Thr Leu Asp Pro 725 730 735 Glu Thr Met Pro Asp Asp Val Glu Leu Glu Ile Asn Thr Arg Thr Val 740 745 750 Thr Pro Thr Arg Gly Ala Val Val Arg Ala Asp Tyr Leu Pro Lys Ser 760 765 Gly Arg Arg Val Leu Met Thr Leu Thr Asp Asn Asp Arg Ala Val Pro 770 775 780 Phe Gly Ala Val Val Thr Leu Val Gly Asp Glu Ser Gly Ser Phe Ile 790 795 800 785 Val Gly Asp Arg Gly Gln Val Tyr Leu Thr Gly Met Arg Glu Gln Gly 805 810 815 Thr Leu Val Ala Thr Trp Gly Ser Gln Ser Ser Gln Gln Cys Arg Ala 820 825 830 Asp Phe Thr Leu Pro Asn His Ser Met Tyr Gly Gly Ile Ala Asp Met 835 840 Arg Ala Thr Cys Arg Gln Glu Arg <210> 7159 <211> 227 <212> PRT <213> Enterobacter cloacae <400> 7159 Arg Cys Thr Ala Gly Asp Glu Gln Pro Thr Ile Phe Ala Thr Val Cys 10 Arg Gly Ala Arg Asp Val Ala Ile Asn Gly Pro Ile Leu Pro Asp Val Asn Pro Arg Gly Val Arg Phe Ser Glu Cys Leu Arg His Pro Glu Phe 35 40 Asp Leu Pro Val Ala Gly Lys Lys Met Lys Ile Arg Cys Arg Thr Leu 55 60 Leu Leu Leu Ala Leu Leu Ser Gly Lys Val Cys Ser Ala Asp Ser Val 70 Asn Ile Gly Val Thr Gly Asn Ile Val Ala Ser Pro Cys Ile Phe Asn 8.5 90 Gly Gly Asn Asn Asn Leu Asp Val Asn Leu Gly Asn Ile Gln Ala Thr 100 105 Asn Met Ala Thr Pro Gly Ser Thr Ser Asp Pro Val Pro Phe Ser Leu 115 Leu Phe Thr Gln Cys Pro Thr Gly Thr Gln Ser Val Thr Val Ala Phe 135 140 Thr Gly Ser Pro Asp Pro Glu Ala Gly Ala Asp Tyr Phe Met Asn Ser 150 155 Gly Ser Ala Thr His Val Ala Ile Ala Met Arg Asp Ala Gln Thr Gly 170 165 Ala Leu Lys Gly Thr Gly Ser Ser Met Thr Gln Thr Ile Ala Ala Asp 185 180 190 Arg Thr Ala Thr Leu Ala Met Leu Ala Ser Val Lys Ser Met Thr Gly 200 205 Gly Ala Thr Pro Gly Ser Ile Arg Ala Val Val Wat Thr Met Gln

210

Tyr Asn 225 <210> 7160 <211> 428 <212> PRT <213> Enterobacter cloacae <400> 7160 Cys Ala Ile Thr Glu Phe Ser Pro Arg Val Phe Val Val Thr Pro Ser 10 Ile Phe Arg Ile Ser Met Leu Thr Thr Ile Ile Tyr Arg Ser His Ile 20 25 Cys Glu Asp Val Pro Val Lys Ala Leu Glu Asp Met Val Ala Ala Ala 35 40 4.5 Asn Cys Arg Asn Arg Gln Phe Asp Val Thr Gly Ile Leu Leu Phe Asn 50 55 60 Gly Thr His Phe Phe Gln Leu Leu Glu Gly Pro Ala Asp Asn Val Lys 70 75 Glu Ile Tyr Gln Leu Ile Cys Arg Asp Pro Arg His His Asn Val Val 85 90 95 Glu Leu Leu Ser Asp His Gly Pro Ser Arg Arg Phe Gly Asn Val Gly 100 105 110 Met Glu Leu Phe Asp Leu Arg Gln Tyr Asp Thr Asp Glu Val Leu Gln 115 120 125 Lys Val Leu Asp Lys Gly Thr Tar Arg Tyr Gln Leu Thr Tyr Asn Asp 130 135 140 Arg Ala Leu Gln Phe Phe Arg Thr Phe Val Glu Ala Thr Glu Lys Ala 145 150 155 160 Asn Tyr Phe Glu Leu Pro Pro Ala Asp Ala Trp Glu Phe Val Thr Glu 165 170 175 Asn Thr Pro Leu Ser Ser Gin Pro Thr Val Val Ala Lys Gly Ala Asp 180 185 190 Cys Ser Phe Ala Phe Gln Pro Ile Val Asp Pro Phe Met Gln Gln Val 200 205 195 Val Ser Trp Glu Ala Leu Ile Arg Thr Pro Ser Gly Glu Ser Pro Glu 215 220 210 Ser Tyr Phe Ala Asn Leu Ser Arg Glu Ala Leu Tyr Glu Ser Asp Leu 230 235 Lys Ser Lys Gln Val Ala Leu Ser Met Ala Ser Ala Leu Gly Leu Gln 245 250 255 Thr Gln Thr Leu Ser Ile Asn Leu Leu Pro Met Thr Leu Val Asn Val 260 265 270 Pro Gly Ala Val Asp Phe Leu Leu Thr Ala Ile Glu Ala Asn Gly Phe 275 280 285 Val Pro Glu Gln Ile Val Val Glu Phe Thr Glu Ser Glu Ala Ile Ser 290 295 300 Arg Phe Glu Glu Phe Thr Ser Ala Val Arg Gln Leu Lys Ser Ala Gly 310 315 320 Ile Ser Val Ala Ile Asp His Phe Gly Ala Gly Phe Ala Gly Leu Gln 330 335 325 Leu Leu Ala Gln Phe Gln Pro Asp Arg Ile Lys Ile Asn Arg Asp Leu 350 345 Ile Ala Asn Val His Lys Ser Gly Pro Arg Gln Ala Ile Ile Gln Ser 365 355 360 Ile Ile Lys Cys Cys Ala Ser Leu Glu Ile Leu Phe Cys Ala Val Gly 375 380 Val Glu Leu Ala Glu Glu Trp Met Trp Leu Glu Ser Ala Gly Ile Ser 390 395 Gln Phe Gln Gly His Leu Phe Ala Ser Pro Arg Leu Gly Gly Ile Pro

3185 405 410 415 Ala Ile Ala Trp Pro Glu Lys Lys Tyr Asp Leu 420 <210> 7161 <211> 284 <212> PRT <213> Enterobacter cloacae <400> 7161 Arg Val Ser Gly Ser Leu Ser His Ser Leu Val Ser Glu Arg Gly Val 10 Ser Tyr Thr Asn Asp Leu Tyr Asn Leu Ile Arg Leu Val Trp Leu Gly 20 25 30 Met Glu Val Leu Cys Val Arg Glu Leu Met Ala Tyr Tyr Ser Ile Gly 35 4.0 4.5 Glu Val Ala Glu Arg Cys Gly Ile Asn Pro Val Thr Leu Arg Ala Trp 50 55 60 Gln Arg Arg Tyr Gly Leu Leu Lys Pro Gln Arg Ser Glu Gly Gly His 70 75 Arg Gln Phe Asp Asp Glu Asp Ile Leu Arg Ile Glu Glu Ile Lys Arg 85 90 95 Leu Met Lys Thr Gly Val Ser Val Gly Lys Val Lys Ala Leu Leu Glu 100 105 110 Asn Thr Glu Val Met Thr Gln Gly Asn Trp Ala Ser Phe Gln Glu Glu 115 120 125 Met Leu Thr Val Leu Arg Tyr Ala Ser Pro Ala Lys Leu Arg Ala Lys 130 135 140 Ile Gly Glu Phe Arg Arg Asp His Ala Met Asp Val Leu Ile Asp Asn 145 150 155 Ile Ile Thr Pro Val Arg Gln Arg Met Asn Gln Asp Gln Asn Thr Val 170 175 165 Arg His Met Ala Ser Leu Leu Asp Gly Val Leu Ile Glu Phe Ala Val 180 185 Ala Ser Leu Gly Glu Ser Arg Lys Lys Ala Gly Lys Asp Ala Leu Leu 200 Ile Gly Trp Glu Cys Asp Asp Arg Thr His Leu Trp Leu Glu Ala Ala 210 215 220 Arg Leu Ala Tyr Lys Gly Trp His Ile Asp Val Leu Ala Glu Pro Ile 230 235 Asp Ser Pro Arg Pro Glu Leu Ile Pro Gly Gln Lys Ile Phe Val Trp 245 250 255 Thr Gly Lys Ala Pro Thr Pro Arg Gln Gln Glu Gln Leu Asp His Trp 260 265 Arg Glu Gln Gly Phe Ala Val Ser Ile His His <210> 7162 <211> 126 <212> PRT <213> Enterobacter cloacae <400> 7162 Gly Gly Pro Met Glu Leu His Ser Glu Thr Phe Asn Pro Ala Asp Phe Ala Trp Arg Gly Leu Thr Leu Thr Pro Ala Ala Ala Ala His Ile His 20 25 Glu Leu Val Ala Lys Asn Pro Asp Ile Leu Gly Val Arg Leu Gly Val 40 45

Lys Gln Thr Gly Cys Ala Gly Phe Gly Tyr Val Leu Asp Thr Val Thr

3186 Glu Pro Glu Lys Asp Asp Leu Val Phe Glu Thr Asp Gly Ala Lys Leu 70 75 Tyr Val Ala Leu Gln Ala Met Pro Phe Ile Asp Gly Thr Glu Val Asp 90 85 Tyr Val Arg Glu Gly Leu Asn Gln Leu Phe Lys Phe His Asn Pro Lys 105 100 Ala Gln Asn Glu Cys Gly Cys Gly Glu Ser Phe Gly Val <210> 7163 <211> 439

<212> PRT <213> Enterobacter cloacae

<400> 7163 Asn Pro Val Thr Leu Arg Trp Leu Asn Asn Trp Arg Ser Arg Val Met 10 5 Ala Gly Leu Pro Asn Ser Ser Asn Ala Leu Gln Gln Trp His Arg Leu 20 25 Phe Glu Ala Gln Ala Gly Ala Arg Ser Glu Gln Ala Gln His His Leu 40 45 Gln Gln Met Leu Arg Leu Gly Leu Pro Thr Arg Lys His Glu Asn Trp 60 5.5 Lys Tyr Thr Pro Leu Asp Gly Leu Leu Asn Gly Glu Phe Val Thr Arg 75 70 Leu Ala Gln Val Ser Pro Gly Gln Arg Asp Val Leu Ala Leu Ser Val 90 85 Asp Ala Val Arg Leu Val Phe Val Asp Gly Gln Phe Arg Glu Glu Leu 100 105 Ser Asp Ser Val Gln Glu Ser Gly Phe Asp Ile Val Ile Asn Asp Glu 115 120 125 Arg Gln Ser Leu Asn Ala Pro Val Gln Pro Glu Val Phe Leu His Leu 130 135 140 Thr Glu Ser Leu Ser Gln Ser Val Thr His Ile Arg Val Lys Arg Asn 145 150 155 Gln Arg Pro Ala Lys Pro Leu Leu Leu Met His Ile Thr Gln Gly Val 175 165 170 Ala Gly Asp Glu Ile Asn Thr Ala His Tyr Arg His His Leu Glu Leu 180 185 190 Ala Glu Gly Ala Glu Ala Thr Val Ile Glu His Tyr Val Ser Leu Asn 200 205 195 Asp Thr Arg His Phe Thr Gly Ser Arg Leu Thr Met Asn Val Ala Ala 215 220 Asn Ala Gln Leu His His Ile Lys Leu Ala Phe Glu Asn Pro Leu Ser 235 240 230 225 His His Phe Ala His Asn Asp Ile Leu Leu Gly Gln Asp Ala Ala Ala 245 250 255 Tyr Ser His Ser Phe Leu Leu Gly Gly Ala Val Leu Arg His Asn Thr 265 270 260 Ser Thr Gln Leu Asn Gly Glu Asn Thr Thr Leu Arg Ile Asn Ser Leu 280 285 275 Ala Met Pro Val Lys Ser Glu Val Cys Asp Thr Arg Thr Trp Leu Glu 295 His Asn Lys Gly Tyr Cys Asn Ser Arg Gln Leu His Lys Thr Ile Val 315 305 310 Ser Asp Lys Gly Arg Ala Val Phe Asn Gly Leu Ile Asn Val Ala Gln 330 325

His Ala Ile Lys Thr Asp Gly Gln Met Thr Asn Asn Asn Leu Leu Leu

345 Gly Arg Leu Ala Glu Val Asp Thr Lys Pro Gln Leu Glu Ile Tyr Ala 360

```
Asp Asp Val Lys Cys Ser His Gly Ala Thr Val Gly Arg Ile Asp Asp
              375
   370
                                380
Glu Gln Met Phe Tyr Leu Arg Ser Arg Gly Ile Asp Gln Gln Ala Ala
               390
                             395
Gln Lys Met Ile Ile Tyr Ala Phe Ala Ala Glu Leu Thr Glu Ala Leu
                410
           405
Pro Asp Gly Gly Leu Lys Gln Gln Val Leu Ala Arg Ile Gly Gln Arg
            425
Leu Pro Gly Gly Glu Ala
 435
<210> 7164
<211> 355
<212> PRT
<213> Enterobacter cloacae
<400> 7164
Ser Pro His Gly Glu Val Asn Pro Ala Ser Asn Ala Ala Leu Ile Ser
                  10 15
Arg Cys Arg Ile Thr Gln Cys Thr Val Gly Ser Leu Ile Cys Ala Pro
 20
               25 30
Pro Ala Val Arg Asn Ala Asn Met Lys Cys Leu Asn Ser Met Leu Leu
35 40 45
Leu Cys Leu Leu Ala Ala Gly Ser Ile Ala Arg Ala Gly Thr Cys Thr
50 55
Thr Ile Ile Pro Gln Leu Ser Thr Leu Ser Val Gly Thr Ile Asn Val
65 70
                          75
Gln Arg Asp Ala Pro Val Gly Thr Val Val Phe Ser Gly Ala Ala Ser
        85
                          90
Ala Thr Gly Ser Tyr Leu Thr Gly Cys Thr Asn Pro Leu Met Leu Gly
 100 105 110
Phe Ser Met Arg Tyr Asn Ser Ala Thr Leu Ser Ser Tyr Gly Asn His
115 120 125
Val Tyr Asn Thr Asn Val Ile Gly Ile Gly Ile Arg Phe Ser Ser Asn
 130 135
                                140
Gly Tyr Phe Glu Asn Pro Ser Asn Thr Phe Ser Tyr Asn Ala Gln Thr
   150 155
Ser Tyr Val Asp Trp Tyr Gly Gly Arg Ile Glu Leu Val Val Thr Gly
           165 170 175
Pro Val Ser Ser Gly Ala Leu Thr Pro Gly Val Ile Gly Val Val Thr
       180 185 190
Leu Gln Gly Ser Asp Gly Leu Tyr Arg Asp Gly Leu Thr Thr Gln Leu
     195 200 205
Thr Ser Gly Asn Ile Asn Ala Leu Ala Cys Thr Val Asn Thr Ala Gln
  210 215 220
Leu Thr Phe Pro Ile Gly Asp Ile Pro Ala Ser Ala Phe Gly Thr Val
            230
                             235
Val Gly Thr Thr Pro Ala Gly Ala Gln Asn Thr Gln Asn Leu Gly Leu
           245
                       250 255
Thr Cys Ala Ala Gly Thr Asn Ile Thr Val Ser Leu Ser Gly Ile Gln
        260
                       265
                           270
Asn Pro Asp Ser Ala Asn Thr Ser Val Met Ala Leu Thr Gly Gln Gly
   275
                    280
                                  285
Asn Ala Gly Thr Ala Lys Gly Val Gly Val Gin Leu Ile Tyr Asn Gly
                295
                                300
Ala Pro Leu Ala Met Asn Ser Arg Leu Phe Leu Arg Gln Ser Ala Gly
305 310 315
Gly Gln Glu Thr Leu Pro Leu Thr Ala Arg Tyr Tyr Gln Thr Leu Thr
            325
                          330
Arg Val Glu Ser Gly Ser Ala Asn Ala Ser Ala Thr Leu Asn Leu Thr
        340
                       345
                                      350
```

```
Tvr Gln
      355
<210> 7165
<211> 178
<212> PRT
<213> Enterobacter cloacae
<400> 7165
Gly Thr Gly His Val Pro Arg Ile Ala Gly Asp Val Gln His Asn Gly
                                  10
Arg Gly Arg Gln Thr Gly Gly Gly Ile Lys Thr Tyr Ser Ser Ala Ala
           20
                              25
                                                 30
Trp Leu Thr Glu Arg Arg Glu Met Ala Asp Leu Pro Asp Arg Asp Lys
                        40
                                       4.5
Leu Leu Arg Asn Phe Gly Arg Cys Ala Asn Trp Glu Glu Lys Tyr Leu
                      55
Tyr Ile Ile Glu Leu Gly Gln Arg Leu Pro Pro Leu Ser Glu Glu Ala
                7.0
                                  75
His Asn Pro Asp Asn Ile Ile Gln Gly Cys Gln Ser Gln Val Trp Ile
                                  90
Gln Met Gln Gln Thr Asp Asp Val Val Ile Asp Leu Gln Gly Asp Ser
```

Asp Ala Ala Ile Val Lys Gly Leu Ile Ala Val Val Phe Ile Leu Tyr

His Gln Met Ser Ala Gln Asp Ile Val Ala Phe Asp Val Arg Pro Trp

Phe Glu Lys Met Ala Leu Thr Gln His Leu Thr Pro Ser Arg Ser Gln

120

150

110

125

140

170

155

Gly Leu Glu Ala Met Ile Arg Ala Ile Arg Ala Lys Ala Ala Ile Leu 165 Ser

100

115

<210> 7166

<211> 282 <212> PRT <213> Enterobacter cloacae

<400> 7166 Pro Glu Ser Pro Glu Arg Met Arg Leu Arg Arg Lys Leu Trp Gly Ile 10 15 Gly Gly Thr Met Ser Arg Asn Thr Glu Ala Thr Ser Asp Val Asn Thr 20 25 Trp Ser Gly Gly His Leu Asn Tyr Lys Glu Gly Phe Phe Thr Gln Leu 35 4.0 Gin Thr Asp Glu Leu Ala Lys Gly Ile Asn Glu Glu Val Val Arg Ala 50 55 60 Ile Ser Ala Lys Arg Asn Glu Pro Glu Trp Met Leu Glu Phe Arg Leu 75 70 Ser Ala Phe Arg Ala Trp Leu Glu Met Glu Glu Pro His Trp Leu Lys 90 Ala His Tyr Asp Lys Leu Asn Tyr Gln Asp Tyr Ser Tyr Tyr Ser Ala 100 105 Pro Ser Cys Gly Ser Cys Asp Asp Thr Cys Ala Ser Gln Pro Gly Ala 125 Val Gln Gln Thr Gly Ala Glu Asn Ser Phe Leu Ser Lys Glu Val Glu 135 140 Glu Ala Phe Asn Gln Leu Gly Val Pro Val Arg Glu Gly Lys Glu Val 150 155 Ala Val Asp Ala Ile Phe Asp Ser Val Ser Val Ala Thr Thr Tyr Arg

```
165
                            170
Glu Lys Leu Ala Glu Gln Gly Ile Ile Phe Cys Ser Phe Gly Glu Ala
       180
                      185
                                      190
Ile His Asp His Pro Glu Leu Val Lys Lys Tyr Ile Gly Thr Val Val
    195
                    200
                            205
Pro Ser Asn Asp Asn Phe Phe Ala Ala Leu Asn Ala Ala Val Ala Ser
 210 215
                       220
Asp Gly Thr Phe Ile Tyr Val Pro Lys Gly Val Arg Cys Pro Met Glu
      230 235 240
Leu Ser Thr Tyr Phe Arg Ile Asn Ala Glu Lys Thr Gly Gln Phe Glu
          245 250 255
Arg His Ile Leu Val Ala Asp Glu Ser Ser Tyr Val Ser Tyr Ile Glu
       260 265
Gly Cys Ser Ala Pro Val Arg Asp Ser
      275
<210> 7167
<211> 234
<212> PRT
<213> Enterobacter cloacae
<400> 7167
Gln Leu Gln Pro Gly Val Val Glu Val Ile Ile His Lys Asp Ala Glu
1 5
                          10
Val Lys Tyr Phe Thr Val Gln Asn Cys Ser Pro Gly Asp Val Asn Thr
20
                  25
Gly Gly Ile Leu Asn Phe Val Thr Lys Arg Ala Leu Cys Glu Gly Glu
35 40
Asn Ser Lys Met Ser Trp Thr Gln Ser Glu Thr Gly Ser Ala Ile Thr
50 55 60<sup>-</sup>
Trp Lys Tyr Pro Ser Cys Ile Leu Arg Gly Asp Asn Ser Ile Gly Glu
65 70 75 80
Phe Tyr Ser Val Ala Leu Thr Ser Gly His Gln Gln Ala Asp Thr Gly
    85 90
Thr Lys Met Ile His Ile Gly Lys Asn Thr Lys Ser Thr Ile Ile Ser
                      105 110
Lys Gly Ile Ser Ala Gly His Ser Gln Asn Ser Tyr Arg Gly Leu Val
 115 120 125
Lys Ile Met Pro Thr Ala Thr Asn Ala Arg Asn Phe Thr Gln Cys Asp
 130
                  135 140
Ser Met Leu Ile Gly Ala Asp Cys Gly Ala His Thr Phe Pro Tyr Val
145 150 155
Glu Cys Arg Asn Asn Ser Ala Gln Leu Glu His Glu Ala Thr Thr Ser
      165 170 175
Arg Ile Gly Glu Asp Gln Leu Phe Tyr Cys Leu Gln Arg Gly Ile Ser 180 180 190
Glu Glu Asp Ala Ile Ser Met Ile Val Asn Gly Phe Cys Lys Asp Val
 195 200 205
Phe Ser Glu Leu Pro Leu Glu Phe Ala Val Glu Ala Gln Lys Leu Leu
210 215
                                 220
Ala Ile Ser Leu Glu His Ser Val Gly
               230
<210> 7168
<211> 252
<212> PRT
<213> Enterobacter cloacae
<400> 7168
Gly Lys His Met Leu Ser Ile Lys Asp Leu Gln Val Ser Val Glu Glu
                           10
```

```
Lys Glu Ile Leu Arg Gly Leu Asn Phe Asp Val Lys Pro Gly Glu Val
                      25
His Ala Ile Met Gly Pro Asn Gly Ser Gly Lys Ser Thr Leu Ser Ala
Thr Leu Ala Gly Arg Glu Asp Tyr Glu Val Thr Ser Gly Ser Val Glu
                55
Phe Asn Gly Lys Asp Leu Leu Glu Met Ser Pro Glu Glu Arg Ala Gly
         70
                            7.5
Glu Gly Ile Phe Met Ala Phe Gln Tyr Pro Val Glu Ile Pro Gly Val
        85 90
Ser Asn Gln Phe Phe Leu Gln Thr Ala Leu Asn Ala Val Arg Lys Tyr
  100 105 110
Arg Gly Leu Glu Ala Leu Asp Arg Phe Asp Phe Gln Asp Leu Met Glu
 115 120 125
Glu Lys Ile Lys Leu Leu Lys Met Pro Glu Asp Leu Leu Thr Arg Ser
130 135 140
Val Asn Val Gly Phe Ser Gly Gly Glu Lys Lys Arg Asn Asp Ile Leu
145 150 155 160
Gln Met Ala Val Leu Glu Pro Ala Leu Cys Ile Leu Asp Glu Thr Asp
     165 170 175
Ser Gly Leu Asp Ile Asp Ala Leu Lys Ile Val Ala Asp Gly Val Asn
180 185 190
Ser Leu Arg Asp Gly Asn Arg Ser Phe Ile Ile Val Thr His Tyr Gln
195 200
                                  205
Arg Ile Leu Asp Tyr Ile Lys Pro Asp Tyr Val His Val Leu Tyr Gln
210 215 220
Gly Arg Ile Val Lys Ser Gly Asp Phe Thr Leu Val Lys Gln Leu Glu
225 230 235
Glu Gln Gly Tyr Gly Trp Leu Thr Glu Gln Gln
          245
```

<210> 7169 <211> 423 <212> PRT

<213> Enterobacter cloacae

180

<400> 7169

Thr Ala Gly Ala Gly Pro Tyr Arg Ser Ala Thr Ala Trp Arg Arg Ser 1.0 Met Thr Phe Pro Val Glu Lys Val Arg Ala Asp Phe Pro Val Leu Thr 25 30 Arg Glu Val Asn Gly Leu Pro Leu Ala Tyr Leu Asp Ser Ala Ala Ser 40 45 Ala Gln Lys Pro Asn Gln Val Val Asp Ala Glu Ala Glu Phe Tyr Arg 5.5 His Gly Tyr Ala Ala Val His Arg Gly Ile His Thr Leu Ser Ala Glu 70 75 Ala Thr Gln Arg Met Glu Asn Val Arg Thr Gln Val Ala Ala Phe Leu 85 90 Asn Ala Arg Ser Pro Glu Glu Leu Val Phe Val Arg Gly Thr Thr Glu 100 105 Gly Ile Asn Leu Val Ala Asn Ser Trp Gly Asn Ala Gln Val His Ala 115 120 125 Gly Asp Asn Ile Ile Ile Thr Gln Met Glu His His Ala Asn Ile Val 130 135 140 Pro Trp Gln Met Leu Cys Glu Arg Val Gly Ala Gln Leu Arg Val Ile 150 155 Pro Leu Asn Glu Asp Gly Thr Leu Gln Leu Glu Lys Leu Asp Ala Leu 165 170 175 Leu Asp Asp Arg Thr Arg Leu Val Ala Val Thr His Val Ser Asn Val

```
Leu Gly Thr Glu Asn Pro Val Ala Leu Ile Val Asp Lys Ala His Gln
                   200
                             205
Ala Gly Ala Lys Val Leu Ile Asp Gly Ala Gin Ala Val Met His His
                215 220
Ala Val Asp Val Gln Ala Leu Asp Cys Asp Phe Tyr Val Phe Ser Gly
   230 235
His Lys Leu Tyr Gly Pro Thr Gly Ile Gly Val Leu Tyr Val Lys Glu
         245 250 255
Asp Ile Leu Gln Ala Met Pro Pro Trp Glu Gly Gly Ser Met Ile
      260 265 270
Ala Thr Val Ser Leu Thr Glu Gly Thr Thr Tyr Ala Arg Ala Pro Trp
 275 280 285
Arg Phe Glu Ala Gly Thr Pro Asn Thr Gly Gly Ile Ile Gly Leu Gly 290 295 300
Ala Ala Ile Ser Tyr Val Ser Glu Thr Gly Leu Ala Ala Ile Gln Glu
   310 315
Tyr Glu Gln Leu Leu Met His Tyr Ala Leu Gln Glu Leu Ala Ser Val
     325 330 335
Pro Glu Leu Thr Leu Tyr Gly Pro Ala Asp Arg Leu Gly Val Ile Ala
 340 345 350
Phe Asn Leu Gly Lys His His Ala Tyr Asp Val Gly Ser Phe Leu Asp
355 360 365
Asn Tyr Gly Val Ala Val Arg Thr Gly His His Cys Ala Met Pro Leu
370 375 380
Met Ala Tyr Tyr Glu Val Pro Ala Met Cys Arg Ala Ser Leu Val Met
385 390 395 400
Tyr Asn Thr Thr Glu Glu Val Asp Arg Leu Val Ala Gly Leu Lys Arg
 405 410
Ile His Gln Leu Leu Gly
```

<210> 7170 <211> 203 <212> PRT

420

<213> Enterobacter cloacae

<400> 7170 Ile Arg Asn Leu Ser Met Lys Arg Ala Ser Leu Ile Thr Leu Leu Leu 10 15 Leu Gly Ser Leu Ser Ala Val Asn Ser Ala Arg Ala Val Asp Tyr Pro 25 30 Leu Pro Pro Ala Gly Ser Arg Leu Ile Gly Gln Asn Gln Thr Tyr Thr 35 40 Ile Gln Glu Gly Asp Asn Lys Leu Gln Ser Ile Ala Arg Arg Phe Asn 60 Thr Ala Ala Gln Leu Ile Leu Glu Thr Asn Asn Thr Ile Ala Pro Val 7.0 75 Asn Pro Ala Pro Gly Thr Val Ile Thr Ile Pro Ser Gln Met Leu Leu 90 8.5 Pro Asp Thr Glu Arg Glu Gly Ile Val Val Asn Leu Ala Glu Leu Arg 100 105 110 Leu Tyr Phe Tyr Pro Pro Gly Glu Asn Ile Val Gln Val Tyr Pro Leu 115 120 125 Gly Ile Gly Gln Leu Gly Leu Glu Thr Pro Val Ser Thr Thr Arg Val 130 135 140 Ser Gln Lys Ile Pro Asn His Thr Trp Thr Pro Thr Ala Gly Ile Arg 145 150 155 Ala Arg Ser Leu Ala Gln Gly Ile Lys Leu Pro His Val Val Pro Ala 165 170 175 Gly Pro Asn Asn Pro Leu Gly Arg Phe Ala Leu Arg Leu Gly Ile Gly

185

```
3192
Asn Gly Glu Tyr Ser Ala Asp Gly Pro Lys
  195
                         200
<210> 7171
<211> 165
<212> PRT
<213> Enterobacter cloacae
<400> 7171
Glu Glu Gly Ser Met Ala Asn Asp Trp Leu Glu Leu Arg Gln His Ala
                                 10
Glu Thr Gly Ile Glu Thr Ile Lys Ala His Phe Glu Gly His Ala Phe
           20
                           25
                                               3.0
Asp Pro His Trp His Asp Ser Tyr Leu Val Gly Ile Thr Leu Ser Gly
       35
                        40
                                         4.5
Thr Gln Gln Phe His Cys Arg Arg Glu Arg His Arg Ser Gln Pro Gly
                     55
Asp Ala Phe Leu Leu Glu Pro Gly Glu Ile His Asp Gly Asp Ala Pro
                                    75
                 70
Val Glu Gly Gly Phe Thr Tyr Leu Thr Phe Tyr Leu Asp Glu His Trp
              85
                                90
Leu Thr His Thr Leu Gln Gly Leu Tyr Asp Ser Thr Pro Gly Ser Tyr
          100
                          105 110
Thr Leu His Phe Ala Gln Thr Leu Thr Arg Glu Pro Gln Leu Val Arg
 115 120 125
Ala Ile Gly Asp Thr Phe Ala Ser Leu His Asn Asp Glu Met Lys Ile
130 135 140
Val Gln Gln Ser Thr Met Asp Asn Leu Leu Ser Gln Ile Thr Thr His
                                    155
Cvs His Trp Arg
              165
<210> 7172
<211> 330
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(31)
<220>
<221>UNSURE
<222>(42)
<400> 7172
Lys Leu Thr Ser Gln Leu Gln Ser Ser Ala Val Ala His Arg Ala Arg
                                 10
Asp Tyr Leu Tyr Ala His Ile Gly Glu Asn Val Gly Leu Ser Xaa Leu
                            25
                                               3.0
Ala Arg Glu Thr Gly Thr Asp Arg Phe Xaa Leu Thr Arg Cys Phe Lys
                        4.0
                                           45
Arg Glu Phe Thr Trp Ala Arg Thr Pro Gly Leu Ser Ser Cys Asp Trp
                     55
Gln Arg Pro Asp Arg Cys Trp Arg Val Gly Asn Cys Leu Leu Met Leu
                  7.0
                                    75
Arg Arg Gln Trp Val Leu Pro Ile Lys Ala Ile Leu Val Ala Gly Ser
             8.5
                                90
                                                  95
Ser Val His Thr Val Phe Leu Arg His Thr Thr Ala Gly Cys Ala Gln
          100
                            105
Thr Phe Gln Thr Phe Pro Glu Asn Asn Gly Thr Phe Val Ala Leu Ile
```

```
120
                                     125
 Lys Lys Glu Ser Pro Val Asn Leu Leu Pro Phe Leu Leu Phe Ala Phe
             135
                           140
Val Ala Ser Ile Thr Pro Gly Pro Thr Asn Ile Leu Val Leu Ala Asn
               150
                    155
Ser Gln His Phe Gly Val Lys Asn Thr Val Pro Ala Ile Leu Gly Gly
          165
                    170 175
Cys Ile Ala Ala Ser Ala Ile Val Leu Val Ser Gly Ala Gly Ala Gly
         180
              185 190
Glu Val Leu Arg Gln Tyr Pro Leu Ile Arg Gln Val Met Ser Trp Ala
      195 200 205
Gly Val Leu Trp Leu Ser Trp Met Ser Trp Gln Leu Phe Ser Ala Pro
  210 215 220
Ala Ala Asn Leu Ser Ser Ser His Val Arg Phe Thr Ala Arg Ala
     230 235
Ala Ala Leu Leu Gln Val Val Asn Pro Lys Thr Trp Met Met Ala Leu
       245 250 255
Ala Val Val Ser Leu Phe Ala Pro Ala Ser Asp His Ala Leu Arg Asp
      260 265 270
Ile Thr Leu Met Ala Leu Trp Phe Leu Ala Ile Ser Val Val Cys Leu
 275 280 285
Leu Cys Trp Ala Trp Leu Gly Lys Ala Val Asn Arg Ile Phe Arg Thr
 290 295 300
Thr Val Ala Met Val Arg Phe Gln Arg Ala Met Ala Leu Cys Leu Phe
305 310 315
Ile Ser Ala Trp Met Gly Met Leu Ala
            325
<210> 7173
<211> 270
<212> PRT
<213> Enterobacter cloacae
<400> 7173
Gly Ser Phe Asn Gln Val Phe Arg Arg His Asn Arg Gln Val Gly His
                           1.0
Phe Ser Gln Leu Leu Tyr Arg Gln Leu Leu Ile Ala Ile Trp Arg Val
 20
                        25
                                   30
Gln Ala Cys Thr Asp Gly Gly Cys Ala Gln Val His Phe Gln Gln Gln
                     40
                             4.5
Phe Gly Arg Thr Gln Gln Val Phe Arg Leu Phe Val Gln Gln His Val
 50 55
                      - 60
Lys Arg Val Glu Phe Leu Ser Glu Gly His Trp His Arg Val Leu Gln
              70
Leu Gly Thr Ala His Phe Gln Asn Val Leu Glu Leu Asn Gly Phe Thr
           8.5
                           90
Leu Glu Ala Ile Ala Gln Leu Ile Asn Arg Val Asp Gln Phe Asn Asp
        100
                        105
                                       110
Arg Gly Ile His Arg Asp Ala Glu Ala Gly Trp Val Gly Val Val Gly
    115 120
                                     125
Gly Leu Thr Phe Val Asn Val Val Val Arg Val Gln Val Leu Val Phe
      135
                                 140
Thr Phe Leu Met Thr His Gln Leu Gln Ala Asp Val Cys Gln His Phe
               150
                            155
Val Gly Val His Val Asp Arg Gly Ala Arg Ala Ala Leu Ile Asp Val
            165
                           170
Asp Arg Glu Leu Ile His Ala Phe Ala Vai Val Gln His Leu Ile Ala
        180
                        185
Arg Gly Asp Asn Arg Ile Cys Ser Ala Phe Arg Asn Gly Leu Gln Leu
                    200
                            205
Phe Val Cys Gln Ser Arg Gly Phe Phe Tyr His His His Ala Thr His
```

3194 215 Lys Phe Arg Asp Val Ala Asp Phe Ala Val Ala Asp Val Glu Val Phe 230 235 240 Asn Arg Ser Gln Ser Val Asn Thr Ile Val Gly Ile Arg Trp Asn Phe 245 250 Pro Gly Thr Gln Gln Ile Phe Phe Asp Thr Asn Val Val 265 <210> 7174 <211> 179 <212> PRT <213> Enterobacter cloacae <400> 7174 Lys Arg Ser Gly Ala Lys Thr Arg Tyr Pro Lys Gly Tyr Tyr Gln Asn 10 Ser Phe Lys Met Ser Glu Glu Cys Gln Arg Asn Leu Ala Arg Arg Asn 20 Ala Gln His Phe Ser Phe Gly His Leu Phe Ser Ile Arg Phe Thr Arg 35 40 4.5 Gly Gln Leu Leu Ser Ser Leu Leu Lys Thr Arg Asn Asn Met Arg Ile 50 5.5 60 Lys Val Cys Ala Gly Ile Val Gly Ala Ala Leu Leu Leu Ala Gly Cys 70 7.5 80 Ser Thr Ser Asn Glu Leu Thr Ala Ala Gly Gln Ser Val Arg Phe Val 85 90 Glu Asp Lys Pro Gly Ser Glu Cys Gln Leu Leu Gly Thr Ala Thr Gly 100 105 110 Glu Gln Ser Asn Trp Met Ser Gly Gln His Gly Glu Glu Gly Gly Ser 115 120 125 Met Arg Gly Ala Ala Asn Ala Leu Arg Asn Gln Ala Ala Ala Met Gly 130 135 140 Gly Asn Val Ile Tyr Gly Val Ser Ser Pro Thr Gln Gly Met Leu Ser 145 150 155 Ser Phe Val Pro Thr Ala Ser Gln Met Asn Gly Gln Val Tyr Lys Cys 170 Pro Asn <210> 7175 <211> 281 <212> PRT <213> Enterobacter cloacae <400> 7175 Glu Val Ser Val Cys Phe Asn Asn Gly Ser Ser Gly Leu Pro Phe Ser Ile Arg Ala Thr Asn Ala Arg Gly Thr Arg Arg Ala Lys Arg Arg Phe 25 Ala Ser Arg Pro Ala Arg Asn Ala Ser Cys Cys Ser Arg Ser Lys Arg 4.0 Arg Ser Asn Ser Ser Gly Leu Val Ile Thr Ser Ala Ser Cys Asp Asn 55 Gln Ser Ser Leu Asp Gly Val Phe Arg Val Thr Ile Cys Ala Ile Leu 70 75 Trp Leu Ser Tyr Gln Leu Thr Asn Leu Glu Gly Leu Met Ala Thr Tyr 8.5 90 Tyr Ser Asn Asp Phe Arg Ala Gly Leu Lys Ile Met Met Asp Gly Glu

105

Pro Tyr Ala Val Glu Ala Ser Glu Phe Val Lys Pro Gly Lys Gly Gln 115 120 125

110

```
Ala Phe Ala Arg Val Lys Leu Arg Arg Leu Leu Thr Gly Thr Arg Val
   130
                  135
                                 140
Glu Lys Thr Phe Lys Ser Thr Asp Ser Ala Glu Gly Ala Asp Val Val
     150
                   155 160
Asp Met Asn Leu Thr Tyr Leu Tyr Asn Asp Gly Glu Phe Trp His Phe
            165 170 175
Met Asn Asn Glu Thr Phe Glu Gln Leu Ser Ala Asp Ala Lys Ala Ile
    180 185 190
Gly Asp Asn Ala Lys Trp Leu Leu Asp Gln Ala Glu Cys Ile Val Thr
    195 200 205
Leu Trp Asn Gly Gln Pro Ile Ala Val Thr Pro Pro Asn Phe Val Glu
 210 215 220
Leu Glu Ile Val Glu Thr Asp Pro Gly Leu Lys Gly Asp Thr Ala Gly
    230 235
Thr Gly Gly Lys Pro Ala Thr Leu Ser Thr Gly Ala Val Val Lys Val
      245 250 255
Pro Leu Phe Val Gln Ile Gly Glu Val Ile Lys Val Asp Thr Arg Ser
 260 265
Gly Glu Tyr Val Ser Arg Val Lys
<210> 7176
<211> 407
<212> PRT
<213> Enterobacter cloacae
<400> 7176
Ala Gly Val Ile His Leu Asn Cys Gly Gln Gln Gly Trp Val Gly Trp
                           10
Gln His Glu Gln Gly Gly Asn Arg Cys Lys Arg Gly Asn Arg Arg Gln
20
                        25
Arg Arg His Ala Gln His Gln Cys Arg Arg His Gln Arg Phe Gly Gly
                  4.0
Arg Ser Leu Gly Val Gln Gln Arg Arg Gly Lys Glu Gln His Tyr Cys
                 5.5
Gln Gln Pro Arg Ile Val Val Gln Gln Val Ala Cys Asn Gly Leu Asp
    70
Ile Ala Asp Val Arg Phe His Lys Gly Ile Thr Glu Pro Arg His Ala
           85 90
Gln His Ala His Ala Gly Ala His Thr Gly Phe Glu Gly Ala Gly Val
        100 105
Gln His Phe Ala Gly Val Asp Phe Thr Gly Asp Ala Asp Gln Arg Arg
                     120
                         125
Asp Gly Gln His Lys His His Asn Gly Phe Val Thr Arg Gln Asn Arg
  130 135
                                 140
Val Leu Asp Gln Thr Tyr Arg Val Ala Asp Gly Gly Arg Val Glu His
145 150
                              155
His Gly Asp Asp Thr Asn Gln Lys Gln Gln His Gly Ala Phe Cys Met
          165 170 175
Arg Leu Gln Leu Glu Asp Leu Ala Thr Ala Gln Ala His Phe Thr Phe
       180 185
Cys Gln Thr Leu Leu Val Asn Arg Ile Val Phe Gln Leu Gly Thr Glu
  195 200
                        205
Glu Val Thr Gln His Gly Ser Asp His Tyr Arg Asn Gln Arg Asp Arg
                 215
Asn Thr Asp Cys Gln Gln Arg Gln Val Thr Tyr Ala His Trp Leu Lys
              230
                            235
Asp Ala Arg Glu Glu Asp His Arg Arg Gly Asn Arg Arg Gly Gly Asn
           245
                          250
Arg Asn Leu Gly Gly Asp His Gly Asn Arg Lys Arg Ala Arg Arg Ala
         260
                        265
```

```
Asn Thr Leu Leu Phe Arg His Phe Gly Asp Asp Arg Gln Arg Gly Glu
    275
                       280
Gly Ser Met Ala Ser Thr Gly Glu Asn Gly His Lys Pro Gly His Gln
                    295
                        300
Arg Gly Lys Glu Gly Asp Val Phe Arg Met Ala Thr Gln His Thr Leu
                      315
                310
Arg Gln Ala His Gln Val Val His Thr Ala Ser Asp Leu His Gly Arg
            325 330 335
Asp Ser Ser Asn Asn Arg His Asp Asp Phe Asp Asn Val Lys Arg Asp
         340 345 350
Cys Ala Gly Phe Asn Leu Lys Asp Gln Gly Lys Tyr Lys His Ser Glu
      355 360
Thr Ala Ser Lys Thr Asp Ala Asp Ser Pro Giu Ser Cys Ala Gln Ile
 370 375 380
Asn Arg Gln Gln Asp Asp Asp Glu Phe Cys Ser Lys His Lys Asp Leu
    390
Pro Cys Ser Leu Thr Ser
     405
<210> 7177
<211> 185
<212> PRT
<213> Enterobacter cloacae
<400> 7177
Asn Leu Ala Asn Arg Arg His Leu Leu Ser Thr Arg Phe Ala Asn Thr
1 5
                          1.0
                                             15
Phe Ser Gln Gly Gln Lys Ala Pro Ala Ile Gln Glu Met Pro Val Arg
        20
                          25
                                          3.0
Trp Ile Pro Phe Ile Ala Phe Phe Leu Tyr Val Tyr Ile Glu Ile Ser
 35
                    4.0
                                      45
Ile Phe Ile Gln Val Ala His Val Leu Gly Val Leu Leu Thr Leu Ile
 50 55
Leu Val Ile Phe Thr Ser Val Ile Gly Met Ser Leu Val Arg Asn Gln
             70
                                75
                                               80
Gly Phe Lys Asn Phe Leu Leu Met Gln Gln Lys Met Ala Ala Gly Glu
          85 90
                                             95
Ser Pro Ala Ala Glu Met Ile Lys Ser Val Ser Leu Ile Ile Ala Gly
       100
                              110
                       105
Leu Leu Ile Leu Pro Gly Phe Phe Thr Asp Phe Leu Gly Leu Leu
                     120 125
Leu Leu Leu Pro Pro Val Gln Lys His Leu Thr Met Lys Leu Leu Pro
 130 135
                                   140
His Leu Arg Phe Ser Arg Met Pro Gly Gly Gly Phe Ser Thr Gly Pro
145 150
                                155
Gly Asp Thr Phe Glu Gly Glu Tyr Gln Arg Lys Asp Glu Gln Arg Asp
          165
                            170
Arg Leu Asp His Lys Asp Asp Arg
<210> 7178
<211> 130
<212> PRT
<213> Enterobacter cloacae
<400> 7178
Lys Ala Ile Pro Ile Ser Gln Gly Thr Ser Arg Lys Thr Ala Cys Gly
```

```
The Same Said . The state will been and the Said Said
```

```
Val Glu Thr Lys Ser Ala Gly Gly Ile Val Leu Thr Gly Ser Ala Ala
Ala Lys Ser Thr Arg Gly Glu Ile Ile Ala Val Gly Lys Gly Arg Ile
                   7.0
Leu Glu Asn Gly Thr Val Gln Pro Leu Asp Val Lys Val Gly Asp Ile
               85
                                   90
Val Ile Phe Asn Asp Gly Tyr Gly Val Lys Ser Glu Lys Ile Asp Asn
           100
                           105
Glu Glu Val Leu Ile Met Ser Glu Ser Asp Ile Leu Ala Ile Val Glu
                           120
Ala
   130
<210> 7179
<211> 73
<212> PRT
<213> Enterobacter cloacae
<400> 7179
Thr Arg Ile His Leu Gly Thr His Ala Trp Leu Ile Gln Leu Arg Leu
                                  10
Ala Lys Ala Arg Gln Met Leu Ala Cys Gly Glu Leu Pro Val Asp Val
 20
                              25
                                                  30
Ala Thr Ala Val Gly Phe Ala Asp Gln Ser His Leu Gly Arg Trp Phe
 35
                     4.0
Gln Arg Ala Tyr Arg Ile Ser Pro Ala His Tyr Arg Arg Leu Cys Thr
50
                    5.5
Asn Leu Pro Asp Val Ser Arg Lys
<210> 7180
<211> 553
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(381)
<400> 7180
Gly Asn Lys Asn Met Ala Ala Lys Asp Val Lys Phe Gly Asn Asp Ala
            5
Arg Val Lys Met Leu Arg Gly Val Asn Val Leu Ala Asp Ala Val Lys
           20
Val Thr Leu Gly Pro Lys Gly Arg Asn Val Val Leu Asp Lys Ser Phe
                          40
Gly Ala Pro Thr Ile Thr Lys Asp Gly Val Ser Val Ala Arg Glu Ile
                      55
                                          60
Glu Leu Glu Asp Lys Phe Glu Asn Met Gly Ala Gln Met Val Lys Glu
                  70
                                      75
                                                          80
Val Ala Ser Lys Ala Asn Asp Ala Ala Gly Asp Gly Thr Thr Thr Ala
                                  90
Thr Val Leu Ala Gln Ala Ile Ile Thr Glu Gly Leu Lys Ala Val Ala
                               105
Ala Gly Met Asn Pro Met Asp Leu Lys Arg Gly Ile Asp Lys Ala Val
                          120
                                              125
Ala Ser Ala Val Glu Glu Leu Lys Ala Leu Ser Val Pro Cys Ser Asp
                    135
                                          140
Ser Lys Ala Ile Ala Gln Val Gly Thr Ile Ser Ala Asn Ser Asp Glu
                   150
                                      155
```

```
Thr Val Gly Lys Leu Ile Ala Glu Ala Met Asp Lys Val Gly Lys Glu
                  170
           165
Gly Val Ile Thr Val Glu Asp Gly Thr Gly Leu Glu Asp Glu Leu Asp
                        185 190
        180
Val Val Glu Gly Met Gln Phe Asp Arg Gly Tyr Leu Ser Pro Tyr Phe
                     200
Ile Asn Lys Pro Glu Thr Gly Ala Val Glu Leu Glu Ser Pro Phe Ile
                 215
                                 220
Leu Leu Ala Asp Lys Lys Ile Ser Asn Ile Arg Glu Met Leu Pro Val
                              235
              230
Leu Glu Ala Val Ala Lys Ala Gly Lys Pro Leu Val Ile Ile Ala Glu
                250
           245
Asp Val Glu Gly Glu Ala Leu Ala Thr Leu Val Val Asn Thr Met Arg
      260
                        265
Gly Ile Val Lys Val Ala Ala Val Lys Ala Pro Gly Phe Gly Asp Arg
   275 280
                                     285
Arg Lys Ala Met Leu Gln Asp Ile Ala Thr Leu Thr Gly Gly Thr Val
   290 295
                              300
Ile Ser Glu Glu Ile Gly Met Glu Leu Glu Lys Ala Thr Leu Glu Asp
305 310 315 320
Leu Gly Gln Ala Lys Arg Val Val Ile Asn Lys Asp Thr Thr Thr Ile
    325 330
                                           335
Ile Asp Gly Val Gly Glu Glu Ala Ala Ile Gln Gly Arg Val Gly Gln
 340
                        345 350
Ile Arg Lys Gln Ile Glu Glu Ala Thr Ser Asp Tyr Asp Arg Glu Lys
355 360 365
Leu Gln Glu Arg Val Ala Lys Leu Ala Gly Gly Val Xaa Val Ile Lys
 370 375 380
Val Gly Ala Ala Thr Glu Val Glu Met Lys Glu Lys Lys Ala Arg Val
              390 395
Asp Asp Ala Leu His Ala Thr Arg Ala Ala Val Glu Glu Gly Val Val
           405 410 415
Ala Gly Gly Val Ala Leu Val Arg Val Ala Ala Lys Leu Ala Gly
        420 425 430
Leu Thr Ala Gln Asn Glu Asp Gln Asn Val Gly Ile Lys Val Ala Leu
   435 440 445
Arg Ala Met Glu Ala Pro Leu Arg Gln Ile Val Ser Asn Ala Gly Glu
  450 455 460
Glu Pro Ser Val Val Ala Asn Lys Val Lys Ala Gly Glu Gly Asn Tyr 465 470 475 480
Gly Tyr Asn Ala Ala Thr Glu Glu Tyr Gly Asn Met Ile Asp Phe Gly
            485 490 495
Ile Leu Asp Pro Thr Lys Val Thr Arg Ser Ala Leu Gln Tyr Ala Ala
         500 505 510
Ser Val Ala Gly Leu Met Ile Thr Thr Glu Cys Met Val Thr Asp Leu
      515
                     520 525
Pro Lys Gly Asp Ala Pro Asp Leu Gly Ala Ala Gly Gly Met Gly Gly
                535
 530
Met Gly Gly Met Gly Gly Met Met
               550
545
<210> 7181
<211> 111
<212> PRT
<213> Enterobacter cloacae
<400> 7181
Val Lys Glu Pro Asp Met Ser Trp Ile Val Leu Val Ile Ala Gly Leu
                            10
Leu Glu Val Val Trp Ala Ile Gly Leu Lys Tyr Thr His Gly Phe Thr
```

<210> 7182 <211> 416 <212> PRT

<213> Enterobacter cloacae

<400> 7182 Met Ser Gly Leu Arg Gln Glu Leu Gly Leu Ala Gln Gly Ile Gly Leu Leu Ser Thr Ser Leu Leu Gly Thr Gly Val Phe Ala Val Pro Ala Leu Ala Ala Leu Val Ala Gly Asn Asn Ser Leu Trp Ala Trp Pro Val Leu 4.5 Ile Val Leu Val Phe Pro Val Ala Ile Val Phe Ala Ile Leu Gly Arg 5.5 His Phe Pro Ser Ala Gly Gly Val Thr His Phe Val Gly Met Ala Phe Gly Pro Arg Met Glu Arg Val Thr Gly Trp Leu Phe Leu Ser Val Ile 8.5 Pro Val Gly Leu Pro Ala Ala Leu His Ile Ala Thr Gly Phe Gly Gln Ala Leu Phe Gly Trp His Asp Glu Gln Leu Leu Leu Ala Glu Ile Gly Thr Leu Ala Ile Val Trp Trp Val Gly Ser Arg Gly A1a Ser Ser Ser Ala Asn Leu Gln Thr Leu Val Ala Val Leu Ile Val Ala Leu Ile Val Ala Ile Trp Phe Ala Gly Asp Ile Thr Val Ala Asp Ile Pro Phe Pro Ala Ile Asn Asp Ile Asp His Ala Gln Leu Phe Ala Ala Leu Ser Val Met Phe Trp Cys Phe Val Gly Leu Glu Ala Phe Ala His Leu Ala Ser Glu Phe Lys Gln Pro Glu Arg Asp Phe Pro Arg Ala Leu Met Ile Gly Leu Leu Leu Ala Gly Thr Val Tyr Trp Ala Cys Thr Val Leu Val Leu His Phe Asn Ala Phe Ser Glu Glu Lys Ala Ala Ala Ala Ser Leu Pro Gly Ile Val Val Gln Leu Phe Gly Val Lys Ala Leu Trp Val Ala Cys Val Ile Gly Tyr Leu Ala Cys Phe Ala Ser Leu Asn Ile Tyr Ile Gln Asn Phe Ala Arg Leu Val Trp Ser Gln Ala Leu Tyr Lys Pro Asp Ser Pro Leu Ser Arg Leu Ser Lys Arg Gln Leu Pro Val Asn Ala Leu Asn Thr Val Leu Gly Cys Cys Val Val Asn Ser Leu Ala Ile Tyr Leu Leu Asp Ile Asn Leu Asp Ala Leu Ile Val Tyr Ala Asn Gly Ile Phe Ile 

```
Met Ile Tyr Leu Leu Cys Met Leu Ala Gly Cys Arg Leu Leu Lys Gly
   355
                     360
                                     365
Arg Phe Lys Ala Leu Ala Ala Val Gly Cys Val Leu Cys Leu Met Leu
  370
                  375
                                 380
Leu Ala Met Val Gly Trp Lys Ser Val Tyr Ala Ile Val Met Leu Ala
385 390 395 400
Gly Leu Trp Val Phe Leu Pro Lys Arg Gln Ala Pro Gln Ala Arg
            405
                           410
<210> 7183
<211> 506
<212> PRT
<213> Enterobacter cloacae
<400> 7183
Ser Ser Val Ile Lys Tyr Ser Lys Pro His Ile Tyr Cys Val Phe Ser
                         10
                                      1.5
Thr Ile His Arg Gln Leu Glu Lys Lys Val His Met Leu Asn Asn Ile
 20
                       25
Arg Ile Glu Glu Asp Leu Leu Gly Thr Arg Glu Val Pro Ala Asp Ala
                    40
                              4.5
Tyr Tyr Gly Val His Thr Leu Arg Ala Ile Glu Asn Phe Tyr Ile Ser
50
                55 60
Asn Ser Lys Ile Ser Asp Ile Pro Glu Phe Val Arg Gly Met Val Met
            70
                   75
                                            80
Val Lys Lys Ala Ala Ala Leu Ala Asn Lys Glu Leu Gln Thr Ile Pro
           85
                           90
Lys Ser Ala Ala Asn Ala Ile Ile Ala Ala Cys Asp Glu Val Leu Asn
        100
                        105
                            110
Asn Gly Lys Cys Met Asp Gln Phe Pro Val Asp Val Tyr Gln Gly Gly
   115
         120 125
Ala Gly Thr Ser Val Asn Met Asn Thr Asn Glu Val Leu Ala Asn Ile
 130 135 140
Gly Leu Glu Leu Met Gly His Gln Lys Gly Glu Tyr Gln Tyr Leu Asn
145 150 155 160
Pro Asn Asp His Val Asn Lys Cys Gln Ser Thr Asn Asp Ala Tyr Pro
        165 170 175
Thr Gly Phe Arg Ile Ala Val Tyr Ala Ser Val Val Lys Leu Val Asp
       180
                      185 190
Ala Ile Asn Gln Leu Gly Asp Gly Phe Gln Arg Lys Ala Val Glu Phe
    195 200 205
Gln Asp Ile Leu Lys Met Gly Arg Thr Gln Leu Gln Asp Ala Val Pro
 210 215 220
Met Thr Leu Gly Gln Glu Phe His Ala Phe Asn Val Leu Leu Asn Glu
225 230 235 240
Glu Thr Lys Asn Leu Leu Arg Thr Ser Glu Leu Leu Leu Glu Val Asn 245 \hspace{1.5cm} 250 \hspace{1.5cm} 255
Leu Gly Ala Thr Ala Ile Gly Thr Arg Leu Asn Thr Pro Asp Gly Tyr
       260 265 270
Gln Gln Leu Ala Val Gln Lys Leu Ala Glu Val Ser Asn Leu Pro Val
     275 280 285
Val Pro Ala Glu Asp Leu Ile Glu Ala Thr Ser Asp Cys Gly Ala Tyr
  290 295
Val Met Val His Ser Ala Leu Lys Arg Leu Ala Val Lys Leu Ser Lys
305 310 315
Ile Cys Asn Asp Leu Arg Leu Leu Ser Ser Gly Pro Arg Ala Gly Leu 325 330 335
Asn Glu Ile Asn Leu Pro Glu Leu Gln Ala Gly Ser Ser Ile Met Pro
        340 345 350
Ala Lys Val Asn Pro Val Val Pro Glu Val Val Asn Gln Val Cys Phe
                     360
```

```
Lys Val Ile Gly Asn Asp Thr Thr Val Thr Met Ala Ser Glu Ala Gly
  370
Glm Leu Glm Leu Asm Val Met Glu Pro Val Ile Gly Glm Ala Met Phe
              390
                          395
Glu Ser Ile His Ile Leu Thr Asn Ala Cys Tyr Asn Leu Leu Glu Lys
           405
                  410
Cys Ile Asn Gly Ile Thr Ala Asn Lys Glu Val Cys Glu Gly Tyr Val
             425 430
Tyr Asn Ser Ile Gly Ile Val Thr Tyr Leu Asn Pro Phe Ile Gly His
            440
                        445
His Asn Gly Asp Ile Val Gly Lys Ile Cys Ala Glu Thr Gly Lys Ser
  450
      455 460
Val Arg Glu Val Val Leu Glu Arg Gly Leu Leu Thr Glu Ala Glu Leu
   470 475 480
Asp Asp Ile Phe Ser Ala Gln Asn Leu Met His Pro Ala Tyr Lys Ala
      485 490 495
Lys Arg Tyr Thr Asp Glu Ser Glu Gln
        500 505
<210> 7184
<211> 574
<212> PRT
<213> Enterobacter cloacae
<400> 7184
Arg Leu Ser Leu Met Ala Gln Arg Phe Ile Thr Leu Ile Leu Leu Leu
1 5
                    10
                                      15
Cys Ser Thr Ser Val Phe Ala Gly Leu Phe Asp Ala Pro Gly Arg Ser
20
                      25
Asn Phe Ile Pro Ala Asp Gln Ala Phe Val Phe Asp Phe Gln Gln Asn
35 40 45
Gln His Asp Leu Ser Leu Thr Trp Gln Val Lys Glu Gly Tyr Tyr Leu
50 55
Tyr Arg Lys Gln Val Ser Ile Thr Pro Thr Lys Ala Asn Val Gly Ala
65 70 75
Leu Gln Met Pro Ala Gly Val Trp His Glu Asp Glu Phe Tyr Gly Lys
        85 90
Ser Glu Ile Tyr Arg Gln Arg Leu Ser Val Pro Val Thr Val Asn His
      100 105 110
Ala Asp Lys Gly Ala Thr Leu Thr Val Thr Tyr Gln Gly Cys Ala Asp
   115 120 125
Ala Gly Phe Cys Tyr Pro Pro Glu Thr Lys Val Val Pro Leu Ser Glu
 130 135 140
Val Lys Gly Ala Ala Ser Pro Leu Pro Ser Gly Glu Arg Ala Arg Met
    150 155
Lys Gly Glu Gly Ala Gly Glu Ala Thr Ser Asp Leu Pro Phe Ser Ala
          165
                         170
                                        175
Leu Trp Ala Leu Leu Ile Gly Ile Gly Ile Ala Phe Thr Pro Cys Val
     180 185 190
Leu Pro Met Tyr Pro Leu Ile Ser Gly Ile Val Leu Gly Gly Lys Gln
   195 200 205
Arg Leu Ser Thr Ala Arg Ala Leu Leu Leu Ala Phe Ile Tyr Val Gln
 210 215
                               220
Gly Met Ala Leu Thr Tyr Thr Ala Leu Gly Leu Val Val Ala Ala Ala
   230
                            235
Gly Leu Gln Phe Gln Ala Ala Leu Gln His Pro Tyr Val Leu Ile Gly
        245
                         250 255
Leu Ser Ala Val Phe Ile Leu Leu Ala Leu Ser Met Phe Gly Leu Phe
```

Thr Leu Gln Leu Pro Ser Ser Leu Gln Thr Arg Leu Thr Leu Met Ser 280

265 270

285

```
Asn Arg Gln Gln Gly Gly Ser Ala Gly Gly Val Phe Ala Met Gly Ala
                 295
Ile Ala Gly Leu Ile Cys Ser Pro Cys Thr Thr Ala Pro Leu Ser Ala
              310
                             315
Ile Leu Leu Tyr Ile Ala Gin Ser Gly Asn Leu Trp Leu Gly Gly Gly
           325
                          330
Thr Leu Tyr Leu Tyr Ala Leu Gly Met Gly Leu Pro Leu Ile Leu Val
        340
               345
Thr Val Phe Gly Asn Arg Leu Leu Pro Lys Ser Gly Pro Trp Met Glu
                    360
                           365
Thr Val Lys Thr Ala Phe Gly Phe Val Ile Leu Ala Leu Pro Val Phe
                 375 380
Leu Leu Glu Arg Ile Ile Gly Asp Val Trp Gly Thr Arg Leu Trp Ala
              390 395
Met Leu Gly Val Ala Phe Phe Ser Trp Ala Phe Ile Val Ser Leu Gly
         405 410 415
Ala Lys Lys Pro Trp Met Arg Leu Leu Gln Ile Leu Leu Leu Ala Ala
    420 425 430
Ala Leu Val Ser Val Arg Pro Leu Gln Asp Trp Ala Phe Gly Thr Pro
435 440 445
Ala Gly Gln Thr Gln Ala His Leu Asn Phe Ile Gln Ile Lys Asn Val
450 455 460
Asp Asp Leu Asn His Ala Leu Ala Gln Ala Lys Gly Lys Pro Val Met
465 470 475
Leu Asp Leu Tyr Ala Asp Trp Cys Val Ala Cys Lys Glu Phe Glu Lys
     485 490 495
Tyr Thr Phe Ser Asp Pro Gln Val Gln His Ala Leu Ser Asp Thr Val
 500 505 510
Leu Leu Gln Ala Asn Val Thr Ala Asn Ser Thr Gln Asp Lys Ala Leu
515 520
                                  525
Leu Lys Gln Leu Lys Val Leu Gly Leu Pro Thr Ile Leu Phe Phe Asn
530 535 540
Glu Gln Gly Glu Glu Gln Pro Thr Gln Arg Val Thr Gly Phe Met Asp
545 550 555
Ala Thr Ala Phe Asn Ala His Leu Arg Asn Arg Gln Pro
```

<210> 7185 <211> 347 <212> PRT

<213> Enterobacter cloacae

565

<400> 7185

Leu Ser His Lys Met Ala His Ile Val Thr Leu Asn Thr Pro Ser Arg Glu Asp Trp Leu Ser Gln Leu Ala Asp Val Ile Thr Ser Pro Asp Glu 25 3.0 Leu Leu Arg Leu Leu Asp Leu Glu Gln His Glu Ala Leu Arg Ala Gly 4.0 4.5 Arg Glu Ala Lys Arg Leu Phe Ala Leu Arg Val Pro Arg Ala Phe Val 55 Ala Arg Met Glu Lys Gly Asn Pro Asp Asp Pro Leu Leu Lys Gln Thr 70 75 Leu Thr Ser Gln Asp Glu Phe Ile Thr Ala Pro Gly Tyr Ser Thr Asp 85 90 Pro Leu Gln Glu Gln Asn Ser Val Val Pro Gly Leu Leu His Lys Tyr 100 Arg Asn Arg Ala Leu Leu Leu Val Lys Gly Gly Cys Ala Val Asn Cys 115 120 Arg Tyr Cys Phe Arg Arg His Phe Pro Tyr Ala Glu Asn Gln Gly Asn

140

```
Lys Arg Asn Trp Gln Val Ala Leu Asp Tyr Ile Thr Ala His Pro Glu
      150
                           155
Leu Asp Glu Ile Ile Phe Ser Gly Gly Asp Pro Leu Met Ala Lys Asp
           165
                          170
His Glu Leu Asp Trp Leu Leu Thr Gln Leu Glu Thr Ile Pro His Ile
        180
              185 190
Lys Arg Leu Arg Ile His Ser Arg Leu Pro Ile Val Ile Pro Ala Arg
     195
                   200 205
Ile Thr Asp Ala Leu Val Thr Arg Leu Glu Gln Ser Arg Leu Gln Val
               215 220
Leu Leu Val Asn His Ile Asn His Ala Asn Glu Ile Asp Ala Asp Phe
      230 235
225
Arg Glu Ala Met Ala Arg Met Arg Lys Ala Gly Val Thr Leu Leu Asn
       245 250 255
Gln Ser Val Leu Leu Arg Gly Val Asn Asp Ser Ala Arg Val Leu Ala
      260 265 270
Asp Leu Ser Asn Ala Leu Phe Asp Ala Gly Val Met Pro Tyr Tyr Leu
275 280 285
His Val Leu Asp Arg Val Gln Gly Ala Ala His Phe Met Val Thr Asp
290 295
                               300
Glu Glu Ala Arg Lys Ile Met Arg Glu Leu Leu Thr Leu Val Ser Gly
305 310 315 320
Tyr Met Val Pro Lys Leu Ala Arg Glu Ile Gly Gly Glu Pro Ser Lys
 325 330
Thr Pro Leu Asp Leu Gln Leu Arg Gln Gln
        340
```

<210> 7186 <211> 209 <212> PRT

<213> Enterobacter cloacae

<400> 7186 Arg His Tyr Tyr Gln Leu Phe Phe Phe Arg Arg Cys Thr Leu Tyr Leu Tyr Tyr Arg Pro Gly Asn His Ala Ala Cys Arg His Ser Gly Val Gln 2.0 25 30 Ile Cys Trp Arg Glu Leu Ser Ala Thr Val Asp Arg Pro His Gly Ser 35 40 45 Ser Leu Arg Ser Gly Gly Lys Met Ile Ala Gln Ser Arg Lys Asn Ile 5.5 Met Asp Leu Phe Ile Asp Gly Ala Arg Arg Gly Phe Thr Ile Ala Thr 7.0 75 Thr Ser Leu Leu Pro Asn Val Val Met Ala Phe Val Ile Ile Gln Ala 8.5 90 Leu Lys Val Thr Gly Leu Leu Asp Ile Val Gly Arg Val Cys Glu Pro 100 105 Ile Met Ala Leu Trp Gly Leu Pro Gly Ala Ala Ala Thr Val Leu Leu 115 120 125 Ala Ser Val Met Ser Met Gly Gly Gly Val Gly Val Cys Ala Ser Leu 135 140 Val Ala Ala Gly Thr Leu Asn Gly His Asp Ala Thr Ile Leu Leu Pro 150 Ala Ile Tyr Leu Met Gly Asn Pro Val Gln Asn Thr Gly Arg Cys Leu 165 170 Gly Thr Ala Gly Val Asn Pro Lys Tyr Tyr Pro His Ile Ile Ala Val 180 185 190 Cys Val Ile Asn Ala Leu Leu Ser Met Trp Val Met Gln Leu Leu Phe 195

```
<210> 7187
<211> 558
<212> PRT
<213> Enterobacter cloacae
<400> 7187
Val Arg Arg Val Ala Phe Arg Gln Val Gly His His Ala Leu Gly Arg
                            1.0
Asp His Gln Ala Ser Tyr Arg Cys Arg Val Leu Gln Ser Arg Thr Gly
       20
                       25
His Phe Ser Trp Ile Gln Asp Thr Glu Val Asp His Val Ala Val Phe
                    40
                             4.5
Phe Ser Cys Arg Val Val Thr Val Val Thr Phe Thr Arg Phe His Leu
   50 55 60
Val Arg Asn His Arg Arg Leu Phe Thr Gly Val Gly His Asp Leu Thr
    70 75
Gln Arg Ser Phe His Cys Ala Gln Arg Asn Phe Asp Thr His Val Leu
         85 90
Val Phe Val Leu Ser Ser Gln Ala Ser Gln Phe Ser Gly Tyr Thr His
   100 105 110
Gln Arg Asp Thr Thr Thr Ser Asn His Ala Phe Phe Tyr Arg Ser Thr
 115 120 125
Gly Arg Val Gln Gly Val Val Asn Ala Cys Phe Leu Leu Phe His Phe
 130 135 140
Asn Phe Gly Ser Arg Thr Asp Phe Asp Tyr Arg Tyr Ala Thr Cys Gln
145 150 155
Phe Arg Tyr Ala Leu Leu Glu Phe Phe Thr Val Val Ile Gly Ser Cys
            165 170
                                            175
Phe Phe Asp Leu Leu Thr Asp Leu Thr Asn Thr Ala Leu Asn Ser Gly
 180 185 190
Phe Phe Thr His Thr Val Asp Asp Gly Gly Val Phe Val Asp His
195 200
                                      205
Asn Ala Phe Arg Leu Ala Gln Val Phe Gln Ser Arg Phe Phe Gln Leu
210 215 220
His Thr Asp Leu Phe Gly Asp His Gly Thr Ala Gly Gln Gly Ser Asp
225 230
                               235
                                                240
Ile Leu Glu His Arg Leu Thr Thr Ile Ala Glu Thr Arg Cys Phe Asn
           245
                            250
Arg Cys His Phe His Asp Ala Thr His Gly Val Asn His Gln Gly Arg
   260
                        265
Gln Arg Phe Ala Phe Asn Val Pne Ser Asn Asp Tyr Gln Arg Leu Ala
                     280 285
Cys Phe Arg Asp Ser Phe Gln His Trp Gln His Phe Ala Asp Val Gly
                  295
                                   300
Asp Phe Leu Val Ser Gln Gln Asp Glu Arg Ala Phe Gln Leu Asn Ser
               310
                               315
Ala Ser Phe Trp Leu Val Asp Glu Val Trp Gly Gln Val Thr Ala Val
            325
Glu Leu His Thr Phe Asn His Val Gln Phe Val Phe Gln Thr Ser Thr
         340
                         345
                                         350
Val Phe Asn Gly Asp His Ala Phe Phe Thr Asp Phe Ile His Arg Phe
                      360
                                     365
Ser Asp Gln Phe Thr Tyr Gly Phe Val Gly Val Ser Gly Asp Ser Thr
                  375
                                  380
Asn Leu Ser Asn Gly Phe Arg Val Arg Ala Arg Tyr Gly Gln Arg Phe
               390
                               395
                                               400
Gln Phe Phe Asn Ser Gly Ser Asp Gly Phe Val Asp Thr Thr Phe Gln
           405
                            410
Ile His Trp Val His Ala Arg Ser Asn Gly Phe Gln Ala Phe Gly Asp
         420
```

Asp Arg Leu Arg Gln Tyr Gly Arg Gly Gly Gly Thr Val Thr Gly Ser 435 440 445 Val Val Arg Phe Arg Gly Asn Phe Phe His His Leu Cys Ala His Val 455 460 Phe Glu Leu Val Phe Gln Leu Asp Phe Thr Cys Asn Arg Asn Thr Ile 470 475 Phe Gly Asp Gly Trp Arg Ala Glu Gly Phe Val Gln His Tyr Val Thr 490 495 485 Ala Phe Arg Ala Glu Ser Asp Phe His Cys Val Cys Gln Tyr Val Tyr 500 505 510 Ala Ala Glu His Phe Tyr Thr Ser Val Val Thr Glu Phe Tyr Val Phe 515 520 525 Ser Cys His Val Leu Ile Ser Ser Asn Ser Tyr Ser Phe Arg Ala Leu 530 535 540 Ile Thr Leu Gln Gln Leu Pro Glu Cys Arg Ser Arg Thr 545 550

<210> 7188 <211> 112

<212> PRT <213> Enterobacter cloacae

<400> 7188

85 90 95 His Gly Asp Asp Tyr Leu Ser Trp Leu Asn Ala Ser Leu Arg

<210> 7189 <211> 227

<212> PRT

<213> Enterobacter cloacae

<400> 7189

Pro Gly Leu Trp Thr Arg Arg His Ser Thr Arg Ile Cys Ala Ile Ala Asn Arg Lys Pro His Phe Arg Arg Asp Lys Pro Leu Gly Ile Ala Glu 20 Glu Ile Thr Val Gln Arg Glu Asp Val Leu Gly Gln Ala Leu Gln Leu 40 Leu Glu Ile Gln Gly Ile Ala Ser Thr Thr Leu Glu Met Val Ala Asp 55 Arg Ile Asp Tyr Pro Leu Asp Glu Leu Arg Arg Phe Trp Pro Asp Lys 70 75 Glu Ala Leu Leu Tyr Asp Ala Leu Arg Tyr Leu Ser Gln Gln Val Asp 85 90 Ile Trp Arg Arg Gln Leu Met Leu Asn Glu Glu Leu Thr Thr Glu Gln 100 105 110 Lys Leu Leu Ala Arg Tyr Thr Ala Leu Thr Glu Cys Val Thr Asn Asn 115 120 Arg Tyr Pro Gly Cys Leu Phe Ile Ala Ala Cys Thr Tyr Tyr Pro Asp

Pro Gly His Pro Ile His Gln Leu Ala Asp Gln Gln Lys Arg Ala Ala 150 155 His Glu Phe Thr His Glu Leu Leu Thr Thr Leu Glu Val Asp Asp Pro 170 175 165 Ala Met Val Ala Lys Gln Met Glu Leu Val Leu Glu Gly Cys Leu Ser 180 185 190 Arg Met Leu Val Asn Arg Ser Gln Ala Asp Val Asp Thr Ala His Arg 195 200 205 Leu Ala Glu Asp Ile Leu Arg Phe Ala Gln Cys Arg Met Gly Gly Ala 210 215 Leu Thr 225 <210> 7190 <211> 322 <212> PRT <213> Enterobacter cloacae <400> 7190 Glu Arg Glu Glu Lys Lys Lys Arg Gly Lys Arg Gly Lys Lys Lys 10 Glu Gly Gly Lys Lys Arg Glu Lys Gly Gly Lys Lys Lys Glu Arg Lys 20 Glu Gly Lys Gly Glu Glu Gly Gly Gly Lys Gly Gly Lys Arg 4.0 Gly Arg Arg Gly Gly Lys Lys Gly Glu Lys Lys Glu Lys Glu Gly
50 55 60 60 Lys Arg Glu Glu Lys Gly Arg Glu Lys Lys Gly Arg Gly Lys Glu Gly 65 70 110 Lys Lys Lys Lys Lys Thr Arg Gln Asn Thr Leu His Asn Leu Pro 120 125 His Phe Pro Cys Cys His Leu His Leu Thr Lys Asn Ser Lys Glu Thr 130 135 140 Pro Met Arg Ile Leu Pro Val Ile Ala Ala Val Thr Ala Ala Phe Leu 145 150 155 Val Val Ala Cys Ser Ser Pro Thr Pro Pro Pro Gly Val Thr Val Val 165 170 Ser Asn Phe Asp Ala Gln Arg Phe Leu Gly Thr Trp Tyr Glu Ile Ala 180 185 Arg Met Asp His Gln Phe Glu Arg Gly Leu Glu Lys Val Thr Val Asn 195 200 205 Tyr Ser Ala Met Asp Asp Gly Gly Ile Arg Val Ile Asn Arg Gly Tyr 220 Asn Pro Asp Arg Gln Met Trp Gln Gln Ser Val Gly Gln Ala Tyr Phe 230 235 Thr Gly Ala Ser Asn Arg Ala Ala Met Lys Val Ser Phe Ile Gly Pro 245 250 Phe Tyr Gly Gly Tyr Asn Val Ile Ala Leu Asp Arg Glu Tyr Arg His 260 265 Ala Leu Val Cys Gly Pro Asp Arg Asn Tyr Leu Trp Ile Leu Ser Arg 280 285 Thr Pro Thr Ile Pro Ala Glu Met Lys Gln Gln Met Leu Asp Ile Ala 290 295 300 Thr Arg Gln Gly Phe Asp Val Thr Lys Leu Leu Trp Val Lys Gln Pro 310 315 His

```
<210> 7191
 <211> 213
 <212> PRT
 <213> Enterobacter cloacae
<400> 7191
Trp Gln Glu Ala Lys Pro Leu Ala Asp Cys Glu Asn Phe Met Phe Lys
                                1.0
 Ile Leu Leu Ile Asp Arg Cys His Phe Thr Arg Thr Gly Phe Glu Ala
                             25
                                               3.0
Trp Val Asn His Ser Asp Leu Phe Ser Gly His Phe Val Val Thr Gly
     35
                         40
                                           4.5
Val Asn Asn Leu Phe Leu Ala Arg Glu His Ile Leu Gln Trp Lys Pro
                     5.5
                                       60
Ala Leu Val Ile Ala Asp Leu Ser Gly Phe Arg Gln Asp Leu His His
                  70
                                   7.5
Phe Gln Gln Leu Ser Ser Leu Leu Ile Ala Ser Glu Thr Leu Pro Phe
              8.5
                                90
Ile Met Leu Gln Ser Gly Gln Glu Gln Glu Met Thr Asp Tyr Leu Ala
        100
                            105
                                            110
Gln Phe Pro Ile Trp Ser Ser Leu Ser Lys Asn Thr Asp Leu Glu Lys
      115
                        120
                                          125
Leu Ala Ala Val Ile Asn Asp Ala Leu Thr Ser Cys Ala Ser Ala Glu
 130
               135 140
Leu Pro Glu Met Ala Ala Pro Leu Leu Thr Arg Gln Glu Glu Arg Val
145 150 155
Leu Ser Leu Trp Met Asp Gly Ala Ser Asn Gln Lys Ile Ala Ser Asn
        165 170
                                                  175
Leu Arg Ile Asn Gly Lys Thr Val Tyr Thr Tyr Lys Arg Asn Ile Arg
        180 185 190
Met Lys Leu His Met Asp Thr Arg Tyr Ser Pro Phe Leu Ser Leu Gln
    195
               200
                                           205
Glu Val Glu Asn
  210
<210> 7192
<211> 237
<212> PRT
<213> Enterobacter cloacae
<400> 7192
Pro Pro Ile Val Phe Ser Asp Ala Thr Tyr Asn Phe Cys Thr Arg Leu
Lys Lys Gly Gly Phe Met Ser Ala Ser Ser Ser Gly Glu Glu Lys Val
          20
                                              30
Thr Trp Val Gly Tyr Leu Ala Phe Val Leu Thr Ile Val Phe Phe Ser
      35
                        40
Gly Phe Phe Ala Lys Ser Thr Glu Trp Trp Arg Val Leu Asp Phe Thr
                    55
Val Leu Asn Gly Ser Phe Gly Pro Val Asn Gly Ala Leu Thr Phe Arg
                7.0
                                   75
Gly Glu Gly Gly Thr Gly Ala Lys Asp Gly Phe Leu Phe Ala Leu Glu
                                90
Leu Ala Pro Ser Val Ile Leu Ser Leu Gly Ile Ile Ala Val Thr Glu
                            105
                                             110
Gly Leu Gly Gly Leu Arg Ala Ala Gln Gln Leu Met Thr Pro Ile Leu
                        120
Arg Pro Leu Leu Gly Val Pro Gly Ile Cys Ser Leu Ala Leu Ile Ala
   130
                     135
                                       140
```

```
Asn Leu Gln Asn Thr Asp Ala Ala Ala Gly Met Thr Lys Glu Leu Thr
          150
                            155
Asn Glu Gly Ala Ile Thr Asp His Glu Arg Ala Ile Phe Ala Thr Phe
            165
                         170 175
Gln Thr Ser Gly Ser Ala Ile Ile Thr Asn Tyr Phe Ser Ser Gly Ala
       180
                         185 190
Ala Leu Phe Thr Phe Ile Thr Val Pro Val Ile Thr Pro Leu Ala Val
                     200 205
    195
Ile Leu Val Phe Lys Phe Val Gly Ala Asn Phe Leu Arg Leu Trp Ile
 210 215
Ala His Met Glu Val Arg Cys Ala Gln Glu Glu Lys
225 230
<210> 7193
<211> 397
<212> PRT
<213> Enterobacter cloacae
<400> 7193
Cys Asn Tyr Ser Ser Glu Glu Ile Lys Met Asp Phe Ser Val Leu Glu
       5
                         10
Pro His Leu Phe Arg Asn Ala Gln Leu Tyr Ala Pro Glu Asp Leu Gly
 20
                        25
His Cys Asp Leu Leu Ile Ala Gly Gly Lys Ile Val Ala Val Glu Lys
 35 40
                         4.5
Ala Gly His Ala Thr Met Arg Pro Asp Cys Pro Glu Ser Asp Leu Ala
      55 60
Gly Ala Val Val Cys Pro Gly Phe Ile Asp Gln His Val His Leu Ile
             70
                            75
Gly Gly Gly Glu Ala Gly Pro His Thr Arg Thr Pro Glu Val Arg
                90
           85
Leu Ser Ala Leu Val Ala Ala Gly Ile Thr Ser Val Val Gly Leu Leu
 100 105 110
Gly Thr Asp Gly Val Thr Arg His Pro Glu Ser Leu Leu Ala Lys Thr
 115 120 125
Arg Ala Leu Glu His Glu Gly Ile Ser Ala Trp Met Leu Thr Gly Ala
 130 135 140
Tyr Gly Leu Pro Ser Pro Thr Ile Thr Gly Ser Ile Glu Lys Asp Val
145 150
                            155
Ala Leu Ile Asp Lys Ile Ile Gly Val Lys Cys Ala Ile Ser Asp His
           165 170 175
Arg Ser Ser Ala Pro Ala Asp Asp Gln Leu Ala Asn Met Ala Ala Gln
   180 185
                                       190
Ser Arg Val Gly Gly Leu Leu Gly Ala Lys Ala Gly Ile Ser Val Phe
     195 200
                                     205
His Leu Gly Asn Ser Pro Lys Leu Leu Glu Pro Leu Leu Asn Ile Leu
               215 220
Asn Asn Ala Asp Val Pro Arg Thr Lys Leu Leu Pro Thr His Val Asn
225 230
                              235
Arg Ala Gln Ala Leu Phe His Ala Ala Leu Asp Tyr Ala Arg Glu Gly
           245
                           250
Gly Tyr Ile Asp Ile Thr Thr Ser Ile Ser Glu Pro Ile Asp Ala Ala
        260
                        265
                                     270
Thr Ala Ile Ala Thr Ala Arg Asp Ala Gln Val Pro Phe Asn Arg Leu
     275
                    280
                          285
Thr Leu Cys Ser Asp Gly Asn Gly Ser Gln Pro Asn Phe Asp Ala Asn
                 295
                                 300
Gly Asn Leu Val Gly Ile Gly Val Ala Gly Phe Glu Ser Leu Leu Asp
              310
                              315
Thr Leu Gln Gln Leu Val Gly Arg Tyr His Leu Pro Leu Glu Glu Ala
            325
                           330
```

```
Leu Leu Pro Phe Thr Arg Asn Val Ala Glu Phe Leu Gly Leu Glu His
          340
                              345
Lys Gly Arg Ile Ala Pro Gly Cys Asp Ala Asp Phe Leu Val Leu Thr
                               365
       355
                          360
Asp Asp Leu Lys Ile Arg Glu Val Trp Ala Lys Gly Arg Gln Met Val
                      375
                            380
Arg Glu Gly Val Val Cys Val Lys Gly Thr Phe Glu
                  390
<210> 7194
<211> 158
<212> PRT
<213> Enterobacter cloacae
<400> 7194
Ala Met Ala Leu Glu Ser Glu His Gly Thr Asp Ser Ala Phe Ser Ser
                                10
Ser Thr Ala Glu Ala Thr Ala Leu Ser Ile Pro Arg Phe Arg Ser Ile
 20
                            25
Gly Phe Met Pro Ala Ala Thr Ala Phe Arg Pro Ser Val Met Ile Ala
                         4.0
Cys Ala Ser Thr Val Ala Val Val Pro Ser Pro Ala Ala Ser Phe
                   5.5
Ala Leu Glu Ala Thr Ser Phe Thr Ile Cys Ala Pro Met Phe Ser Asn
65 70
                                  7.5
Leu Ser Ser Ser Ser Ile Ser Arg Ala Thr Glu Thr Pro Ser Leu Val
              85
                                 90
Met Val Gly Ala Pro Lys Asp Leu Ser Ser Thr Thr Leu Arg Pro Phe
         100
                         105
                                         110
Gly Pro Arg Val Thr Phe Thr Ala Ser Ala Ser Thr Phe Thr Pro Arg
   115
                         120
                                           125
Ser Ile Phe Thr Arg Ala Ser Leu Pro Asn Phe Thr Ser Leu Ala Ala
               135 140
Met Phe Leu Phe Pro Gln Ile Arg Thr Val Phe Val Arg
<210> 7195
<211> 439
<212> PRT
<213> Enterobacter cloacae
<400> 7195
Ala Arg Gln Val Phe Met Phe Gly Ala Glu Leu Val Ile Val Leu Leu
                                 1.0
Ala Ile Tyr Leu Gly Ala Arg Leu Gly Gly Ile Gly Ile Gly Phe Ala
          20
                                                3.0
Gly Gly Leu Gly Val Leu Val Leu Thr Leu Ile Phe Gln Ile Lys Pro
      35
                         40
                                           4.5
Gly Ala Ile Pro Phe Asp Val Ile Glu Ile Ile Met Ala Val Ile Ala
 5.0
                     55
Ala Ile Ala Ala Met Gln Val Ala Gly Gly Met Asp Tyr Leu Val Ser
                  70
                                     75
Leu Ala Glu Arg Met Leu Arg Arg His Pro Lys Tyr Ile Thr Phe Leu
                                90
Ala Pro Leu Val Thr Trp Phe Met Thr Ile Leu Ala Gly Thr Gly His
          100
                             105
                                                110
Thr Ala Phe Ser Thr Leu Pro Val Ile Thr Glu Val Ala Lys Glu Gln
      115
                         120
                                            125
Gly Ile Arg Pro Ser Arg Pro Leu Ser Ile Ala Val Val Ala Ser Gln
   130
                     135
                                       140
Ile Ala Ile Thr Ala Ser Pro Ile Ser Ala Ala Val Val Phe Phe Ala
```

```
150
                            155
Gly Ile Leu Glu Pro Met Gly Val Ser Tyr Leu Thr Leu Leu Ala Ile
         165
                    170 175
Cys Ile Pro Val Thr Leu Ile Ala Val Met Ile Thr Ala Val Leu Cys
        180
                  185 190
Asn Phe Leu Gly Ala Glu Leu Lys Asp Asp Pro Val Tyr Gln Glu Arg
            200 205
Leu Ala Lys Gly Glu Val Ser Leu Arg Gly Ser Gln Val Phe Glu Leu
   210
          215 220
Lys Pro His Ala Lys Arg Ser Val Leu Leu Phe Leu Ile Gly Ile Val
      230 235
Ala Val Met Phe Tyr Ala Thr Ala Ile Ser Asp Thr Val Gly Leu Ile
           245 250 255
Gln Asn Pro Val Leu Pro Arg Asn Glu Ala Ile Val Val Phe Met Leu
      260 265 270
Thr Ile Ala Thr Leu Ile Ser Ile Thr Cys Lys Ile Asp Thr Ser Glu
    275 280 285
Val Leu Asn Ala Ser Thr Phe Lys Ser Gly Met Ser Ala Cys Val Cys
 290 295
                              300
Val Leu Gly Val Ala Trp Leu Gly Asp Thr Phe Val Lys Ala His Ile
305 310 315
Ser Asp Ile Gln Thr Val Ala Gly Asp Leu Leu His Asn Tyr Pro Trp
      325 330
Leu Leu Ala Val Val Leu Phe Phe Ala Ala Thr Leu Leu Tyr Ser Gln
 340 345 350
Ala Ala Thr Thr Lys Ala Leu Met Pro Ala Ala Leu Met Leu Gly Val
355 360 365
Thr Pro Leu Thr Ala Ile Ala Ser Phe Ala Ala Val Ser Ala Leu Phe
370 375 380
Val Leu Pro Thr Tyr Pro Thr Leu Leu Ala Ala Val Glu Met Asp Asp
385 390
                  395
Thr Gly Ser Thr Arg Ile Gly Lys Tyr Val Phe Asn His Ala Phe Leu
     405 410
Ile Pro Gly Val Val Ala Ile Thr Leu Cys Val Ile Leu Gly Phe Ile
     420
                      425
                                    430
Ile Gly Gly Ile Val Leu
```

<210> 7196

<211> 578 <212> PRT

<213> Enterobacter cloacae

435

<400> 7196

Arg His Val Ala Gly Arg Lys Ser Asp Gly Arg Asp Arg Ala Ala Ser 10 Ala Ser Gly Cys Arg Pro Val Ala Lys Met Pro Gly Arg Val Arg Thr 25 Thr His Asn Arg Lys Thr Val Arg Val Ser Asp Pro Ala Gly Arg Asp 40 Thr Val Thr Phe Lys Ile Lys Lys His Asn Thr Thr Thr Gln Gln Gln 55 Ser Arg Gly Thr Pro Met Ser Met Ser Ser Ile Pro Ser His Ser Pro 7.0 75 Ser Gly Lys Leu Tyr Gly Trp Val Glu Arg Ile Gly Asn Lys Val Pro 90 95 His Pro Phe Leu Leu Phe Ile Tyr Leu Ile Val Ile Leu Met Val Ala 100 105 110 Thr Ala Val Leu Ser Ala Phe Glu Val Ser Val Arg Ser Pro Ala Asp 115 120 Gly Ser Met Val Ala Val Lys Asn Leu Leu Ser Val Glu Gly Leu His

```
135
Trp Phe Leu Pro Asn Val Ile Lys Asn Phe Ser Gly Phe Ala Pro Leu
       150
                   155 160
Gly Ala Ile Leu Ala Leu Val Leu Gly Ala Gly Leu Ala Glu Arg Val
               170 175
        165
Gly Leu Leu Pro Ala Leu Met Val Lys Met Ala Ser His Val Ser Ala
       180 185 190
Arg Tyr Ala Ser Tyr Met Val Leu Phe Ile Ala Phe Phe Ser His Ile
    195
         200 205
Ser Ser Asp Ala Ala Leu Val Ile Met Pro Pro Met Gly Ala Leu Ile
 210
      215 220
Phe Leu Ala Val Gly Arg His Pro Val Ala Gly Leu Leu Ser Ala Ile
   230 235 240
Ala Gly Val Gly Cys Gly Phe Thr Ala Asn Leu Leu Ile Val Thr Thr
      245 250 255
Asp Val Leu Leu Ser Gly Ile Ser Thr Glu Ala Ala Ser Thr Ile Asp
     260 265 270
Ala Thr Met His Val Ser Val Ile Asp Asn Trp Tyr Phe Met Ala Ser
 275 280 285
Ser Val Ile Val Leu Thr Ile Val Gly Gly Leu Ile Thr Asp Lys Ile
290 295 300
Ile Glu Pro Arg Leu Gly Lys Trp Glu Gly Arg Ser Asp Glu Lys Leu
305 310 315 320
Glu Thr Leu Ser Lys Glu Gln Gln Phe Gly Leu Arg Val Ala Gly Ile
   325 330 335
Val Ser Leu Ala Phe Ile Ala Val Val Ala Leu Met Val Val Pro Glu
340 345 350
Asn Gly Val Leu Arg Asp Pro Ile Lys His Thr Val Leu Pro Ser Pro
355 360 365
Phe Ile Gln Gly Ile Val Pro Leu Ile Ile Leu Phe Phe Phe Val Val
370 375 380
Ser Leu Ala Tyr Gly Ile Ala Thr Gly Lys Ile Arg Arg Gln Gly Asp
385 390 395 400
Leu Pro His Leu Met Ile Glu Pro Met Lys Glu Met Ala Gly Phe Ile
405 410 415
Val Met Val Phe Pro Leu Ala Gln Phe Val Ala Met Phe Asn Trp Ser
 420 425 430
Asn Met Gly Lys Phe Met Ala Val Ser Leu Thr Asp Ala Leu Glu Ala
435 440 445
Ala Gly Leu Ser Gly Val Pro Ala Phe Val Gly Leu Ala Leu Leu Ser
450 455 460
Ser Leu Leu Cys Met Phe Ile Ala Ser Gly Ser Ala Ile Trp Ser Ile
465 470 475 480
Leu Ala Pro Ile Phe Val Pro Met Phe Met Met Leu Gly Phe His Pro
       485 490 495
Ala Phe Ala Gln Ile Leu Phe Arg Val Ala Asp Ser Ser Val Ile Pro
 500 505 510
Leu Ala Pro Val Ser Pro Phe Val Pro Leu Phe Leu Gly Phe Leu Gln
515 520 525
Arg Tyr Arg Pro Glu Ala Lys Leu Gly Thr Tyr Tyr Ser Leu Val Leu
530 535 540
Pro Tyr Pro Leu Ile Phe Leu Gly Val Trp Leu Val Met Leu Val Ala
545 550 555 560
Trp Tyr Leu Val Gly Leu Pro Ile Gly Pro Gly Val Tyr Pro Arg Leu
          565
                        570
Asn
```

<210> 7197 <211> 175 <212> PRT

## <213> Enterobacter cloacae

<400> 7197 Gly Val Leu Met Leu Arg Leu Leu Glu Asp Lys Ile Ala Thr Pro Leu Gly Pro Leu Trp Val Ile Ala Asp Glu Ala Phe Asn Leu Arg Ala Val 20 25 3.0 Glu Trp Glu Glu His Ser Asp Arg Met Val Glu Leu Leu Asn Ile His 4.0 Tyr Arg Ala Glu Gly Tyr Glu Arg Val Thr Ala Arg Asn Pro Gly Gly 55 60 Leu Ser Asp Lys Leu Thr Ala Tyr Phe Glu Gly Asp Leu Ser Ile Ile 7.0 75 Asn Thr Leu Pro Thr Ala Thr Ala Gly Thr Pro Phe Gln Arg Glu Val 8.5 90 Trp Gln Ala Leu Arg Asn Ile Pro Cys Gly Gln Val Met His Tyr Gly 100 105 110 Gln Leu Ala Glu Gln Leu Gly Arg Ala Gly Ala Ala Arg Ala Val Gly 120 125 Ala Ala Asn Gly Ser Asn Pro Val Ser Ile Val Val Pro Cys His Arg 130 135 140 Val Ile Gly Arg Asn Gly Thr Leu Thr Gly Tyr Ala Gly Gly Val Gln 145 150 155 Arg Lys Glu Trp Leu Leu Arg His Glu Gly Tyr Phe Leu Leu

<210> 7198 <211> 256 <212> PRT <213> Enterobacter cloacae

<400> 7198 Gly Leu Ser Lys Pro Met Ile Pro Glu Lys Arg Ile Ile Arg Arg Ile Gln Ser Gly Gly Cys Ala Ile His Cys Gln Asp Cys Ser Ile Ser Gln 25 Leu Cys Ile Pro Phe Thr Leu Asn Glu His Glu Leu Asp Gln Leu Asp 4.0 Asn Ile Ile Glu Arg Lys Lys Pro Ile Gln Lys Gly Gln Thr Leu Phe 5.5 60 Lys Ala Gly Asp Glu Leu Lys Ser Leu Tyr Ala Ile Arg Ser Gly Thr 65 70 7.5 Ile Lys Ser Tyr Thr Ile Thr Glu Gln Gly Asp Glu Gln Ile Thr Gly 90 Phe His Leu Ala Gly Asp Leu Val Gly Phe Asp Ala Ile Gly Ser Gly 100 105 His His Pro Ser Phe Ala Gln Ala Leu Glu Thr Ser Met Val Cys Glu 115 120 Ile Pro Phe Glu Thr Leu Asp Asp Leu Ser Gly Lys Met Pro Asn Leu 130 135 140 Arg Gln Gln Met Met Arg Leu Met Ser Gly Glu Ile Lys Gly Asp Gln 150 Asp Met Ile Leu Leu Ser Lys Lys Asn Ala Glu Glu Arg Leu Ala 165 170 Ala Phe Ile Tyr Asn Leu Ser Arg Arg Phe Ala Glu Arg Gly Phe Ser 180 185 190 Pro Arg Glu Phe Arg Leu Thr Met Thr Arg Gly Asp Ile Gly Asn Tyr 200 Leu Gly Leu Thr Val Glu Thr Ile Ser Arg Leu Leu Gly Arg Phe Gln 215 Lys Ser Gly Met Leu Ala Val Lys Gly Lys Tyr Ile Thr Ile Glu Asn

3213 230 235 Gly Glu Ala Leu Ala Ile Leu Ala Gly His Ser Arg Asn Val Ala 245 250 <210> 7199 <211> 490 <212> PRT <213> Enterobacter cloacae <400> 7199 Phe Pro Val Asp Ala Arg Cys Val Met Gln Glu Asn Tyr Ala Phe Ile 10 Ala Asp Ala Ile Asp Thr Arg Cys Gln Thr Phe Thr Asp Ile Ala Asp 20 25 Asp Ile Trp Asp His Pro Glu Thr Arg Phe Glu Glu Phe Trp Ser Ala 35 4.0 Glu Arg Leu Ala Ser Ala Leu Glu Ala Glu Gly Phe Thr Leu Thr Arg 55 60 Glu Ala Gly Gly Ile Pro Asn Ala Phe Ile Ala Ser Tyr Gly Ser Gly 70 75 Lys Pro Val Ile Ala Leu Leu Gly Glu Tyr Asp Ala Leu Ala Gly Leu 85 90 95 Ser Gln Gln Ala His Cys Ala Thr Ala Gln Ser Ala Thr Pro Gly Ala 100 105 110 Asn Gly His Gly Cys Gly His Asn Leu Leu Gly Thr Ala Ala Phe Ala 120 Gly Ala Val Ala Val Lys Ser Trp Leu Glu Gln His Gly Gly Ser Gly 135 140 Thr Val Arg Phe Tyr Gly Cys Pro Gly Glu Glu Gly Gly Ser Gly Lys 150 155 Thr Phe Met Val Arg Glu Gly Leu Phe Asp Asp Val Asp Ala Gly Val 165 170 Thr Trp His Pro Glu Ala Phe Ala Gly Met Phe Asn Val Ser Thr Leu 180 185 190 Ala Asn Ile Gln Ala Ala Trp Arg Phe Lys Gly Ile Ala Ala His Ala 195 200 205 Ala Asn Ser Pro His Leu Gly Arg Ser Ala Leu Asp Ala Val Thr Leu 210 215 220 Met Thr Thr Gly Thr Asn Phe Leu Asn Glu His Ile Ile Glu Lys Ala 230 235 Arg Val His Tyr Ala Ile Thr Asp Thr Gly Gly Ile Ser Pro Asn Val 245 250 Val Gln Ala Gln Ala Glu Val Leu Tyr Leu Ile Arg Ala Pro Glu Met 265 Ala Asp Ala Gln Gln Ile Tyr Ala Arg Ile Glu Lys Ile Ala Gln Gly 275 280 285 Ala Ala Met Met Thr Glu Thr Thr Val Glu Cys Arg Phe Asp Lys Ala 295 300 Cys Ser Ser Tyr Leu Pro Asn Arg Thr Leu Glu Ala Ala Met Tyr Arg 310 315 Ala Leu Gln His Tyr Gly Thr Pro Ala Trp Thr Glu Glu Glu Arg Glu 325 330 Phe Ala Arg Lys Ile Arg Ala Thr Leu Thr Ala Asn Asp Leu Gln Asn 340 345

Ser Leu Lys Asn Ile Ala Ala Thr Gly Ala Glu Glu Gly Lys Ala Phe 355 360 365 Ala Arg Arg His Gln Glu Thr Leu Leu Val Asp Glu Val Ala Pro Tyr 375 380 Ala Ile Thr Asp Asn Val Leu Ala Gly Ser Thr Asp Val Gly Asp Val 390 395 Ser Trp Lys Met Pro Val Ala Gln Cys Phe Ser Pro Cys Phe Thr Val

<210> 7200 <211> 573 <212> PRT <213> Enterobacter cloacae

<213> Enterobacter cloaca

<400> 7200 Ile Arg Tyr Asp Asp Ser Ile Asp Val Thr Leu Pro Leu Leu Leu Arg 10 Met Thr Ala Met Leu Lys Asn Leu His Val Ile Thr Gly Ile Ile Phe 20 25 Ala Leu Thr Ile Phe Cys Leu Leu Gln Val Val Thr Gly Gly Leu Phe 35 40 45 Tyr Ser Ala Val Asn Asn Asp Arg His Asn Phe Gln Asn Ser Gly Leu 55 60 Leu Asn Ala Gln Gln Glu Ser Leu Ser Asp Ser Val Asn Thr Leu Val 70 7.5 Lys Thr Arg Val Thr Val Thr Arg Val Ala Ile Arg Tyr Leu Lys Asn 8.5 9.0 Gln Arg Asp Pro Ala Ser Leu Ala Ala Ile Asn Thr Leu Leu Gly Thr 100 105 110 Ala Asn Gly Ser Leu Ala Lys Ala Glu Asp Tyr Tyr Lys Asn Trp Gln 115 120 125 Ala Ile Pro Gln Val Lys Gly Gln His Ala Ala Leu Thr Glu Glu Met 135 140 Gln Lys Ala Trp Lys Gln Met His Glu Val Met Arg Leu Ser Ile Glu 145 150 155 Tyr Leu Arg Ala Asp Asn Tyr Gln Ala Tyr Gly Asp Leu Asp Ala Gln 165 170 175 Gln Ala Gln Asp Glu Met Glu Ala Val Tyr Thr Arg Trp Arg Ala Glu 185 190 Asn Asn Val Leu Leu Lys Ala Ala Ala Glu Glu Asn Gln Ser Ser Phe 195 200 205 Thr Gln Met Gln Trp Thr Leu Ala Ala Ile Phe Leu Thr Val Ile Ala 215 220 Val Leu Val Val Ile Trp Gln Gly Leu Gln His Leu Leu Lys Pro 230 235 Leu Asn Ala Ile Met Asn His Ile Arg Thr Ile Ala Ser Gly Asp Leu 245 250 Thr Gln Asn Val Ala Ile Ala Gly Arg Asn Glu Met Gly Gln Leu Ala 260 265 270 Ala Gly Leu His Glu Met Gln Gln Ser Leu Val Ser Thr Val Ser Ala 275 280 Val Arg Gly Ser Thr Asp Ser Ile Tyr Thr Gly Ala Gly Glu Ile Ala 290 295 300 Ala Gly Ser Asn Asp Leu Ser Ala Arg Thr Glu Gln Gln Ala Ala Ser 310 315 Leu Glu Glu Thr Ala Ala Ser Met Glu Glu Leu Thr Ala Thr Val Lys 330 325 Gln Asn Ser Asp Asn Ala Arg Gln Ala Thr Leu Leu Ala Lys Asn Ala

```
345
         340
Ser Glu Thr Ala Ala Arg Gly Gly Gln Val Val Asp Asn Val Val Arg
                   360
     355
                           365
Thr Met Asn Asp Ile Ala Asp Ser Ser Gln Gln Ile Ala His Ile Thr
   370
            375
                      380
Gly Val Ile Asp Ser Ile Ala Phe Gln Thr Asn Ile Leu Ala Leu Asn
             390 395 400
Ala Ala Val Glu Ala Ala Arg Ala Gly Glu Gln Gly Arg Gly Phe Ala
           405
               410 415
Val Val Ala Gly Glu Val Arg Thr Leu Ala Ser Arg Ser Ala Gln Ala
        420
            425 430
Ala Lys Glu Ile Lys Gly Leu Ile Glu Asn Ser Val Ser Arg Val Asn
         440
    435
Thr Gly Ser Glu Gln Val Ser Glu Ala Gly Ala Thr Met Lys Glu Ile
  450 455 460
Val Ala Ala Val Thr Arg Val Thr Asp Ile Met Ala Glu Ile Ser Ser
    470 475
Ala Ser Asp Glu Gln Ser Arg Gly Ile Glu Gln Val Ser Leu Ala Val
      485 490
Ser Gln Met Asp Ser Val Thr Gln Gln Asn Ala Ala Leu Val Gln Glu
   500
                      505 510
Ser Ala Thr Ala Ala Ala Ala Leu Glu Asp Gin Ser Glu Gln Leu Arg
515 520
                                  525
Gln Ala Val Ala Ala Phe Arg Leu Asn Ala Gin Ala Ser Pro Ala Ala
530 535 540
Arg Pro Lys Asn Val Lys Thr Pro Val Leu Leu Arg Pro Ser Ala Ala
545 550 555
Gly Ala Asn Thr Ala Asp Ala Asn Trp Glu Thr Phe
```

<210> 7201 <211> 449

<212> PRT <213> Enterobacter cloacae

<400> 7201 Ser Ser Ser His Ile Leu Met Met Thr Gly Lys Asp Met Asn Ala Leu 1.0 Ala Gln Tyr Ile Gln Thr Leu Ala Pro Gln Leu Ser Ala Trp Arg Arg 20 25 Asp Phe His His Phe Ala Glu Ser Gly Trp Val Glu Phe Arg Thr Ala 40 Ala Lys Val Ala Glu Ile Leu Ala Ser Leu Gly Tyr Glu Leu Ala Met 50 5.5 60 Gly Arg Asp Val Val Asp Ala Glu Ser Arg Met Gly Leu Pro Asp Asp 7.0 75 Ala Thr Leu Ser Arg Glu Phe Ala Arg Ala Arg Ala Gln Gly Ala Pro 85 90 Glu Lys Trp Leu Ala Pro Phe Glu Gly Gly Phe Thr Gly Ile Val Ala 100 105 110 Thr Leu Asn Thr Gly Arg Pro Gly Pro Thr Leu Ala Phe Arg Val Asp 115 120 125 Met Asp Ala Leu Asp Leu Ser Glu Ala Leu Asp Asp Ser His Arg Pro 130 135 140 Phe Arg Asp Gly Phe Ala Ser Cys Asn Pro Gly Met Met His Ala Cys 150 155 Gly His Asp Gly His Thr Thr Ile Gly Leu Gly Leu Ala Gln Val Leu 165 170 Lys Gln His Glu Ala Gln Leu Asn Gly Thr Ile Lys Leu Ile Phe Gln 180 185 Pro Ala Glu Glu Gly Thr Arg Gly Ala Arg Ala Met Val Ala Ala Gly

200 Ala Leu Asp Gly Val Asp Tyr Phe Thr Ala Ile His Ile Gly Thr Gly 215 220 Val Pro Glu Gly Thr Val Ile Cys Gly Ser Asp Asn Phe Met Ala Thr 230 235 240 Thr Lys Phe Asp Val Arg Phe Thr Gly Val Ala Ala His Ala Gly Gly 245 250 255 Lys Pro Glu Glu Gly Arg Asn Ala Leu Leu Ala Ala Ala Gln Ala Ala 260 265 270 Ile Ala Leu His Gly Ile Ala Pro His Ser Glu Gly Ala Ser Arg Val 275 280 285 Asn Val Gly Val Met Gln Ala Gly Ser Gly Arg Asn Val Val Pro Ala 290 295 300 Asp Ala Leu Leu Lys Val Glu Thr Arg Gly Glu Ser Glu Ala Ile Asn 310 315 Gln Tyr Val Phe Glu Arg Ala Gln Ala Val Ile Thr Gly Ala Ala Ala 325 330 335 Leu Tyr Gly Val Thr Thr Gly Ile Asn Leu Met Gly Ala Ala Thr Ser 340 345 350 Ser Val Pro Ser Pro Ala Trp Val Asp Tyr Leu Arg Glu Gln Ala Ser 355 360 365 Gln Val Pro Gly Val Thr His Ala Ile Asn Lys Val Lys Ala Pro Ala 370 375 380 Gly Ser Glu Asp Ala Thr Leu Met Met Ala Arg Val Gln Gln Asn Gly 385 390 395 400 Gly Met Ala Ser Tyr Met Val Phe Gly Thr Gln Leu Ser Ala Gly His 405 410 415 His Asn Glu Lys Phe Asp Phe Asp Glu Gln Val Met Asn Val Ala Ile 420 425 430 Glu Thr Leu Ala Arg Thr Ala Leu Asn Phe Pro Trp Thr Arg Gly Val 440

<210> 7202 <211> 333 <212> PRT

<213> Enterobacter cloacae

<400> 7202 Val Thr Leu Leu Thr Asp Cys Gly Asp Ser Ser Lys Glu Thr Cys Met Ala Lys Tyr Gln Asn Met Leu Val Ala Ile Asp Pro Asn Gln Asp 20 25 3.0 Asp Gln Pro Ala Leu Arg Arg Ala Val Tyr Leu His Gln Arg Ile Gly 35 40 Gly Lys Ile Lys Ala Phe Leu Pro Ile Tyr Asp Phe Ser Tyr Glu Met 50 55 60 Thr Thr Leu Leu Ser Pro Asp Glu Arg Thr Ala Met Arg Gln Gly Val 65 70 7.5 Ile Ser Gln Arg Thr Ala Trp Ile Arg Glu Gln Ala Lys Tyr Tyr Leu 90 Glu Ala Gly Val Pro Ile Asp Ile Lys Val Val Trp His Asn Arg Pro 100 105 Phe Glu Ala Ile Ile Gln Glu Val Val Ala Gly Gly His Asp Leu Leu 115 120 125 Leu Lys Met Ala His Gln His Asp Lys Leu Glu Ser Val Ile Phe Thr 130 135 140 Pro Thr Asp Trp His Leu Leu Arg Lys Cys Pro Cys Pro Val Trp Met 150 Val Lys Asp Gln Pro Trp Pro Glu Gly Gly Lys Ala Val Val Ala Val

```
165
Asn Leu Ala Ser Glu Glu Asp Tyr His Asn Ser Leu Asn Glu Lys Leu
         180
                         185
                                         190
Val Lys Glu Thr Leu Gln Leu Ala Asp Gln Val Asn His Thr Glu Val
     195
                   200
                                    205
His Leu Val Gly Ala Tyr Pro Val Thr Pro Ile Asn Ile Ala Ile Glu
            215
                             220
Leu Pro Glu Phe Asp Pro Ser Val Tyr Asn Asp Ala Ile Arg Gly Gln
      230
                      235
His Leu Leu Ala Met Lys Ala Leu Arg Gln Lys Phe Ser Ile Asp Glu 245 250 255
Asn Met Thr His Val Glu Lys Gly Leu Pro Glu Glu Val Ile Pro Asp
        260
             265 270
Leu Ala Glu His Leu Gln Ala Gly Ile Val Val Leu Gly Thr Ile Gly
    275 280
                          285
Arg Thr Gly Ile Ser Ala Ala Phe Leu Gly Asn Thr Ala Glu Gln Val
 290 295 300
Ile Asp His Leu Arg Cys Asp Leu Leu Val Ile Lys Pro Asp Gln Tyr
305 310 315
Gln Thr Pro Val Glu Leu Asp Asp Glu Glu Asp Asp
            325
<210> 7203
<211> 432
<212> PRT
<213> Enterobacter cloacae
<400> 7203
Lys Arg Asn His Leu Gly Ile Ala Gly Leu Ala Ile Ala Leu Ile Ala
      5
                           10
Thr Ile Phe Gly Pro Asp Pro Gly Asn Val Ala Trp Ile Leu Val Ala
 20
                         25
Met Ile Ile Gly Gly Ala Ile Gly Ile Arg Leu Ala Lys Arg Val Glu
35
                     40
Met Thr Glu Met Pro Glu Leu Val Ala Ile Leu His Ser Phe Val Gly
50 55
                                  60
Leu Ala Ala Val Leu Val Gly Phe Asn Ser Tyr Leu Tyr His Glu Pro
             70
                            75
Gly Leu Glu Pro Ile Leu Val Asn Ile His Leu Thr Glu Val Phe Leu
            85
                            90
Gly Ile Phe Ile Gly Ala Val Thr Phe Thr Gly Ser Ile Val Ala Phe
        100 105
                                       110
Gly Lys Leu Arg Gly Lys Ile Ser Ser Lys Pro Leu Met Leu Pro Asn
                     120 125
Arg His Lys Leu Asn Leu Ala Ala Leu Val Val Ser Phe Val Leu Leu
  130 135
                                   140
Val Val Phe Val Arg Thr Glu Ser Val Gly Leu Gln Val Leu Ala Leu
               150
                               155
                                                160
Leu Val Met Thr Ile Ile Ala Leu Ala Phe Gly Trp His Leu Val Ala
            165
                            170
                                           175
Ser Ile Gly Gly Ala Asp Met Pro Val Val Val Ser Met Leu Asn Ser
                      185
                                         190
Tyr Ser Gly Trp Ala Ala Ala Ala Ala Gly Phe Met Leu Ser Asn Asp
```

200 Leu Leu Ile Val Thr Gly Ala Leu Val Gly Ser Ser Gly Ala Ile Leu 215

245

Ser Tyr Ile Met Cys Lys Ala Met Asn Arg Ser Phe Ile Ser Val Ile 230

Ala Gly Gly Phe Gly Ser Asp Gly Ser Ser Thr Gly Ser Asp Glu Glu

220

235

250 Val Gly Glu His Arg Glu Ile Ser Ala Glu Asp Thr Ala Glu Met Leu

```
265
Lys Asn Ser His Ser Val Ile Ile Thr Pro Gly Tyr Gly Met Ala Val
                     280
                                    285
Ala Gln Ala Gln Tyr Pro Val Ala Glu Ile Thr Glu Lys Leu Arg Ala
                295
                                  300
Arg Gly Ile Lys Val Arg Phe Gly Ile His Pro Val Ala Gly Arg Leu
             310
                              315
Pro Gly His Met Asn Val Leu Leu Ala Glu Ala Lys Val Pro Tyr Asp
            325 330 335
Ile Val Leu Glu Met Asp Glu Ile Asn Asp Asp Phe Ala Asp Thr Asp
         340
                      345 350
Thr Val Leu Val Ile Gly Ala Asn Asp Thr Val Asn Pro Ala Ala Gln
      355
                          365
                     360
Asp Asp Pro Arg Ser Pro Ile Ala Gly Met Pro Val Leu Glu Val Tro
  370
               375 380
Lys Ala Gln Asn Val Ile Val Phe Lys Arg Ser Met Asn Thr Gly Tyr
       390 395 400
Ala Gly Val Gln Asn Pro Leu Phe Phe Lys Asp Asn Thr His Met Leu
       405 410 415
Phe Gly Asp Ala Lys Ala Ser Val Asp Ala Ile Leu Lys Ala Leu
       420 425 430
<210> 7204
<211> 299
<212> PRT
<213> Enterobacter cloacae
<400> 7204
Ile Arg Ile Ile Phe Met Arg Lys Val Ser Met Ser Ser Ile Asp Lys
                     10
Ser Gly Thr Phe Thr Leu Gly Thr Arg Thr Val Lys Arg Phe Gly Tyr
 20
                      25
Gly Ala Met Gln Leu Ala Gly Pro Gly Val Phe Gly Pro Pro Lys Asp
35
                     4.0
                                   45
Lys Asn Ala Ala Leu Ala Val Leu Arg Glu Ala Val Ala Ser Gly Val
50 55
                                 60
Asn His Ile Asp Thr Ser Asp Phe Tyr Gly Pro His Val Thr Asn Gln
65 70
                         7.5
Leu Ile Cys Glu Ala Leu His Pro Tyr Arg Asp Asp Leu Thr Ile Val
          85
                           90
Thr Lys Ile Gly Ala Arg Arg Gly Glu Asp Ala Ser Trp Leu Pro Ala
        100 105
Phe Ser Ala Gln Glu Leu Thr Gln Ala Val His Asp Asn Leu Arg Asn
 115 120
                         125
Leu Lys Arg Asp Val Leu Asp Val Val Asn Leu Arg Ile Met Phe Ser
 130
                135
                                  140
Ala His Gly Pro Ala Glu Gly Ser Ile Ala Ala Pro Leu Ser Thr Leu
              150
                              155
                                           160
Ala Glu Leu Gln Gln Gln Gly Leu Val Arg His Ile Gly Leu Ser Asn
           165
                           170
                                        175
Val Thr Ala Ser Gln Val Ala Glu Ala Gln Lys Met Val Ser Val Val
        180
                        185
                                        190
Cys Val Gln Asn Met Tyr Asn Val Val Asn Arg Gly Asp Asp Val Leu
                    200
                                     205
Val Asp Ser Leu Ala Gln Gln Gly Ile Ala Trp Val Pro Phe Phe Pro
  210 215
                                 220
Leu Gly Gly Phe Thr Pro Leu Gln Ser Ser Gly Leu Gln Ala Val Ala
225 230
                              235
Asp Ser Leu Gly Ala Thr Pro Met Gln Val Ala Leu Ala Trp Leu Leu
          245
                           250
Gln Arg Ser Pro Asn Ile Leu Leu Ile Pro Gly Thr Ser Ser Val Ala
```

```
260
                          265
His Leu Arg Glu Asn Leu Ala Ala Val Asp Leu Val Leu Pro Pro Glu
    275
              280
Ala Leu Glu Thr Leu Asn Ser Leu Val Gly
   290
                   295
<210> 7205
<211> 410
<212> PRT
<213> Enterobacter cloacae
<400> 7205
Lys Arg Cys Asn Phe Ala His Pro Asp Lys Pro Pro Pro Gly Ala Val
                       10
Phe Leu Phe Leu Arg Pro Ala Phe Leu Leu Cys Leu Tyr Phe Thr Leu
       20
                         25
Cys Val Ile Arg Gly Gly Val Met Arg Phe Leu Ser Arg Phe Asp Ile
    35
               40
Ile Glu Leu Met Met Thr Pro Ser Phe Trp Ile Gly Val Ala Thr Val
 50 55
                                 60
Val Phe Val Thr Leu Leu Val Tyr Trp Leu Leu Thr Arg Leu Ile Ala
    70
Phe Val Lys Lys Gly Ile Thr Thr Trp Gly Asp Lys His Pro Ser Thr
    85 90
Asn Arg Met Arg Phe Ile Leu Thr Asp Met Leu Asn Arg Thr Ser Arg
 100
                         105
                                         110
Val Leu Leu Phe Val Val Ala Leu Leu Phe Ser Leu Arg Phe Val Asp
 115 120 125
Leu Pro Asp His Leu Phe Gly Thr Val Ser His Ala Trp Phe Leu Val
 130 135
                                   140
Phe Ala Ile Gln Val Ala Leu Trp Met Asp Gln Gly Val Val Ser Trp
145 150 155
Leu Arg His Val Met Leu Ala Pro Gly Ser His Lys Asn Pro Val Thr
       165 170 175
Leu Val Ile Thr Gly Leu Ile Leu Arg Aia Ile Val Trp Ser Val Met
 180 185
                                         190
Leu Leu Ser Ile Leu Ala Asn Ala Gly Val Asn Ile Thr Ala Leu Val
 195
                      200
Ala Ser Leu Gly Val Gly Gly Ile Ala Ile Ala Leu Ala Val Gln Thr
 210
                   215
                                   220
Ile Leu Ser Asp Val Phe Ala Ser Leu Ser Ile Gly Phe Asp Lys Pro
225
    230
                               235
Phe Glu Ile Gly Asp Phe Val Val Phe Asn Asp Val Ala Gly Thr Val
           245
                            250
Glu His Ile Gly Leu Lys Thr Thr Arg Ile Arg Ser Leu Ser Gly Glu
         260
                          265
Gln Ile Val Cys Gly Asn Ala Ile Leu Leu Gln Gln Thr Leu His Asn
                      280
                                       285
Tyr Lys Arg Met Gln Thr Arg Arg Ile Val Phe Thr Phe Gly Val Ala
                   295
                                   300
Ser Asp Thr Ala Pro Glu Lys Leu Arg Ser Val Gly Glu Met Val Lys
               310
                                315
Gln Ile Ile Thr Asp Val Gly Glu Thr Lys Phe Asp Arg Ala His Phe
            325
                             330
Leu Gly Phe Asp Arg Asp Arg Leu Thr Phe Glu Val Val His Ile Val
         340
                         345
                                         350
Asn Thr Ala Asp Tyr Asn Lys Tyr Met Asp Ile Gln Gln Glu Ile Asn
     355
               360
                                    365
Ile Arg Ile Leu Glu Glu Leu Asn Gln Gln Glu Ile Lys Leu Ala Leu
                  375
                                  380
Pro Ser Met Val Leu His Ala Pro Trp Met Asn Ala Gly Asp Glu Ala
```

```
390
                              395
                                             400
Ser Ala Gln Arg Leu Ser Glu Ala Gln
            405
<210> 7206
<211> 309
<212> PRT
<213> Enterobacter cloacae
<400> 7206
Thr Thr Val Ile Gly Leu Val Met Ser Phe Gln Ile Lys Phe His Gln
                      10
Ile Arg Ala Phe Val Glu Val Ala Arg Gln Gly Ser Ile Arg Gly Ala
   20
                        25
Ser Arg Thr Leu Asn Leu Ser Gln Pro Ala Leu Thr Lys Ser Ile Lys
                   40
                         45
Glu Leu Glu Glu Gly Met Ala Ala Gln Leu Phe Val Arg Arg Ser Lys
              55
                        60
Gly Val Ala Leu Thr Glu Cys Gly Glu Gly Phe Tyr His Arg Ala Asn
   70
                              7.5
Leu Ile Leu Glu Glu Leu Arg Ala Ala Gin Asp Asp Ile Arg Gln Arg
      85
                           90
Gln Gly Glu Leu Ala Gly Gln Ile Asn Ile Gly Met Gly Ala Ser Ile
 100
                        105
                                       110
Ser Arg Ser Leu Met Pro Ala Val Ile Thr Arg Phe His Ala Gln His
115 120 125
Pro Gln Val Asn Val Arg Ile Met Glu Gly Gln Leu Val Ser Met Ile
130
                 135 140
Asn Glu Leu Arg Gln Gly Glu Leu Asp Phe Thr Ile Asn Thr Tyr Tyr
   150 155
                                              160
Gln Gly Pro Tyr Asp His Glu Phe Thr Phe Glu Lys Leu Phe Glu Lys
          165
                           170 175
Pro Phe Ala Val Phe Cys Arg Ala Gly His Pro Ala Thr Gly Ala Thr
 180
                        185
                            190
Ser Ile Asn Glu Leu Leu Gln Tyr Asn Trp Thr Met Pro Thr Pro Arg
 195
                     200 205
Gly Ser Tyr Tyr Lys Gln Leu Gln Asp Thr Phe Asn His Arg Ser Gln
                 215 220
Ile Pro Arg Ile Gly Val Val Cys Glu Thr Pne Ser Ser Cys Ile Ser
              230
                              235
Leu Val Ala Gln Ser Asp Phe Ile Ser Ile Leu Pro Gln Glu Leu Gly
           245
                          250
                                           255
Cys Asp Pro Leu Leu Ala His Arg Leu Ile Met Leu Pro Val Val Glu
    260
                        265
                                       270
Thr Leu Pro Lys Ala Ala Tyr Tyr Leu Ile Gln Arg Arg Asp Ser Arg
   275 280
                                    285
Gln Thr Pro Leu Ala Glu Ser Leu Ile Thr Gln Phe Arg Arg Glu Ala
 290
                 295
                                 300
Arg Lvs Leu Ile
305
<210> 7207
<211> 217
<212> PRT
<213> Enterobacter cloacae
<400> 7207
Ala Ile Ile Cys Thr Arg Ala Arg Met Ile Glu Thr Arg Asn Gly Arg
                      10
Arg Tyr Ser Thr Ser Leu Arg Cys Ser Arg Arg Ile Ser Met Asn Pro
                        25
```

Asp Asp Lys Ser Leu Phe Leu Asp Ala Met Glu Asp Val Gln Pro Leu 4.0 Lys Arg Cys Ala Asp Ile His Trp Gln Gln Ser Arg Asn Thr Arg Ala Arg Gln Glu Ile Asp Thr Glu Gln Leu Asp Asn Phe Leu Thr Leu Gly 70 75 Phe Leu Glu Leu Leu Pro Leu Asp Glu Pro Leu Met Phe Gln Arg Glu 8.5 90 Gly Val Gln Gln Gly Val Phe Asp Lys Leu Arg Ser Gly Lys Tyr Ser 100 105 Arg Gln Ala Ser Leu Thr Leu Leu Arg Gln Pro Ala Glu Gln Cys Arg 115 120 125 Gln Leu Val Tyr Ser Phe Ile Arg Gln Ala Gly Arg Asp Gly Leu Arg 135 140 Asn Leu Ile Ile Val His Gly Lys Gly Arg Glu Gln Gln Ser His Pro 145 150 155 160 Asn Val Val Arg Ser Tyr Leu Ala Arg Trp Leu Thr Glu Phe Asp Glu 165 170 175 Val Gln Ala Phe Cys Glu Ala Gln Pro His His Gly Gly Ser Gly Ala 180 185 190 Cys Tyr Val Ser Leu Arg Lys Ser Glu Asp Ala Lys Arg Asp Asn Trp 195 200 Glu Arg His Ala Lys Arg Ser Arg 210

<210> 7208 <211> 470 <212> PRT

<213> Enterobacter cloacae

<400> 7208 Ile Met Thr Leu Thr Ser Arg Trp Pro Ala Val Leu Gln Ala Val Met 10 Gln Gly Gln Pro Arg Ala Leu Ala Asp Ser His Tyr Pro Gln Trp His 20 25 Pro Ala Pro Val Thr Gly Leu Met Asn Asp Pro Asn Gly Phe Ile Trp 35 40 45 Phe Ala Gly Arg Tyr His Leu Phe Tyr Gln Trp Asn Pro Leu Gly Cys 55 Asn His Arg Tyr Lys Cys Trp Gly His Trp Ser Ser Ala Asp Leu Val 70 75 His Trp Gln His Glu Pro Met Ala Leu Met Pro Asp Glu Glu Tyr Asp 90 Arg Asn Gly Cys Tyr Ser Gly Ser Ala Val Asp Asn Asn Gly Val Leu 100 105 110 Thr Leu Cys Tyr Thr Gly Asn Val Lys Phe Asp Asp Gly Gly Arg Thr 115 120 125 Ala Trp Gln Cys Leu Ala Val Gin Asn Asp Asp Gly Thr Phe Ala Lys 130 135 140 Leu Gly Pro Val Leu Pro Leu Pro Asp Gly Tyr Thr Gly His Val Arg 150 155 160 Asp Pro Lys Val Trp Arg His Asp Gly Leu Trp Tyr Met Val Leu Gly 165 175 Ala Gln Asp Arg His Lys Arg Gly Lys Val Leu Leu Phe Thr Ser Ala 180 185 Asp Leu His Thr Trp Ala Ser Cys Gly Glu Ile Ala Gly His Gly Val 195 200 205 Asn Gly Leu Thr Asp Ala Gly Tyr Met Trp Glu Cys Pro Asp Leu Phe 210 215 220 Glu Leu Asp Gly Thr His Val Leu Ile Tyr Cys Pro Gln Gly Leu Ala 230 235

```
Arg Glu Pro His Arg Tyr Leu Asn Thr Tyr Pro Ala Val Trp Met Ser
                250
         245
Gly Ala Phe Asp Tyr Gln Thr Pro Ala Phe Thr His Gly Glu Leu His
        260
                     265
Glu Leu Asp Ala Gly Phe Glu Phe Tyr Ala Pro Gln Thr Thr Val Ala
                  280
                                     285
Glu Asp Gly Arg Arg Ile Leu Ile Gly Trp Met Gly Val Pro Asp Gly
                  295
 290
                                  300
Glu Glu Met Leu Gln Pro Thr Arg Ala His Gly Trp Ile His Gln Met
               310
                              315
Thr Cys Pro Arg Glu Leu Arg Tyr Arg Asp Gly Lys Leu Trp Gln Thr
            325
                         330
Pro Val Arg Glu Leu Glu Thr Leu Arg Glu Asp Glu His His Trp Gln
                        345 350
        340
Gly Arg Ala Ser Asp Ala Pro Val Leu Ala Gly Ala Arg Leu Glu Phe
                     360
    355
                          365
Glu Leu Ser Ala Ser Cys Val Asn Val Asp Phe Ala Gly Ala Leu Arg
       375 380
Leu Ile Val Asp Asp Ala Gly Ile Arg Leu Glu Arg Ala Ser Leu Lys
   390 395
Thr Ala Asp Thr Leu Thr Arg Tyr Trp Gln Gly Thr Val His His Leu
         405 410 415
Arg Val Leu Cys Asp Arg Ser Ser Val Glu Ile Phe Ile Asn His Gly
       420 425 430
Glu Gly Val Met Ser Ser Arg Tyr Phe Pro Asp His Pro Ala Gln Val
435 44C 445
Arg Phe Glu Gly Ala Ser Asp Ile Thr Leu Arg Tyr Trp Ser Leu Arg
450 455
Ser Cys Met Ile Glu
465
```

<211> 534 <212> PRT <213> Enterobacter cloacae

<400> 7209

<210> 7209

Arg Leu Asp Ser Ala Asp Asn Gln Arg Glu Ile Ile Ser Leu Arg Cys 10 Val Met Ser Leu Lys Lys Ser Ser Leu Ile Ile Leu Phe Ser Leu Leu 20 25 Phe Phe Phe Val Ala Ser Thr Ile Thr Ser Val Gly Leu Ile Ile Lys 35 4.0 Ser Asn Thr Ser Leu Asp Asn Val Asn Lys Glu Ile Gln Val Val Leu 55 Ser Ile Ile Asp Pro Ile Asn His Ser Arg Thr Leu Arg Val Arg Val 70 7.5 Met Glu Tyr Val Lys Met Val Glu Ala Gly Asp Ala Thr Asp Pro Ser 85 90 Ala Lys Leu Ala Ser Val Lys Glu Ala Leu Thr Lys Ala Asp Ser Ala 100 105 110 Phe Ser Ala Phe Met Ala Ser Pro Arg Leu Glo Glu Glu Ala Pro Leu 115 120 Val Thr Ala Tyr Gln Glu Ala Trp Gln Asn Tyr Arg Asn Gln Gly Leu 130 135 140 Ala Pro Leu Ile Ala Ala Ala Ala Ala His Asp Val Ser Arg Phe Asn 145 150 155 Ala Leu Ile Pro Val Val Ser Gln Leu Asp Arg Gln Tyr Glu Ile Val 165 170

Leu Asp Gln Val Leu Ser Val His Gln Lys Tyr Ala Lys Thr Leu Asn 185

```
Glu Glu Ala Ser His Asp Phe Val Ser Gly Leu Val Ile Ile Ala Ser
  195
                    200
                                 205
Ile Ala Val Leu Phe Val Val Val Ile Phe Ala Val Ser Leu Leu Met
  210
               215
                                220
Lys Arg Val Val Phe Ala Pro Val Asn Leu Ala Arg Glu His Cys Arg
              230 235
Gln Ile Ala Ala Gly Lys Leu Asp Val Pro Val Pro Ile Lys Arg Asp
           245 250 255
Ser Gly Asn Glu Ile Asp His Leu Met Ser Ser Met Glu Gln Met Arg
            265 270
       260
Gln Ala Leu Leu Ser Thr Ile Ser Gln Val Arg Asp Ala Ser Gln Thr
     275 280 285
Val Thr His Ala Ala Gln Glu Ile Ala Ser Gly Asn Ile Asp Leu Ala
 290 295 300
Ser Arg Thr Glu Gln Gln Ala Ser Ala Leu Thr Gln Thr Ala Ala Ser
     310 315
305
Met Glu Glu Leu Ser Ala Thr Val Ala Asn Asn Thr Asp Asn Val Phe
          325 330 335
Gln Ala Gly Lys Leu Val Gln Asp Ala Val Lys Asn Ala His Thr Gly
 340
                       345 350
Glu Ala Val Thr Arg Glu Val Ile Glu Thr Met Ser Thr Ile Ala Ser
355 360
                                   365
Asn Ser Lys Arg Ile Glu Asp Ile Thr Ser Val Ile Asn Ser Ile Ala
                 375
                                380
Phe Gln Thr Asn Ile Leu Ala Leu Asn Ala Ala Val Glu Ala Ala Arg
              390
                            395
Ala Gly Ala Gln Gly Arg Gly Phe Ala Val Val Ala Ser Glu Val Arg
      405 410 415
Thr Leu Ala Gln Lys Ser Ala Val Ala Ala Lys Asp Ile Glu Ser Leu
 420
                      425
Ile Ala Gln Ser Val Ser Ser Val Lys Asn Gly Ala Glu Leu Val Asn
435
                   440
                          445
Arg Ser Gly Glu Val Ile Asp Ser Ile Ile Ser Ser Val Asn Lys Val
                455 460
His Met Leu Met Glu Gln Ile Ser Val Ala Ser Glu Glu Gln Ser Arg
             470
                           475 · 480
Gly Ile Gly Gln Val Gly Gln Ala Val Thr Glu Met Asp Gly Val Thr
          485
                          490 495
Gln Gln Asn Ala Ala Leu Val Gln Gln Ser Ala Ala Ala Ala Ser
        500 505 510
Leu Glu Glu Gln Ala Gln Gln Leu Ser Gln Ser Ile Ser Arg Phe Ser
 515
                   520
Leu Pro Ala Thr Ala
 530
```

<210> 7210 <211> 291 <212> PRT

<213> Enterobacter cloacae

<400> 7210

Glu Arg Val Ser Phe Gln Pro Arg Gly Glu Asp Leu Ala Gly Thr Gly 1 5 10 15 Gly Gly Val Tyr Asp Val Lys Trp Asn Asp Thr Leu Arg Ser Asn Phe Ser Leu Tyr Gly Arg Asn Phe Gly Ser Glu Glu Glu Ile Asp Asn Asn Asp 35 40 40 45 45 Val Gln Asn Tyr Ile Leu Ser Met Asn His Phe Ala Gly Pro Val Gln So 55 60 Met Met Val Ser Gly Leu Arg Ala Lys Asp Asn Asp Asp Arg Lys Asp  $\frac{1}{2}$ 

Ser Asn Gly Asp Pro Ile Lys Thr Asp Ala Ala Asn Asn Gly Val His 8.5 Ala Leu Val Gly Leu His Asn Glu Ser Phe Tyr Gly Leu Arg Glu Gly 100 105 Ser Ala Lys Thr Ala Leu Leu Tyr Gly His Gly Leu Gly Ala Glu Val 115 120 125 Lys Ser Ile Gly Ser Asp Gly Ala Leu Leu Ser Glu Ala Asp Thr Trp 140 130 135 Arg Phe Ala Ser Tyr Gly Val Thr Pro Leu Gly Gly Gly Trp His Ile 150 155 Ala Pro Ala Val Leu Ala Gln Ser Ser Lys Asp Arg Tyr Val Lys Gly 165 170 175 Asp Ser Tyr Glu Trp Val Thr Leu Asn Thr Arg Leu Ile Lys Glu Val 180 185 190 Thr Gln Asn Phe Ala Leu Ala Phe Glu Gly Ser Tyr Gln Tyr Met Asp 195 200 205 Leu Ser Pro Glu Gly Tyr Lys Asp Arg Asn Ala Val Asn Gly Ser Phe 210 215 220 Tyr Lys Leu Thr Phe Ala Pro Thr Leu Lys Ala Gly Lys Ile Gly Asp 225 230 235 240 Phe Phe Ser Arg Pro Glu Leu Arg Leu Phe Ala Thr Trp Met Asp Trp 245 250 255 Ser Asn Lys Leu Asp Asn Tyr Ala Ser Asp Asp Ala Phe Gly Ser Thr 260 265 270 Gly Phe Asn Ala Gly Gly Glu Trp Asn Phe Gly Val Gln Met Glu Thr 280

Trp Phe 290

<210> 7211 <211> 479 <212> PRT

<213> Enterobacter cloacae

<400> 7211

Pro Phe Thr Leu Pro His Arg Gly Gly Val Ser Asn Thr Ile Lys Arg Gly Gln Glu Glu Val Ser Met Asp Phe Asn His Ile Ala Arg Glu Leu 25 Ile Pro Leu Leu Gly Gly Lys Glu Asn Ile Ala Ser Ala Ala His Cys Ala Thr Arg Leu Arg Leu Val Leu Val Asp Asp Ala Leu Ala Asp Gln 55 Gln Ala Ile Gly Lys Val Glu Gly Val Lys Gly Cys Phe Arg Asn Ala 65 70 Gly Gln Met Gln Val Ile Phe Gly Thr Gly Val Val Asn Lys Val Tyr 85 90 Ala Ala Phe Ile Gln Ala Ala Gly Ile Ser Glu Ser Ser Lys Ser Glu 100 105 110 Ala Ala Asp Ile Ala Ala Arg Lys Leu Asn Pro Phe Gln Arg Ile Ala 115 120 125 Arg Leu Leu Ser Asn Ile Phe Val Pro Ile Ile Pro Ala Ile Val Ala 135 140 Ser Gly Leu Leu Met Gly Leu Leu Gly Met Val Lys Thr Tyr Gly Trp 145 150 155 Val Asn Pro Asp Asn Ala Leu Tyr Ile Met Leu Asp Met Cys Ser Ser 170 165 Ala Ala Phe Ile Ile Leu Pro Ile Leu Ile Gly Phe Thr Ala Ala Arg 190 180 185 Glu Phe Gly Gly Asn Pro Tyr Leu Gly Ala Thr Leu Gly Gly Ile Leu 200 205

```
Thr His Pro Ala Leu Thr Asn Ala Trp Gly Val Ala Ser Gly Phe His
 210
                           220
Thr Met Asn Phe Phe Gly Leu Glu Ile Ala Met Ile Gly Tyr Gln Gly
             230
                            235
Thr Val Phe Pro Val Leu Leu Ala Val Trp Phe Met Ser Ile Val Glu
           245
                 250 255
Lys Gln Leu Arg Arg Ala Ile Pro Asp Ala Leu Asp Leu Ile Leu Thr
                   265 270
        260
Pro Phe Leu Thr Val Ile Ile Ser Gly Phe Ile Ala Leu Leu Ile Ile
     275
                   280 285
Gly Pro Ala Gly Arg Ala Leu Gly Asp Gly Ile Ser Phe Ile Leu Ser
       295
                                300
Thr Leu Ile Ala His Ala Gly Trp Leu Ala Gly Leu Leu Phe Gly Gly
    310 315 320
Leu Tyr Ser Val Ile Val Ile Thr Gly Ile His His Ser Phe His Ala
          325 330 335
Ile Glu Ala Gly Leu Leu Gly Asn Pro Ser Ile Gly Val Asn Phe Leu
        340 345
Leu Pro Ile Trp Ala Met Ala Asn Val Ala Gln Gly Gly Ala Cys Leu
 355 360
                                    365
Ala Val Trp Phe Lys Thr Arg Asp Ala Lys Ile Lys Ala Ile Thr Leu
370 375
                                380
Pro Ser Ala Phe Ser Ala Met Leu Gly Ile Thr Glu Ala Ala Ile Phe
385 390
                             395
Gly Ile Asn Leu Arg Phe Val Lys Pro Phe Ile Ala Ala Leu Ile Gly
         405 410
Gly Ala Ala Gly Gly Ala Trp Val Val Ser Val His Val Tyr Met Thr
        420 425
                                     430
Ala Val Gly Leu Thr Ala Ile Pro Gly Met Ala Ile Val Gln Ala Ser
435
                    440
                                    445
Ser Leu Leu Asn Tyr Ile Ile Gly Met Val Ile Ala Phe Gly Val Ala
450
                 455
                                460
Phe Thr Val Ser Leu Leu Leu Lys Tyr Lys Thr Asp Ser Glu
              470
<210> 7212
<211> 341
<212> PRT
<213> Enterobacter cloacae
<400> 7212
```

Val Val Val Arg Lys Thr Lys Arg Val Thr Ile Lys Asp Ile Ala Glu 10 1.5 Leu Ala Gly Val Ser Lys Ala Thr Ala Ser Leu Val Leu Asn Gly Arg 20 25 3.0 Ser Lys Glu Leu Arg Val Ala Glu Glu Thr Arg Glu Arg Val Leu Ala 4.0 Ile Ala Lys Glu His His Tyr Gln Pro Ser Ile His Ala Arg Ser Leu 60 5.5 Arg Asp Asn Arg Ser His Thr Ile Gly Leu Val Val Pro Glu Ile Thr 70 75 Asn Tyr Gly Phe Ala Val Phe Ser His Glu Leu Glu Thr Leu Cys Arg 85 90 Glu Ala Gly Val Gln Leu Leu Ile Ser Cys Ser Asp Glu Asn Pro Gly 105 100 Gln Glu Thr Val Val Val Asn Asn Met Val Ala Arg Gln Val Asp Gly 120 Leu Ile Val Ala Ser Ser Met Leu Asn Asp Ala Asp Tyr Gln Lys Leu 135 140 Ser Glu Gln Leu Pro Val Val Leu Phe Asp Arg His Met Asn Asp Ser 150 155

Thr Leu Pro Leu Val Leu Thr Asp Ser Ile Thr Pro Thr Ala Thr Leu 165 170 Val Ala Asp Ile Ala Arg Lys His Pro Asp Glu Phe Tyr Phe Leu Gly 180 185 Gly Gln Pro Arg Leu Ser Pro Thr Arg Asp Arg Leu Glu Gly Phe Lys 200 195 205 Gln Gly Leu Arg Asp Ala Gly Val Glu Leu Arg Pro Glu Trp Ile Ile 215 220 His Gly Asn Tyr His Pro Ser Ser Gly Tyr Glu Met Phe Ala Glu Leu 230 235 240 Cys Ala Arg Leu Gly Arg Pro Pro Lys Ala Leu Phe Thr Ala Ala Cys 245 250 255 Gly Leu Leu Glu Gly Val Leu Arg Tyr Met Gly Gln His Asn Leu Leu 260 265 270 Gln Ser Asp Met Arg Leu Ala Ser Phe Asp Asp His Tyr Leu Tyr Asp 275 280 285 Ser Leu Thr Ile Pro Val Asp Thr Val Arg Gln Asp Asn Arg Gln Leu 290 295 300 Ala Trp His Cys Phe Asp Leu Ile Gly Lys Leu Ile Glu Gly Glu Thr 305 310 315 320 Pro Glu Pro Ile Gln Arg Lys Leu Asp Ala Thr Leu Gln Arg Arg Tyr 330 Lys Ala Val Glu

340

<210> 7213 <211> 279

<212> PRT <213> Enterobacter cloacae

<400> 7213 Ser Val Asp Arg Ala Ile Asn Phe Asp His Ser Glu Lys Gln Tyr Leu Arg Gly Val Val Met Leu Gln Arg Leu Ala Lys Lys Lys Val Leu Leu 20 25 30 Leu Ser Ala Leu Met Val Ser Gly Leu Val Arg Ala Glu Glu Ser Leu 35 40 Pro Asp Val Val Lys His Phe Ser Glu Gln Gln Asp Ile Lys Ile Ile 55 60 Lys Lys Ile Asp Ala Pro Gly Gly Ala Pro Ala Trp Leu Gly Gln Tyr 65 70 75 Gln Asp Met Gly Val Thr Leu Phe Leu Thr Pro Asp Gly Lys His Val 90 Val Ser Gly Tyr Leu Tyr Asp Glu Lys Gly Thr Asn Leu Ser Glu Ala 100 105 110 Phe Phe Gln Lys Glu Ile Tyr Ala Pro Met Gly Arg Glu Met Trp Lys 120 125 Lys Leu Asn Ala Ala His Pro Leu Lys Glu Gly Ala Glu Ser Ala Pro 130 135 140 Arg Lys Val Phe Val Phe Ala Asp Pro Phe Cys Pro Tyr Cys Lys Gln 145 150 155 Phe Trp Ala Glu Ala Gln Pro Trp Val Lys Ala Gly Lys Val Gln Leu 165 170 175 Asn Thr Leu Leu Val Ala Phe Leu Asn Pro Asn Ser Gly Arg Asn Ala 180 185 190 Ser Ala Ile Leu Asn Ala Lys Asp Pro Val Ser Ala Trp Lys Ala Tyr 205 195 200 Glu Leu Ser Gly Gly Lys Lys Leu Pro Lys Pro Glu Gly Ala Ala Ser 215 220 Arg Glu Thr Val Glu Ile Leu Gln Asn His Gln Thr Leu Met Asp Ser 230 235

3227 Leu Gly Ala Asn Ala Thr Pro Ala Ile Tyr Tyr Leu Asn Glu Gln Asn 245 250 Glu Leu Gln Gln Val Val Gly Met Pro Asp Ala Lys Gln Leu Glu Ala 260 265 Met Phe Gly Pro Lys Pro 275 <210> 7214 <211> 197 <212> PRT <213> Enterobacter cloacae

<400> 7214 Arg Cys Glu Ser Ala Gly Ser Arg Val Ser Asp Met Lys Ala Gly Glu 1.0 Ala Gly Glu Ser Leu Leu Ile Ser Ala Leu Asn Ala Cys Arg Arg Arg 20 2.5

Leu Lys Ala Phe Ile Arg Gly Arg Thr Ala Val Arg Asp Asp Val Asp 35 4.0

Asp Ile Leu Gln Glu Val Thr Trp Gln Leu Met Lys Val Glu Gln Pro 5.5

Val Glu Asn Val Ala Ala Trp Leu Phe Arg Ala Ala Arg Asn Glu Met 70 75 Ile Asp Arg Ala Arg Lys Lys His Glu Val Ser Leu Pro Gly Tyr Leu 8.5 90

9.5 Thr Ala Asp Asp Glu Asp Phe Pro Glu Gln Glu Ile Ala Glu Thr Leu 100 105 110

Phe Gly Val Pro Gln Thr Pro Glu Glu Glu Tyr Leu Asn Met Leu Leu 115 120

Trp Glu Glu Leu Gly Gln Ala Leu Ser Glu Leu Pro Pro Pro Gln Arg 130 135 140

Glu Val Phe Glu Lys Thr Glu Phe Glu Gly Tyr Ser Met Lys Val Leu 145 150 155 160

Ala Glu Glu Thr Gly Asp Ser Val Gln Ala Leu Leu Ser Arg Lys His 165 170 175 Lys Ala Val Arg Phe Leu Arg Ser Arg Leu Lys Asp Ile Tyr Glu Ala 180 185

Leu Thr Gly Gln 195

<210> 7215 <211> 298

<212> PRT

<213> Enterobacter cloacae

<400> 7215

Arg His Gly Met Gln Phe Arg Leu Met Arg Asn Phe Ile Val Val Ala 10 Glu Glu Leu His Met His Arg Ala Ala Glu Arg Leu Asn Met Ala Gln

30 Pro Ala Leu Ser Gln Gln Ile Lys Thr Leu Glu Asp Arg Leu Gly Val 4.0

Met Leu Phe Ser Arg Ala Asn Arg Arg Leu Thr Leu Thr Pro Ala Gly 5.5

Glu Ala Phe Leu Ser Lys Ala Arg Val Ala Ile Leu Met Thr Asp Gln 70 75

Ala Ile Leu Asp Ala Arg Gln Thr Ala Arg Gly Glu Gln Gly Val Leu 90 Asn Leu Gly Cys Val Ser Ser Ala Ile Phe Asp Ser Lys Leu Pro Ala

100 105 Ala Leu Arg Leu Leu His Glu Lys Trp Pro Ala Ile Ser Leu Ser Met

```
Met Thr Gly Asn Val Gln Thr Leu Tyr Thr Gly Val Gln Ser Asn Gln
   130
             135
Leu Asp Val Ala Ile Ile Arg Ala Pro Leu Pro Leu Pro Asp Asp
                       155
145
              150
Leu Gln Ser Arg Pro Phe Thr Thr Glu Lys Ala Val Leu Ala Leu Pro
            165
                    170 175
Arg Gln His Ser Leu Ala Gly Ser Ala Ala Leu Thr Leu Ala Ser Val
         180
              185 190
Lys Glu Glu Lys Trp Ile Ala Leu Arg Asp Pro Glu Gly Met Gly Leu
     195
          200 205
Glu Gln Tyr Phe Tyr Asp Ala Cys His Ser Ala Gly Ile Gln Pro Asp
  210
       215 220
Val Val Gln Asn Ala Thr Asp Val Pro Thr Val Ile Ser Leu Val Ser
225 230 235
Ala Gly Phe Gly Ile Ala Met Leu Pro Ala Ser Ala Lys Ala Ile Cys
       245 250 255
Val Gln Asn Val Val Phe Val Asp Ile Leu Asp Arg Leu Arg Glu Ser
   260 265 270
Glu Leu Thr Leu Val Cys His Arg Ile Ile Arg Ser Glu Val Leu Lys
 275 280
Lys Leu Met Ser Ile Leu Asp His Thr
 290
                  295
<210> 7216
<211> 516
<212> PRT
<213> Enterobacter cloacae
<400> 7216
Met Met Gln Leu Ile Ala Leu Pne Val Arg Leu Arg Met Asp Ala Phe
                          10
Ile Arg Gly Gly Lys Asn Met Glu Asn His Ile Asn Asp Leu Arg Ser
                        2.5
                                         3.0
Ala Ile Glu Leu Leu Lys Arg His Glu Gly Gln Tyr Leu Glu Thr Ser
          4.0
                                     45
His Pro Val Asp Pro Asp Ala Glu Leu Ala Gly Val Tyr Arg His Ile
 50 55
                                  60
Gly Ala Gly Gly Thr Val Lys Arg Pro Thr Arg Ile Gly Pro Ala Met
               70
                               75
                                             8.0
Met Phe Asn Ala Ile Lys Gly Tyr Pro Asp Ser Arg Ile Leu Val Gly
                            90
            85
Met His Ala Ser Arg Glu Arg Ala Ala Leu Leu Leu Gly Cys Asp Pro
         1.00
Ser Glu Leu Ala Lys His Val Gly Gln Ala Val Lys Asn Pro Ile Ala
    115
                     120
                                     125
Pro Val Val Val Pro Ala Ala Gln Ala Pro Cys Gln Glu Gln Val Phe
                  135
                                   140
Tyr Ala Asp Asn Pro Asp Phe Asp Leu Arg Lys Leu Leu Pro Ala Pro
               150
                               155
Thr Asn Thr Pro Ile Asp Ala Gly Pro Phe Phe Cys Leu Gly Leu Val
            165
                            170
                                            175
Leu Ala Ser Asp Pro Glu Asp Ala Ser Leu Thr Asp Val Thr Ile His
         180 185
                             190
Arg Leu Cys Val Gln Glu Arg Asp Glu Leu Ser Met Phe Leu Ala Ala
     195
                      200
                          205
Gly Arg His Ile Glu Val Phe Arg Lys Lys Ala Glu Glu Ala Gly Lys
  210
                  215
                                  220
Pro Leu Pro Val Thr Ile Asn Met Gly Leu Asp Pro Ala Ile Tyr Ile
               230
                            235
Gly Ala Cys Phe Glu Ala Pro Thr Thr Pro Phe Gly Tyr Asn Glu Leu
```

```
245
                               250
Gly Val Ala Gly Ala Leu Arg Gln Thr Pro Val Glu Leu Val Gln Gly
          260
                    265 270
Val Ala Val Asn Glu Lys Ala Ile Ala Arg Ala Glu Ile Ile Ile Glu
    275
                  280
                             285
Gly Glu Leu Leu Pro Gly Val Arg Val Glu Glu Asp Gln His Thr His
   290 295 300
Thr Gly His Ala Met Pro Glu Phe Pro Gly Tyr Cys Gly Glu Ala Asn
    310 315
Pro Ser Leu Pro Val Ile Lys Val Lys Ala Val Thr Met Arg His Gln
          325 330
Ala Ile Leu Gln Thr Leu Val Gly Pro Gly Glu Glu His Thr Thr Leu
         340 345
Ala Gly Leu Pro Thr Glu Ala Ser Ile Arg Asn Ala Val Glu Glu Ala
     355 360
                                        365
Ile Pro Gly Phe Leu Gln Asn Val Tyr Ala His Thr Ala Gly Gly Gly
  370 375
                           380
Lys Phe Leu Gly Val Leu Gln Val Lys Lys Arg Gln Pro Ser Asp Glu
385 390 395
Gly Arg Gln Gly Gln Ala Ala Leu Ile Ala Leu Ala Thr Tyr Ser Glu
                              410
Leu Lys Asn Ile Ile Leu Val Asp Giu Asp Val Asp Ile Phe Asp Ser
    420
                          425
                                           430
Asp Asp Ile Leu Trp Ala Met Thr Thr Arg Met Gln Gly Asp Val Ser
                       440
                                        445
Ile Thr His Leu Pro Gly Ile Arg Gly His Gln Leu Asp Pro Ser Gln
                   455
                                     460
Ala Pro Asp Tyr Ser Pro Ser Ile Arg Gly Asn Gly Ile Thr Cys Lys
               470
                                 475
Thr Ile Phe Asp Cys Thr Val Pro Trp Ala Leu Lys Ser Arg Phe Glu
            485
                             490
Arg Ala Pro Phe Met Glu Val Asp Pro Thr Pro Trp Ala Pro Glu Leu
                           505
Phe Lys Lys
      515
<210> 7217
<211> 369
<212> PRT
<213> Enterobacter cloacae
<400> 7217
Arg Arg Tyr Arg Arg Ala Val Lys His Pro Leu Arg Pro Ile His Ser
Met Asp Arg Ser His Ser Leu Pro Gly Gly Ser Gln Lys Ser Gln Leu
         20
                                            30
Asn Tyr Asp Glu Leu Thr Ile Glu Glu Pro Ile Met Phe Thr Val Lys
                       40
Lys Leu Ala Ile Ser Thr Leu Leu Ala Gly Ser Val Leu Phe Phe Pro
                    55
Ala Ile His Ala Val Ala Ser Val Pro Gln His Val Val Lys Gln Gln
                70
                                 75
Ala Gly Gly Tyr Ser Val Gln Val Gly Asp Thr Ile Val Thr Ala Phe
             85
                              90
Thr Asp Gly Ser Val Pro Gln Asp Leu His Ala Leu Leu Arg Arg Thr
         100
                                 110
Thr Ala Glu Asn Thr Asp Ala Leu Leu Ala Lys Asn Phe Gln Ala Asn
     115
                    120
Pro Val Glu Ala Ser Ile Asn Ala Phe Tyr Ile Ala Ile Pro Gly His
                 135
```

Lys Ile Leu Val Asp Thr Gly Ser Gly Gln Leu Phe Gly Pro Gly Lys

```
150
                             155
Gly Gly Arg Leu Ile Glu Ser Leu Ala Thr Gln Gly Ile Lys Pro Glu
         165
                     170
Asp Ile Thr Asp Ile Leu Ile Thr His Ala His Ser Asp His Ala Gly
         180
               185 190
Gly Leu Val Lys Asp Gly Gln Arg Val Phe Thr Arg Ala Gln Val Tyr
     195
          200 205
Val Gly Lys Pro Asp Ile Asp Phe Phe Phe Asn Asp Glu Asn Gln Lys
        215 220
Lys Ser Gly Tyr Asp Gln Asn Tyr Phe Asp Val Ala His Lys Thr Leu
       230 235 240
Lys Pro Tyr Leu Asp Ala Gly Lys Val Thr Thr Phe Ser Gly Thr Glu
          245 250 255
Gln Leu Leu Pro Gly Ile Ser Gly Thr Val His Pro Gly His Thr Pro
      260 265 270
Gly Ser Ala Phe Tyr Thr Leu Glu Ser Lys Gly Glu Lys Met Thr Phe 275 \\ 280 \\ 285
Val Gly Asp Ile Ile His Val Ala Ala Val Gln Phe Pro Gln Pro Asn
290 295 300
Val Thr Ile Ala Tyr Asp Glu Asp Gln Asp Gly Ala Ala Arg Val Arg
305 310 315
Asn Ala Ala Phe Ala Glu Phe Val Lys Asn Lys Ala Leu Ile Ala Ala
325 330 335
Pro His Leu Pro Phe Pro Gly Ile Gly Tyr Val Thr Lys Gly Glu Arg
340 345 350
Asp Gly Tyr Ala Trp Val Pro Val Thr Tyr Thr Asn Arg Asp Ala Lys
     355
                                   365
```

```
<210> 7218
<211> 123
<212> PRT
<213> Enterobacter cloacae
```

<400> 7218 Arg His Leu Gln Glu Gly Ala Val Ile Ile Asn Thr Thr Ser Val Gln 1.0 Ala Phe Lys Pro Ser Ala Ile Leu Val Asp Tyr Ala Gln Thr Lys Ala 25 30 Cys Asn Val Ala Phe Thr Lys Ser Leu Ala Gln Gln Leu Gly Pro Arg 40 4.5 Gly Ile Arg Val Asn Ala Val Ala Pro Gly Pro Tyr Trp Thr Pro Leu 50 55 60 Gln Ser Ser Gly Gly Gln Pro Gln Ser Lys Val Gln Lys Phe Gly Glu 7.0 Asp Thr Pro Leu Gly Arg Pro Gly Gln Pro Val Glu Ile Ala Pro Leu 85 90 95 Tyr Val Leu Phe Ala Ser Asp Thr Cys Ser Tyr Ala Ser Gly Gln Val 100 105 Trp Cys Ser Asp Gly Gly Thr Giy Val Leu 115

```
<210> 7219
<211> 312
<212> PRT
```

<213> Enterobacter cloacae

<400> 7219

Pro Ile Pro Thr Val Thr Gln Asn Lys Met Ser Pro Ser Asp Met Asp  $1 \ \ \,$  10

Met Asp Leu Ile Leu Thr Leu Asp Ala Leu Leu Arg Asp Gln Asn Ile 25 Thr His Ala Ala Ala Arg Leu Gly Ile Ser Gln Pro Ala Met Ser Ala Arg Leu Ala Arg Leu Arg Val Leu Phe Gly Glu Pro Leu Phe Val Pro 55 60 Ser Pro His Gly Arg Gly Val Leu Pro Thr Pro Arg Ala Glu Ala Leu 70 7.5 Arg Pro Gln Val Ala Thr Val Leu Gln Gly Ile Ser Ala Met Leu Glu 85 90 95 Pro Thr Thr Phe Asn Ala Gln Asn Ser Asn Arg Thr Phe Val Ile Ala 100 105 110 Leu His Glu Asn Pro Ala Leu Met Leu Gly Ala Glu Leu Gln Asn Gln 115 120 125 Ile Ser Ser Ala Ala Pro Gly Ile Arg Leu Arg Phe Ala Leu Pro Glu 130 135 Thr Gln Leu Leu Pro Ala Gln Met Glu Asn Gly Asp Val Asp Ile Tyr 145 150 155 Val Gly Val Asn Ala Val Ala His Asp Ala Trp Val Arg Arg Lys Leu 165 170 Phe Asp Asp Glu Tyr Ala Thr Ala Gln Arg Lys Gly His Pro Arg Gly 180 185 190 Thr Gly Pro Met Asp Leu Asp Ser Tyr Cys Ser Leu Ser His Leu Val 195 200 205 Val Ser Ser Glu Gly Asp Pro Phe Ala Gly Phe Val Asp Gln His Leu 215 220 Ala Gly Leu Gly His Gln Arg Asn Val Val Met Ser Thr Gln Ser Tyr 225 230 235 Ala Met Ala Pro Ala IIe Val Ala Gly Thr Asp Leu Leu Cys Thr Leu 245 250 255 Pro Arg Arg Met Leu Leu Arg Phe Thr Gln Thr Leu Asp Ile Phe Pro 260 265 270 Pro Pro Leu Asp Leu Pro Pro Ile Val Ile Gly Met Tyr Trp His Pro 275 280 285 Lys Asn Ser Gln Asp Pro Ala Asn Arg Trp Leu Arg Glu Gln Leu Leu 290 295 300 Gln Ala Ala Gly Arg Gln Val

<210> 7220 <211> 478 <212> PRT

<213> Enterobacter cloacae

115

<400> 7220 Ser Ser Cys Ala Ala Pro His Gly Arg Gly Arg Lys Leu Lys Pro Ser 10 Thr Ser Thr Pro Phe Thr Met Thr Val Thr Gly Ser Arg Thr Asn Arg 2.0 25 Arg Leu Ile Pro Gly Arg Ile Ala Gly His Pro Gly Ala Asn Thr Gln 40 4.5 Met Met Arg His Val Lys Arg Thr Gly Ala Leu Leu Gly Cys Ala Leu 55 Leu Leu Val Ser Cys Thr Ser Lys Pro Pro Lys Ser Leu Val Thr Pro 70 75 Leu Pro Gln Ala Lys Pro Val Gln Gln Thr Asn Glu Pro Met Arg Gly 8.5 90 Ile Trp Leu Ala Thr Val Ser Arg Leu Asp Trp Pro Pro Val Ser Ser 105 110 Val Asn Gly Arg Ser Ala Asp Gln Arg Ile Ala Gln Gln Gln Arg Ala

```
Leu Thr Asp Lys Leu Asp Lys Leu Lys Asn Leu Gly Ile Asn Thr Val
130
           135 140
Phe Phe Gln Val Lys Pro Asp Ser Thr Ala Leu Trp Ala Ser Lys Ile
            150 155
Leu Pro Trp Ser Asp Thr Leu Thr Gly Thr Ile Gly Glu Asp Pro Gly
            165
                170 175
Tyr Asp Pro Leu Gln Phe Met Leu Asp Glu Ala His Lys Arg Gly Met
        180 185 190
Lys Val His Ala Trp Phe Asn Pro Tyr Arg Val Ser Thr Asn Thr Lys
     195
          200 205
Pro Ser Thr Ile Ala Ala Leu Asn Arg Thr Ser Ser Leu His Pro Ser
       215 220
Ser Val Tyr Val Leu His Pro Glu Trp Ile Arg Thr Ser Gly Asp Arg
225 230 235
Phe Val Leu Asp Pro Gly Ile Pro Glu Val Arg Asp Trp Ile Thr Gln
      245 250 255
Val Val Met Glu Val Val Asn His Tyr Pro Val Asp Gly Val Gln Phe
    260 265 270
Asp Asp Tyr Phe Tyr Thr Glu Thr Pro Gly Ser Pro Leu Asn Asp Ala
275 280 285
Trp Thr Phe Arg Arg Tyr Gly Glu Gly Phe Ser Ser Lys Ala Asp Trp 290 295 300
Arg Arg His Asn Thr Gln Gln Leu Ile Val Gln Val Ser Arg Ala Ile
305 310 315
Lys Gln Ala Lys Pro Glu Val Glu Phe Gly Val Ser Pro Ala Gly Val
   325 330 335
Trp Arg Asn Arg Ser Phe Asp Pro Ala Gly Ser Asp Thr Arg Gly Ala
 340 345 350
Ala Ala Tyr Asp Glu Ser Tyr Ala Asp Thr Arg Lys Trp Val Gln Gln 355 360 365
Gly Leu Leu Asp Tyr Ile Ala Pro Gln Ile Tyr Trp Pro Phe Ala Arg
370 375 380
Asp Ala Ala Arg Tyr Asp Val Leu Thr Lys Trp Trp Ala Asp Val Val 385 $390$
Lys Pro Thr His Thr Arg Leu Tyr Ile Gly Ile Ala Phe Tyr Lys Val
      405 410 415
Gly Ala Pro Ser Arg Asn Glu Pro Asp Trp Thr Val Asn Gly Gly Ile
     420 425 430
Pro Glu Leu Lys Lys Gln Leu Asp Leu Asn Asp Ser Leu Pro Asp Val
435 440 445
Lys Gly Thr Ile Leu Phe Arg Glu Asp Tyr Leu Asn Gln Pro Gln Thr
450 455 460
Gln Glu Ala Val Asn Tyr Leu Arg Gly Arg Trp Gly Ser
            470
<210> 7221
<211> 106
<212> PRT
<213> Enterobacter cloacae
<400> 7221
Leu His Gly Leu Pro Leu His Arg Tyr Gly His Phe Ser Arg His Pro
                           10
                                           15
Ala Pro Ala Tyr Arg Pro Gly Lys Arg Cys Arg Cys Tyr Ser Pro Pro
        20
                        25
Ser Arg Ser Ala Leu Pro Cys Trp Arg Pro Ser Gly Ser Gly Pro Lys
 3.5
                     40
Pro Val Ala Arg Tyr Gly Arg Pro Gly Arg Tyr Cys Arg Arg Gln Phe
                                60
Pro Ala Leu His Ala Ser Arg Phe Gly Trp His Arg Ala Pro Glu Lys
```

```
Trp Trp Arg Ala Ala Pro Gly Ala Ser Ala Pro Ser Arg Thr Ser Gly
              85
Asp Arg Phe His Ser Arg Asn His Ala
        100
<210> 7222
<211> 203
<212> PRT
<213> Enterobacter cloacae
<400> 7222
Gln Glu Leu Arg Lys Arg Ser Arg Ile Met Ala Val Gln Thr Lys Val
                                1.0
Val Arg Phe Phe Met Ala Gly Ala Val Ala Ile Ala Leu Ser Gly Cys
        20
                             25
Val Thr Val Pro Asp Ala Ile Lys Gly Thr Ser Pro Thr Pro Gln Gln
    35
                       40
Asp Leu Val Arg Val Met Asn Ala Pro Glu Leu Tyr Val Gly Gln Glu
                     55
Ala Arg Phe Gly Gly Lys Val Val Glu Val Leu Asn Gln Gln Gly Lys
                 7.0
                                    7.5
                                                       80
Thr Arg Leu Glu Ile Ala Thr Val Pro Leu Asp Asp Gly Ala Arg Pro
              85
                   90
Val Leu Gly Glu Ala Ser Arg Gly Arg Ile Tyr Ala Asp Val Ser Gly
         100 105 110
Phe Leu Asp Pro Val Asp Phe Arg Gly Gln Leu Val Thr Val Val Gly
                       120
                                  125
Pro Ile Thr Gly Ser Val Ala Gly Lys Ile Gly Asn Thr Pro Tyr Lys
                     135
                                         140
Phe Met Thr Met Gln Val Asn Gly Tyr Lys Arg Trp Arg Ile Ala Gln
                150
                                    155
Gln Val Val Met Pro Pro Gln Pro Ile Asp Pro Trp Met Trp Gly Pro
             165
                                170
                                                    175
His Pro Tyr Arg Tyr Gly Tyr Gly Gly Trp Gly Trp Tyr Asn Pro Gly
                       185
Pro Ala Gln Val Gln Thr Ile Val Thr Glu
<210> 7223
<211> 524
<212> PRT
<213> Enterobacter cloacae
<400> 7223
Gln Glu Arg Val Met Glu Phe Leu Met Asp Pro Ser Ile Trp Val Gly
                                                   15
Leu Leu Thr Leu Val Val Leu Glu Ile Val Leu Gly Ile Asp Asn Leu
                             25
Val Phe Ile Ala Ile Leu Ala Asp Lys Leu Pro Pro Lys Gln Arg Asp
                         40
Lys Ala Arg Leu Ile Gly Leu Ser Leu Ala Leu Ile Met Arg Leu Gly
                     55
Leu Leu Ser Val Ile Ser Trp Met Val Thr Leu Thr Lys Pro Leu Phe
                  70
                                     75
Thr Val Met Asp Phe Thr Phe Ser Gly Arg Asp Leu Ile Met Leu Val
             85
                                 90
                                                   95
Gly Gly Leu Phe Leu Leu Phe Lys Ala Thr Thr Glu Leu His Glu Arg
          100
                            105
Leu Glu Asn Arg Gln His Asp Asp Gly His Gly Lys Gly Tyr Ala Ser
      115
                         120
Phe Trp Val Val Leu Gln Ile Val Val Leu Asp Ala Val Phe Ser
```

```
135
Leu Asp Ala Val Ile Thr Ala Val Gly Met Val Asn His Leu Pro Val
           150
                     155
Met Met Ala Ala Val Val Ile Ala Met Ala Val Met Leu Leu Ala Ser
           165
                  170 175
Lys Pro Leu Thr Arg Phe Val Asn Gln His Pro Thr Val Val Leu
        180
            185 190
Cys Leu Ser Phe Leu Leu Met Ile Gly Leu Ser Leu Val Ala Glu Gly
         200 205
Phe Gly Phe His Ile Pro Lys Gly Tyr Leu Tyr Ala Ala Ile Gly Phe
  210 215 220
Ser Ile Leu Ile Glu Leu Phe Asn Gln Ile Ala Arg Arg Asn Phe Ile
   230 235
Lys Gln Gln Ser Asn Gln Pro Leu Arg Ala Arg Thr Ala Asp Ala Ile
     245 250
Leu Arg Leu Met Gly Gly Arg Arg Gln Val Asn Val Gln Ala Asp Asn
  260 265 270
Glu Asn Arg Asn Pro Val Pro Val Pro Glu Gly Ala Phe Val Glu Glu
 275 280 285
Glu Arg Tyr Met Ile Asn Gly Val Leu Ser Leu Ala Ser Arg Ser Leu
290 295 300
Arg Gly Ile Met Thr Pro Arg Gly Glu Ile Ser Trp Val Asp Ala Asn
305 310 315
Leu Ser Val Asp Glu Ile Arg Gln Gln Leu Leu Ser Ser Pro His Ser
      325 330 335
Leu Phe Pro Val Cys Arg Gly Glu Leu Asp Glu Ile Ile Gly Val Val
      340 345 350
Arg Ala Lys Glu Met Leu Val Ala Leu Glu Glu Gly Val Asn Val Glu
   355 360
                                  365
Ala Val Ala Ala Ala Ser Pro Ala Ile Val Val Pro Glu Thr Leu Asp
370 375
                               380
Pro Ile Asn Leu Leu Gly Val Leu Arg Arg Ala Arg Gly Ser Phe Val
385 390
                            395
Ile Val Thr Asn Glu Phe Gly Val Val Gln Gly Leu Val Thr Pro Leu
          405 410
Asp Val Leu Glu Ala Ile Ala Gly Glu Phe Pro Asp Ala Asp Glu Thr
       420 425
                                    430
Pro Glu Ile Val Ala Asp Gly Asp Gly Trp Leu Val Lys Gly Thr Thr
    435 440
                                445
Asp Leu His Ala Leu Ser His Thr Leu Gly Val Glu Asn Val Val Asn
 450 455 460
Asp Asp Glu Asp Ile Ala Thr Val Ala Gly Leu Val Ile Ser Val Asn
465 470 475
Gly Gln Ile Pro Arg Ile Gly Asp Val Leu Glu Leu Pro Pro Leu Gln
         485 490
                                       495
Ile Thr Ile Val Glu Ala Asn Asp Tyr Arg Val Asp Met Val Arg Ile
        500 505
Val Lys Glu His Ser Ala His Asp Glu Glu Glu
     515
                   520
<210> 7224
<211> 402
<212> PRT
<213> Enterobacter cloacae
```

<400> 7224

Gly Leu Ser Phe Thr Leu Ile Ala Gin Thr Pro Val Lys Pro Ala Phe 5 10 Phe Met Gly Ala Asn Lys Arg Glu Ser Asp Leu Asn Tyr Gln Met Ile 20

Thr Thr Asn Asp Glu Leu Ala Ser Leu Cys Glu Val Thr Arg Glu Phe

4.0 Pro Ala Ile Ala Leu Asp Thr Glu Phe Val Arg Thr Arg Thr Tyr Tyr 5.5 Pro Gln Leu Gly Leu Ile Gln Met Tyr Asp Gly Lys His Val Ser Leu 75 Ile Asp Pro Leu Gly Ile Thr Asp Trp Ala Pro Met Arg Glu Leu Leu 85 90 Leu Asp Thr Ala Val Thr Lys Tyr Leu His Ala Gly Ser Glu Asp Leu 100 105 110 Glu Val Phe Leu Asn Thr Phe Gly Ile Met Pro Gln Pro Leu Ile Asp 115 120 125 Thr Gln Ile Leu Ala Ala Phe Ser Gly Arg Pro Leu Ser Trp Gly Phe 135 140 Ala Ala Met Val Glu Glu Tyr Thr Gly Leu Thr Leu Asp Lys Ser Glu 145 150 155 Ser Arg Thr Asp Trp Leu Ala Arg Pro Leu Thr Ala Arg Gln Leu Glu 165 170 175 Tyr Ala Ala Ala Asp Val Phe Tyr Leu Leu Pro Ile Ala Gly Gln Leu 180 185 190 Met Lys Glu Ala Glu Ala Ser Gly Trp Leu Ser Ala Ala Leu Asp Glu 195 200 205 Cys Arg Met Thr Gln Gln Arg Arg Gln Glu Val Val Asp Pro Lys Glu 210 215 Ala Trp Arg Asp Ile Thr Asn Ala Trp Gln Leu Arg Thr Arg Gln Leu 225 230 235 Ala Cys Leu Gln Leu Leu Ala Asp Trp Arg Leu Arg Lys Ala Arg Glu 245 250 255 Arg Asp Leu Ala Val Asn Phe Val Val Arg Glu Glu His Leu Trp Ala 260 265 Val Ala Arg Tyr Met Pro Gly Ser Leu Gly Glu Leu Asp Ser Ile Gly 275 280 285 Leu Ser Gly Ser Glu Ile Arg Phe His Gly Lys Thr Leu Leu Ala Leu 290 295 300 Val Glu Lys Ala Gln Gln Leu Pro Glu Asp Ala Leu Pro Glu Pro Leu 305 310 315 320 Leu Asn Leu Met Asp Met Pro Gly Tyr Arg Lys Ala Phe Lys Asp Ile 325 330 Lys Ala Leu Val Gln Thr Val Ala Gly Glu Ser Lys Leu Ser Ala Glu 340 350 345 Leu Leu Ala Ser Arg Arg Gln Ile Asn Gln Leu Leu Asn Trp His Trp 360 365 Lys Leu Lys Pro Gln Asn Gly Leu Pro Glu Leu Val Ala Gly Trp Arg 370 375 380 Gly Glu Leu Met Ala Glu Arg Leu Asn Thr Leu Leu Glu Gly Tyr Pro 385 395

<210> 7225 <211> 65 <212> PRT <213> Enterobacter cloacae

Arq

<210> 7226

<211> 640 <212> PRT

<213> Enterobacter cloacae

<400> 7226

Glu Asn Thr Val Ala Asp Asp Phe Ser Pro Glu Gly Gln Leu Ala Gln 1 15 10 15 Ala Ile Pro Gly Phe Lys Pro Arg Glu Pro Gln Arg Gln Met Ala His

20 25 30 Ala Val Ala His Ala Ile Asp Lys Ala Gln Pro Leu Val Val Glu Ala

35 40 Gly Thr Gly Lys Thr Tyr Ala Tyr Leu Ala Pro Ala Leu Arg

50 55 60 Ala Lys Lys Val Ile Ile Ser Thr Gly Ser Lys Ala Leu Gln Asp

65 70 75 80 Gln Leu Tyr Ser Arg Asp Leu Pro Thr Val Ala Lys Ala Leu Lys Tyr

85 90 95 Lys Gly Arg Leu Ala Leu Leu Lys Gly Arg Ser Asn Tyr Leu Cys Leu

100 105 110 110 Slu Arg Leu Slu Slu Slu Ser Leu Se

Glu Arg Leu Glu Gln Gln Ala Leu Ala Gly Gly Asp Leu Pro Val Gln
115 120 125

Thr Leu Ser Asp Val Ile Val Leu Arg Ala Trp Ala Asn Gln Thr Glu
130 135 140

Glu Gly Asp Ile Ser Thr Cys Ala Ser Val Pro Glu Asp Ser Pro Ala 145 155 160 Trp Pro Leu Val Thr Ser Thr Asn Asp Asn Cys Leu Gly Ser Asp Cys

165 170 175 Pro Leu Tyr Lys Asp Cys Phe Val Val Lys Ala Arg Lys Thr Ala Met

180 185 190 Asp Ala Asp Val Val Val Asn His His Leu Phe Leu Ala Asp Met

195 200 205 Val Val Lys Asp Ser Gly Phe Gly Glu Leu Ile Pro Glu Ala Glu Val

210 215 220

Met Ile Phe Asp Glu Ala His Gln Leu Pro Asp Ile Ala Ser Gln Tyr 225 230 235 240

Phe Gly Gln Ser Leu Ser Ser Arg Gln Leu Gln Asp Leu Ala Lys Asp 245 250 255

Ile Thr Ile Ala Tyr Arg Thr Glu Leu Lys Asp Thr Gln Gln Leu Gln 260 265 270 Lys Cys Ala Asp Arg Leu Ala Gln Cys Ala Gln Asp Phe Arg Leu Gln

275 280 285 Leu Gly Glu Pro Gly Tyr Arg Gly Asn Leu Arg Glu Leu Leu Ala Asp

290 295 300 Lys Asn Ile Gln Arg Ala Leu Leu Leu Leu Asp Asp Ala Leu Glu Leu

305 310 315 320 Cys Tyr Asp Val Ala Lys Leu Ser Leu Gly Arg Ser Ala Leu Leu Asp

Cys Tyr Asp var Ala Leu Leu Asp 325 335 Ala Ala Phe Glu Arg Ala Thr Leu Tyr Arg Gly Arg Leu Lys Arg Leu

340 345 350 350 Lys Glu Ile Asn Gln Pro Gly Tyr Ser Tyr Trp Tyr Glu Cys Thr Ser 355 360 365

Arg His Phe Thr Leu Ala Leu Thr Pro Leu Thr Val Ala Asp Lys Phe 370 380

Lys Glu Val Met Ala Gln Lys Pro Gly Thr Trp Val Phe Thr Ser Ala 385 390 395 400

Thr Leu Ser Val Asn Asp Asp Leu His His Phe Thr Glu Arg Leu Gly

```
405
                            410
Ile Glu Gln Ala Glu Ser Leu Leu Leu Pro Ser Pro Phe Asp Tyr Glu
         420
                        425
Arg Gln Ala Leu Leu Cys Val Pro Arg Asn Leu Pro Leu Pro Asn Gln
     435
                     440
Pro Gly Ala Ala Arg His Leu Ala Ala Met Leu Lys Pro Met Ile Glu
               455
Ala Asn Asn Gly Arg Cys Pne Met Leu Cys Thr Ser His Ala Met Met
            470 475
Arg Asp Leu Ala Glu Gln Phe Arg Ala Thr Met Thr Leu Pro Val Leu
           485
                         490
Leu Gln Gly Glu Thr Ser Lys Gly Gln Leu Leu Gln Gln Phe Val Ser
         500
                    505
                             510
Ala Gly Asn Ala Leu Leu Val Ala Thr Ser Ser Phe Trp Glu Gly Val
                     520
                                  525
Asp Val Arg Gly Asp Thr Leu Ser Leu Val Ile Ile Asp Lys Leu Pro
            535 540
Phe Thr Ser Pro Asp Asp Pro Leu Leu Lys Ala Arg Met Glu Asp Cys
    550 555
Arg Leu Arg Gly Gly Asp Pro Phe Asp Asp Val Gln Leu Pro Asp Ala
            565 570 575
Val Ile Thr Leu Lys Glr Gly Val Gly Arg Leu Ile Arg Asp Val Thr
       580
             585 590
Asp Arg Gly Val Leu Val Ile Cys Asp Asn Arg Leu Val Met Arg Pro
595 600 605
Tyr Gly Ala Thr Phe Leu Ala Ser Leu Pro Pro Ala Pro Arg Thr Arg
610 615 620
Asp Ile Lys Arg Ala Val Arg Phe Leu Ala Asn Pro Thr Ala Glu
<210> 7227
```

<211> 241 <212> PRT

<213> Enterobacter cloacae

<400> 7227 Leu Thr Ile Ala Arg Ala Arg Leu Met Arg Ile Leu Ala Ile Asp 10 Thr Ala Thr Glu Ala Cys Ser Val Ala Leu Trp Asn Asp Gly Thr Ile 20 25 Phe Ala His Phe Glu Glu Cys Pro Arg Glu His Thr Gln Arg Ile Leu 35 4.0 Pro Leu Val Lys Thr Ile Leu Thr Glu Gly Asn Thr Ala Leu Thr Asp 5.5 60 Leu Asp Ala Leu Ala Tyr Gly Arg Gly Pro Gly Ser Phe Thr Gly Val 70 75 Arg Ile Gly Ile Gly Ile Ala Gln Gly Leu Ala Leu Gly Ala Asp Leu 8.5 90 Pro Met Ile Gly Val Ser Thr Leu Ala Thr Met Ala Gln Gly Ala Trp 105 110 Arg Met Thr Gly Ala Thr Arg Val Leu Ala Ala Ile Asp Ala Arg Met 120 Gly Glu Val Tyr Trp Ala Glu Tyr Thr Arg Asp Glu Asn Gly Val Trp 135 140 His Gly Glu Glu Thr Glu Ala Val Leu Lys Pro Glu Ala Val Thr Gly 150 155 Arg Leu Lys Gln Leu Ser Gly Glu Trp Ala Thr Val Gly Thr Gly Trp 165 170 Ala Ala Trp Pro Glu Met Ala Lys Asp Thr Gly Leu Thr Leu Val Asp 180 185 Gly Asn Met Leu Leu Pro Ala Ala Glu Asp Met Leu Pro Ile Ala Cys

195 200 205
Gln Leu Phe Ala Ala Gly Lys Thr Val Ala Val Glu His Ala Glu Pro
210 210 225
Val Tyr Leu Arg Asn Thr Val Ala Trp Lys Lys Leu Pro Gly Arg Glu
225 230 235 240

<210> 7228 <211> 585 <212> PRT <213> Enterobacter cloacae

<400> 7228 Tyr Asn Val Asn Lys Leu Phe Ile Ile Gly Ala Val Met Thr Thr Asn 10 Thr His Phe Arg Gly Asp Ala Leu Lys Lys Val Trp Leu Asn Arg Tyr 25 3.0 Pro Ala Asp Val Pro Ala Glu Ile Asn Pro Asp Arg Tyr Gln Ser Leu 35 40 Ile Glu Leu Phe Glu His Ser Val Arg Arg Tyr Ala Asp Gln Pro Ala 5.5 60 Phe Val Asn Met Gly Glu Val Met Thr Phe Arg Lys Leu Glu Glu Arg 7.0 75 Ser Arg Ala Phe Ala Ala Tyr Leu Gln Glu Gly Leu Gly Leu Gln Lys 90 85 Gly Asp Arg Val Ala Leu Met Met Pro Asn Leu Leu Gln Tyr Pro Val 100 105 Ala Leu Phe Gly Ile Leu Arg Ala Gly Met Ile Val Val Asn Val Asn 115 120 Pro Leu Tyr Thr Pro Arg Glu Leu Glu His Gln Leu Asn Asp Ser Gly 130 135 140 Ala Ala Ala Ile Val Ile Val Ser Asn Phe Ala His Thr Leu Glu Lys 145 150 155 Val Val Glu Lys Thr Gln Val Lys His Val Ile Leu Thr Arg Met Gly 165 170 Asp Gln Leu Ser Thr Ala Lys Gly Thr Leu Val Asn Phe Val Val Lys 180 185 190 Tyr Val Lys Arg Leu Val Pro Lys Tyr His Leu Pro Asp Ala Ile Ser 195 200 205 Phe Arg Arg Ala Leu His Ala Gly Tyr Arg Met Gln Tyr Val Lys Pro 215 220 Glu Ile Val Ser Glu Asp Leu Ala Phe Leu Gln Tyr Thr Gly Gly Thr 230 Thr Gly Val Ala Lys Gly Ala Met Leu Thr His Arg Asn Met Leu Ala 245 250 Asn Leu Glu Gln Val Asn Ala Thr Tyr Gly Pro Leu Leu His Pro Gly 260 265 270 Lys Glu Leu Val Ile Thr Ala Leu Pro Leu Tyr His Ile Phe Ala Leu 275 280 Thr Met Asn Cys Leu Leu Phe Ile Glu Leu Gly Gly Gln Asn Val Leu 295 300 Ile Thr Asn Pro Arg Asp Ile Pro Gly Leu Val Lys Glu Leu Ala Lys 310 315 320 Tyr Pro Phe Thr Ala Met Thr Gly Val Asn Thr Leu Phe Asn Ala Leu 325 330 Leu Asn Asn Lys Glu Phe Gln Gln Leu Asp Phe Ser Thr Leu His Leu 345 340 Ser Ala Gly Gly Met Pro Val Gln Gln Ala Val Ala Glu Arg Trp 360 365

Val Lys Leu Thr Gly Gln Tyr Leu Leu Glu Gly Tyr Gly Leu Thr Glu

```
375
Cys Ala Pro Leu Val Ser Val Asn Pro His Asp Ile Asp Tyr His Ser
           390
                        395
Gly Ser Ile Gly Leu Pro Val Pro Ser Thr Glu Ala Lys Leu Val Asp
            405
                     410
Asp Glu Asp Asn Glu Val Pro His Gly Glu Pro Gly Glu Leu Cys Val
         420
                    425 430
Arg Gly Pro Gln Val Met Leu Gly Tyr Trp Gln Arg Pro Asp Ala Thr
 435 440 445
Asp Glu Ile Ile Lys Asp Gly Trp Leu His Thr Gly Asp Ile Ala Val
  450
       455 460
Met Asp Asp Glu Gly Phe Leu Arg Ile Val Asp Arg Lys Lys Asp Met
465 470 475
Ile Leu Val Ser Gly Phe Asn Val Tyr Pro Asn Glu Ile Glu Asp Val
           485 490 495
Val Met Gln His Ser Gly Val Leu Glu Val Ala Ala Val Gly Val Pro
       500 505 510
Ser Gly Ser Ser Gly Glu Ala Val Lys Ile Phe Val Val Lys Lys Asp
      515 520
                           525
Pro Ser Leu Thr Glu Asp Ala Leu Ile Thr Phe Cys Arg Arg Gln Leu
 530 535 540
Thr Gly Tyr Lys Val Pro Lys Leu Val Glu Phe Arg Asp Glu Leu Pro
545 550 555
Lys Ser Asn Val Gly Lys Ile Leu Arg Arg Glu Leu Arg Asp Glu Ala
       565 570
Arg Ala Lys Val Asp Asn Lys Ala
<210> 7229
<211> 90
<212> PRT
<213> Enterobacter cloacae
<400> 7229
Val Met Ala Leu Leu Asp Phe Phe Leu Ser Arg Lys Lys Ser Thr Ala
                             3.0
Asn Ile Ala Lys Glu Arg Leu Gln Ile Ile Val Ala Glu Arg Arg Arg
                         25
                                          3.0
Ser Asp Ala Glu Pro His Tyr Leu Pro Gln Leu Arg Lys Asp Ile Leu
                    40
Glu Val Ile Cys Lys Tyr Val Gln Ile Asp Pro Glu Met Val Thr Val
                   55
                             60
Gln Leu Glu Gln Lys Asp Gly Asp Ile Ser Ile Leu Glu Leu Asn Val
              70
Thr Leu Pro Glu Ala Glu Glu Ser Arg
             85
<210> 7230
<211> 322
<212> PRT
<213> Enterobacter cloacae
<400> 7230
Gln Val Thr Ile Ala Ile Val Ile Gly Thr His Gly Trp Ala Ala Glu
Gln Leu Leu Lys Thr Ala Glu Met Leu Leu Gly Glu Gln Glu Asn Val
       20
                         25
Gly Trp Ile Asp Phe Val Pro Gly Glu Asn Ala Glu Thr Leu Ile Glu
     35
                      40
Lys Tyr Thr Ala Gln Leu Glu Lys Leu Asp Thr Ser Lys Gly Val Leu
   5.0
                   5.5
```

```
Phe Leu Val Asp Thr Trp Gly Gly Ser Pro Phe Asn Ala Ala Ser Arg
                             75
Ile Val Val Asp Lys Glu His Tyr Glu Val Val Ala Gly Val Asn Ile
                          90
Pro Met Leu Val Glu Thr Phe Met Ala Arg Asp Asp Asn Pro Gly Phe
       100
            105
                                     110
Asp Glu Leu Val Ala Leu Ala Val Glu Thr Gly Arg Glu Gly Val Lys
         120 125
    115
Ala Leu Lys Ala Gln Pro Val Glu Lys Pro Ala Pro Ala Pro Ala Ala
      135 140
Pro Lys Ala Val Ala Pro Ala Lys Pro Met Gly Pro Asn Asp Tyr Met
   150 155 160
Val Ile Gly Leu Ala Arg Ile Asp Asp Arg Leu Ile His Gly Gln Val
        165 170 175
Ala Thr Arg Trp Thr Lys Glu Thr Asn Val Gln Arg Ile Ile Val Val
        180 185 190
Ser Asp Glu Val Ala Ala Asp Thr Val Arg Lys Thr Leu Leu Thr Gln
 195 200 205
Val Ala Pro Pro Gly Val Thr Ala His Val Val Asp Val Ala Lys Met
 210 215
                               220
Ile Arg Val Tyr Asn Asn Pro Lys Tyr Ala Gly Glu Arg Val Met Leu
225 230 235
Leu Phe Thr Asn Pro Thr Asp Val Glu Arg Ile Val Glu Gly Gly Val
     245 250 255
Lys Ile Thr Ser Val Asn Ile Gly Gly Met Ala Phe Arg Gln Gly Lys
        260 265 270
Thr Gln Val Asn Asn Ala Ile Ser Val Asp Ala Lys Asp Ile Glu Ala
                   280
                        285
Phe Asn Lys Leu Asn Ala Arg Gly Ile Glu Leu Glu Ala Arg Lys Val
290 295 300
Ser Thr Asp Gln Lys Leu Lys Met Met Asp Leu Ile Gly Lys Val Gly
305
             310
Lys
```

<210> 7231 <211> 205 <212> PRT <213> Enterobacter cloacae

<213> Enterobacter cloacae

<400> 7231

Ser Glu Ser Tyr Pro Glu Thr Thr Gly Glu Leu Thr Val Lys Lys Asp 10 Asn Leu Thr Leu Asp Asp Phe Leu Ser Arg Phe Gln Leu Leu Arg Pro Gln Val Ser Arg Ala Thr Leu Asn Gln Arg Gln Ala Ala Val Leu Ile 40 4.5 Pro Val Val Arg Arg Glu Gln Pro Gly Leu Leu Leu Thr Gln Arg Ser 55 Pro His Met Arg Lys His Ala Gly Gln Val Ala Phe Pro Gly Gly Ala 70 75 Val Asp Ser Thr Asp Ala Ser Leu Ile Ala Ala Ala Leu Arg Glu Ala 8.5 90 His Glu Glu Val Ala Ile Pro Pro Glu Thr Val Glu Val Ile Gly Val 100 105 Leu Pro Pro Val Asp Ser Val Thr Gly Phe Gln Val Thr Pro Val Val 115 120 Gly Ile Ile Pro Pro Asp Leu Gln Tyr His Ala Ser Val Asp Glu Val 130 135 140 Ser Ala Val Phe Glu Met Pro Leu Glu Glu Ala Leu Arg Leu Gly Arg 150 155

3241 Tyr His Pro Leu Asp Ile His Arg Arg Gly His Asp His Arg Val Trp 165 170 Leu Ser Trp Tyr Gln His Tyr Phe Val Trp Gly Met Thr Ala Gly Ile 180 185 Ile Arg Glu Leu Ala Leu Gln Ile Gly Leu Lys Pro 200 <210> 7232 <211> 168 <212> PRT <213> Enterobacter cloacae <400> 7232 Pro Ser Gly Glu Lys Ser Ser Ala Thr Val Phe Ser His Cys Ile Phe 10 Ala Gln Gly Leu Cys Gln Pro Leu Leu Ser Gly Ala Thr Pro Asn Ser 20 25 Asp Asp Gly Gly Thr Leu Trp Gln Ser Cys Arg Leu Thr Thr Lys Asp 40 Asn Glu Asp Thr Phe Met Thr Ile Thr Arg Ile Asp Ala Glu Ala Arg 55 Trp Ser Asp Val Val Ile His Asn Gln Thr Leu Tyr Tyr Thr Gly Val 70 7.5 Pro Ala Asn Leu Asp Ala Asp Ala Phe Glu Gln Thr Ala Asn Thr Leu 8.5 90 Ala Gln Ile Asp Ala Val Leu Glu Lys Gln Gly Ser Asp Lys Ser Arg 100 105 110 Ile Leu Asp Ala Thr Ile Phe Leu Ala Asn Lys Asp Asp Phe Ala Ala 115 120 Met Asn Lys Ala Trp Asp Ala Trp Val Val Ala Gly His Ala Pro Val 135 140 Arg Cys Thr Val Gln Ala Thr Leu Met Lys Pro Glu Tyr Lys Val Glu 145 150 155 Ile Lys Ile Ile Ala Ala Val 165 <210> 7233 <211> 460 <212> PRT <213> Enterobacter cloacae <400> 7233 Ile Ile Arg Ala Asn Tyr Phe Thr Leu Pro Gly Ser Met Pro Tyr Met Asn Met Arg Phe Pro Thr Val Met Thr Leu Pro Trp Arg Ala Asp Ala 25 Ala Glu Phe Trp Phe Ala Arg Leu Ser His Leu Pro Phe Ala Met Leu 40 45 Leu His Ser Gly His Ala Asp His Pro Tyr Ser Arg Phe Asp Ile Leu 55 60 Val Ala Asp Pro Val Lys Thr Leu Thr Thr Asp Ala Leu Ser Pro Thr 70 Asp Asp Pro Leu Met Arg Leu Gln Asn Glu Ile Asp Ala Leu Gly Leu 85 90 9.5 Thr Ala Thr Pro Asp Pro Asp Leu Pro Phe Gln Gly Gly Ala Leu Gly 100 105 110 Leu Phe Gly Tyr Asp Leu Gly Arg Arg Phe Glu Lys Leu Pro Glu His 115 120 Ala Gln Ala Asp Ile Ser Leu Pro Asp Met Ala Val Gly Leu Tyr Asp 135 140

Trp Ala Leu Ile Val Asp His Arg Lys Gln Thr Val Ser Leu Leu Ser

```
155
His Arg Asp Val Gln Ala Arg Leu Ala Trp Leu Glu Ala Gln Arg Pro
         165
                      170
Ala Ala Pro Glu His Phe Met Leu Thr Ser Gly Trp Arg Ser Asn Met
                      185
                                        190
Ser Ala Glu Glu Tyr Ala Glu Lys Phe Ser Arg Val Gln Ala Tyr Leu
    195 200 205
His Ser Gly Asp Cys Tyr Gln Val Asn Leu Ala Gln Arg Phe Gln Ala
       215 220
Ala Tyr Lys Gly Asp Glu Trp Gln Ala Phe Thr Arg Leu Asn Ala Ser
    230 235 240
Asn Lys Ala Pro Phe Ser Ala Phe Leu Arg Phe Glu His Gly Ala Ile
       245 250 255
Leu Ser Leu Ser Pro Glu Arg Phe Ile His Leu Ala Asp Gly Met Ile
      260 265 270
Gln Thr Arg Pro Ile Lys Gly Thr Leu Pro Arg Leu Ala Asn Ala Asp
    275 280 285
Ala Asp Arg Gln Gln Ala Glu Thr Leu Ala Ala Ser Pro Lys Asp Arg
290 295 300
Ala Glu Asn Leu Met Ile Val Asp Leu Met Arg Asn Asp Ile Gly Arg
305 310 315 320
Val Ala Glu Pro Gly Ser Val Arg Val Pro Glu Leu Phe Val Val Glu
      325 330
Pro Phe Pro Ala Val His His Leu Val Ser Thr Ile Thr Ala Arg Leu
 340 345 350
Pro Ala Ser Arg Thr Ala Cys Asp Leu Leu Arg Ala Ala Phe Pro Gly
355 360 365
Gly Ser Ile Thr Gly Ala Pro Lys Val Arg Ala Met Glu Ile Ile Asp
370 375 380
Glu Leu Glu Pro His Arg Arg Asn Ala Trp Cys Gly Ser Ile Gly Tyr
385 390 395
Val Ser Leu Cys Gly Thr Met Asp Thr Ser Ile Thr Ile Arg Thr Leu
          405 410 415
Thr Ala Cys Asp Gly Asn Leu Tyr Cys Ser Ala Gly Gly Gly Ile Val
       420 425 430
Ala Asp Ser Gln Val Glu Ala Glu Tyr Gln Glu Thr Phe Asp Lys Val
 435 440
Asn Arg Ile Leu Lys Gln Leu Glu Asn Ser Arg
<210> 7234
<211> 469
<212> PRT
<213> Enterobacter cloacae
<400> 7234
His Arg Tyr Trp Asn Pro Ser Asn Pro Val Arg Ser Val Lys Val Ile
                           1.0
Ser Ile Phe Asp Met Phe Lys Val Gly Ile Gly Pro Ser Ser Ser His
Thr Val Gly Pro Met Lys Ala Gly Lys Gln Phe Val Asp Asp Leu Val
                     40
Glu Lys Gly Leu Leu Glu Ser Val Thr Arg Val Ala Val Asp Val Tyr
 50
Gly Ser Leu Ser Leu Thr Gly Lys Gly His His Thr Asp Ile Ala Ile
              7.0
                               75
Ile Met Gly Leu Ala Gly Asn Met Pro Asp Thr Val Asp Ile Asp Ala
          85
                           90
```

Ile Pro Ala Phe Ile Arg Asp Val Glu Thr Arg Gly Arg Leu Leu

105 Ala Asn Gly Gln His Glu Val Asp Phe Pro Gln Asp Asp Gly Met Arg

```
115
                     120
Phe Arg Ser Asp Asn Leu Pro Leu His Glu Asn Gly Met Thr Ile His
                         140
           135
  130
Ala Trp Ser Gly Glu Lys Glu Ile Tyr Ser Lys Thr Tyr Tyr Ser Ile
            150
                            155
Gly Gly Gly Phe Ile Val Asp Glu Glu His Phe Gly Lys Glu Ser Ala
          165 170
Gly Asp Val Asn Val Pro Tyr Pro Phe Lys Ser Ala Thr Glu Met Leu
                     185 190
Gly Tyr Cys Lys Glu Thr Gly Leu Ser Leu Ser Gly Met Val Met Gln
     195 200 205
Asn Glu Leu Ala Leu His Ser Lys Lys Glu Ile Glu Asp Tyr Phe Ala
      215
                      220
Asn Val Trp Gln Thr Met Arg Ala Cys Ile Asp Arg Gly Met Asn Thr
      230 235
Glu Gly Val Leu Pro Gly Pro Leu Arg Val Pro Arg Arg Ala Ser Ala
         245 250 255
Leu Arg Arg Met Leu Val Thr Thr Asp Lys Phe Ser Asn Asp Pro Met
        260 265 270
Asn Val Val Asp Trp Val Asn Met Phe Ala Leu Ala Val Asn Glu Glu
275 280 285
Asn Ala Ala Gly Gly Arg Val Val Thr Ala Pro Thr Asn Gly Ala Cys
290 295 300
Gly Ile Val Pro Ala Val Leu Ala Tyr Tyr Asp His Phe Ile Glu Pro
305 310 315 320
Val Thr Pro Asp Ile Tyr Ile Arg Tyr Phe Leu Ala Ala Gly Ala Ile
           325 330 335
Gly Ala Leu Tyr Lys Met Asn Ala Ser Ile Ser Gly Ala Glu Val Gly
        340 345 350
Cys Gln Gly Glu Val Gly Val Ala Cys Ser Met Ala Ala Ala Gly Leu
 355 360
                                    365
Ala Glu Leu Leu Gly Ala Ser Pro Glu Gln Val Cys Val Ala Ala Glu
370 375
                                 380
Ile Gly Met Glu His Asn Leu Gly Leu Thr Cys Asp Pro Val Ala Gly
385 390 395 400
Gln Val Gln Val Pro Cys Ile Glu Arg Asn Ala Ile Ala Ser Val Lys
           405 410
                                          415
Ala Ile Asn Ala Ser Arg Met Ala Met Arg Arg Thr Ser Glu Pro Arg
        420 425
                                       430
Val Ser Leu Asp Lys Val Ile Glu Thr Met Tyr Glu Thr Gly Lys Asp
                    440
                         445
Met Asn Ala Lys Tyr Arg Glu Thr Ser Arg Gly Gly Leu Ala Ile Lys
                 455
                                 460
Val Gln Cys Asp
<210> 7235
<211> 576
<212> PRT
<213> Enterobacter cloacae
<400> 7235
Ala Phe Leu Ser Pro Ile Cys Asn Arg Trp Ala Asn Phe Pro Leu Ser
                           10
Ser Arg Arg Phe Thr Tyr Ser Pro Leu His Cys His Cys Cys Val Trp
                        25
        20
                                       3.0
Leu Phe Trp Pro Val Leu Asn Arg Arg Pro Phe Met Gln Thr Ala Gln
                   4.0
Thr Ile Ile Lys Asp Tyr Arg Arg Lys Arg Val Ile Val Cys Val Thr
                 55
Val Ala Leu Val Thr Leu Val Leu Thr Leu Gly Ile Arg Phe Ile Ser
```

7.0 Gln Arg Asn Ile Asn Gln Asp Arg Ile His Asp Phe Thr His His Thr 90 8.5 Val Arg Ala Leu Asp Lys Val Leu Leu Ser Leu Glu Ala Gln Arg Glu 100 105 Thr Leu Leu Ser Leu Val Gly Ile Pro Cys Ser Glu Ala Asn Leu Ile 120 Leu Arg Lys Gln Ala Ala Ile Leu Gln Thr Val Arg Ser Ile Ala Leu 135 140 Ile Lys Asp Gly Ile Leu Tyr Cys Ser Ser Val Phe Gly Ser Arg Asn 145 150 155 Val Pro Val Ser Glu Phe Val Pro Glu Leu Pro Val Ser Glu Ser Arg 165 170 175 Leu Leu Ser Thr Asp Arg Trp Leu Val Lys Gly Ser Pro Val Leu 180 185 190 Ile Gln Trp Ser Pro Val Ala Gly Asp Gly Asn Asp Gly Val Met Glu 195 200 205 Val Val Asn Ile Asp Leu Ile Thr Lys Met Ile Leu Glu Pro Gln Arg 210 215 220 Pro Gln Ile Thr Asp Val Val Leu Arg Val Gly Asp Asn Phe Leu Arg 225 230 235 240 Asp Gly Gln Gln Val Thr Thr Thr Pro Thr Phe Asp Glu Asn Ala Ser 245 250 255 Leu Leu Glu Gln Ser Ser Gln His Tyr Pro Phe Ser Val Thr Val Ser 260 265 270 Gly Pro Gly Pro Gly Glu Met Ala Leu Lys Asn Leu Pro Thr Gln Leu 275 280 285 Pro Leu Ala Leu Met Leu Ser Leu Leu Met Gly Tyr Ile Ala Trp Leu 290 295 300 Ala Thr Ala Arg Arg Ile Ser Phe Thr Trp Glu Ile Asn Met Gly Ile 305 310 315 320 Ala Ala Arg Glu Phe Glu Leu Phe Cys Gln Pro Leu Val Asn Ala Arg 325 330 335 Thr Arg Glu Cys Val Gly Val Glu Ile Leu Leu Arg Trp Asn Asn Pro 340 345 350 Arg Gln Gly Trp Ile Ser Pro Asp Val Phe Ile Pro Leu Ala Glu Glu 355 360 365 His Asn Leu Ile Val Pro Leu Thr Arg Tyr Val Ile Ser Glu Thr Val 370 375 380 Arg Gln Ile Gly Tyr Phe Pro Ala Ser Arg Asp Phe His Ile Gly Ile 385 390 395 Asn Val Ala Ala Ser His Phe Arg Arg Ala Ala Leu Ile Gln Asp Leu 405 410 415 Asn Arg Ile Trp Phe Asn Ala Ser Pro Val Gln Gln Leu Ile Val Glu 420 425 Leu Thr Glu Arg Asp Ala Leu Leu Asp Val Asp Tyr Arg Ile Val Arg 435 44C 445 Glu Leu His Arg Lys Gly Val Lys Leu Ala Ile Asp Asp Phe Gly Thr 450 455 460 Gly Asn Ser Ser Leu Ser Trp Leu Glu Lys Leu His Pro Asp Val Leu 465 470 475 Lys Ile Asp Lys Ser Phe Thr Thr Ala Ile Gly Thr Asp Ala Val Asn 485 490 495 Ser Thr Val Thr Asp Ile Ile Ile Ala Leu Gly Gln Arg Leu Asn Ile 505 510 500 Glu Leu Val Ala Glu Gly Val Glu Thr Glu Glu Gln Ser Arg Tyr Leu 515 520 Arg Arg His Ser Val His Ile Leu Gln Gly Tyr Leu Tyr Ala Arg Pro 535 540 Met Pro Leu Arg Glu Phe Pro Lys Trp Leu Ala Glu Ser His Ser Pro 555

```
3245
Pro Ala Arg His Asn Gly His Ile Val Pro Leu Pro Leu Arg
                                 570
<210> 7236
<211> 191
<212> PRT
<213> Enterobacter cloacae
<400> 7236
Leu Arg Ser Asn Ile Leu Ser Ser Ser Ala Arg Asn Leu Phe Lys Ile
                                 10
Leu Ser Ser Phe Leu Ile Gln Lys Asn Pro His His Glu Glu Val Cys
           20
                             25
                                                3.0
Val His Glu Glu Thr Thr Ala Gly Leu Trp Ala Pro Leu Pro Asp Ser
                         40
                                          4.5
His Val Val Leu Phe Leu Asp Phe Asp Gly Val Cys His Arg Cys Lys
                     55
                                         60
Asn Glu Thr Phe Glu Arg Met Pro Leu Leu Glu Lys Leu Leu Asp Asn
              70
                              7.5
Cys Pro Ala Met Val Ile Val Ile Ser Ser Ser Trp Arg Glu Cys Ala
                                 90
                                                     95
Asn Thr Ser Tyr Leu Lys Ser Leu Phe Arg Val Pro Tyr Arg Asp Lys
           100
                             105
Ile Ile Gly Ala Thr Gly Ser Val Tyr Leu Lys His Gly Gln Thr Gly
      115
                          120
                                             125
Val Arg Ala Ala Glu Cys Glu Asp Phe Val Phe Ser His Arg Val Lys
 130
                      135
                                         140
Ala Phe Ile Cys Leu Asp Asp Asp Glu Ser Leu Phe Pro Ala Gly Tyr
                  150
                                      155
Pro His Leu His Lys Thr Asp Tyr Tyr Thr Gly Leu Thr Glu Ser Asp
                                  170
              165
Leu Ala Ala Leu Asn Ala Arg Tyr His Gln Leu Met Gly Arg
           180
                              185
<210> 7237
<211> 264
<212> PRT
<213> Enterobacter cloacae
<400> 7237
Ile Arg Gln Glu Arg Asp Ile Met Leu His His Cys Gln Ala Lys Ser
Leu Asp Asp Ile Tyr Leu Glu Asp Ile Pro His Ile Ile His Pro Ala
           20
                              25
                                                  30
Thr Ala Val His Asp Leu Glu Asp Thr Ala Leu Pro Asn Arg Ile Ile
       35
Gln Glu Trp Asn Leu Pro Gln Gly Tyr Thr Gln Phe Val Ser Arg Tyr
                      55
His Gln Phe His His Gln Arg Pro Trp Leu Ala Tyr Arg Asp Thr Leu
                   7.0
                                      75
Asp Asp Ile Arg Tyr Gly Lys Ile Val Leu Leu Arg Lys Asp Ile Thr
               85
                                  90
Gly Asn Ala Gly Pro Gly Val Ile Ser Asn Gly Asn Leu Arg Asn Asp
                              105
                                                 110
Leu Pro Leu Ser Leu Phe Thr Arg Leu Arg Asp Ile Ile Ser Arg Gln
                           120
       115
                                              125
Leu Lys Arg Pro Gly Tyr Tyr Val Arg Ser Thr Thr Pro Ala Gln His
                       135
                                          140
Ala Gln Ser Thr Lys Thr Ile Asn Ser Lys Ala Ala Gly Arg Leu Leu
```

150

155

Ala Ala Gly Gly Leu Tyr Asn Gly Asn Val Glu Gly Phe Arg His Thr

```
3246
                                 170
Ala Glu Gln Leu Gly Gly Glu Ala Val Glu Gly Tyr Asp Gln Val Leu
                            1.85
                                               190
Asn Glu Thr Thr Ser Gly Met Leu Val Ala Ala Ala Ser Leu Leu Val
     195
                         200
Ile Arg Asn Pro Arg Ser Ala Asp Glu Leu Thr Ser Tyr Leu Gly Lys
                     215
                                        220
Tyr Lys Lys Ala His Val Leu Leu Asp Asp Met Asn Val Ser Glu Leu
225 230 235
Asn Tyr Met Arg Arg Asp Arg Ala Glu Tyr Leu Pro Leu Arg Gly Thr
           245
                                 250
Ile Gln Gln Tyr Cys Thr Pro
          260
<210> 7238
<211> 165
<212> PRT
<213> Enterobacter cloacae
<400> 7238
Ser Phe Leu Phe Asn Ser Gln Tyr Cys Leu Tyr Ile Gln Tyr Lys Asn
                                10
Ser Ser Val Ala Met Ser Val Ile Leu Glu His Ile Ser Asn Lys Pro
                             25
Tyr Glu Met Ala Pro Phe Phe Ser Asp Leu Leu Ser Cys Gly Val Met
 35 40
Ser Pro Cys Ala Gly His Glu Asp Asn Glu Leu Asn Leu His Glu Tyr
                      5.5
Val Val Arg Asn Arg Pro Ser Thr Phe Phe Val Arg Ala Ala Gly Leu
                                    75
Ser Met Ile Asn Ala Gly Ile Asn Asp Gly Ala Ile Leu Val Val Asp
              8.5
                                 90
Arg Ser Leu Thr Ala Arg His Gly Ser Ile Val Val Ala Leu Val Asp
          100 105
Gly Glu Phe Thr Val Lys Ile Leu His Thr Tyr Pro Glu Leu Leu
                    120 125
Met Pro Ser Asn Pro Ala Tyr Lys Pro Ile Arg Val Asn Pro Glu Ser
                      135
                           140
Leu Glu Ile Trp Gly Val Val Thr Phe Ala Leu Asn Gln Phe Ser His
Val His Ala Arg
<210> 7239
<211> 99
<212> PRT
<213> Enterobacter cloacae
<400> 7239
Cys Pro Met Thr Leu Ser Cys Ser Ser Thr Asp Phe Glu Asn Asp Ser
                               1.0
Asp Phe Arg Pro Ser Arg Ala Arg Cys Cys Leu Arg Phe Arg Leu Cys
           20
                             25
Arg Ser Ile Arg Cys Val Tyr Arg Leu Leu Ile Thr Cys Ser Phe Pro
                         4.0
Phe Arg Arg Asp Ser Tyr Ser Gly Gln Pro Ser Val Ile His Ile Thr
Thr Ser Lys Gly Asp Ser Arg Leu Ile Arg Arg Pro Ser Val Ala Ile
                  70
                                     75
Val Arg Ser Pro Asn Thr Cys Ala Thr Thr Val Phe Arg Ser Leu Ser
```

(190)

Tyr Ala

```
<210> 7240
<211> 424
<212> PRT
<213> Enterobacter cloacae
<400> 7240
Ile Ser Ser Ala Met Tyr Met His Val Asp Ile Asn Gly Ala Tyr Ala
                        10
Ala Phe Glu Cys Ala Met Asp Pro Lys Leu Ser Lys Lys Pro Leu Ile
     20 25
Ile Ala Ser Asn Asn Asp Ser Ser Val Ile Ala Met Asn Lys Leu Ala
   35 40 45
Lys Ser Val Gly Ile Lys Arg Gly Thr Pro Ile Phe Lys Cys Arg Asp
50 55 60
Leu Ile Gln Gln His Arg Ile Glu Val Arg Ser Ser Asn Phe Thr Leu
65 70 75
Tyr Glu Asp Tyr Ser Asn Arg Phe His Glu Thr Leu Glu Ser Phe Ala
          85 90 95
Pro Gln Ser Ser Arg Tyr Ser Ile Asp Glu Asn Phe Met Leu Leu Lys
 100 105 110
Asn Met Asn Lys Ile Ile Asp Tyr Glu Asp Tyr Gly Arg Leu Ile Arg
115 120 125
Ser Thr Leu Leu His Asn Leu Ser Leu Thr Cys Gly Val Gly Cys Ser
130 135 140
Ser Thr Lys Thr Leu Ala Lys Leu Cys Thr Tyr Ala Ser Lys Arg Trp
145 150 155
Ala Ala Thr Gly Gly Val Val Leu Thr Asp Gln Ala Arg Ile Arg
         165 170 175
Lys Leu Leu Ser Leu Ile Ser Thr Arg Glu Ile Trp Gly Ile Gly Arg
 180 185 190
Lys Ile Ser Glu Arg Leu Ser Ala Phe Gly Ile Ile Thr Ala Gly Asp
   195 200 205
Phe Tyr Asn Ser Asp Val Arg Phe Leu Arg Lys Ser Phe Gly Val Glu
210 215 220
Ile Glu Arg Thr Trp Arg Glu Leu His Gly Glu Pro Cys Phe Arg Leu
           230 235
His Glu Ser Pro Pro Val Arg Gln Gln Ile Ile Val Ser Arg Ser Phe
          245 250
Gly Gln Arg Leu Asn Glu Ile Gly Lys Leu His Glu Ala Val Ser Phe
       260 265 270
Phe Thr Ala Arg Ala Ala Glu Gln Leu Arg Lys Asp Gly Ser Trp Thr
     275 280 285
Arg Gln Ile Thr Val Phe Ile Gln Ser Ser Asn Tyr Ala Gln Gly Glu
              295 300
Asn Arg Tyr Ser Asn Cys Gly Ile Glu Pro Leu Thr Ala Thr Gln Asp
305 310 315 320
Thr Arg Asp Leu Val Asp Ala Ala Met Thr Ile Leu Asn Arg Ile Tyr
          325 330 335
Arg Pro Gly Ile Ala Tyr Ala Lys Ala Gly Val Met Leu Ser Ala Met
                      345 350
        340
Thr Asp Gly Thr Glu Gln Leu Ser Leu Phe Asp Thr Arg Pro Ala Arg
     355
                   360 365
Pro Gly Ser Gln Ala Leu Met Lys Val Met Asp Arg Phe Asn Lys Glu
              375
                   380
  370
Lys Arg Gly Ala Leu Phe Leu Leu Gly Glu Gly Ile Gln Gln Asp Phe
     390
                 395
385
Arg Met Lys Gln Ala Met Leu Ser Pro Arg Tyr Thr Thr Arg Trp Asp
```

410

```
3248
Glu Leu Leu Val Val Lys Ala
 420
<210> 7241
<211> 190
<212> PRT
<213> Enterobacter cloacae
<400> 7241
Ile Lys Arg Arg Phe Ser Gly Glu Ile Val Val Phe Thr Pro Pro Ala
                               10
Asp Asp Val Lys Pro Ile Pro Val Pro Asp Glu Ile Tyr Thr Gln Cys
          20
                         2.5
Ile Thr Asp Ala Ala Arg Tyr Phe Gly Ile Asp Ala Glu Leu Val Phe
                       40
                                       4.5
Thr Leu Phe Asp Asn Glu Gly Gly Lys Val Gly Thr Phe Ser Arg Asn
             55
                                     60
Thr Asn Gly Thr Tyr Asp Ile Gly Pro Met Gln Ile Asn Ser Ser Asn
               70
                           75
Leu Pro Glu Ile Lys Lys His Phe Pro Thr Val Thr Trp Arg Val Leu
             85
                        90
Ala Tyr Asp Ala Cys Ala Ser Phe Trp Val Gly Thr Trp Trp Leu Tyr
              105 110
Arg Lys Ile Val Asp Arg Lys Gly Asn Val Phe Glu Gly Ile Ala Asp
                     120 125
Tyr Asn Ser Lys Thr Pro Lys Val Arg Ala Lys Tyr Ile Phe Asn Phe
 130
                  135
                          140
Met Val Lys Tyr Asn Arg Arg Ile Gln Gln Arg Asn Gly Met Gly Glu
145 150
                      155
Leu Tyr Gln Trp Thr Gln Gln Pro Pro Arg Tyr Asn Gly His Ile Ala
           165
                         170
Lys Asn Val Pro Glu Gln Asn Pro Thr Pro Val Val Lys
<210> 7242
<211> 76
<212> PRT
<213> Enterobacter cloacae
<400> 7242
Asn Phe Ala Thr Gly Lys Val Pro Ser Gly Trp Gln Val His His Lys
                               10
Ile Pro Leu Asp Asp Gly Gly Thr Asn Ala Ile Asp Asn Leu Val Leu
        20
                           2.5
                                             30
Ile Gln Asn Ser Pro Tyr His Ser Ala Leu Ser Lys Ala Gln Ser Ile
   35
                       40
                                         4.5
Ile Thr Lys Asp Leu Pro Tyr Asn Ser Ser Thr Lys Val Leu Trp Pro
 50
                    55
Ser Pro Asn Gly Val Ile Tyr Pro Val Gly Lys
                 7.0
<210> 7243
<211> 172
<212> PRT
<213> Enterobacter cloacae
<400> 7243
Glu Ala Leu Met Lys Asp Leu Thr Gln Leu Leu Ser Ser Leu Lys Arg
                             10
Leu Met Val Ala Asp His Tyr Pro Leu Ala Ser Pro Val Ala Pro Glu
```

25

30

```
Val Leu Lys Asp Leu Ile Cys Asn Pro Pro Pro Val Glu Trp Ala Asp
      35
His Lys Lys Ser Ala Tyr Ile Asp Ile Gln Lys Leu Ile Lys Thr Arg
                    55
Leu Asp Tyr Ala Gln Val Phe Asn Ala Met Asp Gly Phe Glu Tyr Asn
       70
                                 7.5
Gly Leu Thr Phe Tyr Asn Leu Val Gln Ala Glu Asn Glu Asn Leu Leu
        85 90
Trp Ser Asn Ile Tyr Ile Arg Asn Phe Glu Ala Arg Asp Asn Glu Ile
         100 105 110
Tyr Val Asp Pro Asn Leu Thr Asp Lys Val Leu Ile Gly Glu Asp Gly
     115 120 125
Met Ser Leu Phe Ala Tyr Ser Phe Ala Asp Asp Cys Phe Gin Ile Arg
 130 135 140
Asp Lys Ala Ser Thr Asp Tyr Val Ile Glu Ser His Thr Glu Phe Asp
145 150 155
Arg Phe Leu Ser Ser Leu Ile Gln Thr Val Ser
             165
<210> 7244
<211> 500
<212> PRT
<213> Enterobacter cloacae
<400> 7244
Trp Thr Lys Asn Ser Lys Ala Met Thr Cys Leu Arg Pro Ile Arg Ser
                              10
Ile Ile Ser Met Leu Ala Ala Val Leu Glu Ala Leu Met Arg Ser Asn
       20
                           25
Ala Val Phe Asn Phe Lys Lys Leu Leu Leu Ser Leu Ser Val Cys Ala
      35
                       40
Ala Ile Leu Ala Pro Thr Ala Asn Ala Asp Asn Ala Met Arg Asn Ile
                    55 60
Phe Asn Gly Met Met Thr Ser Thr Ser Pro Ala Thr Phe Ser Thr Ala
                 70
                                7.5
Thr Arg Thr Gly Ile Val Gly Gly Ser Met Ser Tyr Arg Thr Thr Asn
                               90
             85
Val Asn Thr Asn Leu Val Ser Met Ser Phe Pro Lys Ala Ser Val Gly
                           105
                                             110
          100
Cys Asn Gly Ile Asp Val Phe Leu Gly Ser Phe Ser Met Ile Asn Gly
                       120
      115
Asp Gln Leu Val Gln Val Ala Arg Gly Ile Ala Gln Gly Ala Ala Ile
                    135
                                      140
 130
Tyr Ala Phe Asn Val Ala Val Ser Ala Ile Cys Ala Asp Cys Ala Ala
                                  155
                150
Thr Ile Asn Asp Ile Gln Asn Lys Leu Gln Ala Leu Asn Lys Phe Ala
                     170
                                                175
             165
Lys Asp Ser Cys Asn Ala Thr Tyr Ser Phe Leu Ser Glu Asn Val Gly
          180
                            185
                                             190
Thr Pro Ser Gln Phe Ala Asn Ser Val Ser Ser Gly Pro Ala Ser Ile
                                          205
Leu Gly Ser Ile Asn Gly Leu Ile Pro Asp Phe Gly Ser Ser Met Thr
                                      220
                     215
Lys Ser Pro Glu Ala Val Thr Ser Gln Val Lys Ala Lys Asp Pro Glu
225
          230
                                  235
Glu Phe Ala Glu Lys Phe Ser Gly Asn Leu Phe Tyr Met Ser Phe Met
            245
                            250
Asp Ile Asp Lys Gly Thr Met Asn Ile Gly Gly Val Thr Glu Leu Ser
         260
                          265
Gly Tyr Lys Leu Ala Glu Gln Leu Met Ser Leu Val Gly Thr Val Ile
```

```
Ile Asn Trp Asp Ser Lys Gly Glu Lys Ala Gly Met Glu Val Arg Pro
                    295
Ser Thr Met Thr Val Thr Asp Tyr Ile Met Gly Pro Pro Ala Gly Gly
                310
                                   315
Ser Ile Lys Met Leu Lys Cys Ser Pro Ala Pro Asp Pro Ser Ser Pro
             325
                               330
                                                  335
Arg Lys Ala Gln Cys Leu Val Met Ser Glu Val Asn Asp Gly Gly Phe
         340
                           345
                                350
Lys Gly Leu Lys Asp Thr Ile Ser Asp Leu Leu Asn Val Gln Lys
      355
                        360
                             365
Lys Ile Ile Asn Asp Val Arg Val Ser Asp Asp Glu Leu Arg Ile Ile
 370 375
                                      380
Ser Tyr Ile Gly Ile Pro Thr Ile Ile Asp Ser Leu Gln Thr Phe Glu
                 390
                      395 400
Ala Pro Glu Gly Tyr Ala Tyr Ile Gln Asp Ile Ser Thr Ile Ala Ala
             405
                               410
Thr Ser Leu Val Ile Asn Met Leu Arg Gin Val Glu Ala Lys Ile Ser
          420 425
                                             430
Thr Met Ser Ile Pro Ser Glu Ser Leu Ser Gly Lys Arg Asp Asp Leu
           440
Asn Arg Leu Thr Asp Asn Leu Ser Lys Gln Val Lys Ala Ala Tyr Glu
                    455
                                      460
Leu Ser His Ser Gln Val Gly Thr Ser Ser Asp Val Ile Ser Thr Trp
                 470
                                475
Asp Asn Arg Arg Leu Gln Arg Lys Ala Phe Thr Glu Ser Ile Arg Gly
              485
                               490
Thr Arg Asn
<210> 7245
<211> 95
<212> PRT
<213> Enterobacter cloacae
<400> 7245
Gly Ala Pro Val Ala Ser Val Ser Ile Ser Cys Pro Ser Cys Ser Ala
                             10
Thr Asp Gly Val Val Arg Asn Gly Lys Ser Thr Ala Gly His Gln Arg
                            25
Tyr Leu Cys Ser His Cys Arg Lys Thr Trp Gln Leu Gln Phe Thr Tyr
       35
                        40
Thr Ala Ser Gln Pro Gly Thr His Gln Lys Ile Ile Asp Met Ala Met
                     55
                                       60
Asn Gly Val Gly Cys Arg Ala Thr Ala Arg Ile Met Gly Val Gly Leu
                 7.0
Asn Thr Ile Phe Arg His Leu Lys Asn Ser Gly Arg Ser Arg
              85
<210> 7246
<211> 653
<212> PRT
<213> Enterobacter cloacae
<400> 7246
Thr Val Ser Ala Ile Trp Tyr Asp Ser Pro Asn Ile Arg Ile Trp Lys
Glu Arg Tyr Met Gly Asp Leu Val Ser Lys Asn Asn Ile Asp Arg Leu
          20
                            25
                                              30
Glu Arg Phe His Ser Leu Leu Ala Gly Gln Tyr Trp Thr Ser Thr Asp
                        40
Ser Ile Pro Glu Glu Gly Ile Val Ala Gly Asp Thr Leu Leu Ile Thr
```

Ser Leu Arg Tyr Val Glu Asp Lys Leu His Thr Val Ile Leu Arg Ala 70 His Pro Arg Val Tyr Gly Gln Thr Val Ala Ile Val Thr Glu Asp Ser 90 Ser Gly Asn Arg Arg Glu Arg Gly Lys Glu Met Arg Glu His Arg Phe 100 105 110 Leu Val Lys Asp Phe Leu Ser Ser Phe Val Phe Glu Pro Asp His Lys 115 120 125 Val Ile Arg Asp Ala Glu Leu Arg Gln Ala Gln Glu Glu Val Asn Ser 130 135 140 Leu Gln Ala Ser Leu Thr Ala Leu Val Ser Asp Ala Gln Gly Leu Arg 150 155 160 Asp Leu Ala Ile Glu Gln Leu Gly Thr Asp Asp Arg Glu Asn Pro Val 165 170 175 Thr Gly Leu Ser Val Ala Leu Val Pro Pro Gln Glu Gln Gln Ala Val 180 185 190 Thr Ser Leu Ala Ile Gly Ser Val Gln Asn Ala Leu Ser Ser Gly Ile 195 200 205 Ser Asp Thr Arg Ile Glu Gln Ile Arg Glu Ala Ala Leu Lys Glu Gly 210 215 220 Gln Ile Ser Thr Ala Ile Ser Lys Ile Ile Thr Gln Arg Thr Gln Ala 225 230 235 240 Ile Ala Asn Ala Ser Lys Arg Met Leu Pro Tyr Phe Glu Glu Val Ala 245 250 255 Ala Ala Ser Leu Ala Thr Thr Glu Glu Ala Met Glu Tyr Val Lys Lys 260 265 270 Ile His Asp Gly Val Gly Ser Leu Glu Leu Tyr Thr Gly Lys Asp Val 275 280 285 Glu Val Val Asn Ile Val Lys Gly Glu Ser Ala Pro Ser His Leu Pro 290 295 300 Leu Gln Val Val Gln Ala Lys Leu Met Val Asp Glu Glu Leu Ala Val 305 310 315 Trp Cys Asp Leu Asp Ser Trp Phe Asp Phe Ser Asp Met Glu Lys Phe 325 330 335 His Glu Thr Leu Arg Thr Ser Pro Gly Leu Val Glu Gln Ile Phe Pro 345 350 340 Ser Glu Arg Ser Ile Val Cys Met Ala Thr Thr Arg Arg Tyr Ile Asp 355 360 365 Tyr Arg Asp Pro Trp Glu Asn His Val Arg Asn Asp Arg Asn Arg Val 370 375 380 Val Phe Leu Leu Val Arg Asp Gly Gln Asn Ile His Gln Val Tyr Cys 390 395 Ser Val Glu Ser His Leu Gly Ala Ser Gln Leu Phe Pro Ser Ala Ser 405 410 Glu Gln Glu Ala His Phe Gln Gly Ile Asp Gly Ser Thr Ile Lys Phe 420 425 Glu Asp Val Ser Tyr Thr Asp Arg Leu Lys Gln His Asp Leu Met Ala 445 435 440 Leu His Tyr Arg Arg Phe Leu Ile Leu Ile Cys Gly Leu Asp His Arg 455 460 Leu Lys Leu Phe Gly Asp Phe Tyr Asp Thr Asn Thr Pro Tyr Ser Phe 470 465 475 Leu Ser Leu Glu Phe Gln Glu Arg Tyr Phe Gln Phe Leu His Asp Lys 485 490 495 Asp Gly Ser Gly Leu Leu Gly Met Ala Glu Thr Arg Pro Ser Leu Gln 500 505 510 Ser Tyr Leu Glu Gln Ala Asn Ser Cys Leu Gln Ser Gly Ser Arg Val 515 520 525 Met Cys Asn Trp Asp Ser Leu Met Asn Pro Val Thr Ala Pro Gly Ala 535 540

Val Gln Glu Asp Asn Ser Tyr Ser Gly Tyr Lys Trp Leu Gly Arg Thr 545 550 555 His Lys Asn Tyr Glu Pro Val Ile Ala Phe Arg Gln Gly Asp Asp Ile 570 565 Cys Val Asn Ala Thr Val Asn Arg Tyr Ser Thr Asp Arg Asp Phe Asn 590 585 580 Cys Lys Val Asn Leu Ser Leu Phe Lys Glu Ser Ser Arg Asn Asp Ala 595 600 605 Glu Leu Gly Phe Leu Cys Met Asp Thr Ile Lys Ala Glu Glu Leu Glu 615 620 Trp Tyr Ile His Arg Arg Lys Phe Arg Ser Asn His Leu Phe Tyr Ile 635 625 630 Arg Phe Phe Lys Met Val Leu Pro Thr Val Gln Asn 645

<210> 7247 <211> 105 <212> PRT

<213> Enterobacter cloacae

<400> 7247

Ser Ala Pro Leu Asn Thr Gly Glu Leu Met Ile Thr Phe Glu Ile Arg 10 Met Glu Ile Lys Val Leu His Lys Arg Gly Met Ser Ile Arg Ala Ile 20 25 3.0 Ala Arg Glu Leu Gly Ile Ser Arg Asn Thr Val Arg Ser His Leu Lys 35 40 4.5 Ala Lys Ser Glu Lys Pro Gln Tyr Ser Pro Arg Pro Ala Pro Ser Ser 50 55 60 Leu Leu Asp Glu Tyr Arg Asp Tyr Ile Ser Lys Arg Ile Ser Asp Ala 65 70 75

His Pro Tyr Lys Ile Pro Ala Thr Val Ile Ala Arg Glu Ile Met Glu 85

Leu Gly Tyr Arg Gly Arg Ala Phe

100

<210> 7248 <211> 253

<212> PRT <213> Enterobacter cloacae

<400> 7248

Gly Ala Glu Met Lys Lys Ile Ile Lys Ala Ser Val Leu Leu Leu Ser 10 Leu Ser Thr Ala Phe Thr Met Asn Ala Glu Pro Val Asn Thr Met Val 2.0 2.5 Leu Pro Asp Ala Ala Arg Asp Lys Leu Lys Ala Ile Gly Leu Ser Ile 40 Glu His Val Glu Pro Ser Pro Val Lys Asp Ile Phe Thr Val Ile Ser 5.0 55 60 Arg Glu Gly Val Ser Tyr Val Ser Lys Asp Gly Asp Tyr Ile Phe Thr 7.0 7.5 Gly Ser Leu Phe His Val Lys Gly Lys Asp Val Val Asn Thr Thr Glu 85 90 Gln Ala Ile Leu Met Gly Val Arg Glu Phe Ala Ser Lys Thr Lys Ser 100 105 Ile Asp Tyr Lys Ser Pro Asn Glu Lys Tyr Arg Leu Ala Ile Phe Thr 1.20 125 115 Asp Ile Thr Cys Gly Tyr Cys Gln Lys Leu His His Asp Leu Lys Ser 140 135

Tyr Leu Asp Ala Gly Ile Ser Ile Lys Phe Leu Ala Phe Pro Arg Ala

150 Gly Leu Asn Ser Val Val Ala Gly Asn Met Ala Lys Ile Trp Cys Ser 165 170 Ala Lys Pro Asn Glu Ala Leu Asp Ala Ala Met Asn Pro Val Ser Thr 180 185 190 Ile Pro Glu Gly Arg Pro Asp Glu Ala Cys Leu Asn Ile Ile Lys Ser 195 200 205 His Phe Gln Val Ala Ser Thr Ile Pro Leu Gln Gly Thr Pro Thr Met 210 215 220 Val Thr Leu Ser Gly Lys Pro Gln Leu Phe Thr Gly Trp Leu Ser Pro 225 230 235 Glu Asn Leu Val Thr Gln Met Gly Ala Ala Gln Lys 245 <210> 7249 <211> 303 <212> PRT <213> Enterobacter cloacae <400> 7249 Ser Pro Lys Ser Ile Val Ser Arg Ile Ile Pro Ile Tyr Arg Ala Ser 1.0 Ile Ile His Arg Arg Leu Ile Thr Asn Arg Leu Lys Ser Ile Lys Val 20 25 Ala Met Ser Lys Glu Phe Tyr Leu Lys Pro Met Ala Thr Ile Leu Ile 35 40 Ser Ala Val Ile Ala Thr Ala Ala Ser Ala Leu Ile Thr Ala Thr Tyr 50 55 60 Phe Lys Pro Lys Val Leu Ser Glu Glu Glu Ile Gly Lys Ile Ala Ala 65 70 75 Thr Tyr Leu Val Lys Asn Pro His Tyr Leu Val Glu Ala Gly Lys Ala 85 90 Leu Glu Asn Gln Asn Val Ser Ala Ser Val Glu Arg Ile Ile Pro Tyr 105 100 Ala Pro Ala Leu Leu Asp Thr Lys Glu Thr Pro Asn Ile Gly Pro Asp 115 120 125 Asp Ala Asp Val Ala Val Ile Glu Phe Phe Asp Tyr Gln Cys Ile Tyr 130 135 140 Cys Met Arg Val Thr Pro Val Val Glu Ser Val Met Asn Gln Ser Lys 150 155 160 Asp Val Lys Phe Phe Phe Lys Glu Phe Pro Ile Phe Ala Gly Ser Lys 165 170 175 Pro Val Ser Ala Met Gly Ala Ala Thr Gly Leu His Val Tyr Gln Asn 180 185 190 Phe Gly Ala Glu Ala Tyr Arg Lys Tyr His Asn Asn Leu Met Ala Val 195 200 205 Ala His Thr Phe Met Thr Ser Gln Arg Lys Phe Glu Leu Thr Asp Phe 215 220 210 Asn Thr Val Val Glu Lys Ser Gly Phe Asn Ser Thr Phe Ser Asp Arg 230 235 Glu Lys Asn Arg Tyr Glu Asn Val Ile Ser Gly Asn Met Gln Leu Gly 245 250 255 Glu Ala Leu Gly Ile Thr Gly Thr Pro Gly Phe Ile Ile Met Asn Met 265 260 270

Lys Lys Pro Asn Ala Ala Thr Thr Thr Phe Ile Pro Gly Ala Met Asp

Ala Ala Thr Leu Gln Gly Ala Ile Glu Lys Ala Arg Gly Ala 295

275 280

285

300

<210> 7250 <211> 78

<212> PRT <213> Enterobacter cloacae

Leu Arg Ser Asp Met Asp Tyr Asn Ile Tyr Thr Leu Gly Asp Ile Asp Phe Val Trp Ser Ala Phe Thr Gly Ile Ala Leu Ile Phe Ser Gln Tyr 25 Thr Gly Val Lys Glu Phe Leu Thr Thr Ala Ala Val Val Ala Gly Val 35 Ser Leu Phe Tyr Lys Thr Trp Leu Trp Leu Gln Ala Pro Thr Lys Asn 55 Glu Leu Pro Phe Phe Ser Trp Phe Leu Gly Leu Ile Leu Phe Met Met 70 Ala Met Val Arg Val Asp Val Thr Ile Glu Ser Val Lys Ser Gly Glu 90 8.5 Val Arg Asn Val Asp Gly Ile Pro Ile Phe Ile Ala Ala Met Ala Thr 100 105 110 Val Thr Thr Asn Leu Ser Gln Gly Leu Leu Lys Asp Tyr Lys Thr Ala 120 125 115 Phe Asp Pro Leu Ser Pro Val Asp Leu Ser Ala Thr Thr Leu Asp Asp 135 140 Asp Ile Thr Leu Gly Pro Met Ile Arg Phe Val Lys Phe Leu Gln Trp 155 150 Gly Gly Asp Ser Gln Gly Tyr Cys Ser Ala Phe Pro Glu Pro Ala Ser 170 165 Gly Leu Gly Pro Met Asn Val Cys Ala Thr Val Gln Ser Leu Ala Tyr 185 190 Asn Cys Leu Lys Ala Thr Gln Asn Ser Ser Ala Asn Ile Ala Gly Lys 195 200 Glu Thr Ile Phe Asn Asp Ile Phe Ser Ala Asn Leu Ala Asp Ser Met 215 Asp Arg Ile Asn Gln Ala Met Lys Gly Ala Leu Lys Asn Ala Ser Ala 230 235 Ser Ile Val Gly Ala Asn Gly Ser Lys Ser Gly Thr Cys Asp Glu Val 245 250 Trp Ser Thr Val Lys Gln Val Thr Ser Thr Ala Glu Ala Arg Gln Thr 265 270 260 Ile Ser Leu Ile Gly Gln Thr Asn Gly Ile Leu Thr Pro Asp Glu Ala 275 280 285 Asn Gly Ala Pro Thr Gly Ala Ser Phe Thr Asp Val Met Ala Ser Ala 295 300 Asn Gly Met Tyr Gly Lys Ala Ile Gly Ser Tyr Asp Ala Thr Leu Asn 310 315

Leu Phe Ile Met Asn Glu Leu Arg Asn Gly Ala Ser Lys Tyr Lys Thr 330 Pro Leu Gly Leu Ala Ser Asp Met Gln Leu Phe Glu Ala Ser Leu Lys 345 350 Arg Thr Asn Thr Met Ala Ser Gln Gly Gln Leu Trp Leu Gln Leu Ser 355 360 365 Gly Ala Ala Ile Ala Phe Leu Glu Met Phe Ala Tyr Met Val Ala Pro 375 380 Phe Ala Leu Leu Met Leu Leu Ala Leu Gly Gly Asn Gly Val Ala Ala 385 390 395 400 Ala Ala Lys Tyr Leu Gln Leu Ile Leu Phe Val Asn Met Trp Pro Leu 405 410 415 Thr Ala Val Met Val Asn Ala Tyr Val Lys Lys Val Ala Thr Ala Asp 420 425 430 Leu Asp Thr Trp Ser Thr Leu Asn Ser Gln Asn Asn Ala Val Thr Trp 440 Met Gly Leu Pro Gly Leu Ala Glu Thr Tyr Ser Ser Tyr Leu Ser Val 455 460 Ala Ser Ala Leu Tyr Ala Leu Ile Pro Val Leu Thr Leu Phe Leu Met 470 475 Thr Gln Ser Ile His Pro Met Met Asn Ala Val Lys Gly Val Thr Pro 485 490 495 Asp Ala Pro Val Asp Thr Gly His Val Thr Pro Lys Val Trp Asp Gly 500 505 510 Pro Asn Ser Gly Lys Ser Ser Phe Gly Asp Val Thr Arg Thr Ala Leu 520 525 Thr Ser Thr Gly Gln Gly Tyr Ser Asp Gly Gly Ala Val Asp Ser Ser 535 540 Asn Phe Arg Leu Gly Met Trp Asn Ala Gly Ser Ser Ile Ala Asn Ser 545 550 555 560 Gln Gly Gln Gly Ser Ala Val Thr Ser Ser Val Met Ser Ala Ala Ser 565 570 575 Asn Ser Phe Gln Ala Gly Tyr Ser Gln Met Ser Glu Ile Gly Arg Ser 580 585 590 Gly Gln Ser Ser Gln Gln Phe Ser Thr Asn Leu Gln Thr Met Lys Gln 595 600 605 Ile Ser Asp Lys Ile Gly Ala Ser Val Ala Glu Gly Ile Ala Thr Lys 610 615 620 His Gly Val Ser Ala Ser Gln Met Ala Ser Ile Ala Ser Asn Val Ile 630 635 Leu Asn Ala Gly Leu Asn Gly Gly Val Gly Thr Gly Asn Gly Ala Gly 645 650 655 Leu Lys Ala Ala Val Ala Gly Gln Leu Ser Ser Gly Ala Ser Lys Thr 660 665 670 Asn Thr Gly Ser Asp Ser Leu Ser Asn Asp Leu Ser Lys Ala Ile Thr 675 680 685 Asn Gln Leu Ser Gln Asp Ser Ala Leu Thr Asp Gln Phe Ser Lys Ala 695 700 Ala Ser Gln Val Ser Ser Asp Gln Ile Ser Asn Thr Asn Ala Phe Lys 710 715 Glu Ala Ser Ser Lys Met Asn Gln Ala Thr Gln Thr Met Ala Gln Asn 725 730 735 Ile Ser Thr Ser Val Ser Thr Asn Ala Ser Ser Asn Ser Gly Met Ser 740 745 750 Leu Asp Ser Lys Gln Ser Ile Asn Leu Asp Arg Phe Ser Asp Ser Ile 760 765 Arg Asn Lys Asn Phe Ser Asp Asp Val Arg Asn Phe Ala Arg Lys 775 780 Asn Gly Leu Asp Glu Asn Ala Phe Met Glu Lys Phe Asn Ser Tyr Asn 790 795 Asp Thr Phe Lys Ala Ser Asn Gln Leu Gly Ser Gln Leu Gln Arg Thr

```
810
          805
Asp Ala Leu Val Ala Ala Thr Arg Asp Phe Ser Glu Gln Lys Ile Ala
     820 825 830
Ile Asp Thr Ala Arg Gly Glu Thr Ala Glu Ser Asn Lys Gln Asp Leu
         840 845
Arq Glu Thr Ser Ser Leu Leu Lys Ser Leu Val Ser Asp Phe Gly Gly
     855 860
Asn Ala Gln Gln Leu Leu Pro Ile Thr Asn Gln Leu Asp Arg Ile Ser
865 870 875
Gly Asp Gly Ser Gly Ile Asn Thr Ile Thr Gln Ala Gln Asp Arg Thr
       885 890 895
Pro Asp Ser Val Asn Thr Ser Gly Val Met Ser Ala Ser Arg Val Gly
    900 905 910
Glu Leu Gly Gly Ser Val Asp Ser Gln Ala Lys Leu Gly Leu Ser Ser
915 920 925
Asn Ala Gln Asp Ala Thr Gln His Val Pro Gly Lys Ser Glu Ala Gly
930 935 940
Phe Thr Pro Tyr Asn Leu Asp Asn Ala Gly Lys Gly Asp Ile Gln Gly
945 950 955 960
Ile His Asn Asn Asn Val Gly Arg Thr Tyr Ser Asp Glu Glu Arg Asn
    965 970 975
Val Leu Asn Ser Leu Glu Lys Asn Gly Pro Val Leu Asn Asn Gln Gly
980 985 990
Val Glu Lys Val Val Asn Ser Gly Gln Asp Val Arg Asn Ala Glu Gly
995 1000 1005
Thr Phe Asn Asp Leu Glu Lys Val Gly Gly Arg Val Val Gly Asp Gly
1010 1015 1020
Met Asp Gln Arg Ala Thr Ala Leu Asn Ser Met Tyr Gln Ser Gly Gln
1025 1030 1035 1040
Val Arg Gly Leu Ser Asn Asn Thr Asp Asn Tyr Phe Ser Arg Val Ala
   1045 1050 1055
Asn Asn Pro Asn Leu Ser Arg Asp Asp Lys Arg Ala Glu Leu Ala Gln
 1060 1065 1070
Gln Ala Val Phe Thr Tyr Gly Ala Ser Thr Met Ala Thr Gly Ala Glu
1075 1080 1085
Arg Glu Gln Leu Lys Ala Asp Thr Gln Lys Ile Leu Asn Glu Leu Gly
1090 1095 1100
Asn Tyr Asn Val Asn Trp Ser Met Asn Asp Val Lys Ser Ile His Ser
1105 1110 1115 1120
Ser Phe Asn Thr His Asn Arg Ala Asp Gly Ser Leu Glu Ser Val Val
       1125 1130 1135
Arq Ala Asn Leu Gly Glu Gly Gly Ser Gly Gly Gly Leu Val Gly Asn
   1140 1145 1150
Arg Thr Gln Thr Val Thr Asp Arg Leu Val Gly Glu Lys Ile Glu Ala
1155 1160 1165
Asn Thr Glu Arg Gly Ala Ile Ser Gly Ala Leu Leu Gly Gly Gln Gln
1170 1175 1180
Phe Val Ser Asp Thr Leu Thr Ser Val Gly Ala Lys Pro Val Asn Glu
1185 1190 1195 1200
Met Leu Thr Gly Ala Gly Ile Leu Gln Thr Gln Thr Ser Ile Ala Asn
          1205 1210 1215
Asp Ala Ser Asn Pro Ala Asn Met Pro Asp Ser Leu Gln Gly Lys Val
  1220 1225 1230
Leu Asn His Met Gln Met Ser Asp Gly Val Ala Ala Val Ser Asp Arg
 1235 1240 1245
Tyr Gln Ser Ile Ser Ser Asp Gly Val Ser Thr Tyr Ala Asn Ala Ala
 1250 1255 1260
Gln Asn Ser Glu Arg Ala Ile Arg Gln Gln Leu Thr Asp Asp Pro Arg
1265 1270 1275 1280
Phe Gly Pro Gin Lys Ala Asp Glu Phe Ile Gin Tyr Met Lys Ser Glu
          1285
                1290
```

```
Leu Ser Asn Thr Asn Glu Pro Tyr Gln Ser Arq Val Asp Lys Ala Asp
    1300 1305 1310
Gln Trp Leu Asn Glu Asn Lys Lys
    1315 1320
<210> 7252
<211> 175
<212> PRT
<213> Enterobacter cloacae
<400> 7252
Tyr Gly His Glu Trp Arg Trp Met Pro Gly Asn Arg Pro His Tyr Gly
Arg Trp Pro Gln His Asp Phe Pro Pro Phe Lys Lys Leu Arg Pro Gln
       2.0
                       25
                                 30
Ser Val Thr Ser Arg Ile Gln Pro Gly Ser Asp Val Ile Val Cys Ala
    35
                    40
                                    4.5
Glu Met Asp Glu Gln Trp Gly Tyr Val Gly Ala Lys Ser Arg Gln Arg
 50
                  55
                           60
Trp Leu Phe Tyr Ala Tyr Asp Arg Leu Arg Lys Thr Val Val Ala His
             7.0
                               7.5
Val Phe Gly Glu Arg Thr Met Ala Thr Leu Gly Arg Leu Met Ser Leu
          85
                       90 95
Leu Ser Pro Phe Asp Val Val Ile Trp Met Thr Asp Gly Trp Pro Leu
 100 105 110
Tyr Glu Ser Arg Leu Lys Gly Lys Leu His Val Ile Ser Lys Arg Tyr
115 120 125
Thr Gln Arg Ile Glu Arg His Asn Leu Asn Leu Arg Gln His Leu Ala
130 135 140
Arg Leu Gly Arg Lys Ser Leu Ser Phe Ser Lys Ser Val Glu Leu His
145 150 155
Asp Lys Val Ile Gly His Tyr Leu Asn Ile Lys His Tyr Gln
<210> 7253
<211> 151
<212> PRT
<213> Enterobacter cloacae
<400> 7253
Lys Arg Ile Thr Lys Leu Ser Leu His Trp Arg Ala Asn Val Val Glu
Gln Val Ser Gly Ile Leu Thr Arg Trp Arg Gln Phe Gly Arg Arg Tyr
                          25
Phe Trp Pro His Leu Leu Gly Met Val Ala Ala Ser Leu Gly Leu
                      4.0
                                      4.5
Pro Val Leu Ser Asn Ser Ala Asp Ala Ala Thr Pro Ala Arg Ser Thr
                  55
                                   60
Thr Thr Lys His Asp Leu Thr Thr Arg Val Asn Phe Thr Asn Leu Ala
               70
                                7.5
Trp Leu Glu Ala Ser Arg Arg Leu Asn Phe Ser Val Asp Tyr Trp Gln
         85
                            90
Gln His Ala Asn Pro Thr Val Asn Arg His Leu Ser Phe Ala Arg Ala
         100
                          105 110
Pro Thr Arg Met Leu Val Ala Glu Lys Asn Leu Pro Val Gln Ala Gln
                           125
                      120
His Leu Gly Leu Val Gln Ser Pro Asn Ala Ala Leu Asn Pro Gly Asn
 130 135
                                   140
Gln Pro Ala Ile Glu Pro
```

290

```
<210> 7254
<211> 71
<212> PRT
<213> Enterobacter cloacae
<400> 7254
Ile His Ala Asp Gly Arg Ser Val Val Lys Thr Leu Cys Met Cys Gly
                              10
His Asn Ile Ile Gly Ala Phe Thr Ala Phe Lys Ser Gly His Ala Leu
20
                           25
Asn Asn Lys Leu Leu Gln Ala Val Leu Ala Lys Gln Glu Ala Trp Glu
35 40
                            45
Tyr Val Thr Phe Glu Asp Glu Ala Glu Leu Pro Leu Ala Phe Lys Ala
50 55
Pro Thr Met Val Leu Ala
<210> 7255
<211> 502
<212> PRT
<213> Enterobacter cloacae
<400> 7255
Cys Leu Met Glu Ser Asp Val Met Thr Gln Pro Ala Lys Lys Ala Pro
1 5
                            10
                                             1.5
Ser Ile Lys Leu Leu Phe Ser Ala Leu Leu Leu Val Met Leu Leu Ser
       20
                           25
Ala Leu Asp Gln Thr Ile Val Ser Thr Ala Leu Pro Thr Ile Val Gly
                     40
Glu Leu Gly Gly Leu Asp Lys Leu Ser Trp Val Val Thr Ala Tyr Ile
                   5.5
Leu Ser Ser Thr Ile Val Val Pro Leu Tyr Gly Lys Phe Gly Asp Leu
              70
65
                     75
Phe Gly Arg Lys Ile Val Leu Gln Ile Ala Ile Val Leu Phe Leu Val
            85
                              90
Gly Ser Ala Leu Cys Gly Leu Ala Gln Asn Met Thr Gln Leu Val Leu
         100
                           105 110
Met Arg Ala Leu Gln Gly Leu Gly Gly Gly Leu Met Val Ile Ser
      115 120
                                      125
Met Ala Ala Val Ala Asp Val Ile Pro Pro Ala Asp Arg Gly Arg Tyr
 130 135 140
Glm Gly Leu Phe Gly Gly Val Phe Gly Leu Ala Thr Val Ile Gly Pro
                150
                               155
Leu Ile Gly Gly Phe Ile Val Gln His Ala Ser Trp Arg Trp Ile Phe
                              170
             165
Tyr Ile Asn Leu Pro Leu Gly Leu Phe Ala Leu Leu Val Ile Gly Ala
       180
                           185
                                            190
Val Phe His Gly Ser Ala Arg Arg Ser Lys His Glu Ile Asp Tyr Leu
      195
                        200
                                         205
Gly Ala Ile Tyr Leu Ser Met Ala Leu Leu Cys Ile Ile Leu Phe Thr
   210
                    215
                                    220
Thr Glu Gly Gly Thr Ile Arg Gln Trp Ser Asp Pro Gln Leu Trp Cys
                                 235
Ile Leu Ala Phe Gly Leu Thr Gly Ile Ala Gly Phe Ile Tyr Glu Glu
             245
                              250
Arg Leu Ala Trp Glu Pro Ile Ile Pro Leu Ser Leu Phe Arg Asp Arg
         260
                           265
                                            270
Ser Phe Leu Cys Ser Leu Ile Gly Phe Ile Ile Gly Met Ser Leu
                       280
                                         285
Phe Gly Ser Val Thr Phe Leu Pro Leu Tyr Leu Gln Val Val Lys Asp
```

295

```
Ala Thr Pro Thr Gln Ala Gly Leu Gln Leu Ile Pro Leu Met Gly Gly
                310
                              315
Leu Leu Leu Thr Ser Ile Ile Ser Gly Arg Ile Ile Ser Arg Thr Gly
                             330
             325
                                              335
Lys Tyr Arg Leu Phe Pro Ile Leu Gly Thr Leu Leu Gly Val Val Gly
      340
                        345
                              350
Met Met Leu Leu Thr Arg Ile Ser Ile Thr Ser Pro Thr Trp Gln Leu
   355
                      360 365
Tyr Leu Phe Thr Gly Val Leu Gly Met Gly Leu Gly Leu Val Met Gln
                 375 380
Val Leu Val Leu Ala Val Gln Asn Ser Val Ser Ala Asp Gln Tyr Gly
    390 395 400
Val Ala Thr Ser Gly Val Thr Leu Phe Arg Ser Ile Gly Gly Ala Ile
       405 410 415
Gly Val Ala Leu Phe Gly Ala Val Phe Thr His Ile Leu Gln Ser Gly
         420
                          425
                              430
Leu Ile Asp Arg Leu Pro Glu Gly Ala Glu Leu Pro Arg Glu Leu Asn
      435 440 445
Pro Val Ala Ile His His Leu Pro Asp Ala Leu Arg Leu Asp Tyr Leu
 450 455
                                  460
Asp Ala Phe Gly Ser Ala Ile His Ala Val Phe Met Leu Ala Ala Glu
465 470 475
Ile Met Val Leu Ala Phe Val Leu Ser Trp Phe Leu Arg Glu Ala Pro
 485
                            490
Leu Arg Arg Gln Ala
         500
<210> 7256
<211> 154
<212> PRT
<213> Enterobacter cloacae
<400> 7256
Ala Val Arg Tyr Ser Asp Cys Ala Glu Asn Lys Glu Arg Phe Met His
                              10
Leu Ser Ile Thr Asp Lys Val Thr Ala Glu Glu Lys Glu Glu Leu Leu
                                          30
Thr Gly Leu Arg Ala Tyr Asn Ala Gln Tyr Leu Asp Leu Ala Thr Phe
                      40
                                       45
Ser Gly Asp Ile Gly Val Tyr Met Arg Asp Asp Asn Gly Val Met Leu
 5.0
                    55
Gly Gly Leu Ile Gly Val Arg Lys Gly Asp Trp Leu Asn Ile Asp Tyr
           7.0
                                 75
                                                 80
Leu Trp Val Ser Asp Ser Val Arg Gly Thr Gly Val Gly Ser Gln Leu
             8.5
                             90
Ile Lys Thr Ala Glu Glu Glu Ala Arg Arg Lys Gly Cys Arg His Ala
         100
                          105
Leu Val Asp Thr Val Ser Phe Gln Ala Arg Pro Phe Tyr Glu Lys Gln
115
                       120
Gly Tyr Gln Val Gln Met Ser Leu Gln Asp Tyr Pro Tyr Gln Gly Met
                   135
   130
                                    140
Gln Arg His Tyr Leu Ser Lys Asn Leu
145
                150
<210> 7257
<211> 321
<213> Enterobacter cloacae
<400> 7257
Gin Gly Arg Glu Met Ser Thr Ile Asn Asp Val Ser Arg Leu Ala Gly
```

Val Ser Lys Ala Thr Val Ser Arg Val Leu Ser Gly Ser Arg Gly Val 25 Lys Glu Ala Ser Arg Gln Ala Val Leu Lys Ala Val Asp Glu Leu Asn 40 Tyr Arg Pro Asn Val Ile Ala Gln Ser Leu Leu Ser Gln Ser Thr Gly 5.0 5.5 Cys Ile Gly Val Ile Cys Ala Gln Glu Asn Ile Asn Gln Thr Thr Gly 70 75 Tyr Leu Tyr Ala Leu Glu Lys His Leu Ser Gln His Gln Lys His Leu 85 90 95 Leu Leu Arg Phe Ala His Thr Lys Thr Glu Val Met Asn Ala Leu Glu 100 105 110 Glu Leu Ser Cys Gly Leu Cys Asp Asp Ile Leu Val Ile Gly Ala Arg 115 120 125 Phe Pro Leu Asp Val Asp Met Asp Asn Val Ile Leu Val Asp Cys Met 130 135 140 Glu Ala Asp Asn Ala Asn Ser Ile Gln Phe Asp His Ala Phe Ala Ala 150 155 Glu Thr Ala Cys Asn Tyr Leu Thr Ser Gln Gly Arg Arg Gln Ile Ala 165 170 Leu Ile His Pro His Gly Ser Gly Phe Ala Asp Gln Val Leu Leu Gly 180 185 Tyr Lys His Ala Leu Glu Lys Asn Phe Leu Pro Phe Asn Arg Asn Leu 195 200 205 Val Phe Met Asp Ala Thr Ser Ser Ser Val Ala Leu Gln Glu Leu Leu 215 220 Asn Asn Ala Ser Thr Leu Asn Phe Asn Ala Leu Leu Val Ala Asp Glu 230 235 Gln Glu Ala Gln Arg Val Ile Pro Gln Leu Gln Ala Phe Asn Lys Ser 245 250 Val Pro Glu Asp Ile Met Val Phe Ser Leu Gly Gly Ser Leu His Leu 260 265 270 Pro Gly Ile Pro Val Ile Pro Ala Ile Glu Tyr Ser Met Asp Ala Met 275 280 285 Ala Ala Arg Ile Val Ser Trp Leu Thr Glu Lys Thr Gln Met Leu Gly 290 295 300 Ser Tyr Val Leu Arg Gly Asp Leu Ile Ile Pro Asp Val Arg Lys Arg 315

```
<210> 7258
<211> 224
<212> PRT
<213> Enterobacter cloacae
```

<400> 7258

Ile Arg Ser Arg Asp Thr Val Thr Met Pro Ala Gln Lys Asp Asn Ser I 10 15 15 10 16 15 15 10 16 15 15 10 17 15 15 10 17 15 15 10 17 15 10 15 15 10 17 15 10 15 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10

Thr Pro Ala Met Leu His Tyr Tyr Phe Asn Ser Arg Glu Gln Leu Leu 65 70 75 80 Asp Ala Met Ile Glu Glu Arg Phe Leu Pro Leu Arg Glu Arg Ile Gly 85 90 95 Ala Ile Phe Ala Asp Asn Arg Asp Ser Pro Val Asp Ala Leu Thr Glu

```
105
Met Val Arg Val Leu Ala Glu Leu Ala Glu Lys Tyr Arg Trp Phe Ala
    115
                    120
                              125
Pro Leu Trp Met Gln Glu Val Ile Gly Glu Met Pro Val Leu Arg Thr
        135
                           140
His Leu Gln Ala Arg Phe Gly Asp Glu Lys Tyr His Thr Thr Leu Ala
145 150 155 160
Thr Ile Lys Gly Trp Gln Gln Glu Gly Lys Leu Asn Pro Ala Leu Ala
        165 170 175
Pro Glu Leu Leu Phe Thr Thr Leu Leu Ser Leu Val Leu Val Pro Phe
       180 185 190
Ser Arg Met Arg Asn Asp Glu Arg Leu Ser Ala Leu Ser Pro Glu Ile
   195 200 205
Val Val Arg His Val Leu Ala Val Ile Gly Thr Gly Ile Gly Gly
                   215
<210> 7259
<211> 1047
<212> PRT
<213> Enterobacter cloacae
<400> 7259
Arg Asp Glu Asn Gln Arg Arg Lys Arg Leu Met Phe Ser Arg Phe Phe
                            10
Val Arg Arg Pro Val Phe Ala Trp Val Ile Ala Ile Leu Ile Met Leu
                          25
20
Ala Gly Ile Leu Ala Ile Arg Thr Leu Pro Val Ala Gln Tyr Pro Asp
35
                      4.0
                                       4.5
Val Ala Pro Pro Ser Ile Lys Ile Ser Ala Thr Tyr Thr Gly Ala Ser
5.0
                55
                                 60
Ala Gln Thr Leu Glu Asn Ser Val Thr Gln Val Ile Glu Gln Gln Leu
              7.0
                                75
Thr Gly Leu Asp Asn Leu Leu Tyr Phe Thr Ser Thr Ser Ser Ser Asp
          85
                             90
Gly Ser Val Ser Ile Asn Val Thr Phe Glu Gln Gly Thr Asp Pro Asp
         100
                         105
                                          110
Thr Ala Gln Val Gln Val Gln Asn Lys Val Gln Gln Ala Glu Ser Arg
115
                      120
Leu Pro Thr Glu Val Gln Gln Ser Gly Ile Thr Val Glu Lys Ser Gln
 130
                   135
                                    140
Ser Asn Phe Leu Leu Ile Met Gly Val Tyr Asp Lys Thr Asp Thr Ala
                150
                                 155
Ser Ser Ser Asp Ile Ala Asp Trp Leu Val Ser Asn Met Gln Asp Pro
             165
                             170 175
Leu Ala Arg Val Asp Gly Val Gly Ser Leu Gln Val Phe Gly Ala Glu
         180
                         185
                                           190
Tyr Ala Met Arg Ile Trp Leu Asp Pro Ala Lys Leu Ala Ser Tyr Ser
      195
                      200
                                       205
Leu Met Pro Ser Asp Val Gln Ser Ala Ile Glu Ala Gln Asn Val Gln
  210
                   215
                                    220
Val Ser Ala Gly Lys Ile Gly Ala Leu Pro Ser Ser Asn Ala Gln Gln
                230
                                235
Leu Thr Ala Thr Val Arg Ala Gln Ser Arg Leu Gln Thr Val Asp Glu
                             250
             245
Phe Lys Lys Ile Ile Val Lys Ser Gln Ser Asn Gly Ala Val Val Arg
         260
                          265
                                          270
Ile Ser Asp Val Ala Arg Val Glu Met Gly Ser Glu Asp Tyr Thr Ala
      275
                       280
                                       285
Thr Ala Lys Leu Asn Gly His Pro Ala Ala Gly Met Ala Val Met Leu
                   295
                                    300
Ser Pro Gly Ala Asn Ala Leu Asn Thr Ala Thr Ala Val Lys Asp Lys
```

```
310
                           315
Ile Ala Glu Phe Lys Lys Ser Met Pro Glu Gly Tyr Asp Val Ala Tyr
                 330
       325
Pro Lys Asp Ser Thr Glu Phe Ile Lys Ile Ser Val Glu Asp Val Ile
                     345
       340
Gln Thr Leu Phe Glu Ala Ile Ile Leu Val Val Val Val Met Tyr Leu
         360
Phe Leu Gln Asn Ile Arg Ala Thr Leu Ile Pro Ala Leu Ala Val Pro
           375
Val Val Leu Leu Gly Thr Phe Gly Val Leu Ala Leu Phe Gly Tyr Ser
     390
                         395
Ile Asn Thr Leu Thr Leu Phe Ala Met Val Leu Ala Ile Gly Leu Leu
      405 410
Val Asp Asp Ala Ile Val Val Val Glu Asn Val Glu Arg Ile Met Arg
 420 425 430
Asp Glu Gly Leu Pro Ala Arg Glu Ala Thr Glu Lys Ser Met Gly Glu
435 440 445
Ile Ser Gly Ala Leu Ile Ala Ile Ala Leu Val Leu Ser Ala Val Phe
450 455 460
Leu Pro Met Ala Phe Phe Gly Gly Ser Thr Gly Val Ile Tyr Arg Gln
465 470 475 480
Phe Ser Val Thr Ile Ile Ser Ala Met Phe Leu Ser Val Val Val Ala
      485 490 495
Leu Thr Leu Thr Pro Ala Leu Cys Gly Ser Ile Leu Asn His Thr Ala
500 505 510
Pro His Lys Lys Gly Phe Phe Gly Ala Phe Asn Arg Phe Tyr Ser Lys
515 520 525
Thr Glu His Ser Tyr Gln Asn Lys Val Leu Arg Ala Leu Arg Arg Ser
530 535 540
Gly Gly Met Leu Val Ile Tyr Ala Leu Leu Cys Gly Ala Met Gly Phe
545 550 555 560
Ala Met Leu Lys Leu Pro Gly Ser Phe Leu Pro Thr Glu Asp Gln Gly
   565 570 575
Glu Ile Met Val Gln Tyr Thr Leu Pro Ala Gly Ala Thr Ala Val Arg
      580 585 590
Thr Ala Glu Val Ser Arg Gln Val Arg Glu Trp Phe Leu Thr Lys Glu
   595 600 605
Lvs Ala Asn Thr Asn Val Ile Phe Thr Ile Glu Glv Phe Ser Phe Ser
 610 615 620
Gly Ser Gly Gln Asn Ala Gly Met Ala Phe Val Ser Leu Lys Asn Trp
625 630 635 640
Ser Glu Arg Lys Gly Asp Glu Asn Thr Ala Gln Ala Ile Ala Leu Arg
          645 650 655
Ala Thr Gln Glu Leu Ser Thr Ile Arg Asp Ala Thr Ile Phe Ala Met
       660 665 670
Thr Pro Pro Ala Val Asp Gly Leu Gly Gln Ser Asn Gly Phe Thr Phe
   675 680 685
Glu Leu Met Ala Ser Gly Gly Thr Asp Arg Asp Ala Leu Leu Lys Leu
 690 695 700
Arg Asn Gln Leu Ile Gly Glu Ala Asn Gln Asp Asn Ser Leu His Ala
705 710 715 720
Val Arg Ala Asn Asp Leu Pro Gln Met Pro Gln Leu Gln Val Asp Ile
           725
                        730
Asp Asn Asn Lys Ala Val Ser Leu Gly Leu Ser Leu Ser Asp Val Thr
  740 745 750
Asp Thr Leu Ser Ser Ala Trp Gly Gly Thr Tyr Val Asn Asp Phe Ile
755 760 765
Asp Arg Gly Arg Val Lys Lys Val Tyr Ile Gln Gly Asp Ser Asp Tyr
770 775 780
Arg Ala Val Pro Ser Asp Leu Asn Lys Trp Tyr Val Arg Gly Ser Asp
              790
                           795
```

```
Ser Thr Met Thr Pro Phe Ser Ala Phe Ala Thr Thr Arg Trp Glu Tyr
         805 810
Gly Pro Glu Ser Leu Val Arg Tyr Asn Gly Ser Ala Ala Tyr Glu Ile
        820
                      825
Gln Gly Glu Asn Ala Ser Gly Ala Ser Ser Gly Thr Ala Met Ser Lys
     835
                   840
Met Glu Gln Leu Ala Asn Ser Leu Pro Ser Gly Ser Thr Trp Ala Trp
              855
Ser Gly Leu Ser Leu Gln Glu Lys Leu Ala Ser Gly Gln Ala Met Ser
            870 875
Leu Tyr Ala Leu Ser Ile Leu Val Val Phe Leu Cys Leu Ala Ala Leu
          885
               890 895
Tyr Glu Ser Trp Ser Val Pro Ile Ser Val Ile Met Val Ile Pro Leu
        900 905
                                     910
Gly Val Leu Gly Ala Ala Val Ala Ala Ser Leu Arg Gly Leu Asn Asn
     915 920 925
Asp Val Tyr Phe Gln Val Ala Leu Leu Thr Thr Ile Gly Leu Ser Ser
 930 935 940
Lys Asn Ala Ile Leu Ile Val Glu Phe Ala Glu Ala Lys Val Ala Glu
945 950 955
Gly Tyr Ser Leu Thr Arg Ala Ala Leu Arg Ala Ala Gln Thr Arg Leu
   965 970 975
Arg Pro Ile Ile Met Thr Ser Leu Ala Phe Ile Ala Gly Val Thr Pro
980 985 990
Leu Ala Ile Ala Thr Gly Ala Gly Ala Asn Ser Arg Val Ala Ile Gly
995 1000 1005
Thr Gly Ile Ile Gly Gly Thr Leu Ala Ala Thr Leu Leu Ala Ile Phe
1010 1015 1020
Phe Val Pro Leu Phe Phe Val Leu Val Lys Arg Leu Phe Ser Gly Lys
1025 1030 1035
His Ala Asn Arg Arg Ser
```

<210> 7260 <211> 388 <212> PRT <213> Enterobacter cloacae

1045

<400> 7260 Ile Pro Met Ala Lys Val Ser Phe Ser Phe Ala Ala Ile Leu Gly Leu 10 Leu Thr Ala Ile Gly Pro Leu Cys Ser Asp Phe Tyr Leu Pro Ala Leu 20 25 Pro Glu Ile Ala Thr Gln Leu Asn Thr Ser Thr Thr Leu Thr Gln Leu 40 4.5 Ser Leu Thr Ser Ala Leu Ile Gly Leu Gly Leu Gly Gln Leu Phe Phe 60 Gly Pro Leu Ser Asp Arg Ile Gly Arg Lys Thr Pro Leu Leu Phe Ser 75 7.0 Leu Leu Phe Val Leu Ala Ser Val Leu Cys Ala Ser Thr Gln Asn 90 Ile Tyr Ala Leu Ile Gly Trp Arg Phe Val Gln Gly Val Ala Gly Ala 100 105 110 Gly Gly Ser Val Leu Ala Arg Ser Ile Ala Arg Asp Asn Tyr His Gly 115 120 125 Thr Met Leu Thr Gln Phe Phe Ala Leu Leu Met Thr Val Asn Gly Ile 130 135 140 Ala Pro Val Val Ser Pro Val Leu Gly Gly Tyr Ile Ala Ser His Phe 145 150 155 Asp Trp Arg Met Leu Phe Trp Val Met Ala Gly Ala Gly Leu Ala Leu 165 170

Leu Ile Ala Ser Gln Leu Phe Ile Arg Glu Ser Leu Thr Glu Lys Gln 185 180 Gly Arg Gly Ser Leu Thr Gln Thr Ala Arg Thr Val Leu Lys Asn Arg 195 200 Arg Phe Met Arg Tyr Cys Leu Ile Gln Ala Phe Met Leu Ala Gly Leu 210 215 220 Phe Ala Tyr Ile Gly Ala Ser Ser Phe Val Met Gln Asn Glu Tyr Gly 230 235 240 Leu Ser Ala Met Gln Phe Ser Leu Leu Phe Gly Val Asn Gly Ile Gly 245 250 255 Leu Ile Val Ser Ala Leu Ile Phe Ser Arg Leu Ala Arg Arg His Leu 260 265 270 Ala Glu Arg Leu Met Arg Thr Gly Leu Val Leu Ala Leu Ser Cys Ala 275 280 285 Gly Leu Thr Leu Leu Phe Ala Trp Met Gln Leu Ser Val Pro Ala Leu 290 295 300 Val Ala Leu Phe Phe Thr Val Ala Phe Asn Ser Gly Ile Ser Thr Ile 305 310 315 320Ala Gly Ser Glu Ala Met Ser Ala Val Asp Thr Lys Glu Ser Gly Thr 325 330 Ala Ser Ala Ile Leu Gly Met Leu Met Phe Leu Phe Gly Gly Ile Ala 340 345 350 Ala Pro Leu Ala Gly Ile Gly Gly Glu Thr Met Leu Lys Met Ser Leu 355 360 365 Ala Val Leu Val Ser Tyr Gly Ile Ala Leu Ala Ile Gly Tyr Arg Thr 375 Gln Asn Ala 385

<211> 109 <212> PRT <213> Enterobacter cloacae

<210> 7261

<400> 7261 Gly Trp Leu Ser Met Phe Lys Ile Met Leu Cys Cys Ser Ala Gly Met 10 Ser Thr Ser Leu Leu Val Ser Lys Met Ile Asp Val Ala Lys Glu Arg 20 30 Gly Leu Pro Val Lys Ile Asp Ala Tyr Gly Val Ser Glu Phe Asp Thr 35 40 45 Gln Phe Pro His Tyr Gln Val Val Leu Leu Gly Pro Gln Val Lys Tyr 55 Met Leu Lys Thr Leu Ser Asp Lys Ala Ala Thr Gln Gly Ile Pro Val 7.0 7.5 8.0 Gln Pro Ile Asp Met Met Asp Tyr Gly Met Gln Arg Gly Asp Lys Val 90 95 8.5 Leu Asp Tyr Ala Leu Ser Leu Ile Glu Ala Ala His

<210> 7262 <211> 192 <212> PRT <213> Enterobacter cloacae

100

<400> 7262 Pro Thr Met Ser Thr Lys Leu Glu Glu Arg Gln Lys Leu Arg Gln Asp 1 5 10 15 Glu Ile Ile Thr Ala Ala Arg Arg Cys Phe Arg Ala Ser Gly Phe His 20 25 30 Ala Ala Ser Met Ser Gln Ile Ala Ser Glu Ala Arg Leu Ser Val Gly

Gln Ile Tyr Arg Tyr Phe Ser Asn Lys Asp Ala Ile Ile Glu Glu Met 55 Ile Arg Arg Ile Ile Asp Ser Arg Ile Glu Glu Met Gln Gly Lys Thr 70 7.5 Leu Val Glu Gly Met Pro Gln Ala Leu Ala Trp Arg Gln Thr Leu Asn 8.5 90 Glu Asp Asp Asp Ala Leu Met Leu Glu Met Ser Ala Glu Ala Thr Arg 100 105 110 Asn Pro Leu Val Ala Asn Met Leu Ile Glu Ala Glu Ala Arg Met Phe 115 120 125 Ala Asn Ala Cys Glu His Leu Lys Lys Gln Phe Pro His Leu Ser Asp 130 135 140 Glu His Ile Arg Cys Cys Val Glu Ile Thr Ala Val Met Ile Glu Gly 145 150 155 160 Thr Ile Tyr Arg Arg Leu Thr Pro Leu Lys Val Pro Ser Glu Gln Leu 165 170 175 Glu Pro Ile Tyr Gln Asn Ile Leu Asn Met Leu Phe Ser Ala Lys 180 <210> 7263 <211> 385 <212> PRT <213> Enterobacter cloacae <400> 7263 Gln Gly Arg Leu Arg Ser Pro Trp Lys Lys Ile Met Lys Thr Ile Thr 10 Thr Ser Ile Ala Ala Leu Leu Leu Thr Gly Cys Asp Asn Ala Gln 20 2.5 Thr Ser Ala Pro Gln Arg Pro Leu Pro Glu Val Gly Ile Val Thr Leu 40 4.5 Met Ser Gln Pro Val Ser Val Val Ser Glu Leu Thr Gly Arg Thr Ala 50 55 60 Ala Ala Met Ser Ala Glu Val Arg Pro Gln Val Gly Gly Ile Ile Gln 70 75 Lys Arg Leu Phe Thr Glu Gly Asp Thr Val Lys Ala Gly Gln Ala Leu 85 90 Tyr Gln Ile Asp Pro Ser Ser Tyr Arg Ala Ala Tyr Asn Glu Ala Ala 100 105 Ala Ala Leu Lys Gln Ala Gln Ala Leu Val Gln Ala Asp Cys Gln Lys 115 120 Ala Arg Arg Tyr Ala Gln Leu Val Lys Asp Asp Gly Val Ser Arg Gln 140 130 135 Asp Ala Glu Asp Ala Lys Ser Thr Cys Ala Gln Asp Lys Ala Ser Val 150 1.55 Glu Ser Lys Lys Ala Ala Leu Glu Ser Ala Arg Ile Asn Leu Asn Trp 165 170 Thr Thr Val Thr Ala Pro Ile Ala Gly Arg Ile Gly Ile Ser Ser Val 180 185 190 Thr Pro Gly Ala Leu Val Thr Thr Gln Gln Asp Thr Ala Leu Ala Thr 195 200 205 Ile Arg Gly Leu Asp Ser Met Tyr Val Asp Leu Thr Arg Ser Ser Ala 210 215 220 Asp Leu Leu Arg Leu Arg Lys Gln Tor Leu Ala Ser Asn Ser Asp Thr 230 235 Leu Asn Val Ser Leu Ile Leu Glu Asp Gly Ser Ser Tyr Ser Glu Lys 245 250 Gly His Leu Ala Leu Thr Glu Val Ala Val Asp Glu Ser Thr Gly Ser

265 Val Thr Leu Arg Ala Val Phe Pro Asn Pro Gln His Gln Leu Leu Pro

280 Gly Met Phe Val Arg Ala Arg Val Asp Glu Gly Ile Met Asn Asp Ala 295 300 Ile Leu Ala Pro Gin Gln Gly Ile Thr Arg Asp Ala Lys Gly Thr Ala 310 315 Thr Ala Leu Val Val Asn Ala Ser Asn Lys Val Glu Gln Arg Gln Leu 325 330 335 Glu Thr Gly Asp Thr Tyr Gly Asp Lys Trp Leu Val Leu Ser Gly Leu 340 345 350 Lys Ala Gly Asp Lys Leu Ile Val Glu Gly Thr Asp Lys Val Thr Ala 355 360 365 Gly Gln Glu Val Lys Ala Glu Glu Met Lys Thr Asn Gly Gly Asn Ala 385 <210> 7264 <211> 462 <212> PRT <213> Enterobacter cloacae <400> 7264 Ala Arg Lys Pro Glu Val Ile Met Phe Arg Val Thr Val Leu Thr Leu 10 Ala Leu Leu Ser Ala Gly Cys Val Ser Leu Asp Pro Thr Tyr Gln Arg 25 Pro Asp Ala Pro Val Pro Thr Thr Leu Pro Gly Ala His Gly Glu Ala 40 Asn Ala Val Val Ser Gln Trp Gln Gln Val Met Asn Asp Ala Arg Leu 55 60 Lys Ser Val Val Thr Met Ala Leu Asn Ser Asn Arg Asp Val Gln Lys 65 70 75 Ala Ile Ala Asp Ile Asp Ala Ala Arg Ala Gln Tyr Gly Glu Thr Arg 90 Ser Ser Leu Phe Pro Thr Val Asp Ala Glu Leu Ser His Thr Arg Ser 105 110 Arg Thr Leu Ala Ser Gly Val Ala Thr Ser Asp Glu Ala Asn Gly Ala 115 120 125 Val Ser Ser Phe Glu Leu Asp Leu Phe Gly Arg Asn Gin Ser Leu Ser 135 140 Arg Ala Ala Arg Glu Thr Trp Leu Ala Ser Glu Phe Thr Ala Gln Asn 150 155 160 Thr Arg Leu Thr Met Val Ser Glu Leu Thr Thr Ala Trp Val Thr Leu 165 170 Ala Ala Asp Asn Ser Asn Leu Ala Leu Ala Lys Ser Thr Leu Glu Ser 180 185 190 Ala Ala Asn Ser Leu Lys Ile Val Lys Arg Gln Gln Glu Val Gly Val 195 200 Ala Ala Ala Thr Asp Val Ser Glu Ala Met Ala Val Tyr Gln Gln Ala 210 215 220 Arg Ala Ser Val Ala Ser Tyr Gln Thr Leu Val Met Gln Asp Lys Asn 225 230 235 Ala Leu Asn Leu Leu Ala Gly Asp Thr Val Pro Glu Asn Leu Leu Pro

245

260

275

250

300

Gly Thr Leu Glu Ser Leu Ser Asp Asn Ala Ile Thr Leu Ile Pro Ala

280 Glu His Asn Leu Leu Ser Ala Asn Ala Asn Ile Gly Ala Ala Arg Ala 295

Asn Phe Phe Pro Thr Ile Ser Leu Thr Ala Ser Ala Gly Val Gly Ser

265 Gly Val Ser Ser Ala Leu Leu Arg Arg Pro Asp Ile Gln Glu Ala

```
Asp Ser Leu Ser Ser Leu Phe Ser His Gly Met Lys Val Trp Ser Phe
           325 ·
                   330
Ala Pro Ser Ile Thr Leu Pro Leu Phe Ser Gly Gly Asn Asn Met Ala
        340
              345
Gln Leu Arg Tyr Ala Glu Ala Glu Lys Lys Gly Leu Ile Ala Thr Tyr
     355
           360
                        365
Glu Lys Thr Ile Gln Ser Ala Phe Lys Asp Val Ala Asp Ala Leu Ala
         375 380
Arg Arg Glu Thr Leu Ser Glu Gln Leu Asp Ala Gln Arg Glu Tyr Val
         390 395 400
Ala Ala Glu Gln Lys Thr Leu Asp Val Ala Thr Arg Ser Tyr Lys Ala
         405 410 415
Gly Ala Gly Asp Tyr Leu Thr Val Leu Thr Ala Gln Arg Ser Leu Trp
        420 425 430
Ser Ala Gln Glu Ser Leu Ile Ala Leu Gln Gln Thr Asp Leu Glu Asn
   435 440 445
Arg Ile Thr Leu Trp Gln Ser Leu Gly Gly Gly Ile Gln
                455
<210> 7265
<211> 428
<212> PRT
<213> Enterobacter cloacae
<400> 7265
Ser Thr Gly Leu Cys Ser Val Ala Tyr Arg Ser Gly Thr Leu Lys Gly
                           10
Val His Met Ser Ser Leu Tyr Gln Ser Met Val Ala Val Ile Glu Gln
                       25
20
Ser Ile Thr Pro Leu Ala Ala Lys Leu Gly Gln Gln Lys Tyr Val Ile
35 40
                                   45
Ala Ile Arg Asp Gly Phe Thr Ala Ala Leu Pro Phe Met Ile Ile Gly
50 55 60
Ser Phe Met Leu Val Phe Ile Phe Pro Pro Phe Ser Ala Asp Thr Thr
65 70 75
Asn Ser Phe Ala Arg Gly Trp Leu Asp Phe Ser Glu Thr Tyr Arg Glu
          85
                          90 95
Gln Leu Met Leu Pro Phe Asn Leu Ser Met Gly Val Met Thr Phe Phe
       100 105
                                       110
Ile Ser Val Gly Ile Gly Ala Ser Leu Gly Arg Gln Phe Asn Leu Asp
   115
                    120 125
Pro Val Met Ser Gly Leu Leu Ala Phe Met Ala Phe Leu Leu Val Ala
                 135
                                140
Ala Pro Tyr Ala Asp Gly Lys Ile Ser Thr Gln Tyr Leu Ser Gly Gln
              150
                             155
                                            160
Gly Ile Phe Thr Ala Leu Ile Thr Ala Ile Tyr Ser Thr Arg Val Tyr
           165
                          170
Ala Trp Leu Lys Gln Asn Asn Val Thr Ile Arg Leu Pro Lys Glu Val
      180
                       185
                           190
Pro Thr Gly Val Ala Arg Ser Phe Glu Ile Leu Ile Pro Val Met Val
     195 200
Val Ile Gly Thr Leu His Pro Leu Asn Leu Phe Ile Glu Ala Gln Thr
 210
                 215 220
```

Gly Met Ile Ile Pro Gln Ala Ile Met His Leu Leu Glu Pro Leu Val

Ser Ala Ser Asp Ser Leu Pro Ala Ile Leu Leu Ser Val Leu Leu Cys

Gln Ile Phe Trp Phe Ala Gly Ile His Gly Ser Leu Ile Val Thr Gly

265 Ile Met Asn Pro Phe Trp Met Ala Asn Leu Ser Ala Asn Gln Ala Ala

235

250

230

260

```
280
Leu Ala Ala Gly Ala Ala Leu Pro His Val Tyr Leu Gln Gly Phe Trp
                 295
                                 300
Asp His Tyr Leu Leu Ile Gly Gly Val Gly Ser Thr Leu Pro Leu Ala
             310
                              315
Phe Leu Leu Arg Ser Arg Val Thr His Leu Arg Thr Ile Gly Lys
          325
                  330
Met Gly Val Val Pro Ser Phe Phe Asn Ile Asn Glu Pro Ile Leu Phe
             345 350
        340
Gly Ala Pro Ile Ile Met Asn Pro Met Leu Phe Ile Pro Phe Val Phe
     355
         360 365
Val Pro Leu Val Asn Ala Cys Leu Ala Tyr Gly Ala Thr Lys Leu Gly
          375 380
Trp Leu Ala Gln Val Val Ser Leu Thr Pro Trp Thr Thr Pro Ala Pro
385 390 395 400
Ile Gly Ala Ser Trp Ala Ala Asn Trp Ala Leu Ser Pro Val Val Met
        405 410 415
Cys Leu Ile Cys Met Val Met Ser Ala Leu Met Tyr
<210> 7266
<211> 354
<212> PRT
<213> Enterobacter cloacae
<400> 7266
Ile Met Met Lys Arg Asn Ile Leu Ala Val Val Pro Ala Leu Leu
               10
Val Ala Gly Ala Ala Asn Ala Ala Glu Ile Tyr Asn Lys Asp Gly Asn
20 25
Lys Leu Asp Leu Tyr Gly Lys Ala Val Gly Leu His Tyr Phe Ser Asp
35 40
                                   45
Asn Asp Ser Asn Asp Gly Asp Asn Thr Tyr Ala Arg Leu Gly Phe Lys
50 55
Gly Glu Thr Gln Ile Asn Asp Gln Leu Thr Gly Tyr Gly Gln Trp Glu
65 70 75
Tyr Asn Phe Gln Gly Asn Asn Ser Glu Gly Gly Asp Ala Gln Asn Gly
          8.5
                          90
Asn Lys Thr Arg Leu Ala Phe Ala Gly Leu Lys Phe Gly Asp Ala Gly
     100 105 110
Ser Phe Asp Tyr Gly Arg Asn Tyr Gly Leu Val Tyr Asp Ala Ile Gly
115 120 125
Ile Thr Asp Met Leu Pro Glu Phe Gly Gly Asp Thr Gly Ala Ser Asp
 130 135
                                140
Asn Phe Phe Ala Gly Arg Thr Gly Gly Leu Ala Thr Tyr Arg Asn Ser
145 150
                            155
Asn Phe Phe Gly Leu Val Asp Gly Leu Asn Phe Gly Val Gln Tyr Leu
            165
                           170
Gly Lys Asn Glu Arg Thr Asp Ala Val Arg Ser Asn Gly Asp Gly Trp
    180
                       185
                                       190
Ala Thr Ser Leu Ser Tyr Asp Phe Glu Gly Phe Gly Ile Val Gly Ala
     195
                    200
                                    205
Tyr Gly Ala Ala Asp Arg Thr Asn Asn Gln Gln Thr Leu Glu Trp Gly
  210 215
Lys Gly Asp Lys Ala Glu Gln Trp Ala Thr Gly Leu Lys Tyr Asp Ala
        230
                              235
Asn Asn Ile Tyr Leu Ala Ala Ile Tyr Gly Glu Met Arg Asn Ala Ala
           245
                           250
Arg Leu Gly Ser Arg Gly Phe Ala Asn Lys Ser Gln Asp Phe Ser Val
                 265
Val Ala Gln Tyr Gln Phe Asp Phe Gly Leu Arg Pro Ser Ile Ala Tyr
```

```
280
Tyr Lys Ser Lys Ala Lys Asp Val Glu Gly Ile Gly Asp Glu Asp Tyr
   290
                    295
                                   300
Ile Asn Tyr Ile Asp Val Gly Ala Thr Tyr Tyr Phe Asn Lys Asn Met
                310
                                315
Ser Thr Tyr Val Asp Tyr Gln Ile Asn Gln Leu Lys Asp Asp Asn Lys
           325 330 335
Leu Gly Ile Asn Asn Asp Tyr Ile Val Ala Leu Gly Leu Val Tyr Gln
                           345
Phe
<210> 7267
<211> 222
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(199)
<400> 7267
Tyr His Arg Gln Ser Pro Ala Val Trp Leu Lys Lys Glu Pro Lys Arg
1 5
                             10
Met Leu Phe Thr Leu Lys Lys Tyr Ile Gly Gly Met Met Leu Pro Leu
Pro Leu Leu Leu Leu Ile Ala Leu Gly Leu Ala Met Ile Trp Phe
35
                       40
Ser Arg Phe Gln Lys Ser Gly Lys Ser Leu Val Thr Val Gly Trp Leu
                   5.5
                                     60
Ala Leu Leu Leu Ser Leu Gin Pro Val Ala Asp Gly Leu Leu Arq
              70
                                  75
Pro Ile Glu Asn Thr Tyr Pro Thr Trp Gln Gly Asn Gln Lys Val Gly
                              90
Tyr Ile Val Val Leu Gly Gly Gly Tyr Thr Trp Asp Pro Asn Trp Ala
                          105
                                            110
Pro Ser Ser Asn Leu Ile Asn Asn Ser Leu Pro Arg Leu Asn Glu Gly
      115
                       120 125
Ile Arg Leu Trp Leu Ala Asn Pro Gly Ser Lys Met Ile Phe Thr Gly
                   135
                                     140
Ala Ala Ala Lys Thr Asn Pro Val Ser Thr Ala Glu Ala Gly Ala Arg
                150 155
Val Ala Glu Ser Leu Gly Val Pro Arg Ser Ala Ile Ile Thr Leu Asp
             165 170
                                                175
Ser Pro Lys Asp Thr Glu Glu Glu Ala Ala Ala Val Lys Gln Ala Ile
         180
                           185
                                            190
Gly Asp Val Pro Phe Ala Xaa Gly Asp Ile Tyr Phe His Thr Cys Arg
    195 200
                                        205
Ala Gln Leu Phe Glu Asn Glu Leu Glu Ile Pro Pro Lys Glu
   210
                    215
                                      220
<210> 7268
<211> 403
<212> PRT
<213> Enterobacter cloacae
<400> 7268
Ser Gln Trp Asn Phe Val Met Phe Glu Asn Ile Thr Ala Ala Pro Ala
                           10
Asp Pro Ile Leu Gly Leu Ala Asp Leu Phe Arg Ala Asp Asp Arg Pro
          20
                           25
```

```
Gly Lys Ile Asn Leu Gly Ile Gly Val Tyr Lys Asp Glu Thr Gly Lys
                     4.0
Thr Pro Val Leu Thr Ser Val Lys Lys Ala Glu Gln Tyr Leu Leu Glu
 50
                 55
                                 60
Asn Glu Thr Thr Lys Asn Tyr Leu Gly Ile Asp Gly Ile Pro Glu Phe
    70
                              75
Gly Arg Cys Thr Gln Glu Leu Leu Phe Gly Lys Gly Ser Thr Ile Val
         85 90 95
Ser Glu Lys Arg Ala Arg Thr Ala Gln Thr Pro Gly Gly Thr Gly Ala
       100 105 110
Leu Arg Val Ala Ala Asp Phe Leu Ala Lys Asn Thr Ser Val Lys Arg
 115 120 125
Val Trp Val Ser Asn Pro Ser Trp Pro Asn His Lys Ser Val Phe Asn
 130 135 140
Ser Ala Gly Leu Glu Val Arg Glu Tyr Ala Tyr Tyr Asp Ala Ala Ser
145 150 155 160
His Ala Leu Asp Phe Asp Gly Leu Leu Ala Ser Leu Ser Glu Ala Gln
      165 170 175
Ala Gly Asp Val Val Leu Phe His Gly Cys Cys His Asn Pro Thr Gly
       180 185 190
Ile Asp Pro Thr Leu Glu Gln Trp Glu Gln Leu Ala Lys Leu Ser Val
 195 200 205
Glu Lys Gly Trp Leu Pro Leu Phe Asp Phe Ala Tyr Gln Gly Phe Ala
 210 215
                      220
Arg Gly Leu Glu Glu Asp Ala Glu Gly Leu Arg Ala Phe Ala Ala Val
               230
                     235
His Gln Glu Leu Ile Val Ala Ser Ser Tyr Ser Lys Asn Phe Gly Leu
            245
                           250 255
Tyr Asn Glu Arg Val Gly Ala Cys Thr Leu Val Ala Ala Asp Glu Ala
        260
                        265
                                        270
Thr Val Asp Arg Ala Phe Ser Glr Met Lys Ser Val Ile Arg Ala Asn
 275
                     280
                                    285
Tyr Ser Asn Pro Pro Ala His Gly Ala Ser Val Val Ala Thr Ile Leu
 290
                  295
                                 300
Ser Asn Asp Ala Leu Arg Ala Ile Trp Glu Gln Glu Leu Asn Asp Met
               310
                              315
Arg Gln Arg Ile Gln Arg Met Arg Leu Leu Phe Val Asn Thr Leu Ala
            325 330
Glu Lys Gly Ala Asp Arg Asp Phe Ser Phe Ile Ile Lys Gln Asn Gly
         340
                        345
                                        350
Met Phe Ser Phe Ser Gly Leu Thr Lys Glu Gln Val Leu Arg Leu Arg
                     360
     355
                                     365
Glu Glu Phe Gly Val Tyr Ala Vai Ala Ser Gly Arg Val Asn Val Ala
                 375
                                 380
Gly Met Thr Pro Asp Asn Met Ala Pro Leu Cys Glu Ala Ile Val Ala
385
              390
                              395
Val Leu
```

```
<210> 7269
<211> 272
<212> PRT
<213> Enterobacter cloacae
```

```
Leu Leu Ala Glu Phe Gly Asp Arg Pro Leu Arg Val Leu Asp Ala Gly
                                 60
Gly Gly Glu Gly Gln Thr Ala Ile Leu Met Ala Gln Arg Gly His His
               70
                              7.5
Val Thr Leu Cys Asp Leu Ser Ala Glu Met Val Ala Arg Ala Gly Arg
           8.5
                90
Ala Ala Glu Glu Lys Gly Val Ser Asp Asn Met His Phe Ile His Cys
       100 105 110
Ala Ala Gln Asp Ile Pro Gln His Leu Glu Thr Gln Val Asp Leu Ile
   115 120 125
Leu Phe His Ala Val Leu Glu Trp Ile Ala Glu Pro Gln Ala Met Leu
 130 135 140
Lys Thr Leu Trp Ser Met Leu Arg Pro Gly Gly Ala Leu Ser Leu Met
145 150 155
Phe Tyr Asn Ala Asn Gly Leu Leu Met Arg Asn Val Leu Val Gly Asn
      165 170 175
Phe Gly Tyr Val Gln Gln Gly Met Tyr Lys Lys Lys Arg Arg Thr Leu
       180 185
Ser Pro Asp Phe Pro Arg Glu Pro Gln Gln Val Tyr Gly Trp Leu Glu
195 200
Glu Ile Gly Trp Glu Ile Thr Gly Lys Thr Gly Val Arg Val Phe His
210 215 220
Asp Tyr Leu Arg Asp Lys Gln Lys Gln Asp Asp Cys Leu Asp Ala Leu 225 230 235 240
Thr Glu Ile Glu Thr Arg Tyr Cys Arg Gln Glu Pro Tyr Leu Ser Leu
   245 250 255
Gly Arg Tyr Ile His Val Thr Ala Arg Lys Pro Gln Met Gln Gly
                        265
```

<210> 7270 <211> 442 <212> PRT

<213> Enterobacter cloacae

<400> 7270 Ser Met Ser Glu Phe Ser Gln Thr Val Pro Glu Leu Val Ala Trp Ala 10 Arg Lys Asn Asp Phe Ser Ile Ser Leu Pro Val Asp Arg Leu Ser Phe 25 30 Leu Leu Ala Val Ala Thr Leu Asn Gly Glu Arg Leu Asp Gly Glu Met 4.0 4.5 Ser Glu Gly Glu Leu Val Asp Ala Phe Arg His Val Ser Asp Ala Phe 55 Glu Gln Thr Ser Glu Thr Ile Ser Val Arg Ala Asn Asn Ala Ile Asn 7.0 75 Asp Met Val Arg Gln Arg Leu Leu Asn Arg Phe Thr Ser Glu Gln Ala 90 8.5 Glu Gly Asn Ala Ile Tyr Arg Leu Thr Pro Leu Gly Ile Gly Ile Thr 105 100 Asp Tyr Tyr Ile Arg Gln Arg Glu Phe Ser Thr Leu Arg Leu Ser Met 115 120 125 Gln Leu Ser Ile Val Ala Gly Glu Leu Lys Arg Ala Ala Asp Ala Ala 135 140 Asp Glu Asn Gly Asp Glu Phe His Trp His Arg Asn Val Tyr Ala Pro 145 150 155 Leu Lys Tyr Ser Val Ala Glu Ile Phe Asp Ser Ile Asp Leu Thr Gln 165 170 175 Arg Leu Met Asp Glu Gln Gln Gln Val Lys Asp Asp Ile Ala Gln 180 185 190 Leu Leu Asn Lys Asp Trp Arg Ala Ala Ile Ser Ser Cys Glu Leu Leu

200

```
Leu Ser Glu Thr Ser Gly Thr Leu Arg Glu Leu Gln Asp Thr Leu Glu
                  215
 210
Ala Ala Gly Asp Lys Leu Gln Ala Asn Leu Leu Arg Ile Gln Asp Ala
              230
                            235
Thr Met Ala His Asp Asp Leu His Phe Ile Asp Arg Leu Val Phe Asp
           245
                250
Leu Gln Ser Lys Leu Asp Arg Ile Ile Ser Trp Gly Gln Gln Ser Ile
         260
             265
Asp Leu Trp Ile Gly Tyr Asp Arg His Val His Lys Phe Ile Arg Thr
          280
     275
Ala Ile Asp Met Asp Lys Asn Arg Val Phe Ala Gln Arg Leu Arg Gln
                 295
                                300
Ser Val Gln Thr Tyr Phe Asp Ala Pro Trp Ala Leu Thr His Ala Asn
305 310 315 320
Ala Asp Arg Leu Leu Asp Met Arg Asp Glu Glu Met Ala Leu Arg Asp
         325 330 335
Glu Glu Val Thr Gly Glu Leu Pro Pro Asp Leu Glu Tyr Glu Glu Phe
        340 345 350
Asn Glu Ile Arg Glu Gln Leu Ala Ala Met Ile Glu Glu Gln Leu Ala
355 360 365
Val Tyr Lys Thr Arg Gln Ala Pro Leu Asp Leu Gly Leu Val Val Arg
370 375 380
Asp Tyr Leu Ala Gln Tyr Pro Arg Ala Arg His Phe Asp Val Ala Arg 385 $390$
Ile Val Val Asp Gln Ala Val Arg Leu Gly Ile Ala Gln Ala Asp Phe
    405 410 415
Thr Gly Leu Pro Pro Lys Trp Glr Pro Ile Asn Asp Tyr Gly Ala Lys
   420 425
Val Gln Ala His Val Ile Asp Lys Tyr
435
                    440
```

<210> 7271 <211> 1488 <212> PRT

<213> Enterobacter cloacae

<400> 7271

Arg Gly Gly Arg Val Met Ile Glu Arg Gly Lys Phe Arg Ser Leu Thr 10 Leu Ile Asn Trp Asn Gly Phe Phe Ala Arg Thr Phe Asp Leu Asp Glu 25 Leu Val Thr Thr Leu Ser Gly Gly Asn Gly Ala Gly Lys Ser Thr Thr 4.0 4.5 Met Ala Ala Phe Val Thr Ala Leu Ile Pro Asp Leu Thr Leu Leu His 55 Phe Arg Asn Thr Thr Glu Ala Gly Ala Thr Ser Gly Ser Arg Asp Lys 70 7.5 Gly Leu His Gly Lys Leu Lys Ala Gly Val Cys Tyr Ser Val Leu Asp 8.5 90 Val Ile Asn Ser Arg His Gln Arg Val Val Val Gly Val Arg Leu Gln 100 105 Gln Val Ala Gly Arg Asp Arg Lys Val Asp Ile Lys Pro Phe Ala Ile 115 120 125 Gln Gly Leu Pro Thr Ser Val Gln Pro Thr Ala Leu Leu Thr Glu Thr 135 140 Leu Asn Glu Arg Gln Ala Arg Val Leu Thr Leu Gln Glu Leu Lys Asp 145 150 155 Lys Leu Glu Ala Ile Glu Gly Val Gln Phe Lys Gln Phe Asn Ser Ile 165 170 Thr Asp Tyr His Ser Leu Met Phe Asp Leu Gly Val Val Ala Arg Arg 185

Leu Arg Ser Ala Ser Asp Arg Ser Lys Tyr Tyr Arg Leu Ile Glu Ala 195 200 Ser Leu Tyr Gly Gly Ile Ser Ser Ala Ile Thr Arg Ser Leu Arg Asp 215 Tyr Leu Leu Pro Glu Asn Ser Gly Val Arg Lys Ala Phe Gln Asp Met 230 235 Glu Ala Ala Leu Arg Glu Asn Arg Met Thr Leu Glu Ala Ile Arg Val 245 250 Thr Gln Ser Asp Arg Asp Leu Phe Lys His Leu Ile Ser Glu Ala Thr 265 270 260 Asn Tyr Val Ala Ala Asp Tyr Met Arg His Ala Asn Glu Arg Arg Ile 275 280 285 His Leu Asp Gln Ala Leu Glu Tyr Arg Arg Glu Leu Phe Thr Ser Arg 295 300 Lys Gln Leu Val Ala Glu Gln Tyr Lys His Val Glu Met Ala Arg Glu 310 315 Leu Gly Glu His Asn Gly Ala Glu Gly Asp Leu Glu Ala Asp Tyr Gln 325 330 335 Ala Ala Ser Asp His Leu Asn Leu Val Gln Thr Ala Leu Arg Gln Gln 340 345 350 Glu Lys Ile Glu Arg Tyr Glu Ala Asp Leu Asp Glu Leu Gln Ile Arg 355 360 365 Leu Glu Glu Gln Asn Glu Val Val Ala Glu Ala Ala Glu Leu Gln Glu 370 375 380 Glu Asn Glu Ala Arg Ala Glu Ala Ala Glu Leu Glu Val Asp Glu Leu 390 395 Lys Ser Gln Leu Ala Asp Tyr Gln Gln Ala Leu Asp Val Gln Gln Thr 405 410 415 Arg Ala Ile Gln Tyr Asn Gln Ala Leu Gln Ala Leu Gln Arg Ala Lys 420 425 Glu Leu Cys His Leu Pro Asp Leu Thr Pro Glu Ser Ala Asp Glu Trp 435 440 445 Leu Asp Thr Phe Gln Ala Lys Glu Gln Glu Ala Thr Glu Lys Leu Leu 450 455 460 Ser Leu Asp Gln Lys Met Ser Val Ala Gln Thr Ala His Ser Gln Phe 470 475 Glu Gln Ala Tyr Gln Leu Val Val Ala Ile Asn Gly Pro Leu Ala Arg 485 490 Asn Glu Ala Trp Asp Val Ala Arg Glu Leu Leu Arg Asp Gly Val Asn 500 505 510 Gln Arg His Leu Ala Glu Gln Val Gln Pro Leu Arg Met Arg Leu Asn 515 520 525 Glu Leu Glu Gln Arg Leu Arg Glu Gln Glu Ala Glu Arg Leu Leu 530 535 540 Ala Glu Phe Cys Lys Arg Gln Gly Lys Asn Tyr Asp Phe Asp Glu Leu 545 550 555 Glu Ala Leu His Gln Glu Leu Glu Ala Arg Ile Ala Ala Leu Ser Asp 565 570 575 Thr Val Ser Asn Ala Ser Glu Gin Arg Met Thr Leu Arg Gln Glu Leu 580 585 590 Glu Gln Leu Gln Ser Arg Ser Lys Thr Leu Leu Gln Arg Ala Pro Ile 595 600 605 Trp Leu Ala Ala Gln Ser Ser Leu Asn Gln Leu Ser Glu Gln Cys Gly 610 615 620 Gln Glu Phe Ala Ser Ser Gln Asp Val Thr Glu Tyr Met Gln Gln Leu 630 635 Leu Glu Arg Glu Arg Glu Ala Ile Val Glu Arg Asp Glu Val Gly Ala 645 650 Arg Lys Arg Asp Val Asp Glu Glu Ile Glu Arg Leu Ser Gln Pro Gly 660 665 Gly Ser Glu Asp Pro Arg Leu Asn Ala Leu Ala Glu Arg Phe Gly Gly

```
680
Val Leu Leu Ser Glu Ile Tyr Asp Asp Val Gly Leu Asp Asp Ala Pro
           695
Tyr Phe Ser Ala Leu Tyr Gly Pro Ser Arg Asn Ala Ile Val Val Pro
          710 715
Asp Leu Ser Leu Ile Ser Asp Gln Leu Ala Gly Leu Glu Asp Cys Pro
        725 730 735
Glu Asp Leu Tyr Leu Ile Glu Gly Asp Pro Gln Ser Phe Asp Asp Ser
      740 745 750
Val Phe Ser Val Asp Glu Leu Glu Lys Ala Val Val Lys Ile Ala
   755 760 765
Asp Arg Gln Trp Arg Tyr Ser Arg Phe Pro Glu Leu Pro Leu Phe Gly
 770 775 780
Arg Ala Ala Arg Glu Ser Arg Ile Glu Ser Leu His Ala Glu Arg Glu
   790 795
Thr Leu Ser Glu Arg Phe Ala Thr Leu Ser Phe Asp Val Gln Lys Thr
      805 810 815
Gln Arg Leu His Gln Ala Phe Ser Arg Phe Ile Gly Ser His Leu Gly
 820 825 830
Val Ala Phe Glu Pro Asp Pro Glu Ala Glu Ile Arg Lys Leu Asn Thr
835 840 845
Arg Arg Gly Glu Leu Glu Arg Ala Leu Ala Ser His Glu Asn Asp Asn
850 855 860
Gln Gln Ser Arg Val Gln Phe Glu Gln Ala Lys Glu Gly Val Ala Ala
865 870 875 880
Leu Asn Arg Ile Leu Pro Arg Leu Asn Leu Leu Ala Asp Asp Thr Leu
          885 890
Ala Asp Arg Val Asp Glu Ile Gln Glu Arg Leu Asp Glu Ala Gln Glu
                     905 910
Ala Ala Arg Phe Val Gln Gln His Gly Asn Gln Leu Ala Lys Leu Glu
                   920
                                 925
Pro Met Val Ser Val Leu Gln Ser Asp Pro Glu Gln Phe Glu Gln Leu
 930 935
                              940
Lys Glu Asp Tyr Ala Trp Ser Gln Gln Val Gln Arg Glu Ala Arg Gln
945 950
                           955
Gln Ala Phe Ala Leu Thr Glu Val Val Gln Arg Arg Ala His Phe Gly
                        970
Tyr Ser Asp Ser Ala Glu Met Leu Ser Gly Asn Ser Asp Leu Asn Glu
      980 985 990
Lys Leu Arg Gln Arg Leu Glu Gln Ala Glu Ala Glu Arg Thr Arg Ala
    995 1000 1005
Arg Glu Ala Met Arg Thr His Ala Ala Gln Leu Ser Gln Tyr Ser Gln
 1010 1015 1020
Val Met Ala Ser Leu Lys Ser Ser Phe Asp Thr Lys Lys Glu Leu Leu
1025 1030 1035 1040
Asn Asp Leu His Lys Glu Leu Gln Asp Ile Gly Val Arg Ala Asp Ser
        1045 1050 1055
Gly Ala Glu Glu Arg Ala Arg Ile Arg Arg Asp Glu Leu His Ala Gln
        1060 1065 1070
Leu Ser Asn Asn Arg Ala Arg Arg Asn Gln Leu Glu Lys Ala Leu Thr
   1075 1080 1085
Phe Cys Glu Ala Glu Met Asp Asn Leu Thr Arg Arg Leu Arg Lys Leu
 1090 1095
Glu Arg Asp Tyr His Glu Met Arg Glu Gln Val Val Thr Ala Lys Ala
1105 1110 1115 1120
Gly Trp Cys Ala Val Met Arg Met Val Lys Asp Asn Asn Val Glu Arg
        1125 1130 1135
Arg Leu His Arg Arg Glu Leu Ala Tyr Leu Ser Ala Asp Glu Leu Arg
       1140 1145 1150
Ser Met Ser Asp Lys Ala Leu Gly Ala Leu Arg Leu Ala Val Ala Asp
     1155
                 1160
```

3275 Asn Glu His Leu Arg Asp Val Leu Arg Met Ser Glu Asp Pro Lys Arg 1170 1175 1180 Pro Glu Arg Lys Ile Gln Phe Phe Val Ala Val Tyr Gln His Leu Arg 1185 1190 1195 1200 Glu Arg Ile Arg Gln Asp Ile Ile Arg Thr Asp Asp Pro Val Glu Ala 1205 1210 1215 Ile Glu Gln Met Glu Ile Glu Leu Gly Arg Leu Thr Glu Glu Leu Thr 1220 1225 1230 Ser Arg Glu Gln Lys Leu Ala Ile Ser Ser Arg Ser Val Ala Asn Ile 1235 1240 1245 Ile Arg Lys Thr Ile Gln Arg Glu Gln Asn Arg Ile Arg Gln Leu Asn 1250 1255 1260 Gln Gly Leu Gln Ser Val Ser Phe Gly Gln Val Asn Ser Val Arg Leu 1265 1270 1275 1280 Asn Val Asn Val Arg Glu Ala His Ser Thr Leu Leu Asp Val Leu Ser 1295Glu Gln His Glu Gln His Gln Asp Leu Phe Asn Ser Asn Arg Leu Thr 1300 1305 1310 Phe Ser Glu Ala Leu Ala Lys Leu Tyr Gln Arg Leu Asn Pro Gln Ile 1315 1320 1325 Asp Met Gly Gln Arg Thr Pro Gln Thr Ile Gly Glu Glu Leu Leu Asp 1330 1335 1340 Tyr Arg Asn Tyr Leu Glu Met Glu Val Glu Val Asn Arg Gly Ser Asp 1345 1350 1355 1360Gly Trp Leu Arg Ala Glu Ser Gly Ala Leu Ser Thr Gly Glu Ala Ile 1365 1370 1375 Gly Thr Gly Met Ser Ile Leu Val Met Val Val Gln Ser Trp Glu Asp 1380 1385 1390 Glu Ala Arg Arg Leu Arg Gly Lys Asp Ile Ser Pro Cys Arg Leu Leu 1395 1400 1405 Phe Leu Asp Glu Ala Ala Arg Leu Asp Ala Arg Ser Ile Ala Thr Leu 1410 1415 1420 Phe Glu Leu Cys Glu Arg Leu Asp Met Gln Leu Ile Ile Ala Ala Pro 1425 1430 1435 1440 Glu Asn Ile Ser Pro Glu Lys Gly Thr Thr Tyr Lys Leu Val Arg Lys 1445 1450 1455 Val Phe Gln Asn Ser Glu His Val His Val Val Gly Leu Arg Gly Phe 1460 1465 1470 Ala Pro Gln Pro Pro Glu Ser Leu Pro Gly Thr Ala Asp Ala Ser 1480 1485 <210> 7272 <211> 194 <212> PRT <213> Enterobacter cloacae <400> 7272

Gln Phe Leu Leu Pro Val Asp Leu Ile Ile Met Asp Lys Phe Asp Ala Asn Arg Arg Lys Leu Leu Ala Leu Gly Gly Val Ala Leu Gly Ala Ala 30 20 25 Ala Ile Leu Pro Thr Pro Ala Phe Ala Thr Leu Ser Thr Pro Arg Pro 35 40 Arg Ile Leu Thr Leu Asn Asn Leu His Thr Gly Glu Thr Leu Lys Ala 50 55 Glu Phe Phe Asp Gly Arg Gly Tyr Ile Gln Asp Glu Leu Ala Arg Leu 75 70 Asn His Phe Phe Arg Asp Phe Arg Ala Asn Lys Ile Lys Ala Ile Asp 85 90 Pro Gly Leu Phe Asp Gln Leu Tyr Arg Leu Gln Gly Leu Leu Gly Thr 100 105

```
Lys Arg Pro Val Gln Leu Ile Ser Gly Tyr Arg Ser Leu Asp Thr Asn
      115
                       120
Asn Glu Leu Arg Ala His Ser Arg Gly Val Ala Lys Lys Ser Tyr His
                    135
                                      140
Thr Lys Gly Gln Ala Met Asp Phe His Ile Glu Gly Val Ser Leu Ala
                                  155
145
                150
Asn Ile Arg Lys Ala Ala Leu Ser Met Arg Ala Gly Gly Val Gly Tyr
                              170
          165
                                                175
Tyr Pro Arg Ser Asn Phe Val His Ile Asp Thr Gly Pro Val Arg His
               185
Trp
<210> 7273
<211> 267
<212> PRT
<213> Enterobacter cloacae
<400> 7273
Thr Arg Arg Cys Ala Trp Ala Ser His Lys Pro Ile Ser Pro Asp Cys
           - 5
                              1.0
Arg Arg Ser Gly Ser Arg Leu Thr Ile Thr Glu Pro Arg Tyr Arg Arg
 20
                         25
                                            30
Met Ser Leu Thr Asn Ile Glu Gln Val Met Pro Val Lys Leu Ala Gln
                     4.0
                                        45
Ala Leu Ala Asn Pro Leu Phe Pro Ala Leu Asp Ser Gln Leu Arg Ala
                    55
Gly Arg His Ile Gly Leu Asp Giu Leu Asp Asn His Ala Phe Leu Met
               70
                               7.5
Asp Phe Gln Glu Tyr Leu Glu Glu Phe Tyr Ala Arg Tyr Asn Val Glu
             8.5
                            90
Leu Ile Arg Ala Pro Glu Gly Phe Phe Tyr Leu Arg Pro Arg Ser Thr
         100 105
Thr Leu Ile Pro Arg Ser Val Leu Ser Glu Leu Asp Met Met Val Gly
115 120
                                         125
Lys Ile Leu Cys Tyr Leu Tyr Leu Ser Pro Glu Arg Leu Ala Asn Glu
                    135 140
Gly Ile Phe Thr Gln Gln Glu Leu Tyr Asp Glu Leu Leu Ser Leu Ala
                150 155
                                                    160
Asp Glu Ser Lys Leu Leu Lys Leu Val Asn Asn Arg Ser Thr Gly Ser
             165 170
                                                175
Asp Leu Asp Arg Gln Lys Leu Gln Glu Lys Val Arg Ser Ser Leu Asn
          180 185
                                            190
Arg Leu Arg Arg Leu Gly Met Val Trp Phe Met Gly His Asp Ser Ser
                        200
                                         205
Lys Phe Arg Ile Thr Glu Ser Val Phe Arg Phe Gly Ala Asp Val Arg
                    215
   210
                                     220
Ala Gly Asp Asp Ala Arg Glu Ala Gln Leu Arg Met Ile Arg Asp Gly
225
                230
                                 235
Glu Ala Met Pro Val Glu Asn His Leu Gln Leu Asn Asp Glu His Glu
             245
                              250
Glu Asn Gln Pro Asp Ser Gly Glu Glu Glu
          260
<210> 7274
<211> 75
<212> PRT
<213> Enterobacter cloacae
```

-010, 0110

<400> 7274 Ser Ala Lys Pro Pro Thr Thr Trp Arg Arg Thr Ile Cys Ala Thr Pro 1 5 10 15
Thr Ser Ala Val Phe Ile Ser Ile Arg Arg Trp Ser Ile Ala Ala Ser 30 30 30
Cys Leu Pro Pro Ala Asn Ser Trp Trp Pro Ser Ser Ile Ser Met Ser 40
Lys Trp Arg Ala Asn Trp Ala Ser Thr Met Val Leu Lys Gly Ile Trp 50 55
Lys Pro Ile Thr Arg Arg Pro Ala Ile Ile 65 70 75
<<210> 7275

<210> 727 <211> 110 <212> PRT

<213> Enterobacter cloacae

<400> 7275

65 70 75 80

Thr Ser Trp Ala Cys Val Val Ser Pro Arg Ser His Arg Ser His Tyr
85 90

Arg Ala Arg Leu Thr Pro Leu Asn Leu Gly Cys Asp Lys

100 105 11

<210> 7276 <211> 636

<211> 030 <212> PRT

<213> Enterobacter cloacae

<400> 7276

Gly Lys Ala Ala Ala Cys Met Pro Phe Tyr Thr Glu Gly Lys Leu Gln 10 Asn Thr Gly His Val Val Lys Asn Arg Gly Gln Gly Met Leu Leu Lys 25 Lys Asn Arg Gly Arg Gln Leu Ser Ala Leu Ser Leu Cys Leu Thr Val 4.0 45 Met Phe Ala Pro Leu Phe Thr Ala Gln Ala Asp Glu Pro Glu Ile Val 55 Pro Thr Asp Ser Ser Ala Thr Met Gly Ala Gln Pro Thr Ser Leu Ser 70 Gln Pro Leu Asp Gln Ser Pro Ala Thr Ala Ile Met Ala Gly Ile Lys 9.0 Pro Leu Pro Glu Gly Ile Asp Thr Gly Ser Leu Arg Gln Gln Leu Met 100 105 110 Thr Gly Leu Pro Ser Gly Tyr Thr Pro Ala Tyr Ile Asn Gln Leu Thr 115 120 Leu Leu Tyr Ala Ala Arg Asp Met Lys Pro Met Trp Glu Asn Arg Glu 135 140 Ala Val Arg Ala Phe Gln Gln Gln Leu Ala Glu Val Ala Ile Ala Gly 150 155 Phe Gln Pro Gln Phe Thr Trp Val Glu Leu Leu Thr Asp Pro Ala 170 165 175 Val Thr Gly Gln Ala Arg Asp Val Val Leu Ser Asp Ala Met Met Gly

185

```
Tyr Leu Gln Phe Val Ala Gly Ile Ser Val Asn Gly Asn Arg Trp Leu
 195 200
Tyr Ser Ser Lys Pro Tyr Lys Leu Ala Thr Pro Ala Leu Ser Val Ile
               215
                               220
Asn Gln Trp Gln Leu Ser Leu Asp Asn Gly Glu Leu Pro Arg Phe Ile
     230
                            235
Ala Ser Leu Ala Pro Ala His Pro Gln Tyr Ala Thr Met His Gln Ser
           245 250
Leu Leu Glu Leu Val Ala Asp Ser Arg Pro Trp Pro Gln Leu Arg Gly
                      265 270
        260
Thr Thr Thr Leu Arg Pro Gly Gln Trp Ser Ser Asp Val Pro Ala Ile
   275 280
                       285
Arg Glu Ile Met Lys Arg Ser Gly Ile Leu Asp Ser Gly Pro Lys Ile
                295 300
Ala Leu Pro Gly Asp Glu Thr Gln Asn Ala Val Val Ser Pro Ser Ala
    310 315 320
Pro Val Lys Glu Lys Thr Ala Val Ala Leu Ser Asn Lys Pro Ala Ala
      325
                         330 335
Tyr Asp Arg Glu Leu Val Ala Ala Val Lys Gln Phe Gln Ala Ala Gln
  340 345 350
Gly Leu Gly Ala Asp Gly Val Ile Gly Pro Ser Thr Arg Asp Trp Leu
 355 360 365
Asn Val Ser Pro Ala Gln Arg Ala Gly Val Leu Ala Leu Asn Ile Gln
370 375 380
Arg Leu Arg Leu Leu Pro Gly Thr Leu Ser Thr Gly Ile Met Val Asn
385 390 395
Ile Pro Ala Tyr Ser Leu Val Tyr Tyr Gln Asp Gly Ser Glu Val Leu
    405 410 415
Ala Ser Arg Val Ile Val Gly Arg Pro Asp Arg Lys Thr Pro Met Met
 420 425 430
Ser Ser Ala Leu Asn Asn Val Val Val Asn Pro Pro Trp Asn Val Pro
435 440 445
Pro Thr Leu Ala Arg Lys Asp Ile Leu Pro Lys Val Trp Asn Asp Pro
450 455 460
Gly Tyr Leu Glu Arg His Asn Tyr Thr Val Met Arg Gly Trp Asn Ser
465 470 475
Lys Glu Ala Ile Asp Pro Trp Met Val Asp Trp Ser Thr Ile Thr Pro
485 490 495
Ser Asn Leu Pro Phe Arg Phe Gln Gln Ala Pro Gly Ala His Asn Ser
        500 505 510
Leu Gly Arg Tyr Lys Phe Asn Met Pro Ser Ser Asp Ala Ile Tyr Leu
    515 520 525
His Asp Thr Pro Asn His Asn Leu Phe Gln Lys Asp Ala Arg Ala Leu
 530 535 540
Ser Ser Gly Cys Val Arg Val Asn Lys Ala Ser Glu Leu Ala Asn Met
             550 555
Leu Leu Gln Asp Ala Gly Trp Asn Asp Thr Arg Ile Ser Asp Ala Leu
                         570 575
Lys Gln Gly Asp Thr Arg Tyr Val Asn Ile Arg His Asn Ile Pro Val
        580 585
                                     590
Asn Leu Tyr Tyr Leu Thr Ala Phe Val Gly Ala Asp Gly Arg Thr Gln
 595
                   600
                                  605
Tyr Arg Thr Asp Ile Tyr Asn Tyr Asp Leu Thr Ala Arg Ser Gly Ala
 610 615
Gln Ile Leu Pro Lys Ala Glu Gin Leu Ile Arg
             630
<210> 7277
<211> 231
```

<211> 231

<213> Enterobacter cloacae

```
<400> 7277
Tyr Arg Ala Gly Ser Ala Leu Val Ile Thr Lys His Arg Ser Ser Met
                          10
Asn Tyr Arg Ile Ile Pro Val Thr Ala Phe Ser Gln Asn Cys Ser Leu
                      25
Ile Trp Cys Glu Gln Thr Lys Leu Ala Ala Leu Val Asp Pro Gly Gly
                  4 ∩
                           4.5
Asp Ala Glu Thr Ile Lys Gln Glu Val Ala Ala Ser Gly Val Thr Leu
 50 55
                     60
Met Gln Ile Leu Leu Thr His Gly His Leu Asp His Val Gly Ala Ala
   70 75
Ala Glu Leu Ala Glu His Tyr Gly Val Pro Ile Ile Gly Pro Glu Lys
      85 90
Glu Asp Glu Phe Trp Leu Gln Gly Leu Pro Ala Gln Ser Arg Met Phe
    100 105 110
Gly Leu Glu Asp Cys Gln Pro Leu Thr Pro Asp Arg Trp Leu Asn Glu
    115 120
                                   125
Asp Asp Arg Val Asn Val Gly Asr Val Thr Leu Gln Val Leu His Cys
130 135 140
Pro Gly His Thr Pro Gly His Ile Val Phe Phe Asp Asp Val Ser Arg
             150 155 160
Leu Leu Ile Ser Gly Asp Val Ile Phe Lys Gly Gly Val Gly Arg Ser
           165 170 175
Asp Phe Pro Arg Gly Asp His Gly Gln Leu Ile Gln Ser Ile Lys Gln
 180 185
Lys Leu Leu Pro Leu Gly Asp Asp Val Thr Phe Ile Pro Gly His Gly
195 200 205
Pro Met Ser Thr Leu Gly Asp Glu Arg Leu His Asn Pro Phe Leu Gln
210 215
Asp Glu Met Pro Val Trp
```

<210> 7278 <211> 406 <212> PRT <213> Enterobacter cloacae

<400> 7278 Gly Cys Arg Leu Gln His Arg Asp Asn Gly Phe Ala Gln Arg Arg His 10 Val Val Arg Arg His Thr Cys Asn Val His Ala Ala Arg Cys Asn Gly 25 30 Ile His Ala Lys Leu Phe Thr Gln Ala Gln His Leu Leu Phe Gly Gln 3.5 40 Ala Ala Glu Gly Glu His Ala Val Leu Leu Asp Asp Glu Ala Glu Val 55 50 Thr Val Ser Ala Phe Leu Ser Gln Arg Val His Lys Gln Gln Thr His 70 Ala Leu Asn Ala Leu Thr His Ile Val Gln Leu Leu Pro Asp Gly 90 95 8.5 Ala Gln Arg Ile Val Ala Gln Asp Arg Arg Asp His Arg Arg Thr Val 100 105 Cys Arg Trp Val Gly Val Val Ser Ala Asp His Gly Leu His Leu Ala 115 Glu Cys Ala Ile Asp Gly Cys Phe Val Ser Ser His Gln Arg Thr Gly 1.35 Ala Asp Thr Leu Val Ile Gln Thr Lys Val Leu Gly Ile Gly Ala Cys 150 155 Asp Tyr Gln Leu Leu Met His Gly Gly Glu Cys Ala Gln Thr Phe Cys 165 170

Ile Phe Phe Gln Thr Thr Gly Lys Ala Leu Val Ser Glu Val Lys Gln 185 180 Arg Gln Pro Ala Phe Phe Asn Gly Gln Leu Ser Gln Leu Phe Pro Leu 195 200 205 Leu Lys Arg Arg Ile Asp Thr Gly Trp Val Met Ala Ala Ala Val Glu 215 220 Gln His His Ile Ala Arg Leu Gly Phe Ala Gln Ala Gly Gln Gln Ala 235 240 Val Glu Ile Gln Arg Val Ala Gly Cys Val Val Val Gly Val Phe Thr 245 250 255 His Phe Gln Thr Arg Arg Ile Lys His Ala Leu Met Val Arg Pro Ala 260 265 270 Trp Ile Ala Tyr Pro His Thr Leu His Arg Ser Val Phe Arg Gln Glu 275 285 280 Ile Cys Arg His Ala Gln Cys Ala Gly Thr Ala Trp Gly Leu Arg Arg 290 295 300 Ala Gly Ala Phe Phe Ala His Asc Gly Ala Ala Phe Ala Glu Gln Gln 305 310 315 Leu Leu Gly Ala Ala Thr Lys Phe Arg Asp Thr Ile Asn Thr Glu Val 325 330 335 Val Phe Gly Gly Phe Val Phe Gln Gln Ile Leu Leu Ser Phe Phe Asp 340 345 Ala Gly Gln Tyr Arg Ser Phe Ala Gly Phe Ile Phe Ile Tyr Thr Asn 355 360 365 Thr Gln Val Asp Phe Ser Arg Ala Val Val Gly Ala Lys Gln Ile Gly 370 375 Gln Ala Gln Asn Trp Val Gly Arg Ser Gly Ser Asn Val Leu Lys His Asp Glu Val Pro Leu

<210> 7279 <211> 464

<212> PRT <213> Enterobacter cloacae

405

<400> 7279

Asp Met Lys Pro Gly Tyr His Glu Ile Tyr Ser Arg Tyr Arg Asp Asn 10 Ile Met Arg Gly Val Leu Lys Pro Gly Asp Arg Val Pro Ala Ile Arg 25 3.0 Leu Leu Ala Glu Glu Leu Lys Val Ala Arg Lys Thr Val Glu Thr Ala 40 4.5 Tyr Ala Ile Leu Thr Gly Glu Gly Tyr Leu Val Ser Gln Gly Ala Arg Gly Thr Arg Val Asn Pro Asp Leu Leu Leu Pro Ala Gln Asn Ala Pro 75 7.0 Thr Glu Gln Ala Thr Gly Thr Leu Pro Ala Ser Leu Ile Ser Gln Arg 8.5 90 Glu Arg Ala Gly Phe Leu Arg Pro Gly Ile Pro Ala Leu Asp Ser Phe 105 100 Pro Tyr Lys Lys Trp Leu Leu Leu Ala Gly Gln Ala Thr Arg Ala Met 115 120 Arg Gln Asp Glu Met Leu Asn Pro Pro Val Leu Gly Trp Tyr Pro Leu 130 135 140 Arg Glu Ala Ile Ala Arg Tyr Leu Asn Ile Ser Arg Gly Leu Ser Cys 150 Thr Ala Glu Gln Val Met Ile Thr Ser Gly Tyr Ser Gly Ser Leu Arg 165 170 Leu Ile Leu Asp Thr Leu Ala Ser Arg Ser Asp Lys Val Val Phe Glu 185

```
Asp Pro Gly Tyr Phe Met Gly Gln Gln Leu Leu Lys Arg Ile Val Pro
                     200
 195
Arg Leu His Thr Val Pro Val Asp Arg Ala Gly Met Asp Thr Asp Tyr
 210
            215
                       220
Leu Leu Arg Asn His His Asp Ala Arg Phe Ala Ile Val Thr Pro Ser
    230 235
225
His Gln Ser Pro Leu Ala Val Thr Leu Ser Leu Pro Arg Lys Gln Gln
      245 250 255
Leu Leu Asp Trp Ala Ser Gln Asn Glu Ala Trp Ile Ile Glu Asp Asp
   260 265 270
Tyr Asp Gly Glu Phe His Tyr Thr Arg Lys Val Leu Pro Ser Leu Lys
  275 280 285
Ser Leu Asp Gln His Asp Arg Val Ile Phe Met Gly Thr Phe Ser Lys
290 295 300
Thr Ile Met Pro Ser Leu Arg Met Gly Tyr Val Val Met Pro Ala Ser
305 310 315
Thr Val Gly Val Phe Thr Asp Ser Ala Asp Ile Leu Thr Ser Gly Gln
           325 330
Pro Val Leu Thr Gln Lys Ile Leu Thr Ala Phe Leu Asn Glu Gly His
 340 345 350
Phe Phe Arg His Leu Lys Lys Met Arg Ala Leu Tyr Gln Thr Arg Arg
355 360
                                     365
Asp Trp Met Ile Ala Ala Leu Arg Glu Val Tyr Gly Asp Leu Phe Phe
                  375
                                 380
Thr Glu Gln Asn Asp Gly Gly Met His Ile Val Ala Phe Leu Ala Lys
385 390
                              395
Gly Ser Ala Asp Arg Glu Ile Ala Arg Cys Trp Gln Glu Gln Gln Leu
      405 410
Gln Val Asn Ala Leu Ser Gly Trp Tyr His Gly Ser Gly Lys Arg Tyr
      420 425 430
Gly Leu Val Met Gly Tyr Asn Asn Val Arg Ser Tyr Gln Glu Ala Leu
 435 440 445
Asp Leu Leu Glu Arg Pro Lys Arg Gln Thr Leu Glu Leu Leu Ser
               455
<210> 7280
<211> 529
<212> PRT
<213> Enterobacter cloacae
<400> 7280
Cys Ser Pro Arg Tyr Ala Ser Gly Val Ile Ile Met Glu Asn Gly Gln
                           10
Tyr Asn Thr Asp Ser Lys Thr Ala Phe Val Tyr His Thr Asp Pro Leu
                        25
Lys Arg Tyr Leu His Gly Gly Leu Phe Ile His Leu Tyr Trp Phe Asn
   35
                                     45
Ala Leu Tyr Gly Glu Asn Lys Gly Tyr Ser Met Thr Arg Tyr Gln His
Leu Ala Asn Leu Leu Ala Glu Arg Ile Glu Gln Gly Leu Tyr Arg Ser
         70
                              75
Gly Glu Arg Leu Pro Ser Val Arg Thr Leu Ser Gln Glu His Gly Val
                           90
          8.5
Ser Ile Ser Thr Ile Gln Gln Ala Tyr Gln Ile Leu Glu Asn Leu Gln
         100
                        105
Leu Ile Thr Pro Gln Pro Arg Ser Gly Tyr Phe Val Ser Lys Arg Lys
     115
                     120
Ala Gln Pro Pro Val Pro Ala Met Thr Arg Pro Val Gln Arg Pro Val
 130 135 140
Asp Val Thr Gln Trp Asp Glu Val Met Met Leu Leu Asp Ala Arg Ala
               150
                               155
```

```
Asp Lys Glu Met Ile Ser Phe Gly Gly Gly Ser Pro Asp Ile Asn Gln
        165 170
Pro Ser Leu Lys Pro Leu Trp Arg Glu Met Ser Arg Ile Ala Gln His
        180
                      185
Asn Pro Gly Glu Met Leu Ser Tyr Asp Val Leu Asp Gly Arg Leu Glu
 195 200
                                 205
Leu Arg Glu Gln Ile Ala Arg Leu Met Leu Asp Gly Gly Ser Thr Val
                215
                              220
Ala Ala Asn Glu Ile Val Ile Thr Asn Gly Cys His Gly Ala Leu Ser
225 230
                          235
Ile Ala Leu Leu Ser Val Cys Lys Pro Gly Asp Ile Val Ala Val Glu
     245 250 255
Ser Pro Ser Phe His Gly Thr Met Gln Met Leu Arg Gly Phe Asp Ile
   260 265 270
Lys Ala Ile Glu Ile Pro Thr Asp Pro Glu Thr Gly Ile Ser Ile Glu
 275 280 285
Ala Leu Glu Leu Ala Leu Glu Gln Trp Pro Ile Lys Ala Val Ile Leu
290 295 300
Val Pro Asn Cys Asn Asn Pro Leu Gly Phe Ile Met Pro Glu Ala Arg
305 310 315
Lys Lys Gln Val Leu Ala Leu Ala Gln Arg His Asp Ile Val Ile Val
   325 330 335
Glu Asp Asp Ile Tyr Gly Glu Leu Ala Ala Glu Tyr Pro Arg Pro Arg
 340 345 350
Thr Ile His Ser Met Asp Ile Asp Gly Arg Val Leu Leu Cys Ser Ser
355 360
Phe Thr Lys Thr Val Ala Pro Gly Leu Arg Val Gly Trp Ile Val Pro
370 375
Gly Arg Tyr Tyr Asp Arg Val Met His Met Lys Tyr Ala Ala Gly Gly
385 390
                           395
Phe Asn Val Pro Gly Thr Gln Met Ala Val Ala Ala Phe Ile Arg Asp
          405 410 415
Gly His Tyr His Arg His Val Arg Arg Met Arg Gln Ile Tyr Gln Gln
                     425
                                  430
Asn Met Glu Thr Tyr Thr Cys Trp Val Arg Gln Tyr Phe Pro Ala Glu
435 440
Ile Cys Val Thr Arg Pro Gln Gly Ser Phe Leu Leu Trp Val Glu Leu
 450 455 460
Pro Glu Thr Val Asp Met Val Cys Val Ser Lys Gln Leu Cys Arg Leu
465 470 475
Lys Ile Gln Ala Ala Ala Gly Ser Leu Phe Ser Ala Ser Gly Lys Tyr
          485 490
                                       495
Arg Asn Cys Leu Arg Ile Asn Val Ala Leu Pro Pro Thr Asp Lys Asn
        500 505 510
Arg Glu Ala Leu Lys Lys Met Ser Thr Arg Arg Gly Gly Val Pro Arg
                   520
```

<210> 7281 <211> 425 <212> PRT <213> Enterobacter cloacae

Leu

```
Met Val Gly Ala Leu Ala Asp Trp Phe Ala Val Val Ala Leu Phe Arg
                  5.5
Arg Val Pro Ile Pro Phe Ile Ser Arg His Thr Ala Ile Ile Pro Arg
               7.0
Asn Lys Asp Arg Ile Gly Asp Asn Leu Gly Gln Phe Val Gln Glu Lys
            85
                     90
Phe Leu Asp Thr Gln Ser Leu Val Asp Leu Ile Arg Arg Tyr Glu Pro
         100
                        105
Ala Gln Met Ile Gly Thr Trp Phe Ser Gln Pro Asp Asn Ala Arg Arg
                     120
     115
                                    125
Val Gly Gln His Leu Val Gln Val Met Gly Gly Phe Leu Glu Leu Thr
             135 140
Asp Asp Gly Arg Ile Gln Arg Leu Leu Lys Arg Ala Val His Lys Ala
145 150 155 160
Ile Asp Lys Val Asp Leu Thr Glu Thr Ser Ala Val Met Leu Glu Ser
        165 170 175
Met Thr Lys Asn Asn Arg His Gln Val Leu Leu Asp Ala Ile Ile Asn
  180 185 190
Arg Leu Ile Thr Leu Ile Gln Arg Glu Ser Thr Arg Glu Phe Ile Ala
195 200 205
Asp Gln Ile Val His Trp Leu Lys Thr Glu His Pro Arg Lys Ala Met
210 215 220
Val Leu Pro Thr Glu Trp Leu Gly Asp Gln Ser Ala Glu Met Val Ser
225 230 235
Asn Ala Val Asn Thr Leu Leu Asp Asp Ile Ser His Asp Arg Thr His
    245 250 255
Gln Ile Arg Gln Ala Phe Asp Arg Ala Thr Ile Lys Phe Ile Asp Asn
 260 265 270
Leu Lys Asn Asp Pro Glu Met Thr Ala Lys Ala Glu Asn Ile Lys His
275 280 285
Tyr Leu Lys Asn Asp Glu Ala Phe Asn Arg Tyr Leu Gly Glu Met Trp
290 295 300
Ala Asp Leu Arg Gln Trp Leu Lys Asn Asp Met Gln Ser Asp Asp Ser
305 310 315
Arg Val Lys Gln Arg Ile Ala Asn Ala Gly Leu Trp Phe Gly Glu Thr
       325 330 335
Leu Thr Asn Asp Ala Ser Leu Arg Ala Ser Leu Asn Glu His Leu Glu
       340 345
Gln Ala Ala His Arg Val Ala Pro Asp Phe Ala Ala Phe Leu Thr Arg
                     360
                                    365
His Ile Ser Asp Thr Val Lys Ser Trp Asp Ala Lys Asp Met Ser Arg
                 375
                                 380
Gln Ile Glu Leu Asn Ile Gly Lys Asp Leu Gln Phe Ile Arg Val Asn
              390 395 400
Gly Thr Leu Val Gly Gly Thr Ile Gly Leu Ile Leu Phe Leu Leu Ser
         405
                           410
Gln Leu Pro Ala Val Leu Gly His
        420
<210> 7282
<211> 176
<212> PRT
<213> Enterobacter cloacae
<400> 7282
Gly Thr Arg Met Arg Val Pro Ala Thr His Ala Cys Pro Leu Phe Ile
                           10
Asn Pro Ala Trp Ile Thr Cys Gly Ile Ala Cys Ser Arg Ser Thr Ser
                        25
                                        30
```

Ser Ser Arg Ile Val Gly Asp Leu Pro Pro Asn Ser Ser Val Thr Arg

Leu Lys Leu Ser Ala Ala Leu Arg Arg Ile Ala Leu Pro Val Phe Val Glu Pro Val Asn Glu Ile Phe Ala Thr Ser Gly Trp Arg Leu Arg Val 7.0 7.5 Ser Pro Thr Val Ser Pro Arg Pro Val Thr Met Leu Asn Thr Pro Gly 85 90 Gly Ser Ala Ala Ser Arg Ser Ala Ser Val Thr Ile Cys Val Cys Arg 100 105 110 Ala Leu Ile Ser Leu Gly Leu Met Thr Ala Val Gln Pro Ala Ala Ser 115 120 125 Ala Ala Ala Ser Leu Pro Gln Ile Asn Pro Ala Ser Leu Phe His Gly 130 135 140 Val Ile Ser Pro Ala Thr Pro Ser Gly Val Ile Cys Thr Val Ala Ala 145 150 155 Pro Ala Glu Val Thr Asn Ser Asn Ala Ser Ser Ala Ser Met Ala 165 170

<210> 7283 <211> 302 <212> PRT <213> Enterobacter cloacae

<400> 7283 Ser Met His Arg Ser Gly Leu Thr Glu Leu Glu Val Val Met Ala Val 1.5 Val Arg Arg Gly Ser Phe Arg Gly Ala Ala Gln Glu Leu Gly Met Ser 20 25 3.0 Ala Thr Ala Val Ser Asn Ala Ile Ala Gly Leu Glu Ser Arg Leu Glu 40 Thr Arg Leu Phe Asn Arg Thr Thr Arg Ser Val Ala Leu Thr Asp Ala 50 55 60 Gly Gln Arg Tyr Val Ala Arg Ile Gly Pro Ala Leu Gln Glu Ile Arg 70 75 65 8.0 Leu Ala Gly Glu Glu Ile His Ser Asp Thr Gly Glu Pro Ala Gly Thr 85 90 Leu Arg Leu Asp Val Pro Asn His Ile Gly Thr Leu Phe Leu Asp Gln 100 105 110 Leu Leu Ile Asp Phe Met Ile Arg Tyr Pro Lys Met Arg Val Glu Thr 115 125 Val Ser Glu Ala Arg Met Ile Asp Ile Val Ala Glu Gly Tyr Asp Ala 135 140 Gly Ile Arg Leu Glu Glu Ser Val Pro Gln Asp Met Ile Ala Val Pro 145 150 155 Leu Thr Gly Glu Ile Arg Gln Leu Val Thr Ala Thr Pro Asp Tyr Phe 170 165 Ala Arq His Gly Ile Pro Glu Thr Pro Asp Asp Leu Leu Ser His Gln 180 190 185 Gly Ile Gly Met Arg Met Ala His Gly Gly Ile Tyr Arg Trp Glu Leu 195 205 Ala Arg Arg Gly Glu Thr Tyr Ala Leu Ala Val Pro Pro Arg Phe Ala 215 Thr Ser Asp Leu Phe Ala Ser Ile Arg Ala Val Lys Ala Gly Leu Gly 230 235 240 Val Gly Phe Leu Pro Glu Leu Tyr Ile Gln Asp Glu Leu Lys Ser Gly 245 250 Glu Leu Val Ser Val Leu Asn Asp Trp Ala Gln Pro Phe Ala Gly Leu 260 265 Arg Leu Tyr Tyr Pro Gly His Arg His Val Pro Pro Gly Leu Arg Ala 280 285 Leu Val Ala Met Ile Arg Glu Arg Gly Ile Ile Pro Gly 290 295

```
<210> 7284
<211> 350
<212> PRT
<213> Enterobacter cloacae
<400> 7284
Pro Ala Arg Asp Ile Glu Ile Ala Gly Tyr Arg Leu Ala Gln Arg Ile
           5
                           10
Pro Ala Gln Asn Gly Arg Val Glu His Phe Ile Leu Thr His Gly Ala
                      25
    20
Arg Arg Leu Ala Arg Gln Gln Gln Pro Phe Phe Ile Gly Glu Ala Val
      35
                    40
Glu Gly Gly Asn Ala Gly Ala Gln Lys Thr Gly Pro Phe Ala Leu Ala
                 55 60
Asn Gln Arg Arg Gln Arg Ala Gly Arg Leu Phe Cys Gly Gly Val
              70
                            75
Leu Arg Gly Gln Gln Lys Ile Arg Ile His Pro Arg Pro Ala Arg Ala
          85
                         90
Leu Ala His Gln Ile Pro Phe Ala Arg Gln Asn Gly Ile Arg Arg Leu
        100 105
                                     110
Asp Gly Phe Ala Arg His Leu Gln Leu Phe Arg Gln Gln Ala Asp Gly
115 120 125
Arg Tyr Pro Val Ala Arg Leu Gln His Ala Ala His Asp Val Val Ala
130 135 140
Ile Ala Gly Ile Asn Leu Val Ile Ala Arg Leu His Val Leu Pro Asn
          150 155
Phe Thr Leu Phe Val Ser Phe Tyr Tyr Val Met Asn Gly Val Asp Leu
           165
                           170
                                        175
Leu His Arg Met Thr His Ala Ala Gln Lys Arg Gly Lys Thr Met Ser
                       185
                                        190
Thr Arg Val Asn His His Lys Ala Thr Pro Ala Leu Thr Asn Ala Leu
                   200
                         205
Ser Ala Leu Ser Met Glu Val Ala Lys Thr Ser Ile Asp Pro Ala Leu
 210 215
                                  220
Lys His Leu Ile Asp Ile Arg Val Ser Gln Leu Asn Gly Cys Thr Phe
225 230 235
Cys Leu Asp Met His Ser Lys Glu Ala Lys Ile Ala Gly Glu Arg Glu
                                           255
            245 250
Leu Arg Leu Tyr His Leu Ala Ala Trp Arg Glu Ser Pro Leu Phe Ser
        260 265 270
Ala Arg Glu Lys Ala Ala Leu Ala Phe Thr Glu Ala Leu Thr Gln Ile
     275
                   280
                                     285
Gly Val His Gly Val Ser Asp Ala Leu Tyr Arg Ser Val Ala Glu His
                  295
                                 300
Phe Ser Asp Val Glu Ile Ser Glu Leu Asn Phe Ala Ile Val Ala Ile
            310 315
Asn Ala Trp Asn Arg Leu Gly Ile Thr Ser Arg Met Glu Pro Gly Ser
         325
                           330
Leu Asp Ala Ala Tyr Gly Leu Asn Lys Ala Asn Leu Glu
                        345
<210> 7285
<211> 165
<212> PRT
<213> Enterobacter cloacae
<400> 7285
Trp Arg Thr Thr Arg Gly Leu Pro Met Ser Glu Glu Asp Leu Phe Ser
```

1 5 10 15 Arg Arg Pro Met Gly Met Arg Met Ala Met Ile Val Arg Gln Trp Arg

Ala Val Ile Asp Asp Ala Ile Leu Asp Thr Gly Leu Thr Gln Ser Ser 40 Trp Thr Val Met Met Gln Leu His Gln Leu Gly Asp Asn Val Ser Val 55 Ser Glu Leu Ala Glu Val Gln Gly Ile Glu Leu Pro Pro Leu Met Arg 70 7.5 Thr Leu Thr Gln Leu Glu Lys Gln Gly Tyr Leu Leu Arg Thr Val Ser 85 90 Pro Tyr Asp Lys Arg Ile Arg Leu Leu Thr Leu Thr Pro Glu Gly Lys 100 105 110 Ala Ile Leu Glu Arg Leu Ser Gln Val Ile Glu Thr Phe Gln Ala Arg 125 115 120 Val Ser Gln Asn Ile Ala Pro Glu His Ile Asp Ile Phe Ser Ala Thr 130 135 140 Leu Asn Gln Ile Ala Cys Asn Leu Arg Thr Ile Arg Glu Glu Asp Asn Lys Thr Glu Lys

<210> 7286 <211> 248 <212> PRT

<213> Enterobacter cloacae

<400> 7286 Arg Met Met Ile Ser Trp Pro Leu Arg Ser Pro His Pro Gly Arg Arg 10 Met Leu Lys Thr Ser Leu Pro Ser Asp Asn Ser Ala Met Leu Glu Lys 2.5 3.0 Ala Ile Ala Ala Val Ala Ala Ala Met Ala Asp Pro Ser Arg Val Lys 40 4.5 Met Leu Cys Ala Leu Met Asp Gly Arg Ala Trp Thr Ala Thr Glu Leu 55 Ser Ala Ala Ala Asp Val Ala Pro Ser Thr Ala Ser Gly His Leu Ala 70 7.5 Arg Leu Val Glu Gly Gln Leu Ile Thr Cys Leu Ser Gln Gly Arg His 85 90 Arg Tyr Tyr Arg Leu Ala Gly His Asp Val Ala Ala Leu Val Glu Gln 105 110 Met Met Gly Leu Ser Trp Ser Arg Ile Thr Pro Pro Glu Thr Ser Ala 115 120 Pro Lys Ala Met Arg Glu Ala Arg Thr Cys Tyr Asp His Leu Ala Gly 130 135 140 Ala Val Ala Val Gln Ile Tyr Asp Phe Met Gln Ala Glu Gly Trp Leu 155 145 150 Glu Ala Asp Gly Ser Ala Leu Thr Leu Tyr Gly Arg Glu Gln Phe Leu 165 170 Ala Leu Gly Ile Pro Leu Ser Ala His Pro Arg Arg Lys Ala Cys Cys 180 185 190 Ala Cys Leu Asp Trp Ser Glu Arg Arg Phe His Leu Gly Gly Glu Ala 195 200 205 Gly Ala Ala Leu Leu Ile His Met Glu Ser Lys Gly Trp Ile Gln Arg 210 215 Val Ala Gly Tyr Arg Glu Val Val Val Thr Ala Ser Gly Lys Ser Ala 225 230 235 Val Arg Lys His Phe Ser Arg 245

<210> 7287 <211> 63

```
<212> PRT
<213> Enterobacter cloacae
<400> 7287
Pro His Trp His Ser Glu Glu Ser Ile Met Glu Phe Tyr Glu Asn Arg
                           10
Ser Lys Arg Pro Phe Ile Ala Phe Val Trp Val Ala Lys Thr Leu Arg
     20
                        25
Asn Trp Tyr Arg Ile Asn Arg Thr Arg Arg Ile Leu Ser Gln Met Ser
                    40
                         45
Asp Glu Gln Leu Lys Asp Val Gly Leu Ser Arg Tyr Asp Val
<210> 7288
<211> 483
<212> PRT
<213> Enterobacter cloacae
<400> 7288
Gln Thr Gly Leu Thr Gln Pro Glu Glu Val Tyr Met His Thr Ile Glu
1 5
               1.0
Gln Ile Phe Ile Asn Gly Glu Phe Val Thr Pro His Gly Thr Glu Arg
 20 25
Phe Asp Leu Tyr Asn Pro Ala Thr Ala Gln Val Ile Gly Gln Val Arg
35 40
Leu Ala Asp Glu Val Asp Ala Glu Arg Ala Ile Ala Ala Ala Lys Ala
50 55
Ala Phe Pro Ala Trp Ser Gln Thr Thr Lys Gln Glu Arg Ile Ala Ala
65 70
                             75
Leu Lys Arg Met His Ala Ala Val Ala Ala Arg His Asp Ala Leu Leu
         85 90
Glu Ala Val Ile Glu Glu Tyr Gly Ala Pro Ala Ser Arg Ser Ala Trp
100 105 110
Met Ala Ser Tyr Pro Ala Glu Val Ile Ala Gln Ala Ile Glu Ala Leu
115 120
                                   125
Glu Ala Phe Glu Phe Val Thr Ser Ala Gly Ala Ala Thr Val Gln Met
 130 135 140
Thr Pro Leu Gly Val Ala Gly Leu Ile Thr Pro Trp Asn Ser Asp Ala
145 150 155
Gly Phe Ile Cys Gly Lys Leu Ala Ala Ala Leu Ala Ala Gly Cys Thr
          165 170 175
Ala Val Ile Lys Pro Ser Glu Met Ser Ala Leu Gln Thr Gln Ile Val
        180 185 190
Thr Glu Ala Leu Arg Asp Ala Ala Leu Pro Pro Gly Val Phe Asn Ile
   195 200
                                   205
Val Thr Gly Arg Gly Glu Thr Val Gly Glu Thr Leu Ser Arg His Pro
 210 215
                                 220
Asp Val Ala Lys Ile Ser Phe Thr Gly Ser Thr Asn Thr Gly Lys Ala
                              235
225 230
Ile Leu Arg Asn Ala Ala Glu Ser Phe Lys Arg Val Thr Leu Glu Leu
           245
                           250 255
Gly Gly Lys Ser Pro Thr Ile Leu Leu Asp Asp Val Asp Leu Glu Gln
        260
                        265 270
Ala Ile Pro Gln Val Ile Gln Ala Gly Phe Met Asn Ser Gly Gln Ala
     275 280
                                    285
Cys Val Ala Gly Thr Arg Ile Leu Val Pro Tyr Ser Arg Lys Ala Glu
                 295
                                 300
Ile Glu Thr Ala Leu Ala Glr Ala Val Ala Ala Val Lys Ser Gly Asp
305 310
                              315
Pro Arg Asn Ser Thr Thr Asp Val Gly Pro Met Val Ser Glu Lys Gln
```

330

335

```
3288
Trp Leu Arg Val Gln Gly Tyr Ile Arg Lys Gly Ile Glu Glu Gly Ala
                         345
          340
Arg Leu Leu Ala Gly Gly Glu Gly Arg Pro Glu Gly Thr Arg Asp Gly
                        360
Trp Phe Val Arg Pro Thr Leu Phe Ala Gly Val Asn Asn Arg Met Thr
                     375
                                       380
Ile Ala Arg Asp Glu Ile Phe Gly Pro Val Leu Cys Val Ile Pro Tyr
                 390
                                   395
Gln Asp Glu Ala Glu Ala Ile Ala Ile Ala Asn Asp Thr Glu Tyr Gly
                                410
             405
                                                  415
Leu Ser Ala Met Val Leu Gly Gly Asp Val Asp Arg Ala Arg Arg Val
                                  430
         420
                           425
Ala Gln Gln Ile Val Ser Gly Arg Val Leu Val Asn Thr Leu Ala His
                        440
                             445
      435
Glu Pro Lys Ala Pro Phe Gly Gly Phe Lys His Ser Gly Val Gly Arg
 450 455 460
Glu Met Gly Glu Trp Gly Ile Arg Ala Phe Met Glu Pro Arg Ser Val
                 470
Leu Gly
<210> 7289
<211> 133
<212> PRT
```

<213> Enterobacter cloacae <400> 7289 Ser Phe Ala Leu Tyr Arg Ser Ile Val Leu Phe His Pro Ala Phe Ser 10 Pro Gln His His Ser Gly Glu Thr Ile Met Ile Ala Val Leu Phe Glu 2.5 Ala Lys Ala Ala Pro Ala His Gln Ala Arg Tyr Leu Gln Leu Ala Ala 35 40 45 Glu Leu Lys Pro Leu Leu Ala Asp Ile Asp Gly Phe Ile Asp Ile Glu 55 Arg Phe Gln Ser Leu Thr Thr Asp Gly Lys Ile Leu Ser Leu Ser Trp 7.0 7.5 Trp Arg Asp Glu Glu Ala Val Arg Arg Trp Lys Gln Asn Val Phe His 8.5 90 Gln Ala Ala Gln Ala Glu Gly Arg Ala Leu Ile Phe Ser Phe Tyr Arg 105 110 Ile Arg Val Ala Gln Leu Val Arg Glu Tyr Ser Ser Glu Thr Gly Gly 115 120 His Ala Asp Val 130

<210> 7290 <211> 359 <212> PRT <213> Enterobacter cloacae

<400> 7290 Asp Arg Lys Ile Met Thr Pro Glu Gln Lys Phe Ala Arg Trp Val Arg 10 Val Ser Ile Ala Ser Phe Leu Leu Met Phe Val Tyr Phe Ile Val Ala 20 25 3.0 Asp Ile Trp Ile Pro Leu Thr Pro Asp Ser Thr Val Met Arg Val Val 35 40 45 Thr Pro Val Ser Ala Arg Val Ser Gly Tyr Val Ala Ala Val His Val 50 55 His Asn Asn Ser Gln Val Lys Lys Gly Asp Leu Leu Phe Glu Leu Asp

```
Ala Thr Pro Phe Arg Asn Lys Val Glu Ala Ala Gln Ile Ala Leu Glu
        8.5
                         90
Gln Ala Arg Leu Ser Asn Asp Gln Leu Asp Ala Gln Ile Ala Ala Ala
        100
                      105
                                     110
Gln Ala Ser Leu Lys Thr Ala Val Leu Thr Ala Arg Asn Asp Lys Val
     115
                  120
                          125
Thr Phe Asp Arg Tyr Gln Lys Leu Ser Thr Leu Gln Asn Val Ser Gln
      135 140
Ala Asp Leu Asp Lys Val Arg Thr Thr Trp Gln Ser Ser Glu Gln Ser
   150 155 160
Val Ser Ser Ile Gln Ala Asn Ile His Asn Leu Arg Ile Gln Arg Gly
      165 170 175
Glu Arg Asp Glu His Arg Asn Val Thr Leu Gln Lys Tyr Arg Asn Ala
   180 185 190
Leu Asp Glu Ala Glu Leu Asn Leu Gly Trp Thr Lys Val Tyr Ala Glu
 195 200 205
Ala Asp Gly Thr Val Ser Asn Leu Gln Leu Ser Pro Gly Phe Tyr Ala
 210 215 220
Ser Ser Gly Ser Ala Ala Leu Ala Leu Val Asn Thr Arg Ile Asp Ile
225 230 235
Val Ala Asp Phe Arg Glu Lys Ser Leu Arg His Thr His Gln Gly Thr
        245 250 255
Asp Ala Ala Val Val Phe Asp Ala Phe Pro Gly His Val Phe Arg Ala
 260 265
                          270
His Val Thr Ser Ser Asp Ala Gly Ile Leu Ala Gly Gln Glu Ala Val
275
         280
                       285
Asn Gly Gln Leu Ser Glu Pro Glu Thr Ser Asn Arg Trp Val Arg Asp
290 295 300
Ala Gln Arg Met Arg lle His Val Ala Leu Asp Glu Ala Leu Pro Lys
             310 315
                                          320
Pro Leu Pro Thr Gly Ala Arg Ala Thr Val Gln Leu Tyr Asn Ser Glu
           325 330
Gly Pro Phe Ala Arg Phe Phe Ser Gly Met Gln Ile His Leu Val Ser
                       345
Leu Leu His Tyr Val Tyr
```

<210> 7291 <211> 316

355

<212> PRT <213> Enterobacter cloacae

<400> 7291

Lys Arg Pro Gln Asn Asn Glu Glu Ser Arg Met Thr Met Ile Lys Gly Ile Thr Gly Ser Ala Val Leu Leu Ala Ala Leu Ser Leu Pro Leu Gln 25 Ala Ala Glu Pro Val Lys Val Gly Ser Lys Ile Asp Thr Glu Gly Ala 3.5 40 45 Leu Leu Gly Asn Ile 1le Leu Gln Val Leu Glu Ser His Gly Val Lys 5.0 55 Thr Val Asn Lys Val Gln Leu Gly Thr Thr Pro Val Val Arg Gly Ala 70 75 Ile Thr Ser Gly Glu Leu Asp Ile Tyr Pro Glu Tyr Thr Gly Asn Gly 85 90 Ala Phe Phe Lys Asp Glu Asn Asp Pro Ala Trp Lys Asn Ala Lys 100 105 Ala Gly Tyr Glu Lys Val Lys Lys Leu Asp Ala Glu Lys Asn Lys Leu 125 115 120 Val Trp Leu Thr Pro Ala Pro Ala Asn Asn Thr Trp Thr Ile Ala Val

```
135
Arg Lys Asp Ile Ala Glu Lys Gly Lys Leu Thr Ser Leu Asp Asp Leu
                            155
          150
Ser Arg Tyr Leu Lys Glu Lys Gly Glu Phe Lys Leu Ala Ala Ser Ala
           165
                   170
Glu Phe Ile Glu Arg Ala Asp Ala Leu Pro Ala Phe Glu Lys Ala Tyr
        180
                185
                                  190
Asp Phe Lys Leu Asp Gln Ala Glr Leu Leu Ser Leu Ala Gly Gly Asp
 195 200 205
Thr Ala Val Thr Ile Lys Ala Ala Gln Gln Thr Ser Gly Val Asn
 210
      215 220
Ala Ala Met Ala Tyr Gly Thr Asp Gly Pro Val Ala Ala Leu Gly Leu
225 230 235 240
Gln Thr Leu Thr Asp Pro Lys Gly Val Gln Pro Ile Tyr Ala Pro Thr
       245 250 255
Pro Val Val Arg Glu Ala Val Leu Lys Ala Tyr Pro Asp Ile Ala Glu
      260 265 270
Trp Leu Lys Pro Val Phe Glu Lys Leu Asp Ala Lys Thr Leu Gln Gln
275 280 285
Leu Asn Ala Ser Ile Ala Val Glu Gly Leu Asp Ala Lys Lys Val Ala
290 295 300
Ala Asp Phe Leu Lys GIn Gln Gly Leu Val Lys
<210> 7292
<211> 390
<212> PRT
<213> Enterobacter cloacae
<400> 7292
Arg Asp Lys Ala Val Pro Ile Lys Cys His Asn Arg Val Leu Leu Leu
Leu Ala Cys Val Ala Ile Ala Ala Val Ala Leu Pro Phe Val Asn Val
                 25
Ala Pro Asn Arg Leu Val Ser Gly Glu Pro Arg Ala Leu Trp Gln Ile
                    40
                                   4.5
Trp Ala Phe Thr Pro Leu Leu Gly Ala Ala Leu Ala Ser Thr Val
                5.5
                                 60
Ala Leu Ala Phe Trp Pro Gly Arg Thr Ala Leu Trp Leu Thr Phe Leu
               70
                             75
Leu Ser Glu Ala Leu Phe Ile Val Leu Phe Trp Ser Ala Gly Gln Ala
           85
                          90
Ala Thr Gln Met Ala Ala Val Glu Ser Pro Leu Ala Arg Thr Ser Val
        100 105 110
Gly Ser Gly Leu Trp Leu Trp Leu Ala Leu Cys Leu Leu Val Cys Ser
     115
                    120
                                   125
Asp Ala Ile Arg Arg Leu Thr Pro Gln Pro Val Trp Arg Trp Leu Leu
 130 135
                                 140
Asn Ala Gln Phe Trp Val Ile Pro Leu Leu Ile Leu Phe Ser Gly Asp
145 150
                             155
Leu Asn Gln Leu Ser Leu Leu Lys Glu Tyr Val Asn Arg Gln Glu Val
    165
                           170 175
Phe Asp Asn Ala Leu Ala Gln His Leu Thr Ile Leu Phe Gly Thr Leu
        180
                        185
                                       190
Ile Pro Ala Leu Leu Gly Val Pro Leu Gly Met Trp Cys Tyr Arg
                           205
  195
                    200
His Thr Ser Arg Gln Gly Ala Val Phe Thr Val Leu Asn Val Ile Gln
 210 215 220
Thr Ile Pro Ser Val Ala Leu Phe Gly Leu Leu Ile Ala Pro Leu Ala
                            235
              230
```

Gly Leu Val Lys Ser Phe Pro Ala Leu Ala Ala Ala Gly Ile Ala Gly

```
245
                              250
Thr Gly Leu Thr Pro Ala Leu Ile Ala Leu Val Leu Tyr Ala Leu Leu
                          265
Pro Leu Val Arg Gly Val Val Ala Gly Leu Ser Gln Val Pro Pro Asp
    275
                 280
                                      285
Val Leu Glu Ser Ala His Ala Met Gly Met Ser Ala Arg Gln Cys Phe
       295
                          300
Trp Lys Ile Gln Leu Pro Leu Ala Leu Pro Leu Leu Val Arg Ser Leu
       310 315 320
Arg Val Val Thr Val Gln Thr Val Gly Met Ala Val Ile Ala Ala Leu
            325 330 335
Ile Gly Ala Gly Gly Phe Gly Ala Leu Val Phe Gln Gly Leu Leu Ser
         340 345 350
Ser Ala Leu Asp Leu Val Leu Leu Gly Val Val Pro Thr Ile Ala Leu
     355 360 365
Ala Val Val Leu Asp Ala Leu Phe Ala Leu Trp Leu Ala Leu Leu Arg
                 375
Arg Arg Ala Asn Asp
<210> 7293
<211> 368
<212> PRT
<213> Enterobacter cloacae
<400> 7293
Ser Gly Arg Ala Ala Leu Glu His Trp Ser Ser Arg Gly Cys Ser Val
Ala Arg Trp Ile Trp Cys Cys Trp Ala Ser Cys Pro Gln Leu Arg Trp
                 25
Arg Ser Tyr Trp Met Pro Cys Leu Pro Cys Gly Ser Arg Cys Ser Gly
   35
                      40
Glu Glu Pro Met Ile Glu Phe His Asp Val Ser Lys Thr Phe Ala Gly
                                     60
Arg Pro Ala Ala Ser His Leu Asn Leu His Phe Ala Glu Gly Ala Phe
                70
                                 7.5
Ser Ile Leu Ile Gly Thr Ser Gly Ser Gly Lys Ser Thr Thr Leu Lys
           8.5
                             90
Met Ile Asn Arg Leu Val Glu His Asp Ser Gly Thr Ile Arg Phe Ala
         100 105
                                           110
Gly Glu Glu Ile Arg Ser Leu Pro Val Leu Glu Leu Arg Arg Met
      115
                       120
Gly Tyr Ala Ile Gln Ser Ile Gly Leu Phe Pro His Trp Thr Val Ala
  130
                   135
                                    140
Gln Asn Ile Ala Thr Val Pro Gln Leu Glu Lys Trp Ser Arg Gly Lys
                150
                                 155
Ile Asn Glu Arg Val Asp Glu Leu Met Ala Leu Leu Gly Leu Asp Ala
             165
                              170 175
Ser Leu Arg Asn Arg Tyr Pro His Gln Leu Ser Gly Gly Gln Gln Gln
                          185
                                            190
Arg Val Gly Val Ala Arg Ala Leu Ala Ala Asn Pro Gln Val Leu Leu
    195
                       200
                                        205
Met Asp Glu Pro Phe Gly Ala Leu Asp Pro Val Thr Arg Gly Ala Leu
   210
                   215
Gln Ala Glu Met Ser Arg Ile His Arg Ile Leu Gly Arg Thr Ile Val
                230
                                  235
                                                240
Leu Val Thr His Asp Ile Asp Glu Ala Leu Arg Leu Ala Asp Arg Leu
                             250
            245
                                               255
Val Leu Met Asp His Gly Glu Val Val Gln Gln Gly Thr Pro Leu Glu
                          265
         260
```

Leu Leu Thr Ser Pro Ala Asn Asp Phe Val Arg Glu Phe Phe Gly Arg

```
280
Ser Glu Leu Gly Val Arg Leu Leu Ser Leu Arg Thr Val Arg Asp Tyr
                   295
                                   300
  290
Leu Arg Pro Gln Asp Ala Gln Ile Gly Glu Pro Leu His Asp Gly
          310
                                315
Met Ser Leu Arg Asp Ala Leu Ser Ala Phe Val Ala Arg Gln Cys Glu
            325
                             330
                                    335
Val Leu Pro Val Ala Asp Gly Gln Gly Thr Pro Cys Gly Thr Ile His
      340 345 350
Phe Arg Asp Leu Leu Ala Gly Glu Val Thr Arg Glu Val Gly Pro
                       360
<210> 7294
<211> 257
<212> PRT
<213> Enterobacter cloacae
<400> 7294
Ala Arg Pro Leu Tyr Pro Asn Tyr Leu Thr Ile Ala Ala Gly Gly Glu
                            10
Arg Met Leu Arg Val Leu Ile Val Asp Asp Glu Pro Leu Ala Arg Glu
 20
                       2.5
                                       3.0
Asn Leu Arg Val Leu Leu Gln Glu Gln Ser Asp Ile Glu Val Val Gly
                      40
35
Glu Cys Ala Asn Ala Ile Glu Gly Ile Gly Ala Val His Lys Leu Arg
50
                  5.5
Pro Asp Val Leu Phe Leu Asp Ile Gln Met Pro Arg Ile Ser Gly Leu
               70
                                75
Glu Met Val Gly Met Leu Asp Pro Glu His Arg Pro Tyr Ile Val Phe
           8.5
                             90
Leu Thr Ala Phe Asp Glu Tyr Ala Val Lys Ala Phe Glu Glu His Ala
         100
                         105
                                          110
Phe Asp Tyr Leu Leu Lys Pro Ile Glu Glu Lys Arg Leu Glu Lys Thr
115 120 125
Leu Thr Arg Leu Arg Gln Glu Arg Thr Ala Gln Asp Val Thr Leu Leu
                   135
Pro Glu His Gln Gln Pro Leu Lys Phe Ile Pro Cys Thr Gly His Ser
145 150
                                1.5.5
                                                160
Arg Ile Tyr Leu Leu Gln Met Asp Asp Val Ala Phe Val Ser Ser Arg
            165
                             170
                                             175
Leu Ser Gly Val Tyr Val Thr Ser Ala Glu Gly Asn Glu Gly Phe Thr
         180
                          185
                                          190
Glu Leu Thr Leu Arg Thr Leu Glu Ser Arg Thr Pro Leu Ile Arg Cys
     195
                      200
                             205
His Arg Gln Tyr Leu Val Asn Met Ala His Leu Lys Glu Ile Arg Leu
  210
                   215 220
Glu Asp Asn Gly Gln Ala Glu Leu Val Leu Arg Ala Gly Gln Thr Val
               230
                                235
Pro Val Ser Arg Arg Tyr Leu Lys Ser Leu Lys Glu Ala Ile Gly Leu
             245
                             250
```

```
<210> 7295
<211> 95
```

<400> 7295

<sup>&</sup>lt;212> PRT <213> Enterobacter cloacae

lle Arg Asn Thr Asn His Leu Val Tyr Arg Asp Asn Trp Asn Ile Gln 1 10 15

Leu Thr Lys Thr Gly Phe Thr Asn Ala Ala Gly His Cys Leu Val Met 25 Arg Thr Val Phe Asn Gly Lys Pro Val Ala Leu Val Val Met Asp Ala 40 Phe Gly Lys Tyr Thr His Phe Ala Asp Ala Ser Arg Leu Arg Thr Trp 55 Ile Glu Thr Gly Lys Val His Pro Val Pro Ala Ser Ala Leu Ala Tyr 70 Lys Lys His Lys Ala Glu Gln Met Ala Thr Ala Gln Asn Asp

<211> 797 <212> PRT <213> Enterobacter cloacae

<210> 7296

<400> 7296 Pro Cys Lys Val Phe Arg Leu Cys Gly Thr Leu Arg Phe Ser His Gly 10 Leu Ala Gly Cys Phe Pro Arg Leu Leu Met Arg Glu Asn Asn Asn Met 20 25 30 Lys Trp Leu Cys Ser Val Gly Val Ala Val Ser Leu Ala Leu Gln Pro 40 45 Ala Leu Ala Glu Asp Leu Phe Gly Asn His Pro Leu Thr Pro Glu Ala 50 55 60 Arg Asp Ala Phe Val Thr Asp Leu Leu Lys Lys Met Thr Val Asp Glu 70 7.5 Lys Ile Gly Gln Leu Arg Leu Ile Ser Val Gly Pro Asp Asn Pro Lys 8.5 90 Glu Ala Ile Arg Glu Met Ile Lys Asp Gly Gln Val Gly Ala Ile Phe 100 105 Asn Thr Val Thr Arg Gln Asp Ile Arg Lys Met Gln Asp Gln Val Met 115 120 125 Glu Leu Ser Arg Leu Lys Ile Pro Leu Phe Phe Ala Tyr Asp Val Val 130 135 140 His Gly Gln Arg Thr Val Phe Pro Ile Ser Leu Gly Leu Ala Ser Ser 145 150 155 Phe Asn Leu Asp Ala Val Lys Thr Val Gly Arg Val Ser Ala Tyr Glu 165 170 Ala Ala Asp Asp Gly Leu Asn Met Thr Trp Ala Pro Met Val Asp Val 180 185 Ser Arg Asp Pro Arg Trp Gly Arg Ala Ser Glu Gly Phe Gly Glu Asp 195 200 205 Thr Tyr Leu Thr Ala Thr Met Gly Lys Thr Met Val Glu Ala Met Gln 210 215 Gly Lys Ser Pro Ala Asp Arg Tyr Ser Val Met Thr Ser Val Lys His 230 235 Phe Ala Ala Tyr Gly Ala Val Glu Gly Gly Lys Glu Tyr Asn Thr Val 245 250 Asp Met Ser Pro Gln Arg Leu Phe Asn Asp Tyr Met Pro Pro Tyr Lys 265 260 270 Ala Gly Leu Asp Ala Gly Ser Gly Ala Val Met Val Ala Leu Asn Ser 280 285 Leu Asn Gly Thr Pro Ala Thr Ser Asp Ser Trp Leu Leu Lys Asp Val 295 300 Leu Arg Asp Gln Trp Gly Phe Lys Gly Ile Thr Val Ser Asp His Gly 310 315 320 Ala Ile Lys Glu Leu Ile Lys His Gly Thr Ala Ser Asp Pro Glu Asp 325 330 Ala Val Arg Val Ala Leu Lys Ser Gly Ile Asn Met Ser Met Ser Asp 340

```
Glu Tyr Tyr Ser Lys Tyr Leu Pro Gly Leu Val Lys Ser Gly Lys Val
 355
            360
Thr Met Ala Glu Leu Asp Asp Ala Ala Arg His Val Leu Asn Val Lys
                 375
                       380
Tyr Asp Met Gly Leu Phe Asn Asp Pro Tyr Ser His Leu Gly Pro Lys
     390 395
385
Asp Ser Asp Pro Ala Asp Thr Asn Ala Glu Ser Arg Leu His Arg Lys
       405 410 415
Glu Ala Arg Glu Val Ala Arg Glu Ser Leu Val Leu Leu Lys Asn Arg
   420
            425 430
Leu Asp Thr Leu Pro Leu Lys Lys Ser Gly Thr Ile Ala Val Val Gly
 435 440 445
Pro Leu Ala Asp Ser Lys Arg Asp Val Met Gly Ser Trp Ser Ala Ala
 450 455 460
Gly Val Ala Asp Gln Ser Val Thr Val Leu Thr Gly Ile Lys Ser Ala
465 470 475 480
Val Gly Asp Asn Ala Lys Val Val Tyr Ala Lys Gly Ala Asn Val Thr $485$
Asp Asp Lys Asp Ile Val Thr Phe Leu Asn Gln Tyr Glu Glu Ala Val
 500 505 510
Lys Val Asp Ala Arg Thr Pro Lys Glu Met Leu Asp Glu Ala Val Asn 515 520 525
Ala Ala Lys Gln Ser Asp Val Val Val Ala Val Val Gly Glu Ala Gln
530 535 540
Gly Met Ala His Glu Ala Ser Ser Arg Thr Asp Ile Thr Ile Pro Gln
545 550 555
Ser Gln Arg Asp Leu Ile Ala Ala Leu Lys Ala Thr Gly Lys Pro Leu
         565 570 575
Val Leu Val Leu Met Asn Gly Arg Pro Leu Ala Leu Val Lys Glu Asp
        580 585 590
Gln Gln Ala Asp Ala Ile Leu Glu Thr Trp Phe Ala Gly Thr Glu Gly 595 600 605
Gly Asn Ala Ile Ala Asp Val Leu Phe Gly Asp Tyr Asn Pro Ser Gly
610 615 620
Lys Leu Pro Met Ser Phe Pro Arg Ser Val Gly Gln Ile Pro Val Tyr
625 630 635 640
Tyr Ser His Leu Asn Thr Gly Arg Pro Tyr Asn Ala Asp Lys Pro Asn
           645 650 655
Lys Tyr Thr Ser Arg Tyr Phe Asp Glu Ala Asn Gly Pro Leu Tyr Pro
        660
                       665 670
Phe Gly Tyr Gly Leu Ser Tyr Thr Thr Phe Lys Val Ser Asp Val Lys
                    680 685
    675
Met Ser Ala Pro Thr Leu Lys Arg Asp Gly Lys Val Thr Ala Ser Val
                                700
               695
Glu Val Thr Asn Ser Gly Lys Arg Glu Gly Ala Thr Val Ile Gin Met
705 710
                             715
Tyr Val Gln Asp Val Thr Ala Ser Met Ser Arg Pro Val Lys Gln Leu
          725
                          730 735
Arg Gly Phe Glu Lys Val Asn Leu Lys Pro Gly Glu Thr Arg Thr Val 740 745 750
Ser Phe Pro Ile Asp Val Asn Ala Leu Lys Phe Trp Asn Gln Gln Met
 755
                    760 765
Lys Tyr Asp Ala Glu Pro Gly Lys Phe Asn Val Phe Ile Gly Val Asp
 770 775 780
Ser Ala Arg Val Asn Lys Ala Glu Phe Glu Leu Gln
             790
```

<sup>&</sup>lt;210> 7297 <211> 247

<sup>&</sup>lt;212> PRT <213> Enterobacter cloacae

```
<400> 7297
Arg Val Lys Trp Val Arg Asp Pro Leu Leu Trp Leu Thr Gly Leu Phe
         10
Ile Ala Leu Leu Tyr Leu Met Pro His Ser Ala Ala Leu Phe Asn Ala
     20
                                      30
                 25
Leu Ile Pro Gly Leu Pro Arg Pro Val Tyr Gln Gln Glu Ser Phe Val
35
                 40
                                  4.5
Asn Leu Thr Leu Ala His Phe Trp Leu Val Ala Val Ser Ser Val Ile
50 55
                                60
Ala Ile Val Leu Gly Thr Gly Ala Gly Ile Ala Val Thr Arg Pro Ala
65 70 75
Gly Arg Glu Phe Arg Pro Leu Val Glu Thr Ile Ala Ala Thr Gly Gln
      85 90 95
Thr Phe Pro Pro Val Ala Val Leu Ala Ile Ala Val Pro Ala Ile Gly
       100 105 110
Phe Gly Gln Glu Pro Ala Ile Ile Ala Leu Ile Leu Tyr Gly Val Leu
                   120 125
Pro Ile Leu Gln Gly Thr Leu Ala Gly Ile Ala Ala Val Pro Ala Ser
               135 140
Ala Leu Ser Val Ala Glu Gly Met Gly Met Ser Ala Trp Gln Arg Leu
145 150 155
Val Lys Val Glu Leu Pro Leu Ala Ala Pro Val Ile Ile Ala Gly Val
      165 170 175
Arg Thr Ser Val Ile Ile Asn Ile Gly Thr Ala Thr Ile Ala Ser Thr
                      185 190
       180
Val Gly Ala Asn Thr Leu Gly Thr Pro Ile Ile Ile Gly Leu Ser Gly
195 200 205
Phe Asn Thr Ala Tyr Ile Ile Gln Gly Ala Ile Leu Val Ala Leu Ala
210 215 220
Ala Ile Val Val Asp Arg Leu Phe Glu Arg Leu Ala Gly Tyr Leu Ser
225 230
                     235
Gln His Arg Arg Glu Gln
           245
```

<210> 7298 <211> 568 <212> PRT

<213> Enterobacter cloacae

<400> 7298 Asn Val Arg Phe Val Ser Met Tyr Glu Phe Asn Leu Val Leu Leu Leu 10 Leu Gln Gln Met Cys Val Phe Leu Val Ile Ala Trp Leu Met Ser Lys 20 25 Thr Arg Leu Phe Ile Pro Leu Met Gln Val Thr Val Arg Leu Pro His 35 40 Lys Phe Leu Cys Tyr Val Val Phe Ser Ile Phe Cys Ile Met Gly Thr 55 Trp Phe Gly Leu His Ile Glu Asp Ser Ile Ala Asn Thr Arg Ala Ile 7.0 75 65 Gly Ala Val Met Gly Gly Leu Leu Gly Gly Pro Val Val Gly Gly Leu 90 95 85 Val Gly Leu Thr Gly Gly Leu His Arg Tyr Ser Met Gly Gly Met Thr 110 100 105 Ala Leu Ser Cys Met Ile Ser Thr Ile Val Glu Gly Leu Leu Gly Gly Leu Val His Ser Tyr Met Ile Lys Arg Gly Arg Pro Asp Lys Val Phe 130 135 140 Ser Pro Phe Thr Ala Gly Ala Ile Thr Phe Val Ala Glu Met Ala Gln 150 155

```
Met Ala Ile Ile Leu Leu Ile Ala Arg Pro Phe Asp Asp Ala Leu His
          165
                170
Leu Val Ser Ser Ile Ala Ala Pro Met Met Val Thr Asn Thr Val Gly
        180
                      185
                                     190
Ala Ala Leu Phe Met Arg Ile Leu Leu Asp Lys Arg Ala Met Phe Glu
                   200
                       205
Lys Tyr Thr Ser Ala Phe Ser Ala Thr Ala Leu Lys Val Ala Ala Ser
            215
                               220
Thr Glu Gly Ile Leu Arg Gln Gly Phe Asn Glu Glu Asn Ser Met Lys
         230 235
Val Ala Gin Val Leu Tyr Lys Glu Leu Asp Ile Gly Ala Val Ala Ile
         245
                         250
                                       255
Thr Asp Arg Glu Lys Leu Leu Ala Phe Thr Gly Thr Gly Asp Asp His
                          270
    260 265
His Leu Pro Gly Lys Pro Ile Ser Ser Ala Tyr Thr Leu Arg Ala Ile
   275
                   280 285
Glu Thr Gly Glu Val Val Tyr Ala Asp Gly Asn Glu Val Pro Tyr Arg
 290
      295 300
Cys Ser Leu His Pro Gln Cys Lys Leu Gly Ser Thr Leu Val Ile Pro
305 310 315
Leu Arg Gly Glu Asn Gln Arg Val Met Gly Thr Ile Lys Leu Tyr Glu
    325 330 335
Ala Lys Asn Arg Leu Phe Ser Ser Ile Asn Arg Thr Leu Gly Glu Gly
   340 345 350
Ile Ala Gin Leu Leu Ser Ala Gin Ile Leu Ala Gly Gin Tyr Glu Arg
355 360 365
Gln Lys Ala Leu Leu Thr Gln Ser Glu Ile Lys Leu Leu His Ala Gln
370 375 380
Val Asn Pro His Phe Leu Phe Asn Ala Leu Asn Thr Leu Lys Ala Val
385 390 395
Ile Arg Arg Asp Ser Asp Gln Ala Ala Gln Leu Val Gln Phe Leu Ser
    405 410 415
Thr Phe Phe Arg Lys Asn Leu Lys Arg Pro Ser Glu Ile Val Thr Leu
420 425
Ala Asp Glu Ile Glu His Val Asn Ala Tyr Leu Gln Ile Glu Lys Ala
435 440 445
Arg Phe Gln Ser Arg Leu Gln Val Ser Leu Ser Val Pro Asp Glu Leu
 450 455
                              460
Ala Tyr Gln His Leu Pro Ala Phe Thr Leu Gln Pro Ile Val Glu Asn
             470
                           475
Ala Ile Lys His Gly Thr Ser Gln Leu Leu Gly Thr Gly Glu Ile Met
          485 490 495
Ile Ser Ala Ser Arg Phe Asn His His Leu Val Leu Asp Ile Glu Asp
        500
                      505 510
Asn Ala Gly Leu Tyr Glu Ala Ser Ala Ser Gly Gly Leu Gly Met Ser
     515
                   520
                                  525
Leu Val Asp Lys Arg Leu Arg Ala His Phe Gly Asp Asp Cys Gly Ile
  530 535 540
Thr Val Ala Cys Glu Pro Asp Arg Tyr Thr Arg Ile Thr Leu Arg Leu
545 550
                            555
Pro Leu Glu Glu Asn Ala Cys
           565
<210> 7299
<211> 175
```

<212> PRT

<213> Enterobacter cloacae

<400> 7299

Gly Cys Lys Thr Asp Thr Leu Arg Ala Ile Ala Ser Ser Thr Phe Glu

```
Gly Ser Met Leu Ser Asn Asp Ile Leu Arg Ser Leu Arg Tyr Thr Leu
                          25
Lys Ala Asn Asn Asn Asp Met Val Arg Ile Leu Ala Leu Ser Asp Met
Glu Ser Thr Ser Ala Gly Phe Asp Thr Trp Met Thr Lys Glu Asp Glu
                    55
Glu Gly Phe Val Arg Gys Pro Asp Ile Ile Leu Ser Gly Phe Leu Asn
Gly Leu Ile Tyr Asp Lys Arg Gly Lys Asp Glu Ser Ala Pro Glu Leu
            85
                             90
Ala Leu Glu Arg Arg Val Asn Asn Asn Thr Val Leu Lys Lys Leu Arg
        100 105
                                           110
Ile Ala Phe Gys Leu Lys Thr Asp Asp Ile Leu Ala Ile Met Thr Glu
     115 120
                           125
Gln Lys Phe Arg Val Ser Met Pro Glu Ile Thr Ala Met Met Arg Ala
 130 135 140
Pro Asp His Lys Asn Tyr Arg Glu Cys Gly Asp Gln Phe Leu Arg Tyr
145 150 155
Phe Leu Arg Gly Leu Thr Gln Arg Val His Asn Gln Lys Gly
            165
                  170
<210> 7300
<211> 394
<212> PRT
<213> Enterobacter cloacae
<400> 7300
Ala Phe Ser Gln Arg Gly Cys Cys Gln Pro Arg Gly Glu Asp Val Tyr
Phe His Ser Leu Phe Trp Pro Ala Met Leu Glu Gly Ser Asn Phe Arg
                          25
Lys Pro Thr Asn Leu Phe Val His Gly Tyr Val Thr Val Asn Gly Ala
35 40
Lys Met Ser Lys Ser Arg Gly Thr Phe Ile Lys Ala Ser Thr Trp Leu
                 5.5
Asn His Phe Asp Ala Asp Ser Leu Arg Tyr Tyr Tyr Thr Ala Lys Leu
               7.0
                              7.5
Ser Ser Arg Ile Asp Asp Ile Asp Leu Asn Leu Glu Asp Phe Val Gln
                 90 95
Arg Val Asn Ala Asp Ile Val Asn Lys Val Val Asn Leu Ala Ser Arg
                       105 110
Asn Ala Gly Phe Ile Ala Lys Arg Phe Asp Gly Val Leu Ser Ala Glu
     115
                      120
                                       125
Leu Ala Asp Pro Glu Leu Tyr Lys Thr Phe Thr Asp Ala Ala Ala Ala
                        140
 130 135
Val Gly Glu Ala Trp Glu Ser Arg Glu Phe Gly Lys Ala Ile Arg Glu
             150 155
Ile Met Ala Leu Ala Asp Val Ala Asn Arg Tyr Val Asp Glu Gln Ala
                             170
            165
Pro Trp Val Val Ala Lys Gln Glu Gly Arg Asp Ala Asp Leu Gln Ala
         180
                          185
                                          190
Ile Gys Thr Met Gly Leu Asn Met Phe Arg Val Leu Met Thr Trp Leu
      195
                      200
                                        205
Lys Pro Val Leu Pro Gln Leu Ala Ala Arg Ala Glu Ala Phe Leu Asn
   210
              215
                                    220
Thr Glu Leu Thr Trp Asp Ala Ile Gln Gln Pro Leu Leu Gly His Lys
               230
                                235
Val Asn Thr Phe Lys Ala Leu Tyr Asn Arg Ile Glu Met Lys Gln Val
             245
                             250
```

Glu Ala Leu Val Glu Ala Ser Lys Glu Glu Val Lys Ala Ala Ala Ala 260 265 270

```
Pro Val Thr Gly Pro Leu Ala Asp Asp Pro Ile Gln Glu Thr Ile Thr
                    280
Phe Asp Asp Phe Ala Lys Val Asp Leu Arg Val Ala Leu Ile Glu Asn
                 295
                                 300
Ala Glu Phe Val Glu Gly Ser Asp Lys Leu Leu Arg Leu Thr Leu Asp
               310
                              315
Leu Gly Gly Glu Lys Arg Asn Val Phe Ser Gly Ile Arg Ser Ala Tyr
           325
                           330
Pro Asp Pro Gln Val Leu Ile Gly Arg Gln Thr Val Met Val Ala Asn
                       345
                                        350
Leu Ala Pro Arg Lys Met Arg Phe Gly Ile Ser Glu Gly Met Val Met
     355
                     360
                         365
Ala Ala Gly Pro Gly Gly Lys Asp Ile Phe Leu Leu Ser Pro Asp Glu
 370 375
Gly Ala Lys Pro Gly Gln Gln Val Lys
385 390
<210> 7301
<211> 275
<212> PRT
<213> Enterobacter cloacae
<400> 7301
Phe Val Gln Lys Arg Ile Lys Ser Ser Trp Phe Arg Lys Val Gly Leu
                     10
Gln Leu Ser Trp Gly Arg Ala Ser Leu Gly Ala Lys Met Ala Leu Tyr
20
                 25
Thr Ile Gly Glu Val Ala Leu Leu Cys Asp Ile Asn Pro Val Thr Leu
35 40
                             4.5
Arg Ala Trp Gln Arg Arg Tyr Gly Leu Leu Lys Pro Gln Arg Thr Asp
50 55 60
Gly Gly His Arg Leu Phe Asn Asp Ala Asp Ile Asp Arg Ile Arg Glu
65 70 75 80
Ile Lys Ser Trp Ile Asp Asn Gly Val Gln Val Gly Lys Val Lys Ser
           85 90 95
Leu Leu Ser Gln Tyr Asp Pro Asp Thr Gln His Leu Trp Arg Glu Gln
    100 105 110
Gln Glu Thr Leu Leu Arg Leu Leu Gln Ser Gly Asn Leu Gln Arg Leu
     115 120 125
Arg Gly Trp Ile Lys Glu Gln Gly Arg Asp Tyr Pro Ala Gln Thr Leu
 130 135 140
Ile Thr His Leu Phe Ile Pro Leu Arg Arg Arg Leu Gln Cys Gln Gln
145 150 155
Thr Thr Leu Gln Ala Leu Leu Ser Met Leu Asp Gly Val Leu Ile Asn
           165 170
Tyr Ile Ser Val Cys Leu Ala Ser Ala Arg Asn Lys Asn Ser Lys Asp
                        185 190
Ala Leu Val Ile Gly Trp Asn Val His Asp Thr Thr Arg Leu Trp Leu
     195 200 205
Glu Ala Trp Ile Ala Thr Gln Gln Gly Trp Arg Val Asp Val Leu Ala
                 215 220
His Ser Leu Ala Gln Leu Arg Pro Glu Leu Phe Glu Gly Gln Thr Leu
             230
                            235
Leu Val Trp Cys Gly Glu Val Pro Ser Ala Ser Gln Gln Gln Leu Leu
           245
                           250
Thr Glu Trp Arg Glu His Gly Tyr Pro Val Tyr Ser Leu Gly Pro Asn
         260
                        265
                                       270
Ala Ser
```

<210> 7302

13

```
<211> 641
<212> PRT
<213> Enterobacter cloacae
```

<400> 7302 Pro Arg Glu Ala Pro Gly Gln Thr Val Arg Lys Ala Gln Cys Ala Thr 10 Lys Pro Glu Asn Leu Ala Gly Leu Phe Ser Asp Phe Ser His Glu Tyr 25 3.0 20 Pro Thr Ala Gln Arg Leu Ile Ala Leu Cys Phe Thr Ala Arg Asn Leu 35 40 45 Pro His His Lys Glu Trp Lys Met Ser Ser Val Arg Thr Asp Asp Asn 55 60 Thr Thr Phe Ile Asn Glu Leu Ser Arg Leu Val Gly His Ser His Leu 70 75 Leu Thr Asp Pro Ala Lys Thr Ala Arg Tyr Arg Lys Gly Phe Arg Ser 90 95 85 Gly Gln Gly Glu Ala Leu Ala Val Val Phe Pro Gly Thr Leu Leu Glu 100 105 Leu Trp Arg Val Leu Ser Ala Cys Val Ala Ala Asp Lys Ile Ile Leu 120 115 125 Met Gln Ala Ala Asn Thr Gly Leu Thr Glu Gly Ser Thr Pro Asn Gly 130 135 140 Asn Asp Tyr Asp Arg Asp Ile Val Ile Ile Ser Thr Leu Arg Leu Asp 145 150 155 Lys Leu His Leu Leu Asp Lys Gly Glu Gln Val Leu Ala Phe Pro Gly 165 170 Thr Thr Leu Tyr Ser Leu Glu Lys Ala Leu Lys Pro Leu Gly Arg Glu 185 190 180 Pro His Ser Val Ile Gly Ser Ser Cys Ile Gly Ala Ser Val Ile Gly 195 200 205 Gly Ile Cys Asn Asn Ser Gly Gly Ser Leu Val Gln Arg Gly Pro Ala 210 215 220 Tyr Thr Glu Met Ser Leu Phe Ala Arg Ile Asp Glu Asn Gly Lys Leu 230 235 Thr Leu Val Asn His Leu Gly Ile Asp Leu Gly Val Thr Pro Glu Gln 245 250 Ile Leu Ser Lys Leu Asp Asp Asp Arg Val Lys Asp Glu Asp Val Gln 265 270 260 His Asp Gly Arg His Ala His Asp His Asp Tyr Ile Thr Arg Val Arg 275 280 285 Asp Ile Asn Ala Asp Thr Pro Ala Arg Tyr Asn Ala Asp Pro Asp Arg 295 300 290 Leu Phe Glu Ser Ser Gly Cys Ala Gly Lys Leu Ala Val Phe Ala Val 310 315 Arg Leu Asp Thr Phe Pro Ala Glu Lys Lys Gln Gln Val Phe Tyr Ile 330 325 Gly Thr Asn Gln Pro Glu Val Leu Thr Glu Ile Arg Arg His Ile Leu 350 340 345 Ala Glu Phe Thr His Leu Pro Val Ala Gly Glu Tyr Met His Arg Asp 365 355 360 Ile Tyr Asp Ile Ala Glu Arg Tyr Gly Lys Asp Thr Phe Leu Met Ile 370 375 380 Asp Lys Leu Gly Thr Asp Lys Met Pro Phe Phe Phe Thr Met Lys Gly 385 390 395 Arg Thr Asp Ala Met Leu Glu Lys Val Ser Leu Phe Lys Pro His Phe 410 4.0.5 Thr Asp Arg Phe Met Gln Lys Leu Gly Asn Val Phe Pro Ala His Leu 420 425 Pro Glu Arg Met Lys Thr Trp Arg Asp Lys Tyr Glu His His Leu Leu 440

Leu Lys Met Ala Gly Asp Gly Ile Asp Glu Ala Gln Ser Trp Leu Thr 455 450 Glu Phe Phe Lys Thr Ala Asp Gly Asp Phe Phe Ala Cys Thr Pro Glu 470 475 Glu Gly Ser Lys Ala Phe Leu His Arg Phe Ala Ala Ala Gly Ala Ala 485 490 495 Ile Arg Tyr Gln Ala Val His Ser Glu Glu Val Glu Asp Ile Leu Ala 500 505 510 Leu Asp Ile Ala Leu Arg Arg Asn Asp Thr Glu Trp Phe Glu His Leu 515 520 525 Pro Pro Glu Ile Asp Ser Lys Leu Val His Lys Leu Tyr Tyr Gly His 530 535 540 Phe Met Cys Tyr Val Phe His Glr. Asp Tyr Ile Val Lys Lys Gly Val 545 550 555 560 Asp Ala His Ala Leu Lys Glu Glr Met Leu Ala Leu Leu His Glu Arg 565 570 575 Gly Ala Gln Tyr Pro Ala Glu His Asn Val Gly His Leu Tyr Lys Ala 580 585 590 Pro Glu Thr Leu Lys Gln Phe Tyr Arg Lys Asn Asp Pro Thr Asn Ser 595 600 605 Met Asn Pro Gly Ile Gly Lys Thr Thr Arg Lys Lys Tyr Trp Lys Glu 610 615 620 Ser Ala Glu Ser Glu Gln His Asn Thr Gln Ala Ser Asp Glu Leu Ile 630 635

<210> 7303 <211> 212 <212> PRT

210

<213> Enterobacter cloacae

<400> 7303 Ala Leu Leu Lys Arg Thr Arg Val Ser Ala Cys Cys Gln Arg Asn Val 10 Ser Leu Ala Phe Gln Thr Arg Ser Gly Gln Asn Met Ser Ala Val Glu 20 Thr Phe Pro Glu Thr Glu Ile Glu Val Arg Asp Ala Leu Pro Asp Asp 35 40 Ala His Ala Ile Ser Ala Ile Tyr Ala Trp His Val Leu His Gly Arg 5.5 60 Ala Ser Phe Glu Glu Val Pro Pro Thr Val Asp Glu Met Arg Gln Arg 70 7.5 65 Met Lys Ser Val Thr Asp Ser Gly Leu Pro Trp Leu Val Ala Leu Tyr 90 95 85 Arg Gly Ile Val Val Gly Tyr Cys Tyr Ala Thr Phe Tyr Arg Pro Arg 105 100 110 Gln Ala Tyr Arg Tyr Thr Leu Glu Glu Ser Ile Tyr Val Asp Ala Ser 120 125 Thr Thr Gly Arg Gly Phe Gly Ser Ala Leu Leu Gln Ala Leu Ile Ala 135 140 Arg Cys Glu Gln Gly Pro Trp Arg Gln Met Ile Ala Val Val Gly Asp 150 155 Gly Gln Asn Asn Pro Gly Ser Leu Arg Leu His Lys Lys His Gly Phe 165 170 175 Glu Ile Val Gly Gln Leu Arg Ser Val Gly Tyr Lys Lys Gly Asp Trp 180 185 190 Arg Asp Thr Val Met Met Gln Arg Pro Leu Asn Asp Gly Asp Trp Thr 200 195 205 Leu Pro Glu

```
<210> 7304
<211> 300
<212> PRT
<213> Enterobacter cloacae
<400> 7304
Asn Asp Val Glu Ser Ala Asp Gly Asp Ile His Arg Cys Asn Ile Arg
                                10
Arg Thr Ile Arg Ser Leu Val Thr Gly Asp Arg Val Val Trp Arg Pro
         20
                            25
                                              3.0
Gly Lys Glu Ala Ala Glu Gly Val Thr Val Lys Gly Ile Val Glu Ala
      35
                        4.0
                                          45
Val His Glu Arg Thr Ser Val Leu Thr Arg Pro Asp Phe Tyr Asp Gly
                                      60
                     55
Val Lys Pro Ile Ala Ala Asn Ile Asn Gln Ile Val Ile Val Ser Ala
              70 75
Ile Leu Pro Glu Leu Ser Leu Asn Ile Ile Asp Arg Tyr Leu Val Ala
             8.5
                   90
Cys Glu Thr Leu Gln Val Glu Pro Leu Ile Val Leu Asn Lys Ile Asp
         100 105
                                              110
Leu Leu Asp Asp Glu Ala Met Ala Phe Val Asn Glu Gln Met Asp Ile
115 120 125
Tyr Arg Asn Ile Gly Tyr Arg Val Leu Met Val Ser Ser Arg Thr Lys
                    135
                                       140
Asp Gly Leu Lys Pro Leu Glu Asp Ala Leu Thr Asn Arg Ile Ser Ile
                 150
                                   155
Phe Ala Gly Gln Ser Gly Val Gly Lys Ser Ser Leu Leu Asn Asn Leu
              165
                                170
                                    175
Leu Gly Leu Gln Gln Glu Ile Leu Thr Asn Asp Val Ser Asp Val Ser
                            185
Gly Leu Gly Gln His Thr Thr Thr Ala Ser Arg Leu Tyr His Phe Pro
      195
                        200
                                        205
His Gly Gly Asp Val Ile Asp Ser Pro Gly Val Arg Glu Phe Gly Leu
 210
                     215
                                       220
Trp His Leu Glu Pro Glu Gln Ile Phe Asn Gly Phe Val Glu Phe His
       230 235
Asp Tyr Leu Gly Ala Cys Lys Tyr Arg Asp Cys Lys His Asp Asn Asp
              245
                               250
Pro Gly Cys Ala Ile Arg Glu Ala Val Glu Asn Gly Glu Ile Ala Glu
                           265
                                              270
          260
Thr Arg Phe Glu Asn Tyr His Arg Ile Leu Glu Ser Met Asp Gln Val
                        280
                                           285
Lys Thr Arg Lys Asn Phe Ser Asp Ser Asp Asn
                     295
<210> 7305
<211> 139
<212> PRT
<213> Enterobacter cloacae
<400> 7305
Asn His Ala Lys Glu Cys Met Met Thr Thr Lys Arg Lys Ala Tyr Val
                                10
Arg Pro Met Pro Ser Thr Trp Trp Lys Lys Leu Pro Phe Tyr Arg Phe
          20
                                              30
Tyr Met Leu Arg Glu Gly Thr Ala Phe Pro Ala Val Trp Phe Ser Leu
                        40
Glu Leu Met Tyr Gly Val Tyr Ala Leu Lys His Gly Pro Glu Ala Trp
                     55
Ala Ser Phe Val Gly Phe Leu Gln Asn Pro Ile Ile Val Val Leu Asn
```

```
Leu Ile Val Leu Ala Ala Ala Leu Leu His Thr Lys Thr Trp Phe Glu
                            90
            85
Leu Ala Pro Lys Ala Ala Asn Ile Ile Val Lys Gly Glu Lys Met Gly
        100
                       105
Pro Glu Pro Val Ile Lys Gly Leu Trp Ala Val Thr Ala Val Val Ser
     115 120
Val Val Ile Leu Phe Val Ala Leu Phe Trp
  130
<210> 7306
<211> 418
<212> PRT
<213> Enterobacter cloacae
<400> 7306
Gln Leu Met Leu Asn Leu Thr Val Cys Gln Ala Gln Ser Asn Pro Thr
                          10
Asp Tyr Ala Cys Leu Met Gly Pro Asp Thr Pro Leu Thr Arg Tyr Tyr
   20
               25
                                         3.0
Gly Arg Leu Leu Met Met Lys Lys Ser Leu Cys Cys Ala Leu Leu Leu
35 40
                          45
Gly Leu Ser Cys Ser Ala Leu Ala Ala Pro Val Ser Glu Lys Gln Leu
          55
                                  60
Ala Glu Val Val Ala Asn Thr Val Thr Pro Leu Met Lys Ala Gln Ser
65 70
                               75
Val Pro Gly Met Ala Val Ala Val Ile Tyr Gln Gly Lys Ser His Tyr
          85 90 95
Tyr Thr Phe Gly Lys Ala Asp Ile Ala Ala Asn Lys Pro Val Thr Pro
       100 105 110
Gln Thr Leu Phe Glu Leu Gly Ser Ile Ser Lys Thr Phe Thr Gly Val
     115 120
                                     125
Leu Gly Gly Asp Ala Ile Ala Arg Gly Glu Ile Ser Leu Asp Asp Pro
130 135
                                  140
Val Thr Arg Tyr Trp Pro Gln Leu Thr Gly Lys Gln Trp Gln Gly Ile 145 $150$
Arg Met Leu Asp Leu Ala Thr Tyr Thr Ala Gly Gly Leu Pro Leu Gln
           165 170 175
Val Pro Asp Glu Val Thr Asp Asn Ala Ser Leu Leu Arg Phe Tyr Gln
        180 185 190
Asn Trp Gln Pro Gln Trp Lys Pro Gly Thr Thr Arg Leu Tyr Ala Asn
      195 200 205
Ala Ser Ile Gly Leu Phe Gly Ala Leu Ala Val Lys Pro Ser Gly Met
 210 215
                                220
Pro Tyr Glu Gln Ala Met Thr Thr Arg Val Leu Lys Pro Leu Lys Leu
               230
                               235
Asp His Thr Trp Ile Asn Val Pro Lys Ala Glu Glu Ala His Tyr Ala
            245
                            250
Trp Gly Tyr Arg Asp Gly Lys Ala Val Arg Val Ser Pro Gly Met Leu
         260
                         265
Asp Ala Gln Ala Tyr Gly Val Lys Thr Asn Val Gln Asp Met Ala Asn
      275
                     280
                                      285
Trp Val Met Ala Asn Met Ala Pro Glu Lys Val Ala Asp Ala Ser Leu
                   295
                                   300
Lys Gln Gly Ile Ala Leu Ala Gln Ser Arg Tyr Trp Arg Ile Gly Ser
                                315
305
                310
Met Tyr Gln Gly Leu Gly Trp Glu Met Leu Asn Trp Pro Val Glu Ala
            325
                            330 335
Asn Thr Val Val Glu Gly Ser Asp Ser Lys Val Ala Leu Ala Pro Leu
                                350
         340
                         345
Pro Ala Ala Glu Val Asn Pro Pro Ala Pro Pro Val Lys Ala Ser Trp
```

360 Val His Lys Thr Gly Ser Thr Gly Gly Phe Gly Ser Tyr Val Ala Phe 380 375 Ile Pro Glu Lys Gln Ile Gly Ile Val Met Leu Ala Asn Lys Ser Tyr 390 395 Pro Asn Pro Ala Arg Val Glu Ala Ala Tyr His Ile Leu Glu Ala Leu 405 410 Gln <210> 7307 <211> 348 <212> PRT <213> Enterobacter cloacae <400> 7307 Asn Arg Pro Leu Phe Ser Gly Ser Gly Ser Val Met Pro Asp Gln Glu 10 Arq Gln Asn Asn Gly Leu Glu Ala Thr Leu Leu Asn Ser Phe Lys Leu 25 Ser Leu Gln Tyr Ile Leu Pro Lys Leu Trp Leu Thr Arg Leu Ala Gly 40 45 35 Trp Gly Ala Ser Lys Arg Ala Gly Trp Leu Thr Lys Leu Val Ile Asp 60 55 Leu Phe Val Lys Tyr Tyr Lys Val Asp Met Lys Glu Ala Gln Lys Pro 75 70 Asp Thr Ala Ser Tyr Arg Thr Phe Asn Glu Phe Phe Val Arg Pro Leu 90 95 8.5 Arg Asp Glu Val Arg Pro Leu Asn Thr Asp Pro Asn Val Leu Val Met 100 105 110 Pro Ala Asp Gly Val Ile Ser Gln Leu Gly Lys Ile Glu Asn Asp Lys 115 120 125 Ile Leu Gln Ala Lys Gly His Asn Tyr Ser Leu Glu Ala Leu Leu Ala 130 135 140 Gly Asn Tyr Ile Met Ala Asp Leu Phe Arg Asn Gly Thr Phe Ala Thr 145 150 155 Thr Tyr Leu Ser Pro Arg Asp Tyr His Arg Val His Met Pro Cys Asn 165 170 175 Gly Ile Leu Arg Glu Met Ile Tyr Val Pro Gly Asp Leu Phe Ser Val 180 185 190 Asn His Leu Thr Ala Gln Asn Val Pro Asn Leu Phe Ala Arg Asn Glu 195 200 205 Arg Val Ile Cys Leu Phe Asp Thr Glu Phe Gly Pro Met Ala Gln Ile 210 215 220 Leu Val Gly Ala Thr Ile Val Gly Ser Ile Glu Thr Val Trp Ala Gly 230 235 Thr Ile Thr Pro Pro Arg Glu Gly Val Ile Lys Arg Trp Thr Trp Pro 245 250 255 Ala Gly Glu Glu Gly Ser Val Ala Leu Leu Lys Gly Gln Glu Met 260 265 Gly Arg Phe Lys Leu Gly Ser Thr Val Ile Asn Leu Phe Ala Pro Gly 275 280 285 Lys Val Asn Leu Val Asp Glu Leu Glu Ser Leu Ser Val Thr Lys Leu 290 295 300 Gly Gln Pro Leu Ala Val Ser Thr Glu Val Phe Ala Thr Pro Asp Val 305 310 315 Ala Pro Ala Pro Leu Pro Glu Asp Glu Ile Lys Ala Glu His Asp Ala 325 330 Ser Pro Leu Val Asp Asp Lys Lys Asp Glu Gly

345

```
<210> 7308
<211> 614
<212> PRT
<213> Enterobacter cloacae
<400> 7308
Thr Ser Phe Ser Ser Ser Arg Cys Gly Lys Thr Lys Ile Trp Arg Asn
                     10
Val Val Gln Thr Phe Gln Ala Asp Leu Ala Val Ile Gly Ala Gly Gly
 20 25
Ala Gly Leu Arg Ala Ala Ile Ala Ala Ala Gln Ala Asn Pro Asn Ala
 35 40
                        45
Lys Ile Ala Leu Ile Ser Lys Val Tyr Pro Met Arg Ser His Thr Val
50 55 60
Ala Ala Glu Gly Gly Ser Ala Ala Val Ala Gln Asp His Asp Ser Phe 65 70 75 80
Glu Tyr His Phe His Asp Thr Val Ala Gly Gly Asp Trp Leu Cys Glu
       85 90 95
Gln Asp Val Val Asp Tyr Phe Val His His Cys Pro Thr Glu Met Thr
  100 105 110
Gln Leu Glu Gln Trp Gly Cys Pro Trp Ser Arg Arg Pro Asp Gly Ser
115 120 125
Val Asn Val Arg Arg Phe Gly Gly Met Lys Ile Glu Arg Thr Trp Phe
130 135 140
Ala Ala Asp Lys Thr Gly Phe His Met Leu His Thr Leu Phe Gln Thr
145 150 155 160
Ser Leu Gln Phe Pro Gln Ile Gln Arg Phe Asp Glu His Phe Val Leu
      165 170 175
Asp Ile Leu Val Asp Asp Gly His Ala Arg Gly Leu Val Ala Met Asn
        180
                       185 190
Met Met Glu Gly Thr Leu Val Gln Ile Arg Ala Asn Ala Val Val Met
                    200 205
195
Ala Thr Gly Gly Ala Gly Arg Val Tyr Arg Tyr Asn Thr Asn Gly Gly
210
                 215
                                220
Ile Val Thr Gly Asp Gly Met Gly Met Ala Leu Ser His Gly Val Pro
225
              230 235
Leu Arg Asp Met Glu Phe Val Gln Tyr His Pro Thr Gly Leu Pro Gly
           245
                          250 255
Ser Gly Ile Leu Met Thr Glu Gly Cys Arg Gly Glu Gly Gly Ile Leu
        260
                       265
Val Asn Lys Asn Gly Tyr Arg Tyr Leu Gln Asp Tyr Gly Met Gly Pro
                    280 285
     275
Glu Thr Pro Leu Gly Glu Pro Lys Asn Lys Tyr Met Glu Leu Gly Pro
 290
                 295
                                300
Arg Asp Lys Val Ser Gln Ala Phe Trp His Glu Trp Arg Lys Gly Asn
              310 315
Thr Ile Ser Thr Pro Arg Gly Asp Val Val His Leu Asp Leu Arg His
            325
                          330
                              335
Leu Gly Glu Lys Lys Leu Leu Glu Arg Leu Pro Phe Ile Cys Glu Leu
                       345
Ala Lys Ala Tyr Val Gly Val Asp Pro Val Lys Glu Pro Ile Pro Val
                    360
Arg Pro Thr Ala His Tyr Thr Met Gly Gly Ile Glu Thr Asp Gln Gln
  370
                 375
                                380
Cys Glu Thr Arg Ile Lys Gly Leu Phe Ala Val Gly Glu Cys Ser Ser
              390
                  395
Val Gly Leu His Gly Ala Asn Arg Leu Gly Ser Asn Ser Leu Ala Glu
          405 410 415
Leu Val Val Phe Gly Arg Met Ala Gly Glu Arg Ala Val Glu Arg Ala
               425
```

Ala Thr Ala Gly Glu Ala Asn Ser Ala Ala Leu Asp Ala Gln Val Val

```
435
                       440
Asp Val Glu Lys Arg Leu Lys Asp Leu Val Asn Gln Glu Gly Asn Glu
 450
                 455
Asn Trp Ser Lys Ile Arg Asp Glu Met Gly Leu Ser Met Glu Glu Gly
             470
                        475
Cys Gly Ile Tyr Arg Thr Pro Glu Leu Met Gln Lys Thr Val Asp Lys
           485 490
Leu Ala Glu Leu Gln Glu Arg Phe Lys Arg Val Arg Ile Thr Asp Thr
       500 505 510
Ser Ser Val Phe Asn Thr Asp Leu Leu Tyr Thr Ile Glu Leu Gly His
 515 520 525
Gly Leu Asn Val Ala Glu Cys Met Ala His Ser Ala Leu Ala Arg Lys
                   535 540
Glu Ser Arg Gly Ala His Gln Arg Leu Asp Glu Gly Cys Thr Glu Arg
             550 555
Asp Asp Val Asn Phe Leu Lys His Thr Leu Ala Trp Arg Asp Ala Asp
             565 570 575
Gly Thr Thr Arg Leu Asp Tyr Ser Asp Val Lys Ile Thr Thr Leu Pro
         580 585 590
Pro Ala Lys Arg Val Tyr Gly Ala Glu Ala Glu Ala Ala Asp Lys Lys
      595
                       600
Glu Lys Ala Asn Gly
 610
<210> 7309
<211> 139
<212> PRT
<213> Enterobacter cloacae
<400> 7309
Gln Gln Leu Ser Leu Trp Ser Phe Cys Leu Ser His Cys Phe Gly Lys
                              10
Glu Thr Thr Val Ile Asn Pro Asn Pro Lys Arg Ser Asp Glu Pro Val
                           25
2.0
Phe Trp Gly Leu Phe Gly Ala Gly Gly Met Trp Ser Ala Ile Ile Ala
     35
                       4.0
Pro Val Ile Ile Leu Leu Val Gly Ile Met Leu Pro Leu Gly Leu Phe
                  5.5
                                     60
Pro Gly Asp Ala Leu Ser Tyr Glu Arg Val Leu Ala Phe Ala Ser Ser
                 70
                                7.5
Phe Ile Gly Arg Val Phe Ile Phe Leu Met Ile Val Leu Pro Leu Trp
             8.5
                              90
Cys Gly Leu His Arg Ile His His Ala Met His Asp Leu Lys Ile His
         100
                           105 110
Val Pro Ser Gly Lys Trp Val Phe Tyr Gly Leu Ala Thr Ile Leu Thr
                       120
    115
Val Val Thr Leu Ile Ala Val Val Thr Ile
   130
                    135
<210> 7310
<211> 1161
<212> PRT
<213> Enterobacter cloacae
<400> 7310
Pro Asn Ser Ala Ser Leu Trp Gln Tyr Arg Arg Arg Ser Leu Gln His
                              10
Gln Thr Leu Arg Gln Pro Arg Cys Arg Lys Met Arg Ser Lys Pro Ser
        20
                          25
                                            30
Thr Thr Pro Ala Arg Trp Leu Thr Thr Lys Lys Thr Lys Ala Asn Asn
                       40
                                         4.5
```

Arg Arg Ile Ala Asp Val Arg Pro Ile Ile Val Leu Leu Met Ala Trp Cys Leu Ser Met Gly Ala Tyr Ala Ala Thr Ala Pro Asp Ala Lys Gln 70 75 Ile Thr Gln Glu Leu Glu Gln Ala Lys Ala Ala Lys Pro Ala Gln Pro 85 90 Glu Thr Val Glu Ser Leu Gln Ser Ala Leu Asn Ala Leu Glu Glu Arg 100 105 110 Lys Gly Ser Leu Glu Arg Ala Gln Gln Tyr Gln Gln Val Ile Asp Asn 115 120 125 Phe Pro Lys Leu Ser Gln Thr Leu Arg Ser Gln Leu Asn Asn Leu Arg 135 140 Asp Glu Pro Arg Gln Val Pro Ala Gly Met Thr Ser Glu Ala Leu Asn 145 150 155 Gln Glu Ile Leu Gln Val Ser Ser Gln Leu Leu Glu Lys Ser Arg Leu 165 170 175 Ala Gln Gln Glu Gln Glu Arg Ala Arg Glu Ile Ala Asp Ser Leu Ser 180 185 190 Gln Leu Pro Gln Gln Gln Thr Asp Ala Arg Arg Gln Leu Asn Glu Val 195 200 205 Glu Arg Arg Ile Gly Thr Gln Thr Gly Ser Thr Pro Gln Asn Gln Ala 210 215 220 Gln Asn Leu Gly Leu Gln Ala Glu Ser Ala Arg Leu Lys Ala Leu Val 230 235 Asp Glu Leu Glu Leu Ala Gln Leu Ser Ala Asn Asn Arg Gln Glu Leu 245 250 255 Ser Arg Met Arg Ser Glu Leu Ala Gln Lys Gln Ser Gln Gln Leu Asp 265 260 Ala Tyr Leu Gln Ala Leu Arg Asn Gln Leu Asn Ser Gln Arg Gln Arg 275 280 Glu Ala Glu Arg Ala Leu Glu Ser Thr Glu Leu Leu Ala Glu Asn Ser 290 295 300 Ala Asn Leu Pro Asp Ser Ile Val Ala Gln Phe Lys Val Asn Arg Glu 310 315 Leu Ser Ala Ala Leu Asn Gln Gln Ala Gln Arg Met Asp Leu Val Ala 330 335 325 Ser Gln Gln Arq Gln Ala Thr Asn Gln Thr Leu Gln Val Arg Gln Ala 340 345 350 Leu Asn Thr Leu Arg Glu Gln Ser Gln Trp Leu Gly Ser Ser Asn Leu 360 365 Leu Gly Glu Ala Leu Arg Ala Gln Val Ala Arg Leu Pro Glu Met Pro 375 380 Lys Pro Gln Gln Leu Asp Thr Glu Met Ala Gln Leu Arg Val Gln Arg 390 395 Leu His Tyr Glu Asp Leu Leu Asn Lys Gln Pro Gln Ile Arg Gln Ile 405 410 Arg Gln Ala Asp Gly Gln Pro Leu Thr Gly Glu Gln Ser Arg Ile Leu 420 425 430 Glu Ala Gln Leu Arg Thr Gln Arg Glu Leu Leu Asn Ser Leu Leu Gln 440 435 445 Gly Gly Asp Thr Leu Ile Leu Glu Leu Thr Lys Leu Lys Val Ser Asn 450 455 460 Ser Gln Leu Glu Asp Ala Leu Lys Glu Val Asn Glu Ala Thr His Arg 470 475 Tyr Leu Phe Trp Thr Ser Asp Val Arg Pro Met Thr Phe Ala Trp Pro 490 485 Ile Glu Ile Val Gln Asp Leu Arg Arg Leu Ile Ser Leu Asp Thr Phe 505 510 Ser Gln Leu Gly Leu Ala Ser Val Met Met Ile Thr Ser Lys Glu Thr 520 Ile Phe Pro Leu Gly Ala Leu Ile Leu Val Gly Phe Ser Ile Tyr

```
535
Ser Arg Arg His Phe Thr Arg Phe Leu Glu Arg Ser Ser Ala Arg Val
                     555
          550
Gly Lys Val Thr Gln Asp His Phe Tro Leu Thr Leu Arg Thr Val Phe
          565
               570
                                        575
Trp Ser Ile Leu Val Ala Ser Pro Leu Pro Val Leu Trp Met Thr Leu
        580
            585 590
Gly Tyr Gly Leu Arg Glu Ala Trp Pro Tyr Pro Leu Ala Val Ala Ile
   1 595 600 605
Gly Asp Gly Val Thr Ala Thr Val Pro Leu Leu Trp Val Val Met Ile
 610 615 620
Cys Ala Thr Phe Ala Arg Pro Asn Gly Leu Phe Ile Ala His Phe Gly
625 630 635 640
Trp Pro Arg Asn Arg Val Ala Arg Ala Met Arg Tyr Tyr Leu Met Ser
       645 650 655
Ile Gly Leu Ile Val Pro Leu Ile Met Ala Leu Ile Met Phe Asp Asn
     660 665 670
Leu Asn Asp Arg Glu Phe Ser Gly Ser Leu Gly Arg Leu Cys Phe Met
 675 680 685
Leu Ile Cys Gly Ala Leu Ala Val Val Thr Leu Ser Leu Lys Arg Ala
690 695 700
Gly Ile Pro Leu Tyr Leu Asp Lys Thr Gly Ser Gly Asp Asn Met Leu
705 710 715 720
Asn Arg Leu Leu Trp Asn Leu Leu Leu Ser Ala Pro Leu Ala Ala Met
      725 730 735
Leu Ala Ala Ala Val Gly Tyr Leu Ala Thr Ser Gln Ala Leu Leu Ala
      740 745 750
Arg Leu Glu Thr Ser Val Ala Ile Trp Phe Leu Leu Leu Val Val Tyr
755 760 765
His Val Ile Arg Arg Gly Met Leu Ile Gln Arg Arg Leu Ala Phe
770 775 780
Asp Arg Ala Lys His Arg Arg Ala Glu Ile Leu Ala Gln Arg Ala Arg
785 790 795 800
Gly Glu Glu Glu Pro Asn His Val Asn Ser Thr Glu Gly Thr Thr Asp
          805 810 815
Ala Asp Asp Val Glu Leu Asp Leu Asp Ala Ile Ser Thr Gln Ser Leu
      820 825 830
Arg Leu Val Arg Ser Ile Leu Met Leu Val Ala Leu Leu Ser Val Ile
     835 840 845
Tyr Leu Trp Ser Glu Ile His Ser Ala Phe Gly Phe Leu Glu Asn Ile
                 855 860
Ser Leu Trp Asp Val Thr Ser Thr Val Gln Gly Val Glu Ser Leu Glu
865 870 875 880
Pro Ile Thr Leu Gly Ala Val Leu Ile Ala Ile Leu Val Leu Ile Ile
           885
                         890
Thr Thr Gln Leu Ile Arg Asn Phe Pro Ala Leu Leu Glu Leu Ala Leu
       900
                      905 910
Leu Gln His Leu Asp Leu Thr Pro Gly Thr Gly Tyr Ala Ile Thr Thr
     915 920
                                  925
Ile Thr Lys Tyr Leu Ile Met Leu Phe Gly Gly Leu Val Gly Phe Ser
                               940
                 935
Met Ile Gly Ile Glu Trp Ser Lys Leu Gln Trp Leu Val Ala Ala Leu
              950
                            955
Thr Val Gly Leu Gly Phe Gly Leu Gln Glu Ile Phe Ala Asn Phe Val
                         970
           965
Ser Gly Leu Ile Ile Leu Phe Glu Lys Pro Ile Arg Ile Gly Asp Thr
        980
                       985
                              990
Val Thr Ile Arg Asp Leu Thr Gly Ser Val Thr Arg Ile Asn Thr Arg
     995 1000
Ala Thr Thr Ile Ser Asp Trp Asp Arg Lys Glu Ile Ile Val Pro Asn
   1010
                 1015
                        1020
```

```
Lys Ala Phe Ile Thr Glu Gln Phe Ile Asn Trp Ser Leu Ser Asp Ser
     1030 1035 1040
Val Thr Arg Val Val Leu Thr Val Pro Ala Pro Ser Asp Ala Asn Ser
        1045 1050 1055
Glu Glu Val Thr Gln Ile Leu Tyr Thr Ala Ala Glu Arg Cys Ser Leu
      1060 1065 1070
Val Ile Asp Asn Pro Pro Pro Glu Val Phe Leu Val Asp Leu Gln Gln
    1075 1080 1085
Gly Ile Gln Ile Phe Glu Leu Arg Ile Tyr Ala Ala Glu Met Gly His 1090 \hspace{1cm} 1095 \hspace{1cm} 1100 \hspace{1cm}
Arg Met Pro Leu Arg His Glu Ile His Gln Leu Ile Leu Ala Gly Phe
1105 1110 1115 1120
Arg Glu His Gly Ile Asp Met Pro Phe Pro Pro Phe Gln Met Arg Leu
   1125 1130 1135
Glu Thr Leu Asp Gly Arg Lys Thr Gly Arg Thr Leu Thr Ser Ala Ala
  1140 1145 1150
Arg Thr Arg Pro Ala Gly Ser Leu
<210> 7311
<211> 270
<212> PRT
<213> Enterobacter cloacae
<400> 7311
Lys Ser Pro Arg Cys His Arg Arg Asn Ala Cys Thr Val Gln Lys Gln
                 10
Lys Pro Pro Ile Arg Arg Arg Arg Met Ala Glu Met Gln Lys Leu
      20 25 30
Lys Val Glu Val Val Arg Tyr Asn Pro Glu Val Asp Ala Ala Pro His
                  40 45
Ser Ala Phe Tyr Glu Val Pro Tyr Asp Glu Gln Thr Ser Leu Leu Asp
Ala Leu Gly Tyr Ile Lys Asp Asn Leu Ala Pro Asp Leu Ser Tyr Arg
65 70 75
Trp Ser Cys Arg Met Ala Ile Cys Gly Ser Cys Gly Met Met Val Asn
          85 90 95
Lys Val Pro Lys Leu Ala Cys Lys Thr Phe Leu Arg Asp Tyr Thr Lys
      100 105 110
Gly Ile Lys Val Glu Ala Leu Gly Asn Phe Pro Ile Glu Arg Asp Leu
   115 120 125
Val Val Asp Met Thr His Phe Ile Glu Ser Leu Glu Ala Ile Lys Pro
 130 135 140
Tyr Ile Ile Gly Asn Pro Arg Thr Pro Asp Gln Gly Pro Asn Thr Gln
145 150 155 160
Thr Pro Ala Gln Met Ala Lys Tyr His Gln Phe Ser Gly Cys Ile Asn
           165 170 175
Cys Gly Leu Cys Tyr Ala Ala Cys Pro Gln Phe Gly Leu Asn Pro Glu
        180
            185 190
Phe Ile Gly Pro Ala Ala Ile Thr Leu Ala His Arg Tyr Asn Glu Asp
                  200 205
      195
Ser Arg Asp His Gly Lys Lys Glu Arg Met Ala Gln Leu Asn Ser Gln
                 215 220
   210
Asn Gly Val Trp Thr Cys Thr Pne Val Gly Tyr Cys Ser Glu Val Cys
                           235 240
              230
Pro Lys His Val Asp Pro Ala Ala Ala Ile Gln Gln Gly Lys Val Glu
           245 250
Ser Ser Lys Asp Phe Leu Ile Ala Thr Leu Lys Pro Arg
         260
                       265
```

```
<211> 301
<212> PRT
<213> Enterobacter cloacae
<400> 7312
Leu Leu Ile Phe Leu Thr Glu Glu Thr Met Thr Arg Ser Tyr Leu Pro
                            10
Leu Asn Ser Leu Arg Ala Phe Glu Ala Ala Ala Arg His Leu Ser Phe
      20
                    25
                                   30
Thr His Ala Ala Ile Glu Leu Asn Val Thr His Ser Ala Ile Ser Gln
     35
                   40
                          45
His Val Lys Thr Leu Glu Gln His Leu Asn Cys Gln Leu Phe Val Arg
 50 55 60
Val Ser Arg Gly Leu Met Leu Thr Thr Glu Gly Glu Asn Leu Leu Pro
          70
                   75
Val Leu Asn Asp Ser Phe Asp Arg Ile Ala Gly Met Leu Asp Arg Phe
       85 90 95
Ala Asn His Arg Ala Gln Glu Lys Leu Lys Ile Gly Val Val Gly Thr
        100 105
Phe Ala Thr Gly Val Leu Phe Ser Gln Leu Glu Asp Phe Arg Arg Gly
     115 120 125
Tyr Pro His Ile Asp Leu Gln Leu Ser Thr His Asn Asn Arg Val Asp
               135
Pro Ala Ala Glu Gly Leu Asp Tyr Thr Ile Arg Tyr Gly Gly Gly Ala
   150 155
Trp His Gly Thr Glu Ala Glu Phe Leu Cys His Ala Pro Leu Ala Pro
            165 170 175
Leu Cys Thr Pro Asp Ile Ala Ala Ser Leu His Ser Pro Ala Asp Ile
       180
                      185
                                        190
Leu Arg Phe Thr Leu Leu Arg Ser Tyr Arg Arg Asp Glu Trp Thr Ala
      195 200 205
Trp Met Gln Ala Ala Gly Glu His Pro Pro Ser Pro Thr His Arg Val
210 215 220
Met Val Phe Asp Ser Ser Val Thr Met Leu Glu Ala Ala Gln Ala Gly
             230 235
                                               240
Val Gly Ile Ala Ile Ala Pro Val Asp Met Phe Thr His Leu Leu Ala
                250
            245
Ser Glu Arg Ile Val Gln Pro Phe Ala Thr Gln Ile Glu Leu Gly Ser
                        265 270
         260
Tyr Trp Leu Thr Arg Leu Gln Ser Arg Ala Glu Thr Pro Ala Met Arg
   275 280
Glu Phe Ser Arg Trp Leu Val Glu Lys Met Lys Lys
                  295
<210> 7313
<211> 327
<212> PRT
<213> Enterobacter cloacae
<400> 7313
Leu Met Ser Glu Thr Ala Thr Trp Gln Pro Ser Ala Ser Ile Pro Asn
Leu Leu Lys Arg Ala Ala Ile Met Ala Glu Ile Arg Arg Phe Phe Ala
        20
                         25
Asp Arg Gly Val Leu Glu Val Glu Thr Pro Cys Met Ser Gln Ala Thr
      35
                      40
                                      45
Val Thr Asp Ile His Leu Val Pro Phe Glu Thr Arg Phe Val Gly Pro
 5.0
                5.5
                                  60
Gly His Ser Gln Gly Met Asn Leu Tyr Leu Met Thr Ser Pro Glu Tyr
               70
                             7.5
His Met Lys Arg Leu Leu Ala Ala Gly Cys Gly Pro Val Tyr Gln Leu
```

```
8.5
Cys Arg Ser Phe Arg Asn Glu Glu Met Gly Arg His His Asn Pro Glu
     100 105
Phe Thr Met Leu Glu Trp Tyr Arg Pro His Tyr Asp Met Tyr Arg Leu
 115 120
                                  125
Met Asn Glu Val Asp Asp Leu Leu Gln Gln Val Leu Asp Cys Ala Glu
 130 135 140
Ala Glu Thr Leu Ser Tyr Gln Gln Ala Phe Gln Arg His Leu Glu Ile
145 150 155 160
Asp Pro Leu Ser Ala Asp Lys Thr Gln Leu Arg Glu Val Ala Ala Lys
       165 170 175
Leu Asp Leu Ser Asn Val Ala Asp Asn Glu Glu Asp Arg Asp Thr Leu
       180 185 190
Leu Gln Leu Leu Phe Thr Phe Gly Val Glu Pro Gln Ile Gly Lys Asp
     195 200 205
Arg Pro Thr Phe Val Tyr His Phe Pro Ala Ser Gln Ala Ser Leu Ala
 210 215 220
Gln Ile Ser Thr Glu Asp His Arg Val Ala Glu Arg Phe Glu Val Tyr
225 230
                            235
Phe Lys Gly Ile Glu Leu Ala Asn Gly Phe His Glu Leu Thr Asp Ala
           245
                         250 255
Arg Glu Gln Gln Arg Phe Glu Gln Asp Asn Arg Lys Arg Asn Ala
     260
                    265 270
Arg Gly Leu Pro Gln Gln Pro Ile Asp Thr Asn Leu Leu Glu Ala Leu
     275 280
Lys Ala Gly Leu Pro Asp Cys Ser Gly Val Ala Leu Gly Val Asp Arg
290 295
                                300
Leu Val Met Leu Ala Leu Gly Ala Glu Gln Leu Gly Asp Val Ile Ala
305 310
                            315
Phe Thr Val Asp Arg Ala
           325
```

<212> PRT <213> Enterobacter cloacae

<210> 7314 <211> 521

<400> 7314 Pro Gln Tyr Leu Ser Gly His Leu Leu Pro Ser Ala Gln Phe Asn Ser Val Ser Asp Gly Tyr Met Ser His Ser Leu Lys Lys Met Thr Leu Thr 20 25 3.0 Gly Leu Ile Leu Met Ile Phe Thr Ser Val Phe Gly Phe Ala Asn Ser 40 45 Pro Ser Ala Phe Tyr Leu Met Gly Tyr Ser Ala Thr Pro Phe Tyr Ile 55 Val Ser Ala Leu Phe Phe Phe Ile Pro Phe Ala Leu Met Met Ala Glu 70 75 Met Gly Ser Ala Tyr Arg Lys Glu Glu Gly Gly Ile Tyr Ser Trp Met 95 90 Asn Asn Ser Val Gly Pro Arg Tyr Ala Phe Ile Gly Thr Phe Met Trp 100 105 Phe Ser Ser Tyr Val Val Trp Met Val Ser Thr Ala Ala Lys Val Trp 120 Val Pro Phe Ser Thr Phe Leu Phe Gly Ala Asp Lys Thr Gln Val Trp 135 140 Ser Leu Ala Gly Leu Ser Ser Thr Gln Val Val Gly Ile Leu Ala Val 155 Cys Trp Met Val Val Val Thr Leu Val Ala Ser Lys Gly Ile Asn Lys 170 165 Ile Ala Arg Ile Thr Ala Val Gly Gly Ile Ser Val Met Cys Leu Asn

```
185
        180
Leu Val Leu Leu Val Ser Ile Ala Ile Leu Cys Leu Asn Gly Gly
           200
     195
                                  205
His Phe Ala Gln Glu Val Asn Phe Val Ser Ser Pro Asn Pro Gly Tyr
        215
                                220
Gln Ser Gly Leu Ala Met Leu Ser Phe Val Val Phe Ala Ile Phe Ala
        230
                  235
Tyr Gly Gly Ile Glu Ala Val Gly Gly Leu Val Asp Lys Thr Glu Asn
      245 250
                                      255
Pro Glu Lys Asn Phe Ala Lys Gly Ile Ile Phe Ala Ala Ile Val Ile
       260 265
                           270
Ser Ile Gly Tyr Ser Leu Ala Ile Phe Leu Trp Gly Val Ser Thr Asn
275 280 285
Trp Gln Gln Val Leu Ser Asn Asn Thr Thr Asn Leu Gly Asn Ile Thr
290 295 300
Tyr Val Leu Met Lys Ser Leu Gly Val Thr Leu Gly Asn Ala Met Asp
305 310 315 320
Leu Ala Pro Glu Thr Ser Ala Thr Leu Gly Ile Trp Phe Ala Arg Ile
     325 330 335
Thr Gly Leu Ser Met Phe Leu Ala Tyr Thr Gly Ala Phe Phe Thr Leu
  340 345 350
Ile Tyr Ser Pro Leu Lys Ala Ile Ile Gln Gly Thr Pro Lys Ala Leu
   355 360 365
Trp Pro Ala Arg Met Thr Gln Leu Asn Ala Ala Gly Met Pro Ala Asn
370 375 380
Ala Met Trp Met Gln Cys Met Leu Val Cys Val Phe Ile Leu Leu Val
385 390
                           395 400
Ser Phe Gly Gly Asp Thr Ala Ser Ala Phe Tyr Asn Lys Leu Thr Leu
          405 410 415
Met Ala Asn Val Ser Met Thr Leu Pro Tyr Leu Phe Leu Thr Leu Ala
     420 425 430
Phe Pro Phe Phe Lys Ala Lys Gln Asp Leu Glu Arg Pro Phe Val Ile
435 440 445
Phe Lys Thr Arg Ala Ala Thr Leu Leu Ala Thr Thr Val Val Val Leu
450 455 460
Val Val Ala Phe Ala Asn Ile Phe Thr Val Ile Gln Pro Val Val Glu
465 470 475
Ala Asn Asp Trp Asn Ser Thr Leu Trp Met Val Gly Gly Pro Ile Phe
           485 490 495
Phe Ser Leu Leu Ala Met Gly Ile Tyr Glu His Tyr Arg Arg Ser
       500 505
Thr Ala Cys Val Ala Glu Val Ala
      515
<210> 7315
<211> 214
<212> PRT
<213> Enterobacter cloacae
<400> 7315
Asn Met Ala Lys Tyr Pro Ile Ser Asn Lys Ala Asp Asn Asp Arg Ile
Gln Ile Arg Ser Phe Trp Ile Ser Glu Arg Lys Ala Pro Tyr Val Tyr
Ser Phe Leu Lys Lys Thr Glu Leu Cys His Arg Gly Asp Gln Leu Asp
35
                   40
                                  4.5
Leu Ile Arg Ser Ala Ile Ser Thr Gly Leu Val Leu Asn Asn Leu Phe
                           60
                 55
Pro Asp Leu Ala Asn Phe Ile Asn Gly Leu Asn Glu Arg Leu Thr Leu
     70
```

Ala Asp Leu Asn Arg Phe Leu Asn Asp Gly Asn Thr Ile Asp Thr Glu

115

90 Pro Lys Pro Pro Ile Asn Val Leu Leu Glu Asn Val Leu Asp Gln Lys 105 100 Phe Lys Glu Tyr Leu Thr Pro Leu Gln Leu Asp Asn Ser Lys Gln Asp 115 120 Ser Val Ser Val Lys Glu Thr Phe Leu Val Gln Lys Glu His Ala Cys 135 140 Phe Gly Val Lys Ile Glu Asn Glu Gly Ser Asp Thr Ser Ile Pro Ser 150 155 Glu Ser Pro Leu Ser Ser Gly Ala Ser Lys Ile Ser Lys Glu Lys Ser 165 170 175 Ile Ser Ser Val Val Pro Val Leu Glu Lys Val Ser Asp Glu Asn Gln 180 185 190 Thr Ala Ser Ile Ser Ile Lys Ser Lys Ala Lys Ala Asn Lys Arg Leu 195 200 Ala Thr Leu Ala Arg 210 <210> 7316 <211> 102 <212> PRT <213> Enterobacter cloacae <400> 7316 Leu His Lys Ile Ser Arg Arg Val Arg Ala His Met Ser His Thr Ile 10 Arg Asp Lys Gln Lys Leu Lys Ala Arg Thr Ser Lys Ile Gln Gly Gln 25 Val Ala Ala Leu Lys Lys Met Leu Asp Glu Pro His Glu Cys Ala Ala 40 45 Val Leu Gln Gln Ile Ala Ala Ile Arg Gly Ala Val Asn Gly Leu Leu 5.5 Arg Glu Val Ile Lys Gly His Leu Thr Glu His Ile Val His Glu Ser 7.0 7.5 Glu Glu Gln Lys Arg Glu Glu Asp Leu Asp Val Val Leu Lys Val Leu 90 Asp Ser Tyr Ile Lys 100 <210> 7317 <211> 437 <212> PRT <213> Enterobacter cloacae <400> 7317 Glu Trp Lys Arg Ser Tyr Leu Tyr Arg Gln Tyr Leu Ala Ser Glu Cys 10 Ser Glu Arg Ser Tyr Gln His Ile Phe Cys Lys Pro Ala Ser Gly Arg 20 2.5 30 Arg Lys Lys Met Met Ile Glu Asn Asp Lys Glu Lys Ser Leu Asn Asp 4.5 35 4 0 Ala Thr Ser Pro Glu Val Gln Asn Asp Ile Arg Ser Glu Ser Thr Glu Lys Ser Lys Glu Met Gly Arg Ser Arg Tyr Ser Ser Ile Ala Met Ile 70 75 65 Asp Tyr Phe Asn Ala Ile Glu Arg Leu Cys Glu Glu Lys Lys Ile Asn 90 8.5 Pro Glu Asn Ile Asp Leu Ser Phe Lys Val His Trp Leu Arg Asn Ala 105 110 Val Gly Gly Ser Phe Ala Arg Ser Gln Glu Met Phe Ala Glu Tyr Gln

```
Lys Tyr Val Lys Glu Val Pro Glu Glu Ala Arg Tyr Leu Asp Ile Pro
            135 140
Asp Glu Val Lys Val Ala Leu Gly Asp Ile Ile Ser Tyr Ile Thr Trp
                             155
145
            150
His Tyr Arg Arg Ser Tyr Thr Ala Ile Gln Ser Asp Ser Val Lys Lys
                          170 175
          165
Ala Glu Ala Arg Ser Met Gln Leu Glu Glu Glu Val Thr Gln Leu Leu
       180
                       185
                                      190
Gln Arg Leu Glu Gln Ser Ala Thr Asp Met Asp Glu Leu Lys Leu Glu
 195 200
Asn Gln Ala Leu Gln Gly Arg Leu Glu Ile Arg Asp Ser Thr Val Lys
 210 215 220
Glu Leu Glu Thr Arg Leu Asn Val Ala Glu Ala Glu Leu Glu Thr Cys
225 230
                             235
His His Gln Leu Asp Ser Thr Arg His Glu Leu Ser Leu Ala Gln Gln
      245 250 255
Ser Asn Asp Ser Leu Ser Gln Gln Leu Ala Glu Arg Lys Thr Glu Ile
   260 265 270
Ala Gly His Leu Glu Tyr Gln Lys Lys Leu Asn Glu Glu Ile Asn Thr
 275 280 285
Gln Arg Ser Asp Asn Ala Gly Leu Ser Arg Gln Cys Asp Gln Leu Ser
290 295 300
Gln Thr Val Ser Asp Thr Lys Ala Glu Arg Asp Arg Phe Glu Gln Glu
     310 315 320
Leu Ile Ala Ala Gln Asn Leu Cys Ala Glu Leu Lys Ser Ala Leu Ser
           325 330 335
Gly Lys Glu Gly Asp Leu Val Ala Val Asn Ala Glu Leu Thr Glu Leu
        340 345 350
His Lys Leu Asn Glu Ser Leu Ser Ala Asp Leu Lys Lys Val Thr Leu
355 360 365
Val Ser Gln Gly Tyr Glu Ala Glu Val Ala Glu Gln Ser Ser Glu Leu
370 375 380
Lys Thr Leu Gln Ser Lys Val Met Lys Leu Glu Ala Thr Leu Glu Ala
385 390 395 400
Glu Lys Thr Ile Ser Glu Ser Lea Lys Gly Thr Ile Asp Thr Leu Thr
          405 410 415
Gly Ala Met Ala Gly Gly Gly Thr Gly Lys Ser Lys Gln Pro Arg Ser
                     425
Arg Lys Thr Ser
     435
<210> 7318
<211> 255
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<400> 7318
Phe Ser Pro Lys Thr Arg Lys Leu Gly Arg Leu Lys Val His Gln Gln
                          10
Leu His Val Xaa Gly Leu Val Pro Gln Asp Val His Leu Phe Val Thr
        20
                       25
                                      30
Val Pro Leu Ser Gln Phe Tyr Thr Ala Leu Gly Glu Thr Asn Ile Glu
    35
                  40
Asn Ile Gln Arg Lys Lys Asp Asn Leu Met Lys Pro Val Glu Arg Tyr
                 55
Leu Asp Gly Lys Arg Tyr Ser Phe Asn Val Leu Ser Val Thr Val Phe
                        7.5
```

Pro Glu Ser Leu Pro Ala Val Thr Arg Ala Asp Glu Ile Glu Asp Ile 85 Ala Ser Phe Glu Ser Ser Leu Val Ile Asp Leu Gly Gly Thr Thr Leu 100 105 Asp Val Ala Ser Ile Thr Gly Gln Leu Glu Gln Ile Ser Lys Val Lys 115 120 Gly Phe Asp Arg Ile Gly Cys Ser Ile Val Tyr Asp Glu Ile Ser Arg 130 135 140 Tyr Leu Glu Ser Glu Lys Leu Asn Thr Ser Asn Ala Tyr Ile His His 145 150 155 Leu Val Asp Asn Arg His Asp Lys Ser Ala Leu Lys Val Ala Glu Asp 165 170 Lys Arg Asp Gly Val Phe Asp Ala Val Asn Ser Ala Val Gln Lys Leu 180 185 190 Gln Ser Lys Val Ile Arg Ala Val Thr Gln Val Glu Glu Arg Pro His 195 200 205 Asn Val Phe Leu Val Gly Gly Gly Ser Tyr Leu Ile Glu Thr Ala Ile 210 215 220 Arg Lys His Phe Glu Thr Ala Lys Val Ile Met Val Asp Asn Pro Gln 225 230 235 240 Phe Ala Leu Ser Leu Ala Ile Ala Asp Thr Ile Tyr Ser Glu 250 245 <210> 7319 <211> 472 <212> PRT <213> Enterobacter cloacae <400> 7319 Val Thr Ile Tyr Arg Pro Thr Val Ala Gln Glu Met Gly Gly Asp His 1 Ser Ile Asn Lys Ala Ala Val Met Leu Thr Val Trp Trp Leu Ser Ser 20 25 Phe Ile Leu Ile Ser Thr Leu Asn Gly Tyr Phe Asp Asn Gln Asp Arg 35 40 4.5 Asp Phe Leu Thr Gly Lys Leu Gln Leu Thr Glu Glu Phe Leu Lys Thr 55 60 Glu Thr Phe Arg Asn Lys Thr Asp Ile Lys Ser Leu Ser Glu Lys Ile 7.5 70 Asn Asp Ala Met Val Gly His Asn Gly Leu Phe Ile Ser Ile Lys Asn 90 8.5 Met Glu Asn Glu Lys Ile Val Glu Leu Tyr Ala Lys Asn Ser Val Val 105 110 100 Pro Ala Val Leu Leu Asn Lys Ser Gly Asp Ile Leu Asp Tyr Met Ile 120 125 115 Gln Thr Glu Glu Asn Asn Thr Val Tyr Arg Ser Ile Ser Arg Arg Val 140 Ala Val Thr Pro Glu Gln Gly Lys Ser Lys His Val Ile Ile Thr Val 155 150 Ala Thr Asp Thr Gly Tyr His Thr Leu Phe Met Asp Lys Leu Ser Thr 170 175 165 Trp Leu Phe Trp Phe Asn Ile Gly Leu Val Phe Ile Ser Val Phe Leu 180 185 190 Gly Trp Leu Thr Thr Arg Ile Gly Leu Lys Pro Leu Arg Glu Met Thr 200 205 195 Ser Leu Ala Ser Ser Met Thr Val His Ser Leu Asp Gln Arg Leu Asn 210 215

Pro Asp Leu Ala Pro Pro Glu Ile Ser Glu Thr Met Gln Glu Phe Asn

Asn Met Phe Asp Arg Leu Glu Gly Ser Phe Arg Lys Leu Ser Asp Phe

250

235

230

Ser Ser Asp Ile Ala His Glu Leu Arg Thr Ala Val Ser Asn Leu Met 265 260 Met Gln Thr Gln Phe Ala Leu Ala Lys Glu Arg Asp Val Ser His Tyr 275 280 285 Arg Glu Ile Leu Phe Ala Tyr Leu Glu Glu Leu Lys Arg Leu Ser Arg 290 295 300 Met Thr Ser Asp Met Leu Phe Leu Ala Arg Ser Glu His Gly Leu Leu 310 315 305 Gln Leu Asp Lys His Asp Val Asp Leu Ala Ala Glu Leu Asn Glu Leu 325 330 335 Arg Glu Leu Phe Glu Pro Leu Ala Asp Glu Thr Gly Lys Thr Ile Thr 340 345 350 Val Glu Gly Glu Gly Val Val Ala Gly Asp Ser Asp Met Leu Arg Arg 355 360 365 Ala Phe Ser Asn Leu Leu Ser Asn Ala Ile Lys Tyr Ser Pro Asp Asn 370 375 380 Thr Cys Thr Ala Ile His Leu Glu Arg Asp Ser Asp Cys Val Asn Val 390 395 Met Ile Thr Asn Thr Met Ser Gly Gln Val Pro Ala Asn Leu Glu Arg 405 410 415 Leu Phe Asp Arg Phe Tyr Arg Ala Asp Ser Ser Arg Val His Asn Thr 420 425 430 Glu Gly Ala Gly Leu Gly Leu Ser Ile Thr Arg Ser Ile Ile His Ala 435 440 445 His Gly Gly Glu Leu Ser Ala Glu Gln Gln Gly Arg Glu Ile Val Phe 450 455 Ser Val Arg Leu Leu Met Asp 470

<211> 275 <212> PRT <213> Enterobacter cloacae

<210> 7320

<400> 7320 Val Ile Val Val Ser Tyr Gln Gly Ser Glu Pro Val Pro Ala Ser Arg 10 Thr Gly Gln Leu Ile Ser Ala Arg Asp Met Ala Met Gln Lys Phe Glu 20 25 Glu Gly Met Arg Leu Ile Ser Glu Ala Ser Glu Leu Cys Gly Leu Ser 45 40 35 Leu Phe Thr Ser Arg Ile Met Gln Pro Asn Ala Phe Gly Leu Pro Ser 55 Ser Leu Asp Arg Thr Ile Glu Glu Gly Arg Lys Glu Ile Asp Arg Lys 70 7.5 Thr Trp Lys Arg Leu Phe Glu Glu Ile Gly Met Asp Arg Tyr Trp Asn 90 8.5 His Lys Gln Lys Glu Ala Phe Asn Glu Ser Leu Arg Thr Asp Pro Pro 105 110 100 Val Ala Ser Leu Glu Ile Val Lys Gly Thr Leu Gln His Ala Leu Ala 120 125 115 Asn Arg Arg Asp Thr Leu Ala Glu Gly Phe Val Asp Val Leu Asn Lys 130 135 140 Leu Asp Arg Ser Phe Lys Ser Asn Ala Arg Gln Tyr Thr Met Pro Lys 155 150 Lys Leu Val Leu Arg Gly Ile Phe Pro Gly Val Asn Val Leu Arg Tyr 170 175 165 Asn Gly Phe Ser Gln Asp Asn His Phe Cys Leu Arg Asp Phe Glu Asn 180 185 Ile Val Cys Ile Cys Ser Asp Thr Pro Thr Pro Ala Thr Gly Gly Gly 195 200

```
Leu Ser Met Val Asp Arg Leu Thr Ala Met Arg Asn Thr Asp Phe Thr
                       215
Gly Glu Val Cys Asp Glu Asn Gly Trp Arg Cys Arg Leu Phe Glu Asn
                                      235
                  230
Gly Asn Val His Ile Cys Ile Asp Ser Ile Ser Leu Leu Asn Ala Leu
                     250
               245
Asn Asp Leu Ile Ser Ile Tyr Phe Ala Asn Gln Leu Pro Ala Ala Gly
                              265
           260
Lys Lys
<210> 7321
<211> 149
<212> PRT
<213> Enterobacter cloacae
<400> 7321
Val Ala Ala Lys Thr Asn Lys Asp Asp Thr Phe Thr Val Leu Gly Ser
                                   10
Glu Met Thr Ala Ile Asp Asp Phe Arg Ile Ile Arg Ala Arg Ala Phe
                              2.5
                                                  3.0
Ala Val Cys Asp Val Val Ala Lys Leu Ile Glu Arg Phe His Asp Asp
                                              45
                           40
Val Lys Gly Ile Thr Leu Ile Val Thr Leu Gln Ile Phe Tyr Val Phe
 50
                                         60
                       55
Gln Asn Lys Asn Cys Arg Leu Phe Cys Pro Asp Asp Pro Gly His Ile
                                   75
                   70
Lys Glu Glu Arg Thr Leu Ser Val Ala Leu Glu Thr Val Phe Ala Thr
               85
                                  90
His Arg Val Leu Phe Thr Asp Thr Gly Asp Ala Glu Trp Leu Ala Trp
                                                  110
           100
                            105
Lys Ser Arg Lys Lys Asn Ile Met Ile Arg Asp Arg Gly Ile Asp Lys
  115
                           120
                                             125
Phe Val Cys Leu Val Ile Ser Asn Leu Gly Pro Val Ala Lys Ser Asp
 130
                       135
Val Thr Asp Val
145
<210> 7322
<211> 85
<212> PRT
<213> Enterobacter cloacae
<400> 7322
Val Arg Asn Val Val Gln Arg Gln Val Cys Thr Asp Asp Phe Met Cys
                                   10
Val Ala Val Asn Cys Gln Met Gln Leu Thr Pro Tyr Thr Ala Ala Phe
            20
                                25
Leu Ala Met Leu Phe Asp Phe Pro Leu Ala Phe Thr Glu Asp Leu Gln
                           40
        35
Pro Gly Gly Ile Asn Tyr Gln Val Cys Asp Phe Thr Pro Gly Gly Arg
                       55
                                          60
Phe Glu Thr Asp Ile Asn Arg Leu Cys Pro Pro Ala Asp Thr Ala Val
                    70
Ile Arg Ala Ala
<210> 7323
<211> 156
<212> PRT
```

<213> Enterobacter cloacae

```
<400> 7323
Leu Phe Gly Tyr Glu Asn Thr Gly Asp Pro Thr Met Lys Lys Ile Leu
Val Ser Phe Val Ala Ile Met Ala Val Ala Ser Ser Ala Met Ala Ala
 20
                       25
Glu Thr Met Asn Met His Asp Gln Val Asn Asn Ala Gln Ala Pro Ala
 35 40
His Gln Met Gln Ser Thr Ser Glu Lys Ser Ala Val Gln Gly Asp Ser
 50 55 60
Met Thr Met Met Asp Met Ser Gly His Asp Gln Ala Ala Met Ser His
65 70 75
Glu Met Met Gln Asn Gly Asn Ala Ser Ala His Gln Asp Met Ala Glu
           85 90 95
Met His Lys Lys Met Met Lys Gly Lys Pro Gly Ala Thr Asn Glu Ser
         100 105 110
Ala Thr Ser Phe Ser Glu Met Asn Glu His Glu Lys Ala Ala Val Val
    115 120 125
His Glu Lys Ala Asn Asn Gly Gln Ser Ser Val Ile His Gln Gln
 130 135 140
Ala Glu Lys His Arg Ser Gln Ile Thr Gln Asn
               150
145
<210> 7324
<211> 195
<212> PRT
<213> Enterobacter cloacae
<400> 7324
Leu Val Lys Ile Leu Pro Val Asn Arg Leu Val Asp Thr Cys Leu Tyr
                             10
Ser Thr Asn Ser Gly Glu Met Met Phe Phe Phe Thr Lys Leu Leu Leu
       20
                       2.5
Pro Ile Met Ile Val Val Phe Pro Val Ala Ser Trp Gly Asn Ser Thr
35
                    40
                                     45
Thr Phe Glu Ala Lys Val Val Lys Ile Val Asp Gly Asp Thr Ile Thr
                 5.5
Ala Leu Asp Ala Gln Asn Thr Thr Ile Lys Ile Arg Met Tyr Gly Ile
                                75
65
             7.0
Asp Ala Pro Glu Ser Lys Gln Ala Phe Gly Gln Lys Ala Lys Gln Ala
            85
                             90
Leu Thr Thr Ala Ile Ala Thr Lys Ile Val Thr Val Ile Asp His Gly
                         105
          100
Thr Asp Ile Tyr Gly Arg Met Leu Gly Thr Ile Trp Leu Asp Gly Tyr
                      120
      115
Asp Ile Asn Ala Ser Met Val Asp Ser Gly Tyr Ala Trp Val Tyr Arg
                   135
  130
Phe Glu Asp Asn Ala Ile Val Pro Gly Tyr Ile Lys Tyr Glu Ser Ala
                150
                              155 160
Ala Gln Lys Glu Ala Lys Gly Leu Trp Ala Asp Thr Asn Pro Val Pro
                             170 175
             165
Pro Trp Gln Trp Arg Gln Ala Asn Glu Lys Pro Arg Lys Val Lys Gly
                          185
          180
Lvs Lvs
      195
<210> 7325
```

<sup>&</sup>lt;211> 512

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 7325 Ser Glu Cys His Val His Ala Pro Thr Gly Asn Gly Val Thr Leu Asn 3.0 Thr Ser Gln Val Ser Tyr Tyr Met Thr Gln Arg Lys Lys Gly Ala Thr 20 25 Gln His Ile Ser Ala Met Lys Ala Gly Ile Ser Val Arg Ser Gly Arg 40 Arg Ile Glu Lys Asp Gln Trp Ser Lys Ala Gly Glu Arg His Trp Arg 50 55 Thr Arg Lys Asp Pro Leu Glu Ala Val Trp Asp Ser Glu Leu Val Pro 70 75 Leu Leu Lys Glu Arg Pro Ala Leu Met Pro Thr Thr Leu Leu Glu Met 85 90 Leu Gln Asp Lys Tyr Pro Gly Gln Tyr Pro Asn Asn Leu Arg Arg Thr 105 100 Met Gln Arg Arg Val Arg Glu Trp Lys Leu Gln Tyr Gly Ala Glu Gln 115 120 125 Glu Val Met Phe Arg Gln Arg His Gln Pro Gly Leu Arg Gly Leu Ser 135 140 Asp Phe Thr Glu Leu Lys Gly Val Val Val Thr Ile Ala Gly Lys Leu 145 150 155 Leu Ala His Lys Leu Tyr Has Phe Arg Leu Glu Trp Ser His Trp Ser 165 170 175 Trp Met Arg Val Val Leu Gly Gly Glu Ser Phe Ser Ala Leu Ala Glu 180 185 190 Gly Leu Gln Glu Ala Leu Gly Gln Leu Gly Gly Val Pro Ser Glu His 195 200 205 Lys Thr Asp Ser Leu Arg Ala Ala Trp Lys His Arg Gly Glu Asp Gly 210 215 220 Gln Arg Glu Leu Thr Glu Arg Tyr Ala Glu Leu Cys Arg His Tyr Gly 230 235 Met Gln Gly Val His Asn Asn Ala Gly Arg Gly His Glu Asn Gly Ser 245 250 255 Val Glu Ser Ala His Gly His Leu Lys Arg Arg Ile Arg Gln Ala Leu 260 265 270 Ile Leu Arg Gly Ser Asn Asp Phe Ser Thr Leu Glu Glu Tyr Gln Ala 275 280 285 Phe Ile Thr Gln Gln Val Met Arg His Asn Arg Asn Asn Gln Asp Leu 295 300 Val Lys Glu Glu Gln Pro His Leu Lys Pro Leu Pro Leu Arg Arg Ser 310 315 Ala Asp Tyr Asp Glu Leu Thr Val Arg Val Ser Ser Ser Thr Ile 325 330 335 Asn Val Arg His Val Ile Tyr Ser Val Pro Ser Arg Leu Val Gly Gln 345 340 Leu Leu Arg Val Arg Leu Trp Asp Asp Arg Leu Ser Cys Tyr Val Gly 360 365 355 Ser Asn Glu Val Met Asn Cys Pro Arg Val Arg Pro Glu Lys Gly Lys 375 380 Thr Arg Ala Arg Arg Ile Asp Phe Arg His Val Ile Asp Ser Leu Ala 395 390 Lys Lys Pro Gly Ala Phe Cys His Ala Thr Leu Arg Asn Asp Ile Leu 410 415 405 Pro Asp Asp Glu Trp Arg Lys Leu Trp Arg Arg Leu Cys Asn His Leu 425 Glu Pro Glu Met Ala Gly Arg Leu Met Val His Ala Leu Lys Leu Ala 445 440 Ala Gly Tyr Asp Asp Ile Ser Val Val Ala Arg Gly Met Glu Gln Met 455 460 Leu Asn Thr Pro Gly Glu Leu Asp Leu Asn Arg Leu Met Arg Phe Leu 470 475

Gly Ile Lys Glu Lys Glu Leu Pro Pro Val Ser Val Val Gln His Asn 490 485 Leu Ser Ser Tyr Glu Gln Leu Leu Arg Gly Lys Gly Gly Leu Gln 500 505 510 <210> 7326 <211> 367 <212> PRT <213> Enterobacter cloacae <400> 7326 Trp Asn Gly Arg Leu Pro Ser Leu Val Pro Gln Trp Asp Asp Lys Ser 10

Ser Leu Ile Glu Arg Ser Ala Ala Ile Met Asn Val Lys Thr Ile Gly 20 25 Ile Asp Leu Ala Lys Asn Val Phe Gln Ile His Gly Val Asp Glu His 35 40 Gly Lys Arg Leu Phe Asn Lys Gln Leu Arg Arg Ala Gin Met Ala Ser 50 55 60 Phe Phe Ala Asn Ile Pro Pro Cys Leu Ile Gly Met Glu Ala Cys Ala 65 70 75 Ser Ala His Phe Trp Ala Asn Lys Leu Ile Ser Met Gly His Asn Val 85 90 Lys Leu Met Ala Pro Gln Phe Val Lys Pro Tyr Val Lys Thr Asn Lys 100 105 110 His Asp Ala Ala Asp Ala Glu Ala Ile Cys Glu Ala Val Thr Arg Pro 115 120 125 Asn Met Arg Phe Val Pro Val Lys Thr Ala Glu Gln Gln Ala Val Leu 135 140 Ala Leu His Arg Ser Arg Gln Ser Phe Ile Lys Gln Arg Thr Ala Gln 150 155 Ala Asn Gln Ile Arg Gly Leu Leu Ala Glu Phe Gly Ile Val Val Pro 165 170 175 Arg Gly Ile Gln Gln Leu Gln Arg Arg Leu Pro Glu Leu Val Glu Asp 180 185 190 Ala Asp Asn Pro Leu Pro Val Leu Phe Arg Thr Gln Leu Ser Leu Leu 195 200 205 Gln His His Met Ala Tyr Leu Phe Asp Val Ile Ala Thr Leu Asp Lys 210 215 220 Gln Ile Glu Gln Cys Tyr Arg Gln Asn Ala Leu Cys Gln Arg Ile Gly 230 235 Lys Ile Pro Gly Ile Gly Pro Val Thr Ala Ser Ala Leu Ile Ala Thr 245 250 Ile Gly Lys Ala Asn Asn Phe Glu Asn Gly Arg Gln Leu Ala Ala Trp 260 265 Leu Gly Leu Val Pro Arg Gln His Ser Ser Gly Gly Lys Gln Val Leu 275 280 285 Leu Gly Ile Ser Lys Arg Gly Asp Thr Tyr Leu Arg Thr Leu Leu Ile 290 295 300 His Gly Ala Arg Ala Val Leu Gln Ser Ala Lys His Lys Gln Asp Ala 310 315 Val Ser Ser Trp Ala Asn Gln Leu Met Ala Arg Arg Asn Asn Asn Ile 325 330

Ala Ser Val Ala Leu Ala Asn Lys Asn Ala Arg Thr Val Trp Ala Leu 345 Leu Ala Lys Glu Arg Glu Tyr Cys Ala Pro Ile Ile Ser Ala

360

<210> 7327 <211> 330 <212> PRT

## <213> Enterobacter cloacae

```
<400> 7327
Ile Asn Arg Thr Phe Ala Glu Leu Lys Asp Gln Ile Thr His Leu Pro
                            1.0
Asp Asn Ala Asp Arg Ser Val Ala Lys Gln Lys Phe Lys Ile Thr Asn
      20
                         25
Trp Pro Thr Tyr Asn Lys Ala Leu Ile Asn Arg Gly Ser Ile Thr Phe
                    40
Trp Leu Asp Asp Glu Ala Ile Gln Ala Trp Tyr Glu Ser Ala Thr Pro
 50 55 60
Ser Ser Arg Gly Arg Pro Glm Arg Tyr Ser Asp Leu Ala Ile Thr Thr
               70 75
Val Leu Val Ile Lys Arg Val Phe Arg Leu Thr Leu Arg Ala Ala Gln
            8.5
                            90
Gly Phe Ile Asp Ser Ile Pne Ser Leu Met Asn Val Pro Leu Arg Cys
       100 105 110
Pro Asp Tyr Ser Cys Val Ser Arg Arg Ala Lys Ser Val Asn Val Ser
      115 120 125
Phe Lys Thr Pro Thr Arg Gly Glu Ile Ala His Leu Val Ile Asp Ser
130 135
                                   140
Thr Gly Leu Lys Val Phe Gly Glu Gly Glu Trp Lys Val Lys Lys His
    150 155
Gly Gln Glu Arg Arg Ile Trp Arg Lys Leu His Leu Ala Val Asp
         165
                             170
Ser Asn Thr His Glu Ile Ile Cys Ala Asp Leu Ser Leu Asn Asn Val
         180
                         185
                                          190
Thr Asp Ser Glu Ala Phe Pro Gly Leu Ile Arg Gln Thr His Arg Lys
195
                    200
Ile Arg Ser Ala Ala Ala Asp Gly Ala Tyr Asp Thr Arg Leu Cys His
210
                                   220
Asp Glu Leu Arg Arg Lys Lys Ile Ser Ala Leu Ile Pro Pro Arg Lys
               230
                                235
Gly Ala Gly Tyr Trp Pro Gly Glu Tyr Ala Asp Arg Asn Arg Ala Val
            245
                             250 255
Ala Asn Gln Arg Met Thr Gly Ser Asn Ala Arg Trp Lys Trp Thr Thr
         260
                          265
                                        270
Asp Tyr Asn Arg Arg Ser Ile Ala Glu Thr Ala Met Tyr Arg Val Lys
                      280 285
Gln Leu Phe Gly Gly Ser Leu Thr Leu Arg Asp Tyr Asp Gly Gln Val
                   295
                                   300
Ala Glu Ala Met Ala Leu Val Arg Ala Leu Asn Lys Met Thr Lys Ala
                310
                                315
Gly Met Pro Glu Ser Val Arg Ile Ala
             325
```

<210> 7328 <211> 494 <212> PRT

<213> Enterobacter cloacae

```
Pro Glu His Cys Asp Leu Ser Ile Ala Asp Gly Arg Tyr Leu Gln Thr
          85
                    90
                                    95
Leu Ile Pro Ser Arg Pro Ala Asp Tyr Glu Asp Arg His Phe Ser Phe
           105 110
       100
Ile Asp Leu Phe Ala Gly Ile Gly Gly Leu Arg Ser Gly Phe Asp Ala
     115 120 125
Ile Gly Gly Lys Cys Leu Phe Thr Ser Glu Trp Asn Thr Tyr Ser Ser
 130 135 140
Arg Thr Tyr Arg Ala Asn Trp Tyr Cys Asp Glu Asn Glu His Arg Phe
   150 155
145
Asn Ser Asp Ile Arg Asp Ile Thr Leu Ser Asn Arg Pro Glu Val Thr
     165 170 175
Asp Asp Glu Ala Tyr Lys Phe Ile Asp Ala Ser Ile Pro Asp His Asp
    180 185 190
Val Leu Leu Ala Gly Phe Pro Cys Gln Pro Phe Ser Ile Ala Gly Val
 195 200 205
Ser Lys Lys Asn Ser Met Gly Arg Lys His Gly Phe Glu Cys Asp Thr
 210 215 220
Gln Gly Thr Leu Phe Phe Asp Val Ala Arg Ile Ile Arg Ala Lys Gln
225 230 235
Pro Ala Ile Phe Val Leu Glu Asn Val Lys Asn Leu Lys Ser His Asp
     245 250 255
Lys Gly Asn Thr Phe Asn Ile Ile Met Lys Thr Leu Asp Glu Leu Gly
 260 265 270
Tyr Asp Val Ala Asn Ser Giu Ser Thr Gly Ala Asp Asp Pro Lys Val
275 280 285
Ile Asp Gly Arg His Phe Arg Pro Gln His Arg Glu Arg Ile Val Leu
 290 295 300
Ile Gly Phe Arg Arg Asp Leu Arg Leu Lys Asp Gly Phe Thr Leu Arg
305 310 315 320
Asp Ile Lys Asp Phe Tyr Pro Asp Lys Arg Pro Ser Leu Ser Asp Leu
       325 330 335
Leu Asp Pro Ser Val Asp Ser Lys Tyr Ile Leu Ser Pro Lys Leu Trp
340 345 350
Glu Tyr Leu Tyr Asn Tyr Ala Lys Lys His Ala Ala Lys Gly Asn Gly
   355 360 365
Phe Gly Phe Gly Leu Val Asp Pro Ser Asn Val Asn Ser Val Thr Arg
370 375 380
Thr Leu Ser Ser Arg Tyr Met Lys Asp Gly Ser Glu Ile Leu Ile Asp
385 390 395 400
Arg Gly Trp Ser His Glu Lea Gly Glu Thr Asp Phe His Asn Thr Tyr
        405 410
Asn Met Asp Arg Arg Pro Arg Met Leu Thr Pro Arg Glu Cys Ser Arg
       420 425
                         430
Leu Met Gly Phe Asp Lys Pro Gly Glu Ser Val Phe Arg Ile Pro Val
435 440 445
Ser Asn Thr Gln Ala Tyr Arg Gln Phe Gly Asn Ser Val Val Val Asp
              455 460
Val Phe Ala Ala Val Ala Lys Leu Leu Lys Ser Arg Ile Glu Phe Ala
465 470
                475
Ala Ser Gln Arg Leu Arg Gln Phe Tyr Asp Glu Val Ser
          485
                        490
```

<210> 7329

<400> 7329

Ala Val Ala Ala Trp Lys Arg Arg Ser Ala Val Ser Asn Ile His His

<sup>&</sup>lt;211> 262 <212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

10 Leu Glu Arg Ser Leu Arg Lys Leu Arg Leu Thr Arg Val Gly Ala Glu 25 Trp His Ala Leu Glu Lys Arg Ala Leu Ala Glu Gly Trp Thr Pro Ser 4.0 Arg Tyr Leu Leu Thr Leu Cys Asn Glu Glu Leu Leu Trp Arg Glu Ser Glu Lys Leu Arg Arg Tyr Lys Lys Glu Ala Arg Leu Pro Val Ala Lys 7.0 7.5 Thr Leu Gly Glu Tyr Asp Phe Ala Gln Val Pro Glu Leu Asn Ala Ala 85 90 Gln Phe Arg Gln Leu Cys Glu Tar Thr Asp Trp Val Asp Ala Gly Glu 100 105 110 Asn Val Leu Leu Phe Gly Ala Ser Gly Leu Gly Lys Ser His Leu Ala 115 120 125 Ala Ala Ile Val Asp Gly Val Val Gly Gln Gly Tyr Arg Ala Arg Phe 130 135 140 Tyr Ser Ala Gly Glu Leu Leu Gln Glu Leu Arg Lys Ala Arg Ala Gln 145 150 155 Leu Lys Leu Asn Glu Leu Leu Leu Lys Leu Asp Arg Tyr Arg Val Ile 165 170 Val Val Asp Asp Leu Gly Tyr Val Lys Arg Asp Asn Ala Glu Thr Gly 180 185 190 Val Leu Phe Glu Leu Ile Ala His Arg Tyr Glu Arg Gly Ser Leu Val 195 200 205 Ile Thr Ser Asn His Pro Phe Ser Thr Trp Gly Ser Ile Phe Val Asp 210 215 Glu Thr Met Ala Val Ala Ala Ala Asp Arg Leu Ile His His Gly Tyr 225 230 235 Met Phe Glu Leu Lys Gly Glu Ser Tyr Arg Lys Lys Thr Ala Lys Ala 245 Val Thr Ser Ala Thr 260

<210> 7330

<211> 377 <212> PRT

<213> Enterobacter cloacae

<400> 7330

Pro Arg Met Ile Leu Met Asn Glu Phe Thr Thr Leu Leu Gln Gln Gly 10 Asn Ala Trp Phe Phe Ile Pro Ser Ala Ile Leu Leu Gly Ala Leu His 3.0 Gly Leu Glu Pro Gly His Ser Lys Thr Met Met Ala Ala Phe Ile Ile 35 4.0 4.5 Ala Ile Lys Gly Thr Val Arg Gln Ala Val Met Leu Gly Val Ala Ala 55 Thr Leu Ser His Thr Ala Val Val Trp Leu Ile Ala Phe Gly Gly Met 70 7.5 Tyr Ile Ser Asn Lys Phe Thr Ala Glu Ser Ala Glu Pro Trp Leu Gln 8.5 90 95 Met Val Ser Ser Val Ile Ile Leu Gly Thr Ala Phe Trp Met Phe Trp 105 100 110 Arg Thr Trp Ser Gly Glu Lys Asn Trp Leu Glu Gly Met Gln Glu Asn 120 Glu His His His Asp Glu Thr Arg Leu Ile Asp Thr Gly His Gly 135 140 Lys Val Glu Leu Ser Ile Phe Glu Glu Gly Gln Leu Pro His Trp Arg 150 155 145 Leu Arg Thr Leu Ser Gly Gln Arg Trp Ala Ser Glu Asp Ile Ser Leu

170 165 Thr Thr Leu Arg Glu Asn Ser Thr Ile Ser Gln Thr Phe Glu Phe Val 185 190 180 Asp His Gly Asp Tyr Leu Glu Ser Thr Ser Pro Ile Pro Glu Pro His 195 200 205 Ser Phe Asn Val Arg Leu Ser Leu Gly His Arg Gly His Val His Asp 210 215 220 Tyr Asp Val Ala Phe Ala Glu His Asp His Asp His Asp His Ser Glu 230 235 Leu Asp Gly Leu Asp Val Asn Ser Lys Glu Tyr Gln Asp Ala His Glu 245 250 255 Leu Ala His Ala Asn Asp Ile Lys Arg Arg Phe Asp Gly Lys Glu Val 265 260 270 Thr Asn Gly Gln Ile Leu Ile Phe Gly Leu Thr Gly Gly Leu Ile Pro 275 280 285 Cys Pro Ala Ala Ile Thr Val Leu Leu Ile Cys Leu Gln Leu Lys Ala 290 295 300 Leu Thr Leu Gly Ala Thr Leu Val Val Cys Phe Ser Ile Gly Leu Ala 305 310 315 320 Leu Thr Leu Val Thr Val Gly Val Gly Ala Ala Ile Ser Val Arg Gln 325 330 335 Val Ala Lys Arg Trp Ser Gly Phe Asn Thr Ile Ala Arg Arg Ala Pro 340 345 350 Tyr Ile Ser Ser Ala Leu Ile Ala Ala Val Gly Ile Tyr Met Gly Ile 355 360 His Gly Trp Asn Gly Leu Val His 370

<211> 342 <212> PRT <213> Enterobacter cloacae

<210> 7331

<400> 7331 Asn Ser Cys Ala Val Asp Gln Arg Val Tyr Leu Lys Lys Gly Leu Leu 10 Met Leu Leu Ala Thr Ala Leu Leu Ile Ile Gly Leu Leu Val Val 25 Tyr Ser Ala Asp Arg Leu Val Phe Ala Ala Ser Ile Leu Cys Arg Leu 4.0 Ile Gly Met Pro Pro Ile Ile Ile Gly Met Thr Val Val Ser Val Gly 50 55 60 Thr Ser Leu Pro Glu Ile Ile Val Ser Val Ser Ala Ser Leu His Gly 75 7.0 Gln Val Asp Leu Ala Ile Gly Thr Ala Ile Gly Ser Asn Ile Val Asn 90 95 Ile Leu Leu Ile Leu Gly Leu Ala Ala Leu Leu His Pro Phe Arg Val 100 105 110 His Ser Asp Val Leu Arg Arg Glu Leu Pro Leu Met Leu Val Val Ser 120 125 Leu Leu Ala Gly Tyr Val Leu Tyr Asp Gly Val Leu Ser Val Gly Asp 130 135 140 Gly Ile Phe Leu Leu Ala Leu Ala Val Ile Trp Leu Leu Tyr Ser Val 145 150 155 160 Lys Ile Ala Arg Leu Ala Glu Lys Gln Gly Asn Asp Ser Leu Thr Arg 165 170 175 Glu His Leu Ala Glu Leu Pro Arg Glu Gly Thr Leu Pro Val Ala Leu 180 185 190 Leu Trp Leu Gly Val Ala Leu Ile Ile Met Pro Met Ala Thr Arg Met 205 200 Val Val Asp Asn Ala Thr Val Leu Ala Asn Ala Phe Ala Met Ser Glu

```
215
Leu Thr Ile Gly Leu Thr Val Ile Ala Ile Gly Thr Ser Leu Pro Glu
          230
                        235 240
Leu Ala Thr Ala Ile Ala Gly Ala Arg Lys Gly Glu Asp Asp Ile Ala
          245
                   250 255
Ile Gly Asn Ile Ile Gly Ser Asn Ile Phe Asn Ile Ala Ile Val Thr
     260 265 270
Gly Leu Pro Ala Leu Ile Ser Pro Gly Pro Phe Asn Pro Met Val Phe
   275 280 285
Thr Arg Asp Tyr Gly Val Met Leu Leu Val Ser Val Ile Phe Ala Leu
 290 295 300
Leu Cys Trp Arg Arg Lys Glu Gln Ile Gly Lys Gly Ala Gly Ala Leu
305 310 315
Leu Thr Gly Gly Phe Ile Val Trp Leu Ala Met Leu Tyr Trp Leu Ser
            325
Pro Leu Leu Ser Gly
         340
<210> 7332
<211> 202
<212> PRT
<213> Enterobacter cloacae
<400> 7332
Ser Ala Ala Arg Trp Arg Ser Val Met Lys Asp Lys Thr Met Ser Asn
Ala Gly Ala Ser Leu Ala Thr Cys Tyr Gly Pro Val Ser Ala His Met
20
                          25
                                          30
Met Ser Lys Ala Glu Asn Ile Arg Leu Leu Ile Leu Asp Val Asp Gly
35
                      40
Val Leu Ser Asp Gly Leu Ile Tyr Met Gly Asn Asn Gly Glu Glu Leu
                 55
                                   60
Lys Ala Phe Asn Val Arg Asp Gly Tyr Gly Ile Arg Cys Ala Leu Thr
                               75
               7.0
                                              80
Ser Gly Ile Glu Val Ala Ile Ile Thr Gly Arg Lys Ala Lys Leu Val
                            90
            85
Glu Asp Arg Cys Glu Thr Leu Gly Ile Thr His Leu Tyr Gln Gly Gln
         100
                        105
Ser Asp Lys Met Val Ala Phe Arg Asp Leu Leu Gly Lys Leu Ala Ile
      115
                    120 125
Ala Pro Glu Asn Val Ala Tyr Val Gly Asp Asp Leu Ile Asp Trp Pro
 130
                                  140
Val Met Ala Glu Val Gly Leu Ser Ile Ala Val Ala Asp Ala His Pro
               150 155
Leu Leu Ile Pro Arg Ala Asp Tyr Val Thr His Ile His Gly Gly Arg
            165 170
Gly Ala Val Arg Glu Val Cys Asp Leu Leu Leu Ala Gln Gly Lys
         180 185
Leu Asp Glu Ala Lys Gly Gln Ser Ile
     195
<210> 7333
<211> 192
<212> PRT
<213> Enterobacter cloacae
<400> 7333
Leu Lys Arg Leu Glu Pro Pro Met Lys Phe Lys Thr Asn Lys Leu Ser
1
                            10
Leu Lys Val Val Ile Ala Ser Ala Leu Leu Ala Ala Ser Leu Pro Ala
```

2.5

```
Leu Ala Val Thr Gly Asp Thr Glu Gln Pro Ile His Ile Glu Ser Asp
                   40
Thr Gln Ser Leu Asp Met Gln Gly Asn Val Val Thr Phe Thr Gly Asn
                 55
                              60
Val Val Val Thr Gln Gly Thr Ile Lys Ile Asn Ala Asp Lys Val Val
      . 70
                           7.5
Val Thr Arg Pro Gly Gly Glu Gln Gly Lys Glu Ile Ile Asp Gly Tyr
       85 90
Gly Asn Pro Ala Thr Phe Tyr Gln Met Gln Asp Asn Gly Lys Pro Val
   100 105
Lys Gly His Ala Ser His Met His Tyr Glu Leu Ala Lys Asp Leu Val
                    120 125
Ile Leu Thr Gly Asn Val Tyr Leu Glu Gln Leu Asp Ser Asn Ile Lys
 130 135 140
Gly Asp Lys Ile Thr Tyr Leu Val Lys Glu Gln Lys Met Gln Ala Ser
            150 155
Ser Glu Lys Gly Lys Arg Val Thr Thr Val Leu Val Pro Ser Gln Leu
      165 170 175
Gln Asp Lys Asn Asn Gly Gln Ala Pro Ala Lys Lys Lys Ser Asn
                        185
```

<210> 7334 <211> 244 <212> PRT

<213> Enterobacter cloacae

<400> 7334 Phe Val Met Ala Thr Leu Thr Ala Lys Asn Leu Ala Lys Ala Tyr Lys 10 Gly Arg Arg Val Val Glu Asp Val Ser Leu Thr Val Asn Ser Gly Glu 20 25 3.0 Ile Val Gly Leu Leu Gly Pro Asn Gly Ala Gly Lys Thr Thr Thr Phe 35 4.0 Tyr Met Val Val Gly Ile Val Pro Arg Asp Ala Gly Asn Ile Ile Ile 55 Asp Asp Glu Asp Ile Ser Leu Leu Pro Leu His Ala Arg Ala Arg Arg 70 7.5 B O Gly Ile Gly Tyr Leu Pro Gln Glu Ala Ser Ile Phe Arg Arg Leu Ser 85 90 Val Phe Asp Asn Leu Met Ala Val Leu Gln Ile Arg Asp Asp Leu Thr 100 105 110 Ser Glu Gln Arg Thr Asp Arg Ala Asn Glu Leu Met Glu Glu Phe His 115 120 Ile Glu His Leu Arg Asp Ser Leu Gly Gln Ala Leu Ser Gly Gly Glu 135 140 Arg Arg Arg Val Glu Ile Ala Arg Ala Leu Ala Ala Asn Pro Lys Phe 145 150 Ile Leu Leu Asp Glu Pro Phe Ala Gly Val Asp Pro Ile Ser Val Ile 170 Asp Ile Lys Arg Ile Ile Glu His Leu Arg Asp Ser Gly Leu Gly Val 180 185 190 Leu Ile Thr Asp His Asn Val Arg Glu Thr Leu Ala Val Cys Glu Arg 195 200 Ala Tyr Ile Val Ser Gln Gly His Leu Ile Ala His Gly Thr Pro Gln 215 220 Gln Ile Leu Glu Asp Glu His Val Lys Arg Val Tyr Leu Gly Glu Asp 225 230 235 Phe Arg Leu

50

```
<211> 139
<212> PRT
<213> Enterobacter cloacae
<400> 7335
Pro Pro Cys Cys Pro Ile Arg Val Leu Trp Trp His Val Val Leu Ser
                                 10
Arg Ser Ile Glu Ser Leu Tyr Pro Phe Arg Arg Leu Thr Ser Val Asn
          2.0
                            25
                                                30
Asn Trp Phe Asp Thr Thr Asp Lys Glu Asp Thr Met Gln Leu Asn Ile
       35
                          40
                                           45
Thr Gly His Asn Val Glu Ile Thr Glu Ala Leu Arg Asp Phe Val Asn
                     55
                                 60
Thr Lys Phe Ala Lys Leu Glu Gln Tyr Phe Glu Arg Ile Asn Gln Val
                  70
                                  75
Tyr Val Val Leu Lys Val Glu Lys Val Thr His Ile Ser Asp Ala Thr
              85
                              90
Leu His Val Asn Gly Gly Glu Leu His Ala Ser Ala Glu Gly Gln Asp
          100
                  105 110
Met Tyr Ala Ala Ile Asp Gly Leu Ile Asp Lys Leu Ala Arg Gln Leu
       115 120
Asn Lys His Lys Asp Lys Leu Lys Gln His
  130
<210> 7336
<211> 124
<212> PRT
<213> Enterobacter cloacae
<400> 7336
Thr Ser Phe Gly Leu His Cys Arg Thr Ala Gly Arg Leu Leu Pro Leu
                                 10
Thr Arg Lys Glu Arg Ser Val Pro Ser Ser His Ala Gly Lys Thr Gln
                             25
                                                30
Asn Met Thr Val Lys Gln Thr Val Glu Ile Thr Asn Lys Leu Gly Met
                          40
His Ala Arg Pro Ala Met Lys Leu Phe Glu Leu Met Gln Gly Phe Asp
                      5.5
                                       60
Ala Glu Val Leu Leu Arg Asn Asp Glu Gly Thr Glu Ala Glu Ala Asn
                  70
                                     75
Ser Val Ile Ala Leu Leu Met Leu Asp Ser Ala Lys Gly Arg Gln Ile
              85
                                 90
Glu Val Glu Ala Thr Gly Pro Gln Glu Glu Glu Ala Leu Ala Ala Val
          100
                         105
Ile Ala Leu Phe Asn Ala Gly Phe Asp Glu Asp
       115
                          120
<210> 7337
<211> 297
<212> PRT
<213> Enterobacter cloacae
<400> 7337
Arg Arg Trp Pro Arg Ile Arg Pro Ala Pro Trp Val Lys Thr Gly Gly
Gly Lys Arg Ile Arg Pro Met Ile Ala Ile Leu Ala Ala Arg Ala Val
           20
                             2.5
Gly Tyr Gln Gly Asn Ala His Val Thr Ile Ala Ala Leu Ile Glu Phe
                         40
Ile His Thr Ala Thr Leu Leu His Asp Asp Val Val Asp Glu Ser Asp
```

```
Met Arg Arg Gly Lys Ala Thr Ala Asn Ala Ala Phe Gly Asn Ala Ala
              7.0
Ser Val Leu Val Gly Asp Phe Ile Tyr Thr Arg Ala Phe Gln Met Met
           85
                          90
Thr Ser Leu Gly Ser Leu Lys Val Leu Glu Val Met Ser Glu Ala Val
        100
                       105
Asn Val Ile Ala Glu Gly Glu Val Leu Gln Leu Met Asn Val Asn Asp
               120
   115
Pro Asp Ile Thr Glu Glu Asn Tyr Met Arg Val Ile Tyr Ser Lys Thr
  130
              135
                     140
Ala Arg Leu Phe Glu Ala Ala Ala Gln Cys Ser Gly Ile Leu Ala Gly
145 150 155 160
Cys Ser Glu Ala Glu Glu Lys Gly Leu Gln Asp Tyr Gly Arg Tyr Leu
        165 170 175
Gly Thr Ala Phe Gln Leu Ile Asp Asp Leu Leu Asp Tyr Ser Ala Asp
       180 185 190
Gly Glu Thr Leu Gly Lys Asn Val Gly Asp Asp Leu Asn Glu Gly Lys
 195 200 205
Pro Thr Leu Pro Leu Leu His Ala Met Arg Asn Gly Thr Pro Glu Gln
210 215 220
Ala Lys Met Ile Arg Glu Ala Ile Glu Gln Gly Asn Gly Arg His Leu
225 230 235
Leu Glu Pro Val Leu Glu Thr Met Ala Ile Cys Gly Ser Leu Glu Trp
   245
                         250 255
Thr Arg Gln Arg Ala Glu Glu Glu Ala Asp Lys Ala Ile Ala Ala Ile
       260 265 270
Gln Val Ile Pro Asp Ser Pro Trp Arg Asp Ala Leu Ile Gly Leu Ala
275 280
His Ile Ala Val Gln Arg Asp Arg
 290
                 295
```

<210> 7338 <211> 114

<212> PRT <213> Enterobacter cloacae

<400> 7338 Cys Cys Leu Phe Thr Arg Asn Asp Val Asp Asp Asn Glu His Lys Asp 10 Ser Ile Met Asp Thr Lys Phe Ile Asp Trp His Ser Ala Asp Ile Ile 25 Ala Ala Leu Arg Lys Lys Gly Thr Ser Leu Ala Ala Glu Ser Arg Arg 40 His Gly Leu Ser Ser Ser Thr Leu Ala Asn Ala Leu Thr Arg Pro Trp 5.5 Pro Lys Gly Glu Leu Ile Ile Ala Tnr Ala Leu Asp Thr His Pro Trp 7.0 7.5 Val Ile Trp Pro Ser Arg Tyr His Asp Pro Ile Thr His Glu Phe Ile 8.5 90 Asp Arg Thr Arg Met Met Arg Gln Ser Lys Thr Lys Lys Ala His Gln

105

```
<210> 7339
<211> 354
<212> PRT
<213> Enterobacter cloacae
```

100

<400> 7339

Asp

Arg Val Asp Leu Ser Tyr Gly Trp Arg Cys Cys Thr Gly Ser Arg His

```
1.0
Phe Ser Leu Gly Lys Arg Lys Arg Ile Met Ser Gln Ile Glu Leu Gln
                        25
Pro Gly Phe Asp Phe Gln Lys Ala Gly Lys Asp Val Leu Glu Ile Glu
      35
                     4.0
Arg Glu Gly Leu Ala Gln Leu Asp Gln Tyr Ile Asn Gln Asp Phe Ser
                  55
Leu Ala Cys Glu Lys Met Phe Tyr Cys Ala Gly Lys Val Val Wat Met
                              75
               7.0
Gly Met Gly Lys Ser Gly His Ile Gly Arg Lys Met Ala Ala Thr Phe
            85
                           90
Ala Ser Thr Gly Thr Ser Ser Phe Phe Val His Pro Gly Glu Ala Ala
        100
                       105
His Gly Asp Leu Gly Met Val Thr Pro Gln Asp Val Val Ile Ala Leu
     115
             120
                           125
Ser Asn Ser Gly Glu Ser Asn Glu Ile Leu Ala Leu Ile Pro Val Leu
               135 140
 130
Lys Arg Leu His Val Pro Leu Ile Cys Met Thr Ser Arg Pro Glu Ser
      150 155
Ser Met Ala Arg Ala Ala Asp Ile His Leu Cys Val Lys Val Pro Lys
         165 170 175
Glu Ala Cys Pro Leu Gly Leu Ala Pro Thr Ser Ser Thr Thr Ala Ala
       180 185
                             190
Leu Val Met Gly Asp Ala Leu Ala Val Ala Leu Leu Glu Ala Arg Gly
195 200 205
Phe Thr Pro Glu Asp Phe Ala Leu Ser His Pro Gly Gly Ala Leu Gly
210 215 220
Arg Lys Leu Leu Arg Val Asn Asp Ile Met His Thr Gly Asp Glu
    230 235
225
Ile Pro His Val Ser Lys Glu Ala Ser Leu Arg Asp Ala Leu Leu Glu
           245 250
Ile Thr Arg Lys Asn Leu Gly Met Thr Val Ile Cys Asp Asp Leu Met
        260 265 270
Lys Ile Gln Gly Ile Phe Thr Asp Gly Asp Leu Arg Arg Val Phe Asp
275 280 285
Met Gly Val Asp Val Arg Thr Leu Gly Ile Ala Asp Val Met Thr Pro
 290
                 295
                                  300
Gly Gly Ile Arg Val Arg Pro Gly Thr Leu Ala Val Asp Val Leu Asn
        310
                   315
Leu Met Gln Ser Arg His Ile Thr Ser Val Met Val Ala Asp Gly Asp
         325 330
Glm Leu Leu Gly Val Val His Met His Asp Leu Leu Arg Ala Gly Val
```

```
<210> 7340
<211> 169
<212> PRT
<213> Enterobacter cloacae
```

Val

Leu Glu Glu Asp Thr Leu Arg Ala Val Gly Val Phe Val Gln Leu Glu 90 Thr Pro Ile Ala Phe Asp Ala Ile Asp Asn Gln Pro Val Asp Leu Leu 100 105 Phe Ala Leu Leu Val Pro Ala Asp Gln Thr Lys Thr His Leu His Thr 115 120 125 Leu Ser Leu Val Ala Lys Arg Leu Ala Asp Lys Thr Ile Cys Arg Arg 130 135 140 Leu Arg Ser Ala Gln Ser Asp Glu Glu Leu Tyr Gln Ile Ile Thr Glu 145 150 Ala Glu Gly Asn Gln Asp Glu Ala 165

<210> 7341 <211> 300 <212> PRT

<213> Enterobacter cloacae

<400> 7341 Ser Gly Lys Gly Leu Gln Asn Gly Cys Pro Glu Glu Lys Arg Asn Met 1.0 Val Leu Met Ile Val Ser Gly Arg Ser Gly Ser Gly Lys Ser Val Ala 20 25 Leu Arg Ala Leu Glu Asp Met Gly Phe Tyr Cys Val Asp Asn Leu Pro 40 45 Val Val Leu Leu Pro Asp Leu Ala Arg Thr Leu Ala Asp Arg Gln Ile 60 5.5 Ser Ala Ala Val Ser Ile Asp Val Arg Asn Met Pro Glu Ser Pro Glu 70 75 Ile Phe Glu Gln Ala Met Asn Ser Leu Pro Glu Cys Phe Ser Pro Gln 85 90 Leu Leu Phe Leu Asp Ala Asp Arg Asn Thr Leu Ile Arg Arg Tyr Ser 110 100 105 Asp Thr Arg Arg Leu His Pro Leu Ser Ser Lys Asn Leu Ser Leu Glu 115 120 125 Ser Ala Ile Asp Lys Glu Ser Asp Leu Leu Glu Pro Leu Arg Ser Arg 130 135 140 Ala Asp Leu Ile Val Asp Thr Ser Glu Met Ser Val His Glu Leu Ala 150 155 Glu Met Leu Arg Thr Arg Leu Leu Gly Lys Arg Glu Arg Glu Leu Thr 165 170 Met Val Phe Glu Ser Phe Gly Phe Lys His Gly Ile Pro Ile Asp Ala 180 185 190 Asp Tyr Val Phe Asp Val Arg Phe Leu Pro Asn Pro His Trp Asp Pro 195 200 205 Lys Leu Arg Pro Met Thr Gly Leu Asp Lys Pro Val Ala Ala Phe Leu 220 Asp Arg His Thr Glu Val His Asn Phe Ile Tyr Gln Thr Arg Ser Tyr 235 225 230 Leu Glu Leu Trp Leu Pro Met Leu Glu Thr Asn Asn Arg Ser Tyr Leu 245 250 Thr Val Ala Ile Gly Cys Thr Gly Gly Lys His Arg Ser Val Tyr Ile 260 265 270 Ala Glu Gln Leu Ala Asp Tyr Pne Arg Ser Arg Gly Lys Asn Val Gln 275 280 Ser Arg His Arg Thr Leu Glu Lys Arg Lys Thr 290 295

<210> 7342 <211> 198

```
<212> PRT
<213> Enterobacter cloacae
<400> 7342
Gly Glu Arg Ala Ile Asp Met Ser Lys Thr Arg Arg Trp Val Ile Ile
                           1.0
Leu Leu Ala Leu Val Ala Leu Ile Leu Ile Gly Val Asn Leu Ala Asp
 20
                        25
Arg Asp Asp Thr Gln Ala Glu Val Val Asn Thr Ser Asp Pro Thr Tyr
     35
         40
                          45
Lys Ser Asp His Ser Asp Thr Val Val Tyr Ser Pro Glu Gly Ala Leu
                  55
Asn Tyr Arg Leu Val Ala Gln His Val Glu Tyr Phe Ser Asp Asp Gly
     70 75
Thr Ser Trp Phe Thr Gln Pro Val Leu Thr Thr Phe Asp Thr Asp Lys
           8.5
Val Pro Thr Trp Ser Ile Lys Ser Asp Arg Ala Lys Leu Thr Asn Asp
        100 105 110
Arg Met Leu Tyr Leu Tyr Gly His Val Glu Val Asn Ala Leu Thr Ala
         120 125
Asp Ala Gln Leu Arg Lys Ile Thr Thr Asp Asn Ala Gln Ile Asn Leu
130 135 140
Val Thr Gln Asp Val Thr Ser Gln Asp Leu Val Thr Leu Tyr Gly Thr
145 150 155
Thr Phe Asn Ser Ser Gly Leu Arg Met Arg Gly Asn Leu Arg Ser Lys
      165 170 175
Asn Ala Glu Leu Ile Glu Lys Val Arg Thr Ser Tyr Glu Ile Gln Asn
180
                      185
Lys Gln Thr Gln Pro
   195
```

<212> PRT <213> Enterobacter cloacae

<210> 7343

<211> 491

<400> 7343 Arg Leu Ser His Ala Glu Pro Glu Lys Asn Ala Leu Asn Met Lys Gln 10 Gly Leu Gln Leu Arg Leu Ser Gln Gln Leu Ala Met Thr Pro Gln Leu 20 25 3.0 Gln Gln Ala Ile Arg Leu Leu Gln Leu Ser Thr Leu Glu Leu Gln Gln 35 40 4.5 Glu Leu Gln Gln Ala Leu Asp Ser Asn Pro Leu Leu Glu Gln Thr Asp 5.5 60 Leu His Asp Glu Val Asp Ala Gln Gln Thr Gln Asp Thr Glu Thr Leu 7.0 75 Asp Ser Val Asp Ala Leu Glu Gln Lys Glu Met Pro Asp Glu Leu Pro Leu Asp Ala Ser Trp Asp Glu Ile Tyr Thr Ala Gly Thr Pro Ser Gly 105 100 Thr Arg Ala Asp Tyr Gln Asp Asp Glu Leu Pro Val Tyr Gln Gly Glu 115 120 Thr Thr Gln Ser Leu Gln Asp Tyr Leu Met Trp Gln Val Glu Leu Thr 135 Pro Phe Ser Asp Thr Asp Arg Ala Ile Ala Thr Ser Ile Val Asp Ala 150 155 Val Asp Asp Thr Gly Tyr Leu Thr Val Thr Leu Asp Glu Ile Leu Glu 165 170 Ser Ile Gly Asp Asp Glu Ile Glu Leu Glu Glu Ile Glu Ala Val Leu 180 185

```
Lys Arg Val Gln Arg Phe Asp Pro Ile Gly Val Ala Ala Lys Asp Leu
     195
          200
Arg Asp Cys Leu Leu Ile Gln Leu Ser Gln Phe Ala Lys Glu Thr Pro
 210
       215 220
Trp Ile Asp Glu Ala Arg Leu Ile Ile Ser Asp His Leu Asp Leu Leu
225 230 235 240
Ala Asn His Asp Phe Arg Thr Leu Met Arg Val Thr Arg Leu Lys Glu
     245 250 255
Glu Val Leu Lys Glu Ala Val Asn Leu Ile Gln Ser Leu Asp Pro Arg
       260 265 270
Pro Gly Gln Ser Ile Gln Thr Ser Glu Pro Glu Tyr Val Ile Pro Asp
     275 280 285
Val Leu Val Arg Lys His Asn Gly Arg Trp Val Val Glu Leu Asn Ala
                 295 300
Asp Ser Ile Pro Arg Leu Gln Ile Asn Gln Gln Tyr Ala Ser Met Cys
305 310 315 320
Thr Ser Ala Arg Asn Asp Ala Asp Asn Gln Tyr Ile Arg Ser Asn Leu
            325
                           330
Gln Glu Ala Arg Trp Leu Ile Lys Ser Leu Glu Ser Arg Asn Asp Thr
         340
                       345
                                       350
Leu Leu Arg Val Ser Arg Cys Ile Val Glu Gln Gln Gln Ala Phe Phe
355
                    360
                                    365
Glu Gln Gly Glu Glu Phe Met Lys Pro Met Val Leu Ala Asp Ile Ala
370 375
                                 380
Gln Ala Val Glu Met His Glu Ser Thr Ile Ser Arg Val Thr Thr Gln
              390
                              395
Lys Tyr Leu His Ser Pro Arg Gly Ile Phe Glu Leu Lys Tyr Phe Phe
                               415
            405
                           410
Ser Ser His Val Asn Thr Glu Gly Gly Gly Glu Ala Ser Ser Thr Ala
        420
                        425 430
Ile Arg Ala Leu Val Lys Lys Leu Ile Ala Ala Glu Asn Pro Ala Lys
435
                    440
                                    445
Pro Leu Ser Asp Ser Lys Leu Thr Thr Met Leu Ser Asp Gln Gly Ile
450
                  455 460
Met Val Ala Arg Arg Thr Val Ala Lys Tyr Arg Glu Ser Leu Ser Ile
465 470 475
Pro Pro Ser Asn Gln Arg Lys Gln Leu Val
            485
```

<210> 7344 <211> 277 <212> PRT

<213> Enterobacter cloacae

<400> 7344

Ile Asp Leu Ser Ala Asp Ser Glv Ser Ser Leu Met Lys Thr Pro Val Met Gln Val Ala Leu Ser Val Met Lys Thr Ala Ile Pro Leu Val Leu 20 25 Leu Thr Met Ala Ile Gly Glu Trp Val Ala Pro Gln Gly Glu Gln Met 35 4.0 45 Ala Arg Asn Tyr Arg Ala Gln Ala Met Tyr Gly Gly Ser Leu Leu Ser 50 5.5 60 Thr Gln Gln Gly Leu Trp Ala Lys Asp Gly Gln Asn Phe Val Tyr Ile 70 Glu Arg Val Lys Gly Asp Asp Glu Leu Gly Gly Val Ser Ile Tyr Ala 8.5 90 Phe Asn Asn Asp Arg Arg Leu Gln Ser Val Arg Tyr Ala Ala Ser Ala 100 105 Lys Phe Asp Ala Asn Asn Lys Leu Trp Arg Leu Ser Gln Val Asp Glu 115 120

```
Ser Asp Leu Thr Asn Pro Lys Gln Ile Thr Gly Ser Gln Thr Val Ser
          135
Gly Thr Trp Lys Thr Asn Leu Thr Pro Asp Lys Leu Gly Val Val Ala
145
           150
                                155
Leu Asp Pro Asp Ala Leu Ser Ile Ser Gly Leu His Asn Tyr Val Lys
                            170
            165
                                           175
Tyr Leu Lys Ser Ser Gly Gln Asp Ala Gly Arg Tyr Gln Leu Asn Met
             185
                               190
Trp Ser Lys Ile Phe Gln Pro Leu Ser Val Ala Val Met Met Leu Met
    195 200
                           205
Ala Leu Ser Phe Ile Phe Gly Pro Leu Arg Ser Val Pro Met Gly Val
 210 215 220
Arg Val Val Thr Gly Ile Ser Phe Gly Phe Val Phe Tyr Val Leu Asp 225 230 235 240
Gln Ile Phe Gly Pro Leu Thr Leu Val Tyr Gly Ile Pro Pro Ile Ile
      245 250 255
Gly Ala Leu Leu Pro Ser Ala Ser Phe Phe Leu Ile Ser Leu Trp Met
    260 265 270
Leu Leu Lys Arg Ser
<210> 7345
<211> 167
<212> PRT
<213> Enterobacter cloacae
<400> 7345
Lys Ile Lys Lys Ser Thr Ser Arg Pro Glu Trp Thr Met Cys Ser Ala
                           10
Ser Arg Trp Arg Tyr Leu Pro Leu Thr Ala Met Ile Lys Lys Phe Trp
                25
Asp Thr Cys Asp Glu Glu Glu Ser Thr Met Thr Ser Val Asp Ser Ala
             40
Lys Ala Gln Thr Ile Leu Asp Thr Ala Met Leu Glu Gln Tyr Ile Asp
                 55
Leu Val Gly Pro Lys Leu Ile Thr Asp Gly Leu Ala Val Phe Glu Lys
               7.0
                    75
Met Met Pro Gly Tyr Leu Asn Val Leu Glu Ser Asn Leu Thr Ala Arg
           85
                90 95
Asp Gln Lys Gly Ile Val Glu Glu Gly His Lys Ile Lys Gly Ala Ala
       100 105 110
Gly Ser Val Gly Leu Arg His Leu Gln Gln Leu Gly Gln Gln Ile Gln
      115
                      120 125
Ser Pro Asp Leu Pro Ala Trp Glu Asp Asn Val Gly Asp Trp Val Glu
 130 135 140
Glu Met Lys Gln Glu Trp Gln Asn Asp Val Ala Val Leu Lys Ala Trp
145 150
                     155
                                                160
Val Asp Ala Arg Lys Lys
            165
<210> 7346
<211> 253
<212> PRT
<213> Enterobacter cloacae
<400> 7346
Lys Ala Gly Gly Gln Ser Ala Gly Ser Tyr Arg Met Ser Arg Lys Leu
                                             15
                             10
Ser Pro Gly Gly Trp Leu Lys Arg Ile Leu Leu Arg Ile Val Leu Val
         20
                         25
Leu Ala Val Phe Trp Gly Gly Gly Ile Ala Leu Phe Ser Ile Leu Pro
```

4.0 Val Pro Phe Ser Ala Val Met Ala Glu Arg Gln Ile Ser Ala Trp Leu 55 60 Ser Gly Asp Phe Gly Tyr Val Ala His Ser Asp Trp Val Gly Met Asp 70 Glu Ile Ser Pro Trp Met Gly Leu Ala Val Ile Ala Ala Glu Asp Gln 85 90 Lys Phe Pro Glu His Trp Gly Phe Asp Val Ala Ala Ile Glu Lys Ala 100 105 Leu Asp His Asn Glu Arg His Glu Asn Arg Val Arg Gly Ala Ser Thr 115 120 125 Leu Ser Gln Gln Thr Val Lys Asn Leu Phe Leu Trp Asp Gly Arg Ser 130 135 140 Trp Val Arg Lys Gly Leu Glu Ala Gly Leu Thr Leu Gly Val Glu Thr 145 150 155 Val Trp Ser Lys Lys Arg Ile Leu Thr Val Tyr Leu Asn Ile Ala Glu 165 170 175 Phe Gly Asp Gly Val Phe Gly Val Glu Ala Ala Ser Gln Arg Tyr Phe 180 185 190 Gly Lys Pro Ala Ser Arg Leu Thr Met Ser Glu Ala Ala Leu Leu Ala 195 200 205 Ala Val Leu Pro Asn Pro Leu Arg Phe Lys Ala Ser Thr Pro Ser Gly 210 215 220 Tyr Val Arg Ser Arg Gln Ala Trp Ile Met Arg Gln Met Arg Gln Leu 225 230 235 Gly Gly Glu Gly Phe Met Glu Arg Asn Asn Leu Met 245

<211> 266 <212> PRT <213> Enterobacter cloacae

<210> 7347

<400> 7347 Gly Val Lys Pro Leu Met Leu Leu Asn Ala Leu Ala Gly Leu Gly His 10 Arg Gly Leu Lys Thr Ile Ser Thr Phe Gly Arg Ala Gly Leu Met Leu 20 25 30 Phe Asn Ala Leu Val Gly Lys Pro Glu Phe Arg Lys His Ala Pro Leu 40 Leu Val Arg Gln Leu Tyr Asn Val Gly Val Leu Ser Met Leu Ile Ile 5.5 60 Ile Val Ser Gly Leu Phe Ile Gly Met Val Leu Gly Leu Gln Gly Tyr 75 70 Leu Val Leu Thr Thr Tyr Ser Ala Glu Thr Ser Leu Gly Met Leu Val 8.5 90 Ala Leu Ser Leu Leu Arg Glu Leu Gly Pro Val Val Ala Ala Leu Leu 100 105 110 Phe Ala Gly Arg Ala Gly Ser Ala Leu Thr Ala Glu Ile Gly Leu Met 115 120 Arg Ala Thr Glu Gln Leu Ser Ser Met Glu Met Met Ala Val Asp Pro 130 135 140 Leu Arg Arg Val Ile Ser Pro Arg Phe Trp Ala Gly Val Ile Ser Leu 150 155 Pro Leu Leu Thr Ile Leu Phe Val Ala Val Gly Ile Trp Gly Gly Ala 170 165 175 Leu Val Gly Val Asn Trp Lys Gly Ile Asp Ala Gly Phe Phe Trp Ser 185 190 Ala Met Gln Asp Ala Ile Asp Leu Arg Met Asp Leu Val Asn Cys Leu 195 200 Ile Lys Ser Val Val Phe Ala Val Thr Val Thr Trp Ile Ala Leu Phe

```
215
Asn Gly Tyr Asp Ala Ile Pro Thr Ser Ala Gly Ile Ser Arg Ala Thr
           230
                            235
Thr Arg Thr Val Val His Ser Ser Leu Ala Val Leu Gly Leu Asp Phe
           245
                       250
Val Leu Thr Ala Leu Met Phe Gly Asn
           260
<210> 7348
<211> 119
<212> PRT
<213> Enterobacter cloacae
<400> 7348
Trp Pro Asp Gly Ser Ala Ser Val His Leu Ser Ser Glu Asn Tyr Pro
                                 10
Gly Arq Glu Glu Val Met Ser Gln Gln Leu Ser Trp Ala Arg Asp Gly
                              25
Glu Thr Leu Thr Leu Thr Gly Glu Leu Asp Gln Asp Leu Leu Asn Pro
                        4.0
                                             4.5
Leu Trp Asp Ala Arg His Asn Ala Met Gln Gly Val Thr Leu Ile Asp
                      5.5
                           - 60
Leu His Gly Val Thr Arg Val Asp Thr Ala Gly Ile Ala Leu Leu Ala
                  70
                                   75
His Leu Val Ala Thr Gly Lys Lys Gln Gly Ser Ser Val Thr Leu Thr
            85
                           90
Gly Val Ser Asp Asn Val Ile Thr Leu Ala Gln Leu Tyr Asn Leu Pro
         100
                              105
Glu Asp Val Leu Pro Arq
      115
<210> 7349
<211> 127
<212> PRT
<213> Enterobacter cloacae
<400> 7349
Phe Phe Gln Tyr Val Thr Ser Glu Ser Pro Asp Ser Leu Arg Val Gly
                               10
Ala Phe Cys Leu Phe Lys Thr Ala Pro Leu Cys Ser Lys Met Leu Ser
           20
                              25
                                                 3.0
Leu Phe Ser Leu Ser Asp Asp Val Asp Pro Met Glu Asn Asn Glu Ile
       35
                         4.0
                                             4.5
Gln Thr Val Leu Met Asn Ala Leu Ser Leu Gln Glu Ala His Val Ser
                     55
Gly Asp Gly Ser His Phe Gln Val Ile Ala Val Glv Glu Met Phe Asp
65
                   70
                                     75
Gly Met Ser Arg Val Lys Lys Gln Gln Ala Val Tyr Ala Pro Leu Met
               85
                               90
Glu Tyr Ile Ala Asp Asn Arg Ile His Ala Leu Ser Ile Lys Ala Phe
           100
                              105
Thr Pro Gln Glu Trp Ala Arg Asp Arg Lys Leu Asn Gly Phe
<210> 7350
<211> 234
<212> PRT
<213> Enterobacter cloacae
<400> 7350
Ser Glu Phe Leu Met Cys Phe Ser Glu Leu Leu Arg Arg Ile Val Arg
```

```
Met Lys Lys Val Gly Val Val Leu Ser Gly Cys Gly Val Tyr Asp Gly
                      25
Ser Glu Ile His Glu Thr Val Leu Thr Leu Leu Ala Leu Ser Arg Gln
                   40
Gly Ala Asp Val Ile Cys Phe Ala Pro Asp Lys Thr Gln Ala Asp Val
 50 55
Met Asn His Leu Thr Gly Glu Pro Met Ala Glu Ser Arg Asn Val Leu
65 70 75
Ile Glu Ala Ala Arg Ile Val Arg Gly Asp Ile His Pro Leu Ala Gln
      85 90 95
Ala Asp Ala Ala Glu Leu Asp Ala Leu Ile Val Pro Gly Gly Phe Gly
      100 105 110
Ala Ala Lys Asn Leu Ser Thr Phe Ala Thr Glu Gly Ala Ala Cys His
   115 120 125
Val Asp Pro Asp Leu Lys Ala Leu Ser Leu Ala Met His Ala Ala Gly
 130 135 140
Lys Pro Gln Gly Phe Ile Cys Ile Ala Pro Ala Met Leu Pro Lys Ile
145 150 155 160
Phe Asp Phe Pro Leu Arg Leu Thr Ile Gly Thr Asp Ile Asp Thr Ala
      165 170 175
Glu Ile Ile Glu Asp Met Gly Gly Glu His Val Pro Cys Pro Val Asp
      180 185
Asp Ile Val Val Asp Glu Asp Asn Lys Ile Ile Thr Thr Pro Ala Tyr
195 200 205
Met Leu Ala Gln Asn Ile Ala Glu Ala Ala Ala Gly Ile Glu Lys Leu
210 215
Val Asp Arg Val Leu Val Leu Thr Glu
```

<210> 7351 <211> 189 <212> PRT

<213> Enterobacter cloacae

180

<400> 7351 Cys Leu Gly Ile Glu Phe Met Gln Thr Arg Lys Asn Glu Ile Trp Val 1.0 Gly Val Phe Leu Leu Leu Ala Leu Leu Ala Ala Leu Phe Ile Cys Leu Arg Ala Ala Asp Ile Thr Ser Val Arg Ala Glu Pro Thr Tyr Arg Ile 40 Tyr Ala Thr Phe Asp Asn Ile Gly Gly Leu Lys Ala Arg Ser Pro Val 50 55 60 Arg Ile Gly Gly Val Val Ile Gly Arg Val Ala Asp Ile Thr Leu Asp 70 7.5 Glu Lys Thr Tyr Leu Pro Arg Vai Ala Met Asp Ile Glu Glu Arg Tyr 85 90 Asn His Ile Pro Asp Thr Ser Ser Leu Ser Ile Arg Thr Ser Gly Leu 100 105 110 Leu Gly Glu Gln Tyr Leu Ala Leu Asn Val Gly Phe Glu Asp Pro Glu 115 120 Leu Gly Thr Thr Ile Leu Lys Asp Gly Ser Val Ile Gln Asp Thr Lys 130 135 140 Ser Ala Met Val Leu Giu Asp Met Ile Gly Gln Phe Leu Tyr Asn Ser 150 155 160 Lys Gly Asp Asp Lys Ser Asp Asp Ala Pro Ala Gln Ser Glu Asp 165 170 175 His Thr Asn Val Glu Pro Thr Pro Gly Ala Thr Asn

```
<210> 7352
<211> 218
<212> PRT
<213> Enterobacter cloacae
<400> 7352
Phe Gln Glu Lys Leu Phe Met Phe Lys Arg Leu Leu Met Val Ala Met
                            10
Leu Val Ile Ala Pro Leu Thr Ala Ala His Ala Ala Asp Gln Ser Asn
      20
                          25
Pro Tyr Lys Leu Met Asn Glu Ala Ala Lys Lys Thr Phe Asp Arg Leu
     35
           40
                                   4.5
Lys Asn Glu Gln Pro Lys Ile Arg Ser Asn Pro Asp Tyr Leu Arg Asp
              5.5
                          60
Val Val Asp Gln Glu Leu Leu Pro Tyr Val Gln Ile Lys Tyr Ala Gly
              70 75
Ala Leu Val Leu Gly Arg Tyr Tyr Lys Asp Ala Thr Pro Ala Gln Arg
            8.5
                             90
Glu Ala Tyr Phe Ala Ala Phe Arg Glu Tyr Leu Lys Gln Ala Tyr Gly
         100 105
Gln Ala Leu Ala Met Tyr His Gly Gln Thr Tyr Gln Ile Ala Pro Glu
115 120 125
Gln Pro Leu Gly Asp Ala Thr Ile Ile Pro Ile Arg Val Thr Ile Ile
130 135
                                    140
Asp Pro Asn Gly Arg Pro Pro Val Arg Leu Asp Phe Gln Trp Arg Lys
                150 155
Asn Ser Gln Thr Gly Asn Trp Gln Ala Tyr Asp Met Ile Ala Glu Gly
             165 170 175
Val Ser Met Ile Thr Thr Lys Gln Asn Glu Trp Ser Asp Leu Leu Arg
         180 185 190
Thr Lys Gly Ile Asp Gly Leu Thr Ala Gln Leu Gln Ser Ile Ser Arg
195 200
Gln Lys Ile Thr Leu Asp Glu Lys Lys
  210
<210> 7353
<211> 659
<212> PRT
<213> Enterobacter cloacae
<400> 7353
Val Leu Leu Ser Asp Lys Val Val Lys Gly Ser Ser Met Lys Gln Ile
                            10
Arg Met Leu Ala Gln Tyr Tyr Val Asp Leu Met Met Lys Leu Gly Leu
         2.0
                          25
                                            30
Val Arg Phe Ser Met Leu Leu Ala Leu Ala Leu Val Val Leu Ala Ile
      35
                     4.0
Val Val Gln Met Ala Val Thr Met Val Leu His Gly Gln Val Glu Ser
 5.0
                    55
Ile Asp Val Ile Arg Ser Ile Phe Phe Gly Leu Leu Ile Thr Pro Trp
                70
                                 75
Ala Val Tyr Phe Leu Ser Val Val Val Glu Gln Leu Glu Glu Ser Arg
                              90
             8.5
Gln Arg Leu Ser Lys Leu Val Asp Lys Leu Glu Glu Met Arg Glu Arg
          100
                          105
Asp Leu Lys Leu Asn Val Gln Leu Lys Asp Asn Ile Ala Gln Leu Asn
      115
                       120
Gln Glu Ile Ser Asp Arg Glu Lys Ala Glu Ala Glu Arg Gln Thr Thr
                   135
Leu Glu Gln Leu Lys Ile Glu Met Lys Glu Arg Glu Val Thr Gln Ile
                150
                                 155
```

Gln Leu Glu Gln Gln Ser Ser Phe Leu Arg Ser Phe Leu Asp Ala Ser 165 170 Pro Asp Leu Val Phe Tyr Arg Asn Glu Asp Lys Glu Phe Ser Gly Cys 180 185 Asn Arg Ala Met Glu Leu Leu Thr Gly Lys Ser Glu Lys Gln Leu Ile 195 200 205 His Leu Lys Pro Gln Asp Val Tyr Ser Glu Glu Ala Ala Ala Lys Val 215 220 Met Glu Thr Asp Glu Lys Val Phe Arg His Asn Val Ser Leu Thr Tyr 230 235 Glu Gln Trp Leu Asp Tyr Pro Asp Gly Arg Lys Ala Cys Phe Glu Ile 245 250 255 Arg Lys Val Pro Tyr Tyr Asp Arg Val Gly Lys Arg His Gly Leu Met 260 265 270 Gly Phe Gly Arg Asp Ile Thr Glu Arg Lys Arg Tyr Gln Asp Ala Leu 275 280 Glu Arg Ala Ser Arg Asp Lys Thr Thr Phe Ile Ser Thr Ile Ser His 290 295 300 Glu Leu Arg Thr Pro Leu Asn Gly Ile Val Gly Leu Ser Arg Ile Leu 305 310 315 320 Leu Asp Thr Glu Leu Thr Ser Glu Gln Glu Lys Tyr Leu Lys Thr Ile 325 330 335 His Val Ser Ala Val Thr Leu Gly Asn Ile Phe Asn Asp Ile Ile Asp \$340\$Met Asp Lys Met Glu Arg Arg Lys Val Gln Leu Asp Asn Gln Pro Val 355 360 365 Asp Phe Thr Gly Phe Leu Ala Asp Leu Glu Asn Leu Ser Gly Leu Gln 370 375 380 Ala Gln Gln Lys Gly Leu Ser Phe Val Met Glu Pro Thr Leu Pro Leu 385 390 395 400 Pro His Lys Val Val Thr Asp Gly Thr Arg Leu Arg Gln Ile Leu Trp 405 410 415 Asn Leu Ile Ser Asn Ala Val Lys Phe Thr Gln Lys Gly Gln Val Ala 420 425 430 Val Arg Ile Arg Tyr Asp Glu Gly Asp Met Leu His Phe Glu Val Glu 435 440 445 Asp Ser Gly Ile Gly Ile Pro Gln Glu Glu Gln Asp Lys Ile Phe Ala 450 455 460 Met Tyr Tyr Gln Val Lys Asp Ser His Gly Gly Lys Pro Ala Thr Gly 470 475 480 Thr Gly Ile Gly Leu Ala Val Ser Lys Arg Leu Ala Lys Ser Met Gly
485 490 495 Gly Asp Ile Thr Val Ala Ser Gln Pro Gly Lys Gly Ser Thr Phe Thr 500 505 510 Leu Thr Val His Ala Pro Ala Val Ala Glu Glu Val Glu Asp Thr Phe 515 520 525 Glu Asn Asp Asp Met Pro Leu Pro Ala Leu His Val Leu Leu Val Glu 530 535 540 Asp Ile Glu Leu Asn Val Ile Val Ala Arg Ser Val Leu Glu Lys Leu 550 555 Gly Asn Ser Val Asp Val Ala Met Thr Gly Lys Ala Ala Leu Glu Met 565 570 575 Phe Thr Pro Gly Glu Tyr Asp Leu Val Leu Leu Asp Ile Gln Leu Pro 580 585 590 Asp Met Thr Gly Leu Asp Ile Ser Arg Glu Leu Thr Arg Lys Tyr Ala 605 600 Pro Asp Glu Leu Pro Pro Leu Val Ala Leu Thr Ala Asn Val Leu Lys 610 615 620 Asp Lys Lys Glu Tyr Leu Glu Ala Gly Met Asp Asp Val Leu Ser Lys 625 630 635 Pro Leu Ala Val Pro Ala Pro Asp Gly Asp Asp Gln Glu Val Leu Gly

<210> 7354 <211> 271 <212> PRT

<213> Enterobacter cloacae

<400> 7354

Met Ser Gln Thr Met Ala Asn Ile Val Asp Val Arg Gly Val Ser Phe Ser Arg Gly Asn Arg Leu Ile Phe Asp Asp Ile Ser Leu Thr Val Pro

20 25 30 Arg Gly Lys Ile Thr Ala Ile Met Gly Pro Ser Gly Ile Gly Lys Thr

35 4 0 Thr Leu Leu Arg Leu Ile Gly Gly Gln Ile Pro Pro Asp Ser Gly Glu

55 60 Ile Leu Phe Asp Gly Glu Asn Val Pro Ala Met Ser Arg Ser Arg Leu

65 70 75 Tyr Thr Val Arg Lys Arg Met Ser Met Leu Phe Gln Ser Gly Ala Leu

85 90 Phe Thr Asp Met Asn Val Phe Asp Asn Val Ala Tyr Pro Leu Arg Glu 100 105 110

His Thr His Leu Pro Pro Ala Leu Leu His Ser Thr Val Met Met Lys 115 120 125

Leu Glu Ala Val Gly Leu Arg Gly Ala Ala Lys Leu Met Pro Ser Glu 130 135 140

Leu Ser Gly Gly Met Ala Arg Arg Ala Ala Leu Ala Arg Ala Ile Ala 145 150 155

Leu Glu Pro Asp Leu Ile Met Phe Asp Glu Pro Phe Val Gly Gln Asp 165 170 175 Pro Ile Thr Met Gly Val Leu Val Lys Leu Ile Ser Glu Leu Asn Ser

180 185 190 Ala Leu Gly Val Thr Cys Val Val Val Ser His Asp Val Pro Glu Val

195 200 205 Leu Ser Ile Ala Asp Tyr Ala Tyr Ile Val Ala Asp Lys Lys Ile Val 210 215 220

Ala His Gly Ser Ala Gln Ala Leu Gln Glu Asn Gly Asp Pro Arg Val 225 230 235

Arg Gln Phe Leu Asp Gly Ile Ala Asp Gly Pro Val Pro Phe Arg Tyr 245 250 250 255

Pro Ala Gly Asp Tyr His Asp Asp Leu Leu Gly Ile Gly Ser 265

<210> 7355

<211> 435 <212> PRT

<213> Enterobacter cloacae

<400> 7355

Gly Arg Asn Ala Arg Ser Thr Val Glu Phe Ile Arg Glu Gln Thr Met 10 Asp Lys Phe Arg Val Gln Gly Pro Thr Arg Leu Gln Gly Glu Val Thr

25 20 Ile Ser Gly Ala Lys Asn Ala Ala Leu Pro Ile Leu Phe Ala Ala Leu

35 Leu Ala Glu Glu Pro Val Glu Ile Gln Asn Val Pro Lys Leu Lys Asp 5.5 Ile Asp Thr Thr Met Lys Leu Leu Gly Gln Leu Gly Thr Lys Val Glu

70 75

Ö

```
Arg Asn Gly Ser Val Trp Ile Asp Ala Ser Asn Val Asn Asn Phe Ser
                            90
Ala Pro Tyr Glu Leu Val Lys Thr Met Arg Ala Ser Ile Trp Ala Leu
                       105
         100
Gly Pro Leu Val Ala Arg Phe Gly Gln Gly Gln Val Ser Leu Pro Gly
     115 120 125
Gly Cys Ala Ile Gly Ala Arg Pro Val Asp Leu His Ile Phe Gly Leu
  130 135 140
Glu Lys Leu Gly Ala Glu Ile Lys Leu Glu Glu Gly Tyr Val Lys Ala 145 $150$
Ser Val Asn Gly Arg Leu Lys Gly Ala His Ile Val Met Asp Lys Val
      165 170 175
Ser Val Gly Ala Thr Val Thr Ile Met Ser Ala Ala Thr Leu Ala Glu
        180 185 190
Gly Thr Thr Ile Ile Glu Asn Ala Ala Arg Glu Pro Glu Ile Val Asp
      195 200 205
Thr Ala Asn Phe Leu Val Ala Leu Gly Ala Lys Ile Ser Gly Gln Gly
 210 215
Thr Asp Arg Ile Thr Ile Glu Gly Val Glu Arg Leu Gly Gly Gly Val
               230 235
Tyr Arg Val Leu Pro Asp Arg Ile Glu Thr Gly Thr Phe Leu Val Ala
         245
                            250 255
Ala Ala Ile Ser Gly Gly Lys Ile Val Cys Arg Asn Ala Gln Pro Asp
        260
                        265
Thr Leu Asp Ala Val Leu Ala Lys Leu Arg Asp Ala Gly Ala Asp Ile
                     280
                                      285
Glu Ile Gly Glu Asp Trp Ile Ser Leu Asp Met His Gly Gln Arg Pro
 290
                295
                                  300
Lys Ala Val Asn Val Arg Thr Ala Pro His Pro Ala Phe Pro Thr Asp
305 310
                               315
Met Gln Ala Gln Phe Thr Leu Leu Asn Leu Val Ala Glu Gly Thr Gly
            325
                            330
Phe Ile Thr Glu Thr Ile Phe Glu Asn Arg Phe Met His Val Pro Glu
                        345
        340
                                         350
Leu Ile Arg Met Gly Ala His Ala Glu Ile Glu Ser Asn Thr Val Ile
     355
                      360
                                      365
Cys His Gly Val Glu Lys Leu Ser Gly Ala Gln Val Met Ala Thr Asp
                  375
                                   380
Leu Arg Ala Ser Ala Ser Leu Val Leu Ala Gly Cys Ile Ala Glu Gly
               390
                               395
                                               400
Thr Thr Val Val Asp Arg Ile Tyr His Ile Asp Arg Gly Tyr Glu Arg
            405
                           410
Ile Glu Asp Lys Leu Arg Ala Leu Gly Ala Asn Ile Glu Arg Val Lys
         420
                        425
Gly Glu
   4.35
<210> 7356
<211> 340
<212> PRT
<213> Enterobacter cloacae
<400> 7356
```

Glu Asp His Ser Val Ile His Gly Ala Ala Phe Ala Pro Pro Pro Arg 1 5 10 15

Arg Tyr Arg Ala Glu Leu Glu Tyr Leu Met Lys Leu Ser Arg Gln Thr 20 25 30 30

Thr Ser Asp Thr Ser Val Asp Gly Arg Ser Arg Ala Tyr Ala Trp Gly 35 40 45

Arg Val His Tyr Phe Ile Ile Glu His Ala Pro Met Ala Glu Leu Val 50 50

```
Ala Ile Asp Glu Leu Leu Glu Lys Ala Gly Trp Ser Asn Asp Gly Cys
Pro Asn Tyr Glu Lys Asp Asp Glu Phe Gly Asn Ala Gly Tyr Ser Cys
                               90
Gly Tyr Trp Ile Asp Ile Asp Ser Val Gly Ser Phe Lys Ala Asp Tyr
         100 105
Lys Arg Leu Lys Gly Glu Ile Ser Ala His Ile Ala Ser Lys Ala Ala
      115
                     120 125
Glu Val Glu Ile Arg Val Leu Asp Ser Met Ser Asp Lys Glu Cys Lys
 130
                  135 140
Asp Val Ala Ser Val Ala Cys Thr Val Arg Arg Asp Leu Arg Thr Gln
              150 155
Ser Glu Ser Leu His Ser Leu Arg Thr Ile Val Thr Val Asp His Tyr
          165 170
Asn Pro Tyr Val Ile Thr Ser Arg Pro Leu Ser Ile Ser Ala Trp Thr
          180
                          185 190
Leu Ile His Asp Cys Leu Lys Thr Gly Thr Ile Asn Asp Val Cys Ser
                       200 205
Arg Leu Ser Ser Leu Ile Leu His Ser Glu Ala Ala Ile Ala Arg Cys
  210
                    215
                                     220
Lys Gly Ser Ser Asp Tyr Ser Ser Glu His Ala Gln Leu Ser Phe Phe
                230
                                 235
Ala Gly Asn Asp Tyr Val Thr Arg Arg Thr Leu Val Asp Ala Ala His
             245
                             250
Glu Glu Ala Leu Arg Met Asn Arg Arg Phe Asp Glu Arg Ile Ala Met
         260
                           265
                                270
Asn Ala Asp Ser Asp Ala Arg Arg Leu Gln Cys Glu Phe Asn Leu Ser
      275
                       280
                                         285
Asn His Val Val Gln Arg Arg Thr Val Glu Ser Ala His Ile Gln Ala
 290
                    295
                                     300
Ile Asn Glu Asp Val Thr Arg Ser Gln Ala Glu Pro Arg Cys Pro Gly
                310
                                 315
Lys Leu Leu Lys Met Thr Ser His Glu Glu Val Arg Asp Ser Leu
                              330
Ser Thr Cys
<210> 7357
<211> 67
<212> PRT
<213> Enterobacter cloacae
<400> 7357
Leu Gln Met Ser Leu Gln Val Ser His Tyr Asn Met Leu Arg Ala Ser
                                                15
                              10
His Glu Val Ser Gln Lys Val Val Val Arg Thr Val Ile Thr Val Arg
          20
                           25
Phe Val Pro Glu Ala Asp Phe Leu Lys Ile Leu Arg Ala Gln Gln Leu
    35
                     40
Gly Ala Gly His Ile Lys Tyr Pro Gln Asn Tyr Arg Glu Tyr Leu Lys
 50
Phe Leu
65
<210> 7358
<211> 100
<212> PRT
<213> Enterobacter cloacae
<400> 7358
```

Ala Val Gly Gln Ala Thr Leu Gly Ile Asp Thr Asn Val Gly Leu His

Ala Lys Val Pro Leu Ile Ala Phe Leu Gly Leu Met His Leu Arg Ile Ala Leu Leu Phe Val Leu Gly Arg Ala Gly Cys Leu Asn Asp Gly 40 Gly Ile Asp Gln Gly Ala Leu Ser His His Asp Ala Cys Phe Gly Gln 5.5 60 Pro Ala Ile Asp Gly Leu Glu Gln Leu Ala Gly Gln Leu Met Leu Leu 7.0 75 Gln Gln Val Ala Glu Ile His Asp Gly Gly Ala Val Arg Gln Gly Ala Ile Gln Gly 100 <210> 7359 <211> 84 <212> PRT <213> Enterobacter cloacae <400> 7359 His Gly Phe Gln Arg Ile Arg Ser Pro Ala Ile Thr Ser Leu Gly Val 1.0 Lys Arg Leu Asp Asp Phe His His Val Leu Pro Trp Gln Asn Leu Leu 20 25 His Thr Gly Gln Glu Asn Leu Phe Ser Gly Leu Thr Ala Leu Thr Ala 40 Glu Phe Thr Val Gly Glu Gly Lys Leu Met Thr His Asp Glu Pro Cys 60 Ser Met Ala Pro Asp Asp Lys His Asp Leu Ile Ser Gly Thr Cys Ser His Leu Pro <210> 7360 <211> 285 <212> PRT <213> Enterobacter cloacae <400> 7360 Asn Val Pro Arg Gln Phe Ser Gly Gly Phe Phe Met Ile Lys Glu Thr Val Thr Met Ser His Lys Glu Leu Asp Arg Leu His Ile Ile Gln Glu 20 25 3.0 Ser Leu Asn Arg His Ile Thr Gln Glu Gln Ala Ala Ala Arg Ile Gly 40 Ile Ser Ile Arg Gln Val Lys Arg Leu Val Gln Arg Tyr Arg Asn Glu 55 50 Gly Pro Ser Gly Leu Val Ser Arg Arg Arg Gly Lys Arg Pro Asn Asn 7.0 75 Ser Phe Ser Thr Glu Phe Arg Ala Thr Val Ile Ser Leu Leu Lys Gly 85 90 Arg Tyr Ala Asp Phe Gly Pro Thr Leu Ala Cys Glu Lys Leu Arg Glu 100 105 Ile His Gly Leu Cys Leu Ser Ile Glu Thr Leu Arg Lys Trp Met Val 115 120 125

Glu Glu Gly Ile Trp Arg Glu Arg Arg Arg Lys Phe Ala Arg Ile Tyr

Gln Arg Arg Met Arg Arg Pro Ser Tyr Gly Glu Leu Ile Gln Ile Asp

Gly Ser Pro His Asp Trp Phe Glu Gly Arg Gly Pro Lys Cys Thr Leu

155

160

135

```
Ile Val Phe Phe Asp Asp Ala Thr Ser Ala Leu Met Ala Leu Arg Phe
                           185
Ala Pro Ala Glu Thr Thr Arg Ala Tyr Met Glu Thr Leu Arg Gly Tyr
      195
                       200
                                         205
Leu Asn Asp His Gly Val Pro Leu Ala Leu Tyr Ser Asp Arg His Ser
  210
       215
                         220
Ile Phe Arg Val Asn Asn Pro Glu Arg Glu Arg Arg Val Asp Ser Val
              230
                     235
225
                                       240
His Thr Cys Asp Lys Asp Thr Gly His Arg Ala Asn Pro Cys Gln Gln
             245 250 255
Pro Ala Gly Lys Arg Ala Gly Arg Ala Cys Gln Ser Asp Thr Ala Gly
          260 265
Gln Ala Gly Gln Arg Asn Ala Ala Ser Gly Tyr Gln
                       280
<210> 7361
<211> 214
<212> PRT
<213> Enterobacter cloacae
<400> 7361
Arg Gly Phe Met Leu Ile Ile Gly Ala Cys Thr Arg Phe Ile Thr Ser
                              10
Val Ala Trp Ala Leu Asn Arg Arg Arg Arg Lys Gly Leu Ala Thr
        20
                          25
Glu Arg Leu Pro Cys Phe Leu Pro Ala Ala Pro Asn Leu Thr Trp Ser
    35
                40
                                       45
Met Asp Phe Val Met Asp Ala Leu Ser Thr Gly Arg Arg Ile Lys Cys
                 55
Leu Thr Cys Val Asp Asp Phe Thr Lys Glu Cys Leu Thr Val Thr Val
                                  7.5
Ala Phe Gly Ile Ser Gly Val Gln Val Thr Arg Ile Leu Asp Ser Ile
                  90
Ala Leu Phe Arg Gly Tyr Pro Ala Thr Ile Arg Thr Asp Gln Gly Pro
          100
                 105
Glu Phe Thr Cys Arg Ala Leu Asp Gln Trp Ala Phe Glu His Gly Val
                       120
Glu Leu Arg Leu Ile Gln Pro Gly Lys Pro Thr Gln Asn Gly Phe Ile
                    135
                                    140
Glu Ser Phe Asn Gly Arg Phe Arg Asp Glu Cys Leu Asn Glu His Trp
    150 155 160
Phe Ser Asp Ile Val His Ala Arg Lys Ile Ile Asn Asp Trp Arg Gln
             165
                              170 175
Asp Tyr Asn Glu Cys Arg Pro His Ser Thr Leu Asn Tyr Gln Thr Pro
                           185
                                            190
Ser Glu Phe Ala Ala Gly Trp Arg Lys Gly His Ser Glu Asn Glu Asp
      195
                        200
Ser Asp Val Thr Asn
  210
<210> 7362
<211> 351
<212> PRT
<213> Enterobacter cloacae
<400> 7362
Val Leu Tyr Leu Ile Val Gly Ala Gly His Gly Asp Ser Leu Asn Asn
                               10
Ala Asn Met Trp Gly Gly Glu Ile Leu Asn Arg Val Gln Gln Cys Thr
          20
                           25
Ser Tyr Thr Leu Ala Leu Thr Gly Thr Pro Trp Arg Thr Asp Asn Asn
```

```
40
Pro Ile Val Leu Ser Asn Tyr Thr Asp Pro Gln Gly Lys Ile Cys Cys
                 5.5
Asp Tyr Val Tyr Gly Leu His Glu Ala Ile Val Asp Gly Val Cys Arg
               70
                               75
Lys Pro Lys Ile Ala Leu Ile Asn Ser Asn Asn Leu Leu Tyr Ser Ser
Gly Glu Val Val Gln His Phe Asp Ser Ile Ala Gly Phe Leu Ser Glu
       100
                        105
Thr Ile Thr Ser Tyr Gln Ser Ile Ile Trp His Pro Asp Ala Met Lys
     115
                   120
Tyr Leu Leu Lys Ser Gly Cys Lys Leu Cys Glu Ile Arg Lys Val
                          140
                135
Asn Ser Asp Ala Gly Gly Leu Val Val Ala Ser Ser Val Glu His Ala
145 150 155 160
Tyr Gln Leu Leu Asn Ile Leu Glu Asn Glu Phe Ala Gln Thr Ala Thr
       165 170
Ile Val Thr Tyr His Asp Arg Asp Ala Leu Val Lys Ile Glu Asn Tyr
      180 185 190
Arg Gln Ser Thr Thr Glu Trp Ile Val Ser Val Gly Met Ile Ser Glu
195 200 205
Gly Thr Asp Ile Pro Arg Leu Gln Val Cys Cys His Leu Ser Ser Val
210 215 220
Lys Thr Glu Leu Tyr Phe Arg Gin Val Leu Gly Arg Ile Leu Arg Val
225 230 235
Asn Gln Ser Glu Asn Gln Glu Ala Trp Leu Phe Thr Ile Ala Thr Asp
      245 250 255
Glu Leu Thr Leu Phe Ser Asn Arg Leu Ala Glu Asp Leu Pro Glu Asp
        260 265 270
Tyr Lys Ile Leu Gln Lys Gln Ser Asp Glu Trp Ser Leu Ser Ile His
    275 280 285
Glu Thr Glu Ser Thr Ser Pro Glu Ile Val Arg Arg Asn Gly Met Ser
 290 295 300
Lys Ile Gly Glu Phe Asn Leu Lys Met Asn Phe Ser Glu Ile Thr Ile
305 310 315
Ser Pro Pro Ala Val Leu Asp Lys Thr Lys Gln Leu Asn Met Gly Ser
          325 330 335
Leu Tyr Gln Gln Val Ile Asp Ala Phe Leu Phe Ser Val Ile
<210> 7363
<211> 93
<212> PRT
<213> Enterobacter cloacae
<400> 7363
Ser Ala Ala Trp Arg Gly Ala Ile Cys Leu Ser Arg Cys Arg Leu Pro
                            10
Arg Gly Ala Thr Ala Arg Gly Ala Gly Arg Gly Gly Cys Gly Leu Ala
                         2.5
                                        30
Asp Arg Arg Ala Pro Arg Gln Gly Lys Asn Leu Glu Thr Ala Ser Thr
     35
                   40
Gln Glu Gln Asn Gly His Gln His Arg Ile His Glu Ser Gln His Pro
                                  60
Gly Gln Gly Gly Ala Pro Ile Ser His His Gln Ala Thr Val Arg Leu
                              75
             7.0
```

Arg Glu Ser Gln Ile Gln Gly Val Ala Glu Lys Arg

85

<210> 7364 <211> 230

```
<212> PRT
<213> Enterobacter cloacae
<400> 7364
Ile Thr Arg Ser Gly Lys Gly Glu Leu Thr Gln Phe Thr Arg Ala Ile
                            10
Lys Thr Leu Gly Ile Glu Pro Ile His Ala Asn Ser Pro Gln Ala Lys
         20
                           25
                                           3.0
Gly Arg Val Glu Arg Ala Asn Gln Thr Leu Gln Asp Arg Leu Val Lys
 35
                     4.0
                                       4.5
Glu Met Arg Leu Gln Gly Ile Ser Asp Ile Glu Thr Ala Asn Ala Trp
                    55 60
Leu Pro Thr Phe Ile Glu Ala Tyr Asn Asn Arg Phe Ala Thr Pro Pro
          70 75
Arg Ile Ala Asp Asn Ala His Leu Asp Val His His Ser Glu Glu Glu
            85 90
Leu Gly Tyr Ile Phe Ser Leu Gln Ala Lys Arg Val Leu Ser Lys Asn
         100 105
Leu Thr Phe Gln Tyr Lys Ser Ser Ala Phe Gln Ile Arg Ser Glu Gly
              120 125
Arg Gly Tyr Arg Leu Arg His Ser Val Val Thr Val Cys Glu Ser Phe
       1.35
                                    140
Asn Gly Glu Ile Lys Val Leu Tyr Asp Gly Lys Ala Leu Gly Trp Glu
                150 155
Lys Tyr Val Asp Gly Pro Glu Pro Ile Pro Leu Asp Asp Glu Lys Ser
             165
                             170 175
Val His Glu Arg Val Asp Asn Ala Arg Phe Asp Leu Arg Ser Lys Phe
         180
                          185 190
Tyr Val Lys Pro Lys Ala Asp His Pro Trp Leu Thr Arg Arg Thr Gln
195 200 205
Ser Asn Gln Gln Val Lys Pro Pro Lys Leu Pro Arg Lys Lys Ala Asp
210
                    215
                                     220
Pro Asp Lys Met Asp
<210> 7365
<211> 316
<212> PRT
<213> Enterobacter cloacae
<400> 7365
Ser Ser Tyr Phe Arg Lys Leu Ile Met Thr Lys Thr Lys Gly Leu Pro
                              10
Arg Pro Leu Thr His Tyr Ala Trp Leu Ser Ile Ala Thr Ala Ile Ala
        20
                          25
Thr Ile Gly Leu Lys Gly Val Ala Trp Lys Met Thr Gly Ser Val Gly
      35
                       40
                                        45
Leu Leu Ser Asp Ala Ile Glu Ser Val Val Asn Leu Ala Gly Ala Leu
 50
                   55
                                    60
Met Ala Leu Trp Met Leu Thr Leu Ala Ala Leu Pro Ala Asp Glu Asn
                                 75
                70
His Ala Tyr Gly His Gly Lys Ala Glu Tyr Phe Ser Ser Ala Phe Glu
             85
Gly Phe Leu Ile Leu Leu Ala Ala Ala Ser Ile Ala Tyr Thr Ala Val
          100
                        105
Glu Arg Met Leu Thr Pro Gln Pro Leu Glu Glu Ile Gly Leu Gly Leu
                 120
                                       125
Leu Val Ser Thr Val Ala Ser Ile Leu Asn Phe Val Thr Ala Arg Ile
                  135
Leu Leu Arg Ala Gly Arg Gln His Asn Ser Ile Thr Leu Glu Ala Asp
```

```
3345
Ala His His Leu Leu Thr Asp Val Trp Thr Ser Val Gly Val Ile Phe
             165
                             170
Gly Val Gly Leu Val Tyr Leu Thr Gly Trp Phe Trp Val Asp Pro Ile
         180
                        185
                                           190
Val Ala Leu Leu Val Ala Ala Asn Ile Val Trp Thr Gly Tyr Gln Leu
     195 200
                                     205
Met Ser Arg Ser Ala Ala Gly Leu Met Asp Val Ser Leu Pro Thr Glu
                   215 220
Glu Leu Lys Lys Ile Glu Ser Leu Leu Ala Gly Tyr Arg Glu Gln Gly
225 230 235
Leu Asp Phe His Ala Leu Arg Tnr Arg Gln Ala Gly Gly Arg Ala Phe
            245
                             250
Met Thr Met His Ile Leu Val Pro Gly Arg Trp Thr Val Gln Tyr Gly
         260 265 270
His Asp Trp Ala Glu Arg Ile Glu Asn Asp Ile Arg Thr Ala Leu Pro
     275
                      280
                             285
Phe Ile His Ile Thr Thr His Val Glu Pro Leu Glu Asp Pro Ala Ser
290 295
Met Asn Asp Gln Thr Leu Asp Ile Ser Asp His
                310
<210> 7366
<211> 98
<212> PRT
<213> Enterobacter cloacae
<400> 7366
Thr Leu Met Ala Tyr Phe Leu Asp Phe Asp Glu Arg Ala Leu Lys Glu
                           1.0
Trp Arg Lys Leu Gly Ser Thr Val Arg Glu Gln Leu Lys Lys Lys Leu
         20
                          25
                                           30
Val Glu Val Leu Glu Ser Pro Arg Ile Glu Ala Asn Lys Leu Arg Gly
    35
                      4.0
                              4.5
Met Pro Asp Cys Tyr Lys Ile Lys Leu Arg Ser Ser Gly Tyr Arg Leu
                   55
                             60
Val Tyr Gln Val Ile Asp Glu Lys Val Val Val Phe Val Ile Ser Val
                70
                              75
```

<210> 7367 <211> 342 <212> PRT <213> Enterobacter cloacae

T.e.11

<400> 7367 Tyr Glu Ile Met Phe Val Ile Trp Ser His Gly Thr Gly Phe Ile Met 10 Ser His Gln Leu Thr Phe Ala Asp Ser Glu Phe Ser Ser Lys Arg Arg 20 25 30 Gln Thr Arg Lys Glu Ile Phe Leu Ser Arg Met Glu Gln Ile Leu Pro 35 40 Trp Gln Asn Met Val Glu Val Ile Glu Pro Phe Tyr Pro Lys Ala Gly 50 55 60 Asn Gly Arg Arg Pro Tyr Pro Leu Glu Thr Met Leu Arg Ile His Cys 70 75 Met Gln His Trp Tyr Asn Leu Ser Asp Gly Ala Met Glu Asp Ala Leu 90 Tyr Glu Ile Ala Ser Met Arg Arg Phe Ala Arg Leu Ser Leu Asp Ser

Gly Lys Arg Glu Arg Ser Glu Val Tyr Ser Glu Ala Val Lys Arg Ile

```
100
                         105
Ala Leu Pro Asp Arg Thr Thr Ile Met Asn Phe Arg His Leu Leu Glu
      115
                     120
                             125
Gln His Gln Leu Ala Arg Gln Leu Phe Lys Thr Ile Asn Arg Trp Leu
 130
         135
                          140
Ala Glu Ala Gly Val Met Met Thr Gln Gly Thr Leu Val Asp Ala Thr
    150 155
Ile Ile Glu Ala Pro Ser Ser Thr Lys Asn Lys Glu Gln Gln Arg Asp
         165 170 175
Pro Glu Met His Gln Thr Lys Lys Gly Asn Gln Trp His Phe Gly Met
      180 185 190
Lys Ala His Ile Gly Val Asp Ala Lys Ser Gly Leu Thr His Ser Leu
   195 200 205
Val Thr Thr Ala Ala Asn Glu His Asp Leu Asn Gln Leu Gly Asn Leu
 210 215 220
Leu His Gly Glu Glu Gln Phe Val Ser Ala Asp Ala Gly Tyr Gln Gly
225 230 235
Ala Pro Gln Arg Glu Glu Leu Ala Glu Val Asp Val Asp Trp Leu Ile
      245 250 255
Ala Glu Arg Pro Gly Lys Val Arg Thr Leu Lys Gln His Pro Arg Lys
  260 265 270
Asn Lys Thr Ala Ile Asn Ile Glu Tyr Met Lys Ala Ser Ile Arg Ala
275 280
                          285
Lys Val Glu His Pro Phe Arg Ile Ile Lys Arg Gln Phe Gly Phe Val
 290 295 300
Lys Ala Arg Tyr Lys Gly Leu Leu Lys Asn Asp Asn Gln Leu Ala Met
305 310 315
Leu Phe Thr Leu Ala Asn Leu Phe Arg Ala Asp Gln Met Ile Arg Gln
            325
                           330
Trp Glu Arg Ser His
         340
<210> 7368
<211> 458
<212> PRT
<213> Enterobacter cloacae
<400> 7368
Ser Pro Leu Phe Phe Arg Ala Ser Arg Cys Ser Thr Phe Ala Asn Glu
Tyr Ser Gly His Ala Asp Lys Leu Leu Ala Ile Phe Leu Ser Lys Ser
                                        30
Val Glu Cys Ile Pro Ile Pro Asp Lys Lys Glu Leu Val Met Thr Val
                   40
 35
                                     45
Thr Asn Gln Phe Ala Ala His Val Gly Leu Asp Trp Ala Asp Lys Lys
                55
                                  60
His Asp Val Cys Val Gln Phe Lys Asn Gly Glu Arg Val Phe Asp Val
               70
                               75
                                              80
Ile Glu His Thr Ala Glu Ala Leu Asp Ala Trp Leu Thr Glu Leu His
            85
                           90
Gln Lys Val Lys Gly Arg Ile Ala Ile Ala Leu Glu Leu Lys Lys Gly
         100
                        105
                            110
Pro Val Val Tyr Ala Leu Gln Lys Tyr Pro Phe Ile Thr Val Phe Pro
     115
                     120
Val His Ala Leu Ser Leu Ala Arg Tyr Arg Gln Ala Phe Ser Pro Ser
```

135

165

Gly Ala Lys Asp Asp Pro Gln Asp Ala Glu Leu Ala Leu Glu Leu Met 150

Leu Arg Tyr Pro Gln Lys Ile Lys Ala Ile Glu Pro Asp Asn Ala Asp

Ile Arg Leu Leu Gln Gln Leu Val Glu Gln Arg Arg Gln Leu Val Glu

170

140

```
180
                      185
Asp Lys Arg Arg Phe Val Asn Arg Ile Ile Asn Thr Leu Lys Gln Tyr
            200
                            205
   195
Tyr Pro Gln Pro Leu Glu Trp Phe Ser His Arg Gly Ser Leu Leu Leu
 210 215
                               220
Cys Glu Leu Ile Ile Arg Trp Pro Ser Leu Gln Gln Leu Lys Arg Ala
225 230 235
Arg Arg Asp Thr Ile Arg Asn Phe Leu Asn Ala Lys Gly Gly Arg Ala
      245 250 255
Met Ala Leu Thr Glu Gln Arg Val Ala Ser Ile Asp Asn Ala Ile Pro
     260 265 270
Leu Thr Thr Asp Pro Ser Val Ile Glu Ala Asn Ala Leu Met Ala Ala
275 280 285
Ala Leu Ala Thr Gln Ile Lys Val Val Ser Glu Ile Ile Lys Thr Tyr
 290 295 300
Asp Glu Arg Ile Glu Thr Leu Phe Asp Thr Leu Pro Asp Ala Gly Leu
305 310 315 320
Phe Lys Ser Leu Pro Gly Met Gly Pro Cys Met Gly Pro Arg Met Leu
          325 330 335
Ala Ala Leu Gly Asp Asn Arg Asp Arg Phe Asn Ser Ala Glu Glu Ile
      340 345 350
Gln Asn Tyr Ala Gly Ile Ala Pro Val Thr Glu Arg Ser Gly Gln Lys
355 360 365
Ser Trp Val His Trp Arg Trp Gln Cys Ala Lys Phe Val Arg Gln Thr
370 375 380
Phe Val Glu Trp Ala Ala Lys Thr Val Asn Ser Ser Tyr Trp Ala Lys
385 390 395
Leu Tyr Tyr Gln Gly Leu Arg Glu Lys Gly Lys Ser His Gln Ser Ala
        405 410 415
Ile Arg Ala Leu Ala Phe Lys Trp Ile Arg Ile Ile Tyr Arg Cys Trp
      420 425 430
Lys Ala Arg Thr Cys Tyr Asp Glu Ala Lys Tyr Leu Leu Ala Leu Glu
 435 440
Ala Arq His Ser Pro Leu Leu Lys Pro
  450
                 455
<210> 7369
<211> 81
<212> PRT
<213> Enterobacter cloacae
<400> 7369
Asp Met Gly Ser Ile Asn Leu Arg Ile Asp Asp Glu Leu Lys Ala Arg
                        10
Ser Tyr Ala Ala Leu Glu Lys Met Gly Val Thr Pro Ser Glu Ala Leu
   20
               25
                                      3.0
Arg Leu Met Leu Glu Tyr Ile Ala Asp Asn Glu Arg Leu Pro Phe Lys
   35
                    40
                                  4.5
Gln Thr Leu Leu Ser Asp Glu Asp Ala Glu Leu Val Glu Ile Val Lys
              55
                       60
Glu Arg Leu Arg Asn Pro Lys Pro Val Arg Val Thr Leu Asp Glu Leu
              7.0
                             75
```

```
<210> 7370
```

<sup>&</sup>lt;211> 63

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;400> 7370

```
His Phe Cys Phe Ala Leu Thr Gly Glu Glu Gly His Glu Asn Ala Glu
Pro Thr His Cys Phe Val His Ile Asn Ser Leu Phe Asn Ala Val Asp
                         25
Ile His Leu Ala His Thr Lys Leu Ala Leu Arg Val Ala Asp Glu Arg
Arg Asn Lys Gly Gly Ile Cys Tyr Pro Gly Leu Arg Ile Arg
<210> 7371
<211> 404
<212> PRT
<213> Enterobacter cloacae
<400> 7371
Leu Cys Tyr Gly His Gln Lys Leu Lys Arg Val Glu Val Lys Gln Met
Lys Ile Thr Ile Ser Gly Thr Gly Tyr Val Gly Leu Ser Asn Gly Ile
                         25
   20
Leu Ile Ala Gln Asn His Glu Val Val Ala Leu Asp Ile Val Gln Ala
35
          40
Lys Val Asp Met Leu Asn Gln Lys Lys Ser Pro Ile Val Asp Lys Glu
50 55
Ile Glu Glu Tyr Leu Ala Thr Lys Pro Leu Asn Phe Arg Ala Thr Thr
   70
                       75
Asp Lys Glu Asp Ala Tyr Arg Asp Ala Asp Phe Val Ile Ile Ala Thr
                90
Pro Thr Asp Tyr Asp Pro Lys Thr Asn Tyr Phe Asn Thr Ser Thr Val
      100 105 110
Glu Ala Val Ile Lys Asp Val Thr Ala Ile Asn Pro Asn Ala Val Met
115 120 125
Ile Ile Lys Ser Thr Ile Pro Val Gly Phe Thr Lys Ser Ile Lys Glu
130 135 140
Glu Leu Gly Ile Asp Asn Val Phe Phe Ser Pro Glu Phe Leu Arg Glu
145 150 155
Gly Arg Ala Leu Tyr Asp Asn Leu His Pro Ser Arg Ile Val Ile Gly
           165 170
Glu Arg Ser Glu Arg Ala Glu Arg Phe Ala Ala Leu Leu Gln Glu Gly
        180 185 190
Ala Ile Lys Lys Asp Ile Pro Val Leu Phe Thr Asp Ser Thr Glu Ala
      195 200 205
Glu Ala Ile Lys Leu Phe Ala Asn Thr Tyr Leu Ala Met Arg Val Ala
 210 215 220
Tyr Phe Asn Glu Leu Asp Ser Tyr Ala Glu Ser Leu Gly Leu Asn Thr
225 230
                               235
Arg Gln Ile Ile Glu Gly Val Cys Leu Asp Pro Arg Ile Gly Asn His
            245
                            250
Tyr Asn Asn Pro Ser Phe Gly Tyr Gly Gly Tyr Cys Leu Pro Lys Asp
                       265
      260
Thr Lys Gln Leu Leu Ala Asn Tyr Gln Ala Val Pro Asn Asn Leu Ile
                     280
                                      285
Ser Ala Ile Val Asp Ala Asn Arg Thr Arg Lys Asp Phe Ile Ser Asp
 290
                  295
                                  300
Ser Ile Leu Ala Arg Gln Pro Lys Val Val Gly Val Tyr Arg Leu Ile
               310
                                315
Met Lys Ser Gly Ser Asp Asn Phe Arg Ala Ser Ser Ile Gln Gly Ile
            325
                            330
Met Lys Arg Ile Lys Ala Lys Gly Val Gln Val Ile Ile Tyr Glu Pro
         340
                         345
Ala Met Gln Glu Asp Glu Phe Phe His Ser Arg Val Ile Arg Asp Leu
```

```
Asp Ala Phe Lys Lys Glu Ala Asp Val Ile Ile Ser Asn Arg Met Ala
Glu Glu Leu Ala Asp Val Lys Asp Lys Val Tyr Thr Arg Asp Leu Phe
            390
                                 395
Gly Ser Asp
<210> 7372
<211> 156
<212> PRT
<213> Enterobacter cloacae
<400> 7372
Arg Ala Gln Thr Ser Ser Tyr Ser Glu Thr Leu Glu Pro Ala Ser Val
Pro Ser Arg Glu Ile Ser Val His Arg Thr Cys Phe Ser Pro Thr Gly
           20
                              25
Arg Tyr Ile Pro Thr Ser Ser Ser Ser Val Thr Pro Glu Phe Ser Cys
    35
                          40
Gln Pro Leu Thr Ala Thr Cys Leu Leu Pro Cys Ser Ser Met Arg Thr
                       5.5
Ser Ser Ala Ser Thr Ser Ala Ser Ala Pro Lys Arg Arg Asn Gln Pro
                                       75
                   7.0
Leu Thr Leu Ser Gly Ser Phe Thr Ala Val Glu Pro Thr Thr Thr Arg
              8.5
                                   90
Ala Thr Pro Ala Ser Ser Lys Ala Ala Thr Ser Ala Ser Val Arg Thr
           100
Pro Pro Pro Thr Cys Thr Gly Thr Ser Thr Pro Ala Thr Ser Val Leu
                           120
 115
Ser Ser Gly Ile Trp Arg Phe Ala Gly Ser Phe Ala Pro Val Arg Ser
130
                       135
Thr Arg Cys Asn Thr Ser Ala Pro Ser Ala Ala
145
<210> 7373
<211> 117
<212> PRT
<213> Enterobacter cloacae
<400> 7373
Glu Trp Ile Leu Ser Arg Thr Pro Gly Gln Lys Ser Pro Ala His Arg
Pro Leu Tyr Arg Ser Pro Ala Arg Arg Thr Ala Ser Pro Arg Thr Gly
           20
                               25
Ser His Arg Gln Leu Val Glu Glu Ser Arg Ala Pro Pro Ser Asp Asn
    35
                           40
Arg Gln Tyr Val Pro Gly Trp Pro Ala Ser Gly Arg Ser Lys Thr Ala
   5.0
                       55
                                          60
Glu Gln Ser Arg Arg Glu Tyr Arg Gly Arg Arg Thr Pro Pro Val Ala
                   70
                                       75
Ser Pro Ala Gly Ser Ala Arg Arg Ala Gly Phe Pro His Pro Pro Pro
               85
                                  90
Ala Ile Ser Ala Arg Cys Gly Arg Tyr Gln Tyr Phe Ser Pro Arg Arg
           100
                               105
Pro Ser Pro Val
<210> 7374
<211> 381
<212> PRT
```

<213> Enterobacter cloacae

```
<400> 7374
Arg Tyr Arg Ala Phe Leu Ser Tyr Pro Ile His Leu Leu Phe Asn Gly
                     10
           - 5
Ile Asp Cys Val Lys Ile Leu Val Thr Gly Gly Ala Gly Phe Ile Gly
                     25
      20
Ser Ala Val Ile Arg His Ile Ile Ser Asn Thr Arg Asp Ser Val Val
 3.5
                 4.0
                        4.5
Asn Val Asp Lys Leu Thr Tyr Ala Gly Asn Leu Glu Ser Leu Arg Glu
50 55
                    60
Val Ser Asp Ser Glu Arg Tyr Val Phe Glu His Ala Asp Ile Cys Asp
65 70 75
Lys Glu Ala Met Ala Arg Ile Phe Ala Thr His Gln Pro Asp Ala Val
                90 95
        85
Met His Leu Ala Ala Glu Ser His Val Asp Arg Ser Ile Thr Gly Pro
        100 105 110
Ala Ala Phe Ile Glu Thr Asn Ile Phe Gly Thr Tyr Ile Leu Leu Glu
     115 120
Thr Ser Arg Ala Tyr Trp Ser Ser Leu Asp Glu Ala Ala Lys Ser Ala
 130
                135 140
Phe Arg Phe His His Ile Ser Thr Asp Glu Val Tyr Gly Asp Leu Pro
145 150 155 160
His Pro Asp Glu His Ser Asp Ser Thr Pro Leu Pro Leu Phe Thr Glu
           165 170 175
Lys Thr Ala Tyr Gln Pro Ser Ser Pro Tyr Ser Ala Ser Lys Ala Ser
        180 185
                                      190
Ser Asp His Leu Val Arg Ala Trp Ile Arg Thr Tyr Gly Leu Pro Gly
                   200
                                   205
Ile Val Thr Asn Cys Ser Asn Asn Tyr Gly Pro Tyr His Phe Pro Glu
 210
      215 220
Lys Leu Ile Pro Leu Val Ile Leu Asn Ala Leu Asp Asn Lys Pro Leu
225 230
                             235
Pro Ile Tyr Gly Lys Gly Asp Gln Ile Arg Asp Trp Leu Tyr Val Glu
           245
                          250 255
Asp His Ala Arg Ala Leu Tyr Thr Val Leu Thr Thr Gly Lys Pro Gly
        260
                       265
                                     270
Glu Thr Tyr Asn Ile Gly Gly His Asn Glu Lys Lys Asn Ile Glu Val
                    280 285
     275
Val Gln Thr Ile Cys Asp Leu Leu Asp Asp Met Val Pro Lys Glu Thr
                 295
  290
                                300
Ser Tyr Arg Ala Gln Ile Thr Tyr Val Ala Asp Arg Pro Gly His Asp
              310
                             315
Arg Arg Tyr Ala Ile Asp Ala His Lys Ile Ser Asp Glu Leu Gly Trp
           325
                          330
                                        335
Thr Pro Val Glu Thr Phe Glu Ser Gly Ile Arg Lys Thr Val Lys Trp
                                      350
        340
                       345
Tyr Leu Asn Asn Gln Glu Trp Val Ser Asn Val Lys Ser Gly Ala Tyr
 355
                    360
Lys Ser Trp Ile Glu Gln Asn Tyr Gly Glu Arg Lys
                 375
  370
<210> 7375
```

<sup>&</sup>lt;211> 294

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;400> 7375

Met Thr Lys Arg Lys Gly Ile Ile Leu Ala Gly Gly Ser Gly Thr Arg 10 Leu Tyr Pro Val Thr Met Ala Val Ser Lys Gln Leu Leu Pro Ile Tyr 20

```
Asp Lys Pro Met Ile Tyr Tyr Pro Leu Ser Thr Leu Met Leu Ala Gly
     35
                      40
Ile Arg Asp Ile Leu Ile Ile Ser Thr Pro Gln Asp Thr Pro Arg Phe
                  5.5
                                   60
Glu Gln Leu Leu Gly Asn Gly Ser Gln Trp Gly Leu His Ile Gln Tyr
              70
                                75
                                               8.0
Lys Val Gln Pro Ser Pro Asp Gly Leu Ala Gln Ala Phe Ile Leu Gly
         85 90
                                            95
Glu Glu Phe Ile Gly Glu Asp Asn Cys Ala Leu Val Leu Gly Asp Asn
        100 105 110
Ile Phe Tyr Gly His Asp Leu Pro Arg Leu Leu Glu Gly Ala Ala Ser
 115
           120 125
Gln Gln Glu Gly Ala Thr Val Phe Ala Tyr His Val Ser Asp Pro Glu
            135 140
Arg Tyr Gly Val Val Glu Phe Asp Lys Asp Gly Thr Ala Ile Gly Leu
145
               150 155
Glu Glu Lys Pro Gln Gln Pro Lys Ser Asn Tyr Ala Ile Thr Gly Leu
            165 170
Tyr Phe Tyr Asp Asn Asp Val Val Glu Met Ala Lys Ser Leu Thr Pro
                         185 190
         180
Ser Glu Arg Gly Glu Leu Glu Ile Thr Asp Ile Asn Arg Ile Tyr Met
     195
                      200
                          205
Gln Gln Gly Arg Leu Ser Val Ala Met Met Arg Arg Gly Tyr Ala Trp
        215
                                   220
 210
Leu Asp Thr Gly Thr His Gln Ser Met Ile Glu Ala Ser Asn Phe Ile
225
                230
                               235
Ala Thr Ile Glu Glu Arg Gln Gly Leu Lys Val Ser Cys Pro Glu Glu
                         250 255
            245
Ile Ala Phe Arg Arg Gly Phe Ile Asp Ala Glu Gln Leu Arg Val Leu
                         265 270
         260
Ala Glu Pro Leu Lys Lys Thr Gly Tyr Gly Gln Tyr Leu Leu Asn Leu
 275
                      280
Thr Lys Gly Leu Val
  290
<210> 7376
```

<210> 7376 <211> 292 <212> PRT

<213> Enterobacter cloacae

<400> 7376 Ala Glu Asn Val Met Lys Lys Val Ala Ile Val Gly Leu Gly Trp Leu 15 10 Gly Met Pro Leu Ala Met Ser Leu Ala Ala Lys Gly Trp Gln Val Thr 20 Gly Ser Lys Thr Thr Arg Aso Gly Val Glu Ala Ala Arg Met Cys Gly 35 40 Ile Asp Gly Val Glu Leu Arg Leu Glu Pro Glu Leu Ile Cys Asp Thr 55 Asp Glu Leu Asp Glu Leu Met Asn Val Asp Ala Leu Val Ile Thr Leu 70 7.5 65 Pro Ala Arg Arg Ser Gly Pro Ser Glu Thr Phe Tyr Leu Gln Ala Val 85 90 95 Gln Glu Ile Val Asp Ser Ala Leu Ala His His Ile Pro Arq Ile Ile 100 105 110 Phe Thr Ser Ser Thr Ser Val Tyr Gly Ala Ile Asp Gly Thr Ala Lys 115 Glu Asn Thr Glu Arg Arg Pro Val Thr Ala Ser Gly Arg Val Leu Lys 135 140 Glu Leu Glu Asp Trp Leu His Asn Leu Pro Gly Thr Gln Val Asp Ile 150 155

```
Leu Arg Leu Ala Gly Leu Val Gly Pro Gly Arg His Pro Gly Arg Phe
          165
                      170
                                            175
Phe Ala Gly Lys Ser Ala Pro Asp Gly Gln His Gly Val Asn Leu Val
         180
                         185
                                         190
His Leu Glu Asp Val Ile Gly Ala Ile Glu Leu Leu Gln Ala Pro
                     200
     195
Lys Gly Gly His Ile Tyr Asn Ile Cys Ala Pro Ser His Pro Pro Arg
             215
 210
Ser Thr Phe Tyr Pro Leu Met Ala Arg Gln Leu Gly Leu Ala Pro Pro
    230 235
Val Phe Ser Asp Ala Gln Gly Glu Arg Lys Gly Lys Ile Ile Asp Gly
         245 250 255
Asn Arg Ile Cys His Glu Leu Gly Phe Glu Tyr Gln Tyr Pro Asp Pro
       260 265
                             270
Leu Val Met Pro Thr Glu Tyr Phe Ser Leu Thr Lys Arg Pro Gly Pro
  275 280 285
Ala Leu Asn Ala
  290
<210> 7377
<211> 483
<212> PRT
<213> Enterobacter cloacae
<400> 7377
Cys Leu Ala Arg Leu Leu Pro Thr Pro Leu Gly Glu Asp Gly Met Ser
                           10
Arg Gln Gln Ile Gly Val Ile Gly Met Ala Val Met Gly Arg Asn Leu
                    25
Ala Leu Asn Ile Glu Ser Arg Gly Tyr Thr Val Ser Ile Phe Asn Arg
                     40
Ser Arg Asp Lys Thr Glu Glu Val Ile Ala Glu Asn Pro Gly Lys Lys
50 55 60
Leu Val Pro Phe Tyr Thr Val Lys Glu Phe Val Glu Ser Leu Glu Thr
             70 75
Pro Arg Arg Ile Leu Leu Met Val Lys Ala Gly Ala Gly Thr Asp Ala
           8.5
                            90
Ala Ile Asp Ser Leu Lys Pro Tyr Leu Asp Lys Gly Asp Ile Ile Ile
        100 105 110
Asp Gly Gly Asn Thr Phe Phe His Asp Thr Ile Arg Arg Asn Arg Glu
     115 120
Leu Ser Ala Glu Gly Phe Asn Phe Ile Gly Thr Gly Val Ser Gly Gly
 130
                135
                                 140
Glu Glu Gly Ala Leu Lys Gly Pro Ser Ile Met Pro Gly Gly Gln Lys
    150
Glu Ala Tyr Glu Leu Val Ala Pro Ile Leu Thr Lys Ile Ala Ala Val
            165
                            170 175
Ala Glu Asp Gly Glu Pro Cys Val Thr Tyr Ile Gly Pro Asp Gly Ala
         180 185
                                       190
Gly His Tyr Val Lys Met Val His Asn Gly Ile Glu Tyr Gly Asp Met
                      200
      195
                                      205
Gln Leu Ile Ala Glu Ala Tyr Ser Leu Leu Lys Gly Gly Leu Asn Leu
   210
                  215
                                   220
Ser Asn Glu Glu Leu Ala Glu Thr Phe Thr Glu Trp Asn Lys Gly Glu
225
            230
                                235
Leu Asn Ser Tyr Leu Ile Asp Ile Thr Lys Asp Ile Phe Thr Lys Lys
             245
                             250
Asp Glu Glu Gly Lys Tyr Leu Val Asp Val Ile Leu Asp Glu Ala Ala
         260
                         265
Asn Lys Gly Thr Gly Lys Trp Thr Ser Gln Ser Ser Leu Asp Leu Gly
```

Glu Pro Leu Ser Leu Ile Thr Glu Ser Val Phe Ala Arg Tyr Ile Ser 295 300 290 Ser Leu Lys Glu Gln Arg Val Ala Ala Ser Lys Val Leu Ser Gly Pro 315 305 Gln Ala Lys Pro Ala Gly Asp Lys Ala Glu Phe Val Glu Lys Val Arg 330 325 Arg Ala Leu Tyr Leu Gly Lys Ile Val Ser Tyr Ala Gln Gly Phe Ser 345 Gln Leu Arg Ala Ala Ser Asp Glu Asn Asn Trp Asp Leu Asn Tyr Gly 355 360 365 Glu Ile Ala Lys Ile Phe Arg Ala Gly Cys Ile Ile Arg Ala Gln Phe 380 370 375 Leu Gln Lys Ile Thr Asp Ala Tyr Ala Glu Asn Ala Gly Ile Ala Asn 385 390 395 Leu Leu Leu Ala Pro Tyr Phe Lys Gln Ile Ala Asp Asp Tyr Gln Gln 405 410 415 Ala Leu Arg Asp Val Val Ala Tyr Ala Val Gln Asn Gly Ile Pro Val 420 425 430 Pro Thr Phe Ser Ala Ala Val Ala Tyr Tyr Asp Ser Tyr Arg Ala Ala 435 440 445 Val Leu Pro Ala Asn Leu Ile Gln Ala Gln Arg Asp Tyr Phe Gly Ala 450 455 460 His Thr Tyr Lys Arg Thr Asp Lys Glu Gly Val Phe His Thr Glu Trp 475 470 Leu Asp

<210> 7378 <211> 381 <212> PRT

<213> Enterobacter cloacae

<400> 7378 Cys Pro Arg Thr Ser Glu Ser Ala Tyr Asp Ser Ala Ser Tyr Phe Thr 10 Tyr Ile Thr His Leu Ser Asp Ile Thr His Arg Ile Leu Ile Glu Lys 25 Ser Pro Ala Thr Asp Thr Leu Arg Lys Gln Asp Tyr Phe Cys Pro Phe 40 Ser Ser Val Arg Asp Cys Met Thr Gln Asn Asn Asn Ser Leu Val Thr Arg Asn Asn Asp Pro Glu Gln Ile Asp Leu Leu Asp Leu Val Leu Gln 70 75 Leu Trp Arg Gly Lys Trp Val Ile Gly Ala Phe Val Ala Ala Phe Ile 90 85 Val Leu Ala Val Val Tyr Ile Thr Val Ala Lys Glu Lys Trp Thr Ser 100 105 Ser Ala Ile Ile Ala Gln Pro Asp Ala Ala Gln Ile Ala Thr Tyr Ser 120 125 115 Asn Ala Leu Asn Ile Leu Tyr Gly Gly Ala Ala Pro Ser Met Leu Asp 135 140 Ile Gln Asn Arg Ala Ile Gly Arg Phe Asn Ser Ser Phe Ser Ala Leu 145 150 155 Ala Gln Ala Leu Glu Asn Gln Glu Asp Pro Glu Lys Leu Thr Ile Glu 165 170 Pro Thr Val Lys Gly Gln Ser Leu Pro Leu Thr Val Ser Tyr Gln Gly 185 190 180 Glu Ser Ala Asp Ala Ala Gln Lys Gln Leu Ala Gln Tyr Ile Gln Gln 205 195 200 Val Asp Glu Gln Thr Ala Lys Glu Leu Thr Leu Asp Leu Arg Asp Asn 210 215 220

```
Leu Lys Gln Gln Ile Thr Thr Leu Asn Asp Ser Leu Gln Asn Gln Glu
                     235
       230
Lys Val Ala Gln Glu Gln Lys Asp Leu Arg Ile Lys Gln Ile Ser Glu
          245 250
Ala Tyr Lys Asn Ala Glu Ala Ala Asn Ile Ser Thr Pro Gln Leu Gln
       260 265
Gln Thr Gln Asp Val Thr Gln Glu Thr Met Phe Leu Leu Gly Thr Val
 275 280 285
Ala Leu Lys Ser Met Ile Asp Asn Glu Ala Ser Arg Pro Leu Val Phe
 290 295 300
Ser Gly Ala Tyr Tyr Gln Thr Lys Gln Asn Leu Leu Asp Ile Gln Asn
              310 315 320
Leu Asn Val Asn Pro Asp Thr Ile His Val Tyr Arg Tyr Val Met Lys
325 330 335
Pro Asn Leu Pro Ile Arg Arg Asp Ser Pro Lys Lys Ala Ile Thr Leu
         340
                          345 350
Ile Leu Ala Val Leu Leu Gly Gly Ile Ile Gly Ser Ala Val Val Leu
    355 360
Gly Arg Asn Ala Leu Arg Asn Tyr Lys Pro Arg Ala
                    375
   370
<210> 7379
<211> 328
<212> PRT
<213> Enterobacter cloacae
<400> 7379
Lys Ser Pro Arg Lys Ile Phe Phe Arg Gly Leu Phe Phe Gly Pro His
                              1.0
Ser Asp Arg Leu Lys Gln Val Asn Glu Glu His Arg Met Leu Asp Asn
 20
                           25
Ser Arg Leu Arg Ile Ala Ile Gln Lys Ser Gly Arg Leu Ser Asp Asp
                       4.0
35
Ser Arg Glu Leu Leu Ala Arg Cys Gly Ile Lys Ile Asn Leu His Thr
                                  60
                    55
Gln Arg Leu Ile Ala Leu Ala Glu Asn Met Pro Ile Asp Ile Leu Arg
              70
                                  75
Val Arg Asp Asp Ile Pro Gly Leu Val Met Asp Gly Val Val Asp
                            90
             85
Leu Gly Ile Ile Gly Glu Asn Val Leu Glu Glu Glu Leu Leu Thr Arg
          100
                           105
                                           110
Arg Ala Gln Gly Glu Asp Pro Arg Tyr Phe Thr Leu Arg Arg Leu Asp
                                        125
                       120
      115
Phe Gly Gly Cys Arg Leu Ser Leu Ala Thr Pro Val Asp Glu Ala Trp
                    135
                                     140
   130
Asp Gly Pro Ala Ala Leu Asn Gly Lys Arg Ile Ala Thr Ser Tyr Pro
                 150
                                  155
145
His Leu Leu Lys Arg Tyr Leu Asp Gln Lys Gly Val Gln Phe Lys Ser
                  170
             165
Cys Leu Leu Asn Gly Ser Val Glu Val Ala Pro Arg Ala Gly Leu Ala
                                         190
                           185
         180
Asp Ala Ile Cys Asp Leu Val Ser Thr Gly Ala Thr Leu Glu Ala Asn
      195
Gly Leu Arg Glu Val Glu Val Ile Tyr Arg Ser Lys Ala Cys Leu Ile
                    215
Gln Arg Asp Gly Glu Met Ala Asp Ala Lys Gln His Leu Ile Asp Lys
                                 235
                2.3.0
Leu Leu Thr Arg Ile Gln Gly Val Ile Gln Ala Arg Glu Ser Lys Tyr
             245
                              250
                                                255
Ile Met Met His Ala Pro Thr Glu Arg Leu Glu Glu Val Ile Ala Leu
                           265
```

```
Leu Pro Gly Ala Glu Arg Pro Thr Ile Leu Pro Leu Ala Gly Asp Gln
                   280
 275
Gln Arg Val Ala Met His Met Val Ser Ser Glu Thr Leu Phe Trp Glu
 290
                  295
                                 300
Thr Met Glu Lys Leu Lys Ala Leu Gly Ala Ser Ser Ile Leu Val Leu
305 310 315
Pro Ile Glu Lys Met Met Glu
            325
<210> 7380
<211> 363
<212> PRT
<213> Enterobacter cloacae
<400> 7380
Arg Pro Glu Ser Gly Glu Ser Met Ser Gln Lys Tyr Leu Phe Ile Asp
                           10
Arg Asp Gly Thr Ile Ile Ser Glu Pro Pro Ser Asp Phe Gln Val Asp
                      25
Arg Phe Asp Lys Leu Ala Phe Glu Pro Asp Val Ile Pro Val Leu Leu
                   4.0
                                     4.5
Lys Leu Gln Lys Ala Gly Tyr Lys Leu Val Met Ile Thr Asn Gln Asp
                   55
Gly Leu Gly Thr Asp Ser Phe Pro Gln Ala Asp Phe Asp Gly Pro His
                                75
65
              7.0
Asn Leu Met Met Gln Val Leu Thr Ser Gln Gly Ile Ala Phe Asp Glu
             8.5
Val Leu Ile Cys Pro His Met Pro Ala Asp Lys Cys Asp Cys Arg Lys
         100 105
Pro Lys Leu Lys Leu Val Glu Arg Tyr Leu Ala Glu Glu Ala Leu Asp
 115
                      120 125
Lys Ala Asn Ser Tyr Val Ile Gly Asp Arg Val Thr Asp Ile Thr Leu
                 135 140
Ala Glu Asn Met Gly Ile Ala Gly Leu Arg Tyr Asn Arg Asp Thr Leu
                150 155
Asn Trp Ala Met Ile Gly Glu Gln Leu Thr Arg Arg Asp Arg Tyr Ser 165 170 175
His Val Glu Arg Asn Thr Lys Glu Thr Gln Ile Asp Val Lys Val Trp
              185 190
         180
Leu Asp Arg Glu Gly Gly Ser Lys Ile His Thr Gly Val Gly Phe Phe
                    200 205
      195
Asp His Met Leu Asp Gln Ile Ala Thr His Gly Gly Phe Arg Met Glu
          215 220
   210
Ile Thr Val Lys Gly Asp Leu Tyr Ile Asp Asp His His Thr Val Glu
                                235
                230
Asp Thr Gly Leu Ala Leu Gly Glu Ala Leu Lys Leu Ala Leu Gly Asp
             245
                             250
Lys Arg Gly Ile Asn Arg Phe Gly Phe Val Leu Pro Met Asp Glu Cys
                          265
                              270
         260
Leu Ala Arg Cys Ala Met Asp Ile Ser Gly Arg Pro His Leu Glu Tyr
                       280
                           285
       275
Lys Ala Asp Phe Thr Tyr Gln Arg Val Gly Asp Leu Ser Thr Glu Met
                    295
                                    300
   290
Val Glu His Phe Phe Arg Ser Leu Ser Tyr Thr Met Gly Leu Thr Leu
                 310
                                 315
His Leu Lys Thr Lys Gly Lys Asn Asp His His Arg Val Glu Ser Leu
                                               335
             325
                              330
Phe Lys Ala Phe Gly Arg Thr Leu Arg Gln Ala Ile Arg Val Glu Gly
          340
                           345
```

Asp Ala Leu Pro Ser Ser Lys Gly Val Leu 355 360

```
<210> 7381
<211> 311
<212> PRT
<213> Enterobacter cloacae
<400> 7381
Arg Gly Leu Arg Ala Leu Ser Ala Gly Gly Val Ser Val Leu Trp Arg
Tyr Arg Arg Pro Gly Gly Tyr Arg Arg Ser Ala Arg Asn Arg Cys Thr
           20
                              25
                                                  30
Trp Arg Asp Arg Gly Ser Arg Ala Ala Gly Arg Gln Ile Tyr Gly Lys
                          40
Gly Gly Asp Ser Met Leu Ala Lys Arg Ile Ile Pro Cys Leu Asp Val
                      55
Arg Asp Gly Gln Val Val Lys Gly Val Gln Phe Arg Asn His Glu Ile
                  70
                               75
Ile Gly Asp Ile Val Pro Leu Ala Lys Arg Tyr Ala Glu Glu Gly Ala
                                 90
Asp Glu Leu Val Phe Tyr Asp Ile Thr Ala Ser Ser Asp Gly Arg Val
                            105
           100
Val Asp Lys Ser Trp Val Ala Arg Val Ala Glu Val Ile Asp Ile Pro
                           120
Phe Cys Val Ala Gly Gly Ile Lys Ser Ala Asp Asp Ala Ala Lys Ile
 130
                   135
Leu Ser Phe Gly Ala Asp Lys Ile Ser Ile Asn Ser Pro Ala Leu Ala
145
                   150
                                      155
Asp Pro Ala Leu Ile Thr Arg Leu Ala Asp Arg Phe Gly Val Gln Cys
               165
                                   170
Ile Val Val Gly Ile Asp Thr Trp Phe Asp Thr Ala Thr Gly Lys Tyr
           180
                              185
                                                  190
His Val Asn Gln Tyr Thr Gly Asp Glu Ser Arg Thr Arg Val Thr Gln
                           200
                                            205
       195
Trp Glu Thr Leu Asp Trp Val Gln Glu Val Gln Lys Arg Gly Ala Gly
 210
                      215
                                           220
Glu Ile Val Leu Asn Met Met Asn Gln Asp Gly Val Arg Asn Gly Tyr
                   230
                                      235
Asp Leu Glu Gln Leu Lys Lys Val Arg Ala Val Cys Gln Val Pro Leu
                                  250
               245
Ile Ala Ser Gly Gly Ala Gly Thr Met Glu His Phe Leu Gln Ala Phe
                              265
           260
Arg Asp Ala Asn Val Asp Gly Ala Leu Ala Ala Ser Val Phe His Lys
                           280
                                              285
Gln Ile Ile Asn Ile Gly Glu Leu Lys Thr Tyr Leu Ala Asp Gln Gly
                       295
                                           300
    290
Val Glu Ile Arg Val Cys
305
<210> 7382
<211> 380
<212> PRT
<213> Enterobacter cloacae
<400> 7382
Asn Pro Gly Arg Arg Thr Ser Asp Cys Pro Gln Lys Cys Arg Asp
Ala Ala Arg Cys Arg Pro Glu Gly Ala Ser Met Asn Ile Glu Glu Leu
           20
                               25
Ala Arg Glu Asn Val Arg Arg Leu Thr Pro Tyr Gln Ser Ala Arg Arg
                           40
Leu Gly Gly Asn Gly Asp Val Trp Leu Asn Ala Asn Glu Tyr Pro Thr
```

```
55
Pro Val Ala Phe Glu Leu Ser Gln Gln Thr Leu Asn Arg Tyr Pro Glu
              70
                             75
Cys Gln Pro Lys Ala Val Ile Glu Asn Tyr Ala Gln Tyr Ala Gly Val
          8.5
                         90
Lys Pro Glu Gln Val Leu Val Ser Arg Gly Ala Asp Glu Gly Ile Glu
       100 105
Leu Leu Ile Arg Ala Phe Cys Glu Pro Gly Lys Asp Ala Val Met Tyr
115 120 125
Cys Gln Pro Thr Tyr Gly Met Tyr Ser Val Ser Ala Glu Thr Phe Gly
 130 135 140
Val Ala Cys Arg Asn Val Gln Ala Leu Asp Asn Trp Gln Leu Asp Leu
      150 155
Gln Gly Ile Ala Asp Asn Leu Asp Gly Val Lys Val Val Phe Val Cys
         165 170 175
Ser Pro Asn Asn Pro Thr Gly Gln Ile Ile Asn Pro Gln Asp Ile Arg
       180 185 190
Ala Leu Leu Glu Met Thr Arg Gly Lys Ala Leu Val Val Ala Asp Glu
     195 200 205
Ala Tyr Ile Glu Phe Cys Pro Gln Ala Thr Leu Ala Gly Trp Leu Glu
210 215 220
Glu Tyr Pro His Leu Val Val Leu Arg Thr Leu Ser Lys Ala Phe Ala
     230 235
Leu Ala Gly Leu Arg Cys Gly Phe Thr Leu Ala Asn Lys Ala Ile Ile
           245
               250 255
Asp Leu Leu Lys Val Ile Ala Pro Tyr Pro Leu Ser Thr Pro Val
                      265 270
  260
Ala Asp Ile Ala Ala Gin Ala Leu Ala Pro Gin Gly Ile Ser Ala Met
                    280 285
Arg Glu Arg Val Ala Gln Ile Leu Glu Glu Arg Gln Tyr Leu Val Asp
                 295
Ala Leu Lys Thr Ile Pro Cys Val Glu Lys Val Phe Asp Ser Glu Thr
              310 315 320
305
Asn Tyr Ile Leu Val Arg Phe Thr Ala Ser Ser Ala Ile Phe Lys Ser
           325
               330 335
Leu Trp Asp Gln Gly Ile Ile Leu Arg Asp Gln Asn Lys Gln Pro Thr
                     345 350
        340
Leu Ser Gly Cys Leu Arg Ile Thr Val Gly Thr Arg Ala Glu Ser Gln
 355
                    360
Arg Val Ile Asp Ala Leu Lys Ala Glu Lys Val
```

```
<210> 7383
<211> 272
<212> PRT
```

<213> Enterobacter cloacae

<400> 7383

```
3358
                            105
          100
Asp Val Ala Ala Leu Leu Asp Ala Gly Val Ala Arg Val Val Val Gly
                       120
                                         125
      115
Ser Thr Ala Val Lys Asp Pro Glu Ser Val Lys Gly Trp Phe Arg Arg
                                     140
                    135
Phe Gly Ala Asp Ala Leu Val Leu Ala Leu Asp Val Arg Ile Asp Glu
          150
                                  155
Gln Gly Asn Lys Gln Val Ala Val Ser Gly Trp Gln Glu Asn Ser Gly
           165
                      170
Val Thr Leu Glu Glu Leu Val Gly Met Tyr Leu Pro Val Gly Leu Lys
         180
              185
His Val Leu Cys Thr Asp Ile Ser Arg Asp Gly Thr Leu Ala Gly Ser
     195 200 205
Asn Val Ser Leu Tyr Glu Glu Val Cys Ala Arg Tyr Pro Gln Val Ala
 210 215 220
Phe Gln Ser Ser Gly Gly Ile Gly Asp Leu Ala Asp Ile Ala Ala Leu
                               235
225 230
Arg Gly Thr Gly Val Arg Gly Val Ile Val Gly Arg Ala Leu Leu Glu
          245 250 255
Gly Lys Phe Thr Val Lys Glu Ala Ile Gln Cys Trp Gln Asn Gly
                           265
<210> 7384
<211> 110
<212> PRT
<213> Enterobacter cloacae
<400> 7384
Arg Ile Thr Ala Gly Gly Cys Thr Ala Cys Arg Phe Arg Arg Ser Ala
                               10
Asp Ala Gly Ile His Glu Pro Gly Gly Thr Asp Lys Asn Ala Arg Gln
        20
                          25
                                             3.0
Arg Gln Gly Asn Val Phe Leu Ala His Gln Thr Ala Pro Val Asp Glu
                       40
35
Arg Gly Asn Leu Gly Ser Leu Pro Glu Cys Gly Gln His Tyr Ala Arg
                    55
Leu Arg Gln Arg His Pro Ala Gly Ala Gly Gln Pro Asp Trp Ala Tyr
                 70 75
Leu Pro Gln Arg His Gln Gln Leu Leu Arg Arg Asp Glu Pro Pro Val
           85 90
Ala Val Pro Leu Ser Ala Gly Thr Ala Ala Gly Arg Ala
          1.00
                            105
<210> 7385
<211> 339
<212> PRT
<213> Enterobacter cloacae
<400> 7385
Met Arg Glu Ala Met Lys Phe Leu Val Thr Gly Ala Ala Gly Phe Ile
                               1.0
Gly Ser His Val Ser Lys Arg Leu Leu Asp Ala Gly His Glu Val Val
                           25
                                             3.0
          20
Gly Ile Asp Asn Leu Asn Asp Tyr Tyr Asp Pro Asn Leu Lys Leu Ala
                        40
                                       4.5
Arg Leu Glu Leu Leu Lys Ser Glu Ser Phe Thr Phe His Lys Leu Asp
   50
                    55
Leu Ala Asp Arg Lys Gly Met Ala Val Leu Phe Ala Asn Glu Lys Phe
                                  75
               70
Asp Arg Val Ile His Leu Ala Ala Gln Ala Gly Val Arg Tyr Ser Leu
```

```
Glu Asn Pro His Ala Tyr Ala Asp Ala Asn Leu Val Gly His Leu Asn
                     105
                                      110
    100
Val Leu Glu Gly Cys Arg His Asn Lys Val Gln His Leu Leu Tyr Ala
                    120
Ser Ser Ser Ser Val Tyr Gly Leu Asn Arg Lys Met Pro Phe Ser Thr
 130 135
                               140
Asp Asp Ser Val Asp His Pro Val Ser Leu Tyr Ala Ala Thr Lys Lys
145 150 155
Ala Asn Glu Leu Met Ser His Thr Tyr Ser His Leu Tyr Asn Leu Pro
      165 170 175
Thr Thr Gly Leu Arg Phe Phe Thr Val Tyr Gly Pro Trp Gly Arg Pro
        180 185
Asp Met Ala Leu Phe Lys Phe Thr Lys Ala Met Ile Glu Gly Asn Ser
     195 200 205
Ile Asp Val Tyr Asn Tyr Gly Lys Met Lys Arg Asp Phe Thr Tyr Ile
         215
                     220
 210
Asp Asp Ile Ala Glu Ala Ile Ile Arg Leu Gln Asp Val Ile Pro Gln
                   235
     230
225
Ala Asp Ala Asp Trp Thr Val Glu Thr Gly Ser Pro Ala Thr Ser Ser
               250 255
           245
Ala Pro Tyr Arg Val Tyr Asn Ile Gly Asn Ser Ser Pro Val Glu Leu
              265 270
        260
Met Asp Tyr Ile Thr Ala Leu Glu Glu Ala Leu Gly Lys Glu Ala Val
                    280 285
     275
Lys Asn Met Met Pro Ile Gln Pro Gly Asp Val Leu Glu Thr Ser Ala
                 295 300
Asp Thr Lys Ala Leu Tyr Asp Val Ile Gly Phe Lys Pro Gln Thr Ser
                  315 320
305 310
Val Lys Glu Gly Val Lys Asn Phe Val Asp Trp Tyr Arg Asn Phe Tyr
                          330
            325
Asn Val
```

<210> 7386 <211> 442 <212> PRT

<213> Enterobacter cloacae

<400> 7386

Glu Asp Asp Gly Val Thr Thr Met Ser Phe Asn Thr Ile Ile Asp Trp 1.0 1 Asn Thr Cys Ser Asp Ala Gln Gln Arg Glu Leu Leu Met Arg Pro Ala 25 20 Ile Ser Ala Ser Glu Ser Ile Thr Arg Thr Val Ala Glu Ile Leu Asp 45 40 Asn Val Lys Ala Arg Gly Asp Asp Ala Leu Arg Glu Tyr Ser Ala Lys 55 Phe Asp Lys Thr Glu Val Gly Ala Leu Gln Val Thr Glu Gln Glu Ile 75 70 Ile Asp Ala Ser Asn Arg Leu Gly Asp Asp Ile Lys Gln Ala Met Ala 90 85 Val Ala Val Lys Asn Ile Asp Thr Phe His Thr Ala Gln Lys Leu Gln 110 100 105 Ala Val Asp Val Glu Thr Leu Pro Gly Val Arg Cys Gln Gln Val Thr 115 120 125 Arg Pro Val Ala Ser Val Gly Leu Tyr Ile Pro Gly Gly Ser Ala Pro 135 140 130 Leu Phe Ser Thr Val Leu Met Leu Ala Thr Pro Ala Arg Ile Ala Gly 150 155 Cys Gln Lys Val Val Leu Cys Ser Pro Pro Pro Ile Ala Asp Glu Ile 175 165

```
Leu Tyr Ala Ala Lys Leu Cys Gly Val Gln Ala Ile Tyr Lys Val Gly
    180 185
                                     190
Gly Ala Gln Ala Ile Ser Ala Leu Ala Phe Gly Thr Val Ser Ile Pro
   195
                   200
                                   205
Lys Val Asp Lys Ile Phe Gly Pro Gly Asn Ala Tyr Val Thr Glu Ala 210 215 220
Lys Arg Gln Val Ser Gln Arg Leu Asp Gly Ala Ala Ile Asp Met Pro
    230 235
Ala Gly Pro Ser Glu Val Leu Val Ile Ala Asp Ser Gly Ala Thr Pro
      245 250
                                        255
Asp Phe Val Ala Ser Asp Leu Leu Ser Gln Ala Glu His Gly Pro Asp
        260 265 270
Ser Gln Val Ile Leu Leu Thr Pro Asp Ala Asp Met Ala Lys Arg Val
 275 280 285
Gly Asp Ala Val Glu Arg Gln Leu Ala Asp Leu Pro Arg Ala Glu Thr
  290 295 300
Ala Arg Gln Ala Leu Leu Ala Ser Arg Leu Ile Val Ala Arg Asp Leu
305 310 315
Asp Gln Cys Ile Ala Ile Ser Asn Gln Tyr Gly Pro Glu His Leu Ile
           325 330 335
Ile Gln Thr Arg Asn Ala Arg Asp Leu Val Asp Ser Ile Thr Ser Ala
        340 345 350
Gly Ser Val Phe Leu Gly Asp Trp Ser Pro Glu Ser Ala Gly Asp Tyr
                    360
      355
Ala Ser Gly Thr Asn His Val Leu Pro Thr Tyr Gly Tyr Thr Ser Thr
                 375
 370
Cys Ser Ser Leu Gly Leu Ala Asp Phe Gln Lys Arg Met Thr Val Gln
              390 395 400
Glu Leu Ser Arg Glu Gly Phe Ala Ser Leu Ala Ser Thr Ile Glu Thr
           405 410 415
Leu Ala Ala Ala Glu Arg Leu Thr Ala His Lys Asn Ala Val Thr Leu
      420 425
Arg Val Ala Ala Leu Lys Glu Gln Ala
```

<210> 7387 <211> 207 <212> PRT

435

<213> Enterobacter cloacae

<400> 7387 Arg Pro Ala Leu Val Glu Arg Ser Ala Val Met Asn Val Val Ile Leu 10 Asp Thr Gly Cys Ala Asn Leu Asn Ser Val Gln Ser Ala Ile Met Arg 20 His Gly Tyr Glu Pro Val Val Ser Arg Asp Pro Asp Val Val Leu Arg 4.5 40 Ala Asp Lys Leu Phe Leu Pro Gly Val Gly Thr Ala Gln Ala Ala Met Asp Gln Ile His Glu Arg Glu Leu Val Asp Leu Ile Lys Ala Cys Thr 70 75 Gln Pro Val Leu Gly Ile Cys Leu Gly Met Gln Leu Leu Gly Arg Arg 90 Ser Glu Glu Ser Asn Gly Val Asp Leu Leu Gly Ile Ile Glu Glu Asp 110 100 105 Val Pro Lys Met Thr Asp His Gly Leu Pro Leu Pro His Met Gly Trp 120 125 115 Asn Arg Val Tyr Pro Lys Ala Gly Asn Arg Leu Phe Gln Gly Ile Glu 130 135 140 Asp Gly Ala Tyr Phe Tyr Phe Val His Ser Tyr Ala Met Pro Val Asn 150 155

Thr Tyr Thr Ile Ala Gln Cys Asn Tyr Gly Glu Ala Phe Thr Ala Ala 170 165 Val Gln Lys Asp Asn Phe Tyr Gly Val Gln Phe His Pro Glu Arg Ser 190 180 185 Gly Ala Ala Gly Ala Gln Leu Leu Lys Asn Phe Leu Glu Met 200

<210> 7388 <211> 218 <212> PRT

<213> Enterobacter cloacae

<400> 7388

Val Lys Asn Val Pro Gly Arg Pro Gly Arg Gly Asp Gln Gly Met Leu Thr Glu Gln Gln Ala Gln Leu Asp Trp Glu Lys Thr Asp Gly Leu 30

Leu Pro Val Val Val Gln His Ala Val Ser Gly Glu Val Leu Met Leu 4.5 35 40

Gly Tyr Met Asn Gln Glu Ala Leu Thr Lys Thr Leu Asp Ser Gly Lys 55 50 Val Thr Phe Phe Ser Arg Thr Lys Gln Arg Leu Trp Thr Lys Gly Glu

70 75 Thr Ser Gly His Phe Leu Asn Val Val Ser Ile Thr Pro Asp Cys Asp 85 90

Asn Asp Thr Leu Leu Val Leu Val Asn Pro Ile Gly Pro Thr Cys His 100 105

Lys Gly Thr Ser Ser Cys Phe Gly Glu Thr Ser His Gln Trp Leu Phe 120 125 115

Leu Tyr Gln Leu Glu Gln Leu Leu Ala Glu Arg Lys Ser Ala Asp Pro 135 140 130

Glu Ser Ser Tyr Thr Ala Lys Leu Tyr Ala Ser Gly Thr Lys Arg Ile 150 155 145 Ala Gln Lys Val Gly Glu Glu Gly Val Glu Thr Ala Leu Ala Ala Thr

165 Val His Asp Arg Glu Glu Leu Thr Asn Glu Ala Ser Asp Leu Met Tyr

185 180 His Leu Leu Val Leu Leu Gln Asp Gln Glu Leu Asp Leu Thr Thr Val 195 200

Ile Glu Asn Leu Arg Lys Arg His Lys

<210> 7389 <211> 177

<212> PRT <213> Enterobacter cloacae

<400> 7389

Val Ser Val Ile Trp Tyr Leu Leu Asn Ser Ala Ser Thr Leu Glu Arg 10 Leu Tyr Phe Pro Lys Val Gln His Ala Thr Asp Lys Met Ser Lys Ala 25 Glu Ser Glu Tyr Gln Asp Ala Val Glu Ser Arg Ser Val Leu Ile Asn 45 40 Gln Lys Thr Ala Glu Tyr Leu Ala Asn Pro Ser Glu Arg His Gly Phe 55 60 Ile Val Lys Gln Val Tyr Pro Thr Asn Gln Gln Gln Val Ile Gln Ser

75 70 Met Ala Glu Gln Gly Tyr Met Val His Arg Val Ser Val Gly Met Val 90 85

Thr Phe Ile Arg Met Pro Lys Asn Ala Lys Asp Asn Pro Leu Gln Glu

<210> 7390 <211> 853 <212> PRT

<213> Enterobacter cloacae <400> 7390 Asn Arg Gly Gln Asn Cys Arg Ser Ala Val Phe Pro Gln Pro Arg Ala 10 Arg His His Ala Asp Ser Gly Tyr Pro Arg Pro Ala Ala Gly Arg Pro 30 20 25 Leu Arg Pro Pro Pro Ala Ala Gly Glu Arg Tyr Ser Ser Gly Gly Ser 45 40 35 Met Ile Ala Arg Trp Phe Trp Arg Glu Trp Arg Ser Pro Ser Leu Leu 55 50 Ile Val Trp Leu Ala Leu Ser Leu Ala Val Ala Cys Val Leu Ala Leu 70 75 Gly Ser Val Ser Asp Arg Met Glu Lys Gly Leu Ser Gln Gln Ser Arg 85 90 Glu Phe Met Ala Gly Asp Arg Ala Leu Gln Ser Ser Arg Pro Val Pro 100 105 Pro Gly Trp Ile Glu Glu Ala Arg Lys Glu Gly Leu Lys Val Gly Glu 120 125 115 Gln Ile Thr Phe Gln Thr Met Thr Phe Ala Gly Asp Thr Pro Gln Leu 135 140 130 Ala Ser Val Lys Ala Val Asp Asp Ile Tyr Pro Met Tyr Gly Asp Leu 150 155 145 Gln Thr Ser Pro Pro Gly Leu Lys Pro Thr Ala Gly Thr Val Leu Leu 165 170 175 Ala Ser Arg Leu Met Ala Leu Leu Asn Leu Lys Pro Gly Asp Ser Ile 185 190 180 Asp Val Gly Asp Ala Thr Leu Lys Ile Ala Gly Glu Val Val Gln Glu 200 205 195 Pro Asp Ser Gly Phe Asn Pro Phe Gln Leu Ala Pro Arg Leu Leu Met 215 220 210 Asn Thr Ala Asp Val Ala Lys Thr His Ala Val Gln Pro Gly Ser Arg 230 235 Val Thr Trp Arg Tyr Lys Phe Gly Gly Thr Pro Ala Gln Leu Glu Ala 245 250 255 Tyr Glu Lys Trp Leu Leu Pro Gln Leu Lys Pro Glu His Arg Trp Tyr 260 265 270 Gly Leu Glu Gln Asp Asp Gly Ala Leu Gly Lys Ser Leu Glu Arg Ser 285 275 280 Gln Gln Phe Leu Leu Ser Ala Leu Leu Thr Leu Leu Leu Ala Ile 300 290 295 Ala Ala Val Ala Val Ala Met Gly His Tyr Cys Arg Ser Arg Tyr Asp 315 310 Leu Val Ala Ile Leu Lys Thr Leu Gly Ala Gly Arg Ala Gln Leu Arg 330 Lys Leu Ile Val Gly Gln Trp Leu Met Val Leu Ala Leu Ser Ala Leu

```
345
        340
Thr Gly Gly Ala Ile Gly Leu Leu Phe Glu Lys Leu Leu Met Val Leu
                  360
                          365
Leu Lys Pro Val Leu Pro Ala Ala Leu Pro Pro Ala Ser Leu Trp Pro
                              380
              375
Trp Leu Trp Ala Ile Gly Ala Met Thr Thr Ile Ser Leu Leu Val Gly
                           395
385 390
Leu Arg Pro Tyr Arg Leu Leu Leu Ala Thr Gln Pro Leu Arg Val Leu
      405
              410 415
Arg Arg Asp Val Val Ala Ser Val Trp Pro Leu Lys Phe Tyr Leu Pro
      420
            425
                          430
Val Ile Ile Ala Val Ala Val Gly Leu Leu Ala Trp Leu Met Gly Gly
 435 440
Ser Thr Leu Leu Trp Ala Val Leu Ala Gly Ala Val Val Leu Ala Leu
 450 455 460
Leu Cys Gly Val Val Gly Trp Ile Leu Leu Asn Val Leu Arg Lys Leu
   470 475
Thr Val Lys Ser Leu Pro Ile Arg Leu Ala Val Asn Arg Leu Leu His
       485 490 495
Gln Pro Trp Ser Thr Leu Ser Gln Leu Ser Ala Phe Ser Leu Ser Phe
  500 505 510
Met Leu Leu Ala Leu Leu Val Leu Arg Gly Asp Leu Leu Asp Arg
515 520 525
Trp Gln Gln Gln Leu Pro Pro Glu Ser Pro Asn Tyr Phe Leu Ile Asn
530 535 540
Ile Ala Pro Glu Gln Val Thr Pro Leu Lys Gly Phe Leu Ser Glu His
545 550 555 560
His Ile Ile Pro Glu Ser Phe Tyr Pro Ile Val Arg Ala Arg Leu Thr
          565 570 575
Gln Ile Asn Gly Gln Ser Thr Glu Gly Asn Lys Asp Glu Ser Leu Asn
   580 585 590
Arg Glu Leu Asn Leu Thr Trp Gln Ala Lys Arg Pro Asp His Asn Pro
595 600 605
Ile Val Ala Gly Thr Trp Pro Pro Lys Ala Gly Glu Val Ser Met Glu
      615 620
 610
Glu Gly Leu Ala Thr Arg Leu Asn Val Asn Leu Gly Asp Ser Val Thr
     630 635 640
Phe Thr Gly Asp Thr Gln Asp Phe Thr Ala Lys Val Thr Ser Leu Arg
           645 650 655
Lys Val Asp Trp Glu Ser Leu Arg Pro Asn Phe Phe Phe Ile Phe Pro
        660 665 670
Pro Gly Ala Leu Asp Gly Gln Pro Gln Ser Trp Leu Thr Ser Phe Arg
     675 680 685
Trp Glu Asn Gly Asn Gly Met Leu Thr Gln Leu Asn Arg Glu Phe Pro
      695 700
  690
Thr Val Ser Leu Leu Asp Ile Gly Ala Ile Leu Lys Gln Val Gly Gln
                            715
     710
Val Leu Glu Gln Val Ser Arg Ala Leu Glu Val Met Val Val Leu Val
               730 735
           725
Thr Ile Cys Gly Ile Leu Leu Leu Ala Gln Val Gln Val Gly Met
            745
        740
Arg Gln Arg His Gln Glu Leu Val Val Tyr Arg Thr Leu Gly Ala Ser
                   760
      755
Lys Arg Leu Leu Arg Ala Thr Leu Trp Ser Glu Phe Ala Leu Leu Gly
                 775 780
Leu Val Ala Gly Leu Val Ala Ala Ile Gly Ala Glu Thr Ala Leu Ala
           790
                            795 800
Val Leu Gln Ser Lys Val Phe Asp Phe Pro Trp Glu Pro Asp Trp Arg
         805 810
Leu Trp Leu Thr Leu Pro Val Cys Gly Ala Val Leu Leu Ser Leu Cys
        820
                      825
```

```
Gly Gly Trp Leu Gly Ser Arg Leu Leu Lys Gly Lys Ala Leu Phe Arg
                         840
   835
Gln Phe Val Ser
  850
<210> 7391
<211> 245
<212> PRT
<213> Enterobacter cloacae
<400> 7391
Arg Cys Val Ala Glu Arg Ile Met Leu Lys Ala Leu Leu Ile Thr Ala
Val Asn Gly Ile Gly Met Asn Asn Lys Lys Asn Leu Leu Asp Ile Arg
                              25
Asp Val Gly Phe Arg Val Gly Asp Asn Thr Ile Leu Gln His Val Asp
                         4.0
       35
Phe Cys Leu Ser Pro Gly Glu Phe Lys Leu Ile Thr Gly Pro Ser Gly
 50
                      55
Cys Gly Lys Ser Thr Leu Leu Lys Ile Val Ala Ser Leu Leu Ser Pro
                                 75
                   70
Thr Glu Gly Thr Ile Leu Phe Ala Gly Lys Asp Ile Ala Thr Phe Ser
                                 90 95
               85
Ser Glu Ser Tyr Arg Gln Gln Val Ser Tyr Cys Val Gln Thr Pro Ser
                             105
           100
Leu Phe Gly Asp Thr Val Tyr Asp Asn Leu Val Phe Pro Trp His Ile
                          120
                                            125
 115
Arq Asn Gln Thr Pro Asp Pro Lys Lys Phe Thr Asp Asp Leu Thr Arg
                                         140
  130
                      135
Phe Gly Leu Ser Pro Glu Thr Leu Thr Lys Ser Ile Ala Glu Leu Ser
                   150
                                     155
145
Gly Gly Glu Lys Gln Arg Val Ser Leu Ile Arg Asn Leu Gln Phe Leu
                                 170 175
               165
Pro Lys Ala Leu Leu Leu Asp Glu Ile Thr Ser Ala Leu Asp Asp Ala
                                                 190
               185
           180
Asn Lys Arg Asn Val Asn Asp Ile Ile His Arg Tyr Ala Arg Glu Gln
       195
                           200
                                             205
Asn Ile Ala Val Leu Trp Val Thr His Asp Ser Asn Glu Ile Thr His
                                         220
Ala Asp Asp Val Ile Thr Leu Arg Pro Gln Gly Gly Lys Met Glu Glu
                                     235
Ala His Arg Gly
               245
<210> 7392
<211> 247
<212> PRT
<213> Enterobacter cloacae
<400> 7392
Arg Val Arg Ser Arg Arg Ala Glu Gly His Gln His Gln Lys Gln Glu
Gly Gln Met Pro Ala Glu Asn Ile Val Glu Val His Arg Leu Lys Lys
                                                 3.0
           2.0
                              25
Ser Val Gly Gln Gly Glu His Glu Leu Ser Ile Leu Thr Gly Val Glu
        35
                          40
Leu Val Val Lys Arg Ala Glu Thr Ile Ala Leu Ile Gly Glu Ser Gly
                      5.5
Ser Gly Lys Ser Thr Leu Leu Ala Ile Leu Ala Gly Leu Asp Asp Gly
                   70
                                     75
Ser Ser Gly Glu Val Asn Leu Val Gly Gln Pro Leu His Ala Leu Asp
```

```
85
Glu Glu Ala Arg Ala Ala Leu Arg Ala Arg His Ile Gly Phe Val Phe
                 105
                                       110
      100
Gln Ser Phe Met Leu Ile Pro Thr Leu Asn Ala Leu Glu Asn Val Glu
     115 120
                                  125
Leu Pro Gly Leu Leu Arg Gly Glu Asn Thr Arg Glu Ser Arg Asp His
       135 140
Ala Lys Ala Leu Leu Glu Gin Leu Gly Leu Gly Lys Arg Leu Asp His
145 150 155
Leu Pro Ala Gln Leu Ser Gly Gly Glu Gln Gln Arg Val Ala Leu Ala
         165 170 175
Arg Ala Phe Asn Gly Arg Pro Glu Val Leu Phe Ala Asp Glu Pro Thr
        180 185 190
Gly Asn Leu Asp Arg Lys Thr Gly Asp Lys Ile Ala Asp Leu Leu Phe
                   200 205
     195
Ser Leu Asn Arg Glu His Gly Thr Thr Leu Ile Leu Val Thr His Asp
               215 220
Pro Gln Leu Ala Ala Arg Cys Asp Arg Arg Leu Arg Leu Val Asn Gly
               230
Ile Leu Gln Glu Glu Ala
            245
```

<211> 214 <212> PRT <213> Enterobacter cloacae

<210> 7393

<400> 7393 Lys Thr Gln Lys Thr Gly Gly Tyr Arg Arg Phe Phe Cys Leu Gln Met 1.0 Gln Ile Arg Asn Lys Glu Cys Arg His Glu Leu Leu Ala Asp Gly His 25 3.0 20 Ala Cys Asn His Asn Val Phe Phe Arg Asn Val Leu Val His Thr Ala 40 Ala Ala Ser Arg Asn Gly Phe Asp Leu Val Asp His Val His Pro Phe 55 Asn His Phe Cys Glu Tyr Ala Val Ala Pro Ala Leu Gln Thr Phe Ala 7.5 70 Arg Glu Val Gln Glu Val Val Val Arg Tyr Val Asp Glu Glu Leu Cys 90 85 Gly Cys Arg Met Trp Arg Leu Ser Thr Gly His Cys Gln Arg Thr Thr 105 110 100 Gly Val Phe Gln Ala Val Val Arg Phe Val Phe Asp Arg Phe Phe Arg 120 115 Leu Phe Leu Ala His Ala Arg Leu Glu Thr Ala Ala Leu Asp His Lys 135 140 130 Ala Val Asp His Thr Val Glu Asn Ser Val Val Val Glu Thr Phe Ala 150 155 Ala Val Val Gln Glu Val Phe Asn Cys Phe Arg Arg Phe Val Ile Lys 170 175 165 Gly Phe Asp Tyr Asp Ile Ala Met Ile Ser Val Glu Ser Asn His Phe 180 185 190 Cys Ile Leu Phe Arg Tyr Cys Gly Ala Ser Thr Arg Ala Arg Val Thr 205 195 200 Tyr Arg Gly Leu Leu 210

<sup>&</sup>lt;210> 7394 <211> 288

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 7394
Arg Met Ile Gln Met Lys Leu Pro Met Arg Met Met Ser Ser Arg Ser
                             10
Gly Arg Arg Ala Gly Lys Trp Arg Arg Leu Thr Val Gly Glu His Asn
                         25
Ile Thr Asn Glu Ser Leu Ala Leu Ser Met Val Leu Val Leu Val Ala
                      40
Ile Val Val Ser Tyr Arg Glu Lys Leu Gly Leu Glu Lys Asp Ile Leu
                   5.5
                                   60
Trp Ser Ile Ala Arg Ala Val Ile Gln Leu Ile Ile Val Gly Tyr Val
               70 75
Leu Lys Tyr Ile Phe Asn Val Asn His Ala Val Leu Thr Leu Leu Met
            8.5
                 90
Val Leu Phe Ile Cys Phe Asn Ala Ala Trp Asn Ala Gln Lys Arg Ser
         100
             105 110
Lys Tyr Ile Asp Lys Ala Phe Ile Ser Ser Leu Ile Ala Ile Thr Thr
          120 125
      115
Gly Thr Ala Leu Thr Leu Ala Val Leu Val Leu Ser Gly Ser Ile Glu
                  135 140
   130
Phe Thr Pro Met Gln Val Ile Pro Ile Ser Gly Met Ile Ala Gly Asn
                                155
                150
Ala Met Val Ala Val Gly Leu Cys Tyr Asn Asn Leu Gly Gln Arg Phe
                             170 175
             165
Ser Ser Glu Gln Gln Gln Leu Gln Glu Lys Leu Ser Leu Gly Ala Thr
             185
         180
Pro Lys Val Ala Ser Ala Arg Leu Ile Arg Asp Ser Ile Arg Ser Ser
                      200 205
      195
Leu Ile Pro Thr Val Asp Ser Ala Lys Thr Val Gly Leu Val Ser Leu
                   215
                                   220
 210
Pro Gly Met Met Ser Gly Leu Ile Phe Ala Gly Ile Asp Pro Val Lys
                230
                                235
Ala Ile Lys Tyr Gln Ile Met Val Thr Phe Met Leu Leu Ser Thr Ala
             245
                             250
Ser Leu Ser Thr Ile Ile Ala Cys Tyr Leu Thr Tyr Arg Lys Phe Tyr
                       265 270
          260
Asn Ala Arg His Gln Leu Val Val Thr Gln Leu Lys Lys Thr Gly
                       280
<210> 7395
```

<211> 389 <212> PRT

<213> Enterobacter cloacae

<400> 7395 Arg Val Tyr Gln Gly Lys Arg Met Thr Ile Arg Lys Thr Ala Leu Ala 10 Thr Thr Ile Gly Ala Ala Val Ala Leu Ala Ser Phe Ala Ser Gln Ala 25 20 Glu Ile Thr Leu Leu Lys Gln Asp Pro Gln Ala Gly Asn Pro Leu Ser 4.5 35 Arg Leu Asn Phe Thr Val Gly Gly Ser Ile Arg Pro Gln Phe Gln Asn Met Thr Gly Asp Asp Gly Lys Asn Gly Tyr Lys Arg Asn Gly Phe Asp 75 70 Gly Gly Thr Arg Phe Arg Phe Ala Ala Asp Tyr Tyr Leu Phe Asp Asp 95 90 Ile Ser Trp Ile Thr Tyr Tyr Glu Leu Gly Val Asn Ile Pro Ala Gln 100 105 Phe Asn Trp Asp Asn His Tyr Ala Asp Gly Ala His Asp Thr Ser Arg 120 125 115

```
Arg Met Leu Tyr Thr Gly Leu Lys Ser Asp Thr Trp Gly Thr Leu Thr
                                 140
                 135
Phe Gly Gln Gln Asn Ser Val Tyr Tyr Asp Val Val Gly Ala Lys Thr
        150
                             155
Asp Ile Trp Asp Tyr Asp Met Ile Gly Gln Ala Pro Gly Asn Gly Ile
        165
               170
Asn Gly Asp Tyr Asp Gly Ser Tyr Arg Ser Arg Gln Met Leu Lys Tyr
                                      190
       180 185
Lys Lys Thr Val Gly Asp Ala Asp Ile Tyr Ala Ser Tyr Leu Phe Glu
                        205
     195 200
Asp Ser Glu Tyr Leu Pro Gly Asn Gly Leu Arg Tyr Lys Arg Lys Gly
  210 215 220
Gly Gly Ser Leu Gly Ile Asp Tyr His Leu Thr Thr Asp Leu Thr Trp
225 230 235
Gly Ala Ala Trp Asn Tyr Thr Arg Ala Asp Met Arg Asn Pro Asp Asn
          245 250 255
Gly Asp Ser Lys Ser Tyr Asp Gln Asn Ile Leu Gly Thr Ala Leu Ser
        260 265
Trp Thr Pro Asp Asn Trp Thr Phe Ser Ala Gly Gly Gly Trp Tyr Gln
     275 280 285
Asn Phe Leu Thr Thr Lys Lys Val Ser Val Asn Asp Tyr Phe Ala Gly
                 295 300
 290
Asp Ala Trp Gly Ile Glu Tyr Phe Ala Gly Tyr Lys Phe Pro Val Gly
              310
                  315
305
Gln Tyr Ala Val Lys Ser Ile Gln Pro Tyr Phe Met Gly Asp Arg Ile
           325 330 335
Glu Tyr Val Asn Gly Arg Asn Tyr Gln Arg Ile Asp Asn Gly Val Gly
                       345 350
         340
Ile Ser Phe Gln Leu Asp Tyr Gly Phe Arg Val Asp Tyr Glu His Val
 355 360 365
Phe Thr Ser Cys Thr Asp Asn Leu Gly Asp Met Asn Leu Val Arg Leu
                 375
                                 380
 370
```

<210> 7396 <211> 527

Arg Tyr Asp Phe 385

<212> PRT <213> Enterobacter cloacae

<400> 7396 Leu Val Trp Lys Val Thr Ile Phe Ala Ser Cys Ser Val Ile Val Val 10 1 Arg Arg Pro Val Leu Gly Ser His Ile Gly Ala Cys Tyr Ser Ile Thr 20 25 Thr Gly His Asp His Leu Ala Leu Cys Ala Asp Arg Thr Pro Asn Tyr 40 Gly Tyr Tyr Lys Glu Gln Thr Ile His Thr Arg Val Tyr Met Glu Ser 55 50 Ser Met Leu Lys Ile Phe Asn Thr Met Thr Arg Gln Lys Glu Glu Phe 75 7.0 Lys Pro Ile His Ala Gly Glu Val Gly Met Tyr Val Cys Gly Ile Thr 90 85 Val Tyr Asp Leu Cys His Ile Gly His Gly Arg Thr Phe Val Ala Phe 105 110 100 Asp Val Val Ser Arg Tyr Leu Arg Phe Leu Gly Tyr Asn Leu Lys Tyr 125 120 Val Arg Asn Ile Thr Asp Ile Asp Asp Lys Ile Ile Lys Arg Ala Asn 130 135 140 Glu Asn Gly Glu Ser Phe Val Ala Leu Val Asp Arg Met Ile Ala Glu 150 155

```
Met His Lys Asp Phe Asp Ala Leu Asn Ile Leu Arg Pro Asp Ser Glu
                170 175
        165
Pro Arg Ala Thr His His Ile His Glu Ile Ile Asp Ile Thr Gln Lys
                                    190
   180
                      185
Leu Ile Glu Arg Gly His Ala Tyr Val Ala Asp Asn Gly Asp Val Met
                       205
 195 200
Phe Ser Val Pro Thr Asp Pro Thr Tyr Gly Ala Leu Ser Arg Gln Asp
      215 220
Leu Asp Gln Leu Gln Ala Gly Ala Arg Val Asp Val Val Asp Val Lys
225 230 235
                                         240
Arg Asn Pro Met Asp Phe Val Leu Trp Lys Met Ser Lys Ala Gly Glu
     245 250 255
Pro Ser Trp Pro Ser Pro Trp Gly Glu Gly Arg Pro Gly Trp His Ile
      260 265
                         270
Glu Cys Ser Ala Met Asn Cys Lys Gln Leu Gly Asn His Phe Asp Ile
     275 280 285
His Gly Gly Gly Ser Asp Leu Met Phe Pro His His Glu Asn Glu Ile
  290 295 300
Ala Gln Ser Thr Cys Ala His Gly Gly Glu Tyr Val Asn Tyr Trp Met
305 310 315 320
His Ser Gly Met Val Met Val Asp Arg Glu Lys Met Ser Lys Ser Leu
  325 330 335
Gly Asn Phe Phe Thr Val Arg Asp Val Leu Lys Tyr Tyr Asp Ala Glu
 340 345 350
Thr Val Arg Tyr Phe Leu Met Ser Gly His Tyr Arg Ser Gln Leu Asn
355 360 365
Tyr Ser Glu Glu Asn Leu Lys Gln Ala Arg Ala Ala Leu Glu Arg Leu
 370 375 380
Tyr Thr Ala Leu Arg Gly Thr Asp Lys Ser Val Pro Ala Ala Gly Gly
     390 395 400
Glu Ala Phe Glu Ala Arg Phe Val Glu Val Met Asn Asp Asp Phe Asn
         405
                        410 415
Thr Pro Glu Ala Tyr Ser Val Leu Phe Asp Met Ala Arg Glu Val Asn
        420 425 430
Arg Leu Lys Ser Glu Asp Met Ala Ala Ala Asn Ala Leu Ala Ser His
                   440 445
 435
Leu Arg Lys Leu Ser Ser Val Leu Gly Leu Leu Glu Gln Glu Pro Asp
 450 455 460
Val Phe Leu Gln Ser Gly Ala Gln Ala Asp Asp Gly Glu Val Ala Glu
             470
                          475
Ile Glu Ala Leu Ile Lys Ala Arg Leu Glu Ala Arg Gln Ala Lys Asp
           485 490 495
Trp Ala Ala Ala Asp Ala Ala Arg Asn Arg Leu Thr Glu Met Gly Ile
        500 505 510
Ile Leu Glu Asp Gly Pro Gln Gly Thr Thr Trp Arg Arg Lys
                   520
<210> 7397
```

<211> 518 <212> PRT <213> Enteropacter cloacae

<400> 7397

Asn Val Leu Leu Thr Ile Thr Ala Gln Lys Lys Arg Tyr Ser Gly Glu

1 5 10 15
18 Ser Met Ser Leu Ile Ser Gly Phe Val Lys Ser Leu Ser Lys Leu
20 25 30

Ser Met Ile Gly Arg Ala Leu Met Leu Pro Ile Ser Leu Leu Pro Ala
35 40 45

Ala Gly Leu Leu Leu Ala Phe Gly Asp Lys Phe His Leu Pro Leu Met
50 55

```
Met Asn Ala Gly Gly Val Ile Phe Asp Asn Leu Pro Met Leu Phe Ala
             7.0
                         7.5
Ile Gly Ser Ala Val Gly Leu Ala Ser Glu Ser Gly Ile Ala Ala Leu
          85 90
Ser Ala Ala Val Ser Val Phe Val Thr Asn Ile Thr Ile Ser Thr Val
       100 105
Leu Ser Ile Thr Pro Glu Met Ala Ser Gln Gly Gly Lys Tyr Ala Met
        120 125
Val Val Gly Ile Pro Thr Leu Gln Met Gly Val Phe Gly Gly Leu Ile
  130 135 140
Cys Gly Ile Leu Ala Ala Trp Cys Tyr Asn Arg Phe His Thr Met Gln
   150
                 155 160
Leu Pro Glu Phe Leu Gly Phe Phe Ser Gly Lys Arg Phe Val Ala Ile
     165 170 175
Ala Thr Ala Phe Leu Ser Phe Leu Leu Gly Leu Leu Leu Pro Tyr Val
       180 185
                          190
Trp Gln His Ile Gln Ser Gly Ile Asp Ala Leu Ser Val Val Val Asn
195 200
                      205
Gly Asp Asn Gln Ala Ala Ser Thr Phe Ile Phe Gly Leu Val Glu Arg
210
     215
                    220
Ala Leu Ile Pro Leu Gly Leu His His Ile Trp Tyr Pro Ser Phe Trp
225 230 235
Tyr Ser Phe Gly Asp Tyr Thr Thr Gln Ala Gly Gln Val Ile His Gly
          245
                        250 255
Asp Gln Thr Ile Trp Phe Lys Met Leu Glu Glu Gly Val Lys Ser Phe
                      265 270
      260
Ser Ser Asp Thr Tyr Gln Asn Ala Gly Lys Phe Met Gln Gly Glu Phe
275
                  280 285
Pro Leu Met Leu Phe Ala Leu Pro Ala Ala Cys Leu Ala Met Tyr His
290 295
                              300
Glu Ala His Thr Lys Asn Lys Lys Ile Ala Ala Gly Ile Leu Phe Ser
           310 315 320
Ala Ala Leu Thr Cys Phe Leu Thr Gly Ile Thr Glu Pro Val Glu Phe
      325 330 335
Thr Phe Ile Phe Val Ala Pro Ile Leu Tyr Val Phe Asn Ala Ile Met
       340
                     345 350
Ala Gly Leu Ala Tyr Met Thr Met Tyr Leu Leu His Ala His Ile Ala
   355 360 365
Lys Ser Phe Ser Ala Gly Phe Ile Asp Tyr Leu Ser Phe Gly Ile Leu
 370 375 380
Pro Ser Phe Asn Gly Tyr Gln Thr Asn Phe Leu Ser Ala Ile Ile Val
   390 395
Gly Ile Pro Met Ala Leu Ile Tyr Tyr Phe Thr Phe Arg Phe Val Ile
     405 410 415
Arg Arg Phe Asp Val Lys Thr Pro Gly Arg Thr Glu Val Thr Ala Ser
      420 425 430
Ala Asn Asp Lys Ser Asp Ser Glu Leu Ala Thr Glu Ile Ile Gly Leu
   435 440
                                445
Leu Gly Gly Ala Gln Asn Ile Asp Ser Val Gly Ser Cys Ile Thr Arg
  450 455 460
Leu Arg Leu Glu Val Ala Asn Ser Glu Ala Val Asp Arg Asp Gly Leu
    470 475 480
Asn Gly Leu Gly Ala Arg Gly Val Val Phe Val Gly Asp Asn Gly Ile
       485 490 495
Gln Val Ile Phe Gly Ala Arg Ala Gln Phe Ile Ala Gln Thr Met Ser
              505 510
Thr Met Ile Gly Lys
    515
```

<210> 7398 <211> 188 <212> PRT <213> Enterobacter cloacae

<400> 7398 Leu Leu Tyr Phe His Asp Leu Pro Trp Ile Asn Ala Met Pro Thr Val Ile Thr His Ala Ala Val Pro Leu Cys Leu Gly Leu Gly Leu Gly Thr 25 20 Asn Val Ile Pro Pro Arg Leu Leu Phe Ala Gly Ile Val Leu Ala Met 4.0 Leu Pro Asp Ala Asp Val Leu Ala Phe Lys Phe Gly Val Ala Tyr Gly 5.5 60 Asn Ile Phe Gly His Arg Gly Phe Thr His Ser Leu Leu Phe Ala Leu 75 70 Val Val Pro Ile Leu Cys Val Leu Ala Gly Arg Arg Trp Phe Arg Ala 90 85 95 Ser Leu Thr Arg Cys Trp Leu Phe Leu Thr Val Ser Leu Leu Ser His 105 110 100 Ser Leu Leu Asp Ser Ile Thr Thr Gly Gly Lys Gly Val Gly Trp Leu 120 125 115 Trp Pro Trp Ser Asp Glu Arg Phe Phe Ala Pro Trp Gln Val Ile Lys 135 140 130 Val Ala Pro Phe Ala Leu Ser Arg Tyr Thr Thr Pro Tyr Gly His Glu 150 155 Val Ile Ile Ser Glu Leu Leu Trp Val Trp Leu Pro Gly Met Val Leu 165 170 175 Met Gly Met Leu Trp Trp Arg Lys Arg Ala Arg 185

<210> 7399 <211> 215 <212> PRT

<213> Enterobacter cloacae

180

<400> 7399

Ser Pro Ser Arg Phe Asn Pro Pro Arg Leu Phe Ala His Phe Pro Thr 10 Thr Gln Pro Phe Ser Leu Pro Val Leu His Ala Ile Leu Cys Ala Leu 30 20 25 Glu Ser Ser Val Phe Arg Thr Thr Gly Val Leu Arg Arg Met Ser Ser 4.0 Arg Asn Asn Pro Ala Arg Val Ala Ile Val Met Gly Ser Lys Ser Asp 55 50 Trp Ala Thr Met Gln Phe Ala Ala Glu Ile Phe Glu Ile Leu Asn Val 75 70 Pro His His Val Glu Val Val Ser Ala His Arg Thr Pro Asp Lys Leu 95 90 85 Phe Ser Phe Ala Glu Ser Ala Glu Glu Asn Gly Tyr Glu Val Ile Ile 105 100 Ala Gly Ala Gly Gly Ala Ala His Leu Pro Gly Met Ile Ala Ala Lys 120 125 115 Thr Leu Val Pro Val Leu Gly Val Pro Val Gln Ser Ala Ala Leu Ser 140 130 135 Gly Val Asp Ser Leu Tyr Ser Ile Val Gln Met Pro Arg Gly Ile Pro 155 150 Val Gly Thr Leu Ala Ile Gly Lys Ala Gly Ala Ala Asn Ala Ala Leu 170 175 Leu Ala Ala Gln Ile Leu Ala Thr His Asp Lys Glu Leu His Gln Arg 190 180 185 Leu Ala Glu Trp Arg Lys Ala Gln Thr Asp Glu Val Leu Asp Asn Pro 200 205

```
Asp Pro Arg Gly Ala Ala
210 215
```

<210> 7400

<211> 99 <212> PRT

<213> Enterobacter cloacae

<400> 7400

Arg Ile Pro Phe Thr Ser Arg Arg Arg Arg Ser Gln Arg Ala Ala Ser 1 5 10 15 Cys Gly Ser Trp Val Thr Arg Ile Ser Val Val Pro Cys Ser Arg Leu 20 25 30

Arg Glu Asn Ser Arg Ser Ala Ile Leu Ser Pro Val Leu Arg Ser Arg 35 40 45

Leu Pro Val Gly Ser Ser Ala Asn Ser Thr Ser Gly Arg Pro Leu Asn 50 60 60 Ala Leu Ala Ser Ala Thr Arg Cys Cys Ser Pro Pro Glu Ser Cys Ala 65 70 75 80

Gly Arg Trp Ser Arg Arg Phe Pro Ser Pro Ser Cys Ser Ser Asn Ala

Phe Ala

<210> 7401 <211> 271

<212> PRT <213> Enterobacter cloacae

<400> 7401

Ile Met Thr Arg Gln Thr Ala Glu Asn Leu Thr Gly Lys Val Met Gln 10 Lys Ser Val Leu Ile Thr Gly Cys Ser Ser Gly Ile Gly Leu Glu Ser 30 25 20 Ala Leu Glu Leu Lys Arg Gln Gly Phe Trp Val Leu Ala Ala Cys Arg 4.5 40 3.5 Lvs Pro Glu Asp Val Glu Arg Met Arg Gly Leu Gly Phe Thr Gly Ile 55 60 Leu Leu Asp Leu Asp Ser Pro Glu Ser Val Glu Gln Ala Ala Asp Glu 70 7.5 65 Val Ile Ala Leu Thr Asn Asn Arg Leu Tyr Gly Leu Phe Asn Asn Ala 90 85 Gly Tyr Gly Val Tyr Gly Pro Leu Gln Thr Leu Ser Arg Glu Gln Leu 100 105 Glu Gln Gln Phe Ser Ala Asn Phe Phe Gly Ala His Gln Leu Thr Met 120 125 Arg Leu Leu Pro Ala Met Leu Pro His Gly Glu Gly Arg Ile Val Met 135 140 130 Thr Ser Ser Val Met Gly Leu Ile Ser Thr Pro Gly Arg Gly Ala Tyr 150 155 Ala Ala Ser Lys Tyr Ala Leu Glu Ala Trp Ser Asp Ala Leu Arg Met 170 175 165 Glu Leu Arg His Ser Gly Ile Lys Val Ser Leu Ile Glu Pro Gly Pro 185 180 Ile Arg Thr Arg Phe Thr Glu Asn Val Asn Gln Thr Gln Ala Asp Lys 200 205 195 Pro Val Glu Asn Pro Gly Ile Ala Ala Arg Phe Thr Leu Gly Pro Glu 220 215 210

Ala Val Val Ala Lys Val Arg His Ala Phe Glu Ser Asp Thr Pro Lys

Met Arg Tyr Pro Val Thr Leu Val Thr His Ala Val Gly Trp Leu Lys

230

235

250 245 Arg Leu Leu Pro Gly Arg Met Met Asp Lys Ile Leu Gln Gly 265

<210> 7402 <211> 177 <212> PRT

<213> Enterobacter cloacae

<400> 7402

Arg Phe Ala Pro Arg Ile Pro Asn Gly Ala Phe Tyr Phe Cys Gln Ser 1.0 Gly Ser His Leu Phe Thr Gly Ala Lys Ser Cys Ser Leu Ala Asp Ile

25 30 Leu Thr Phe Asn Lys Tyr Ala Val Phe Ser Leu Arg His Ala Lys Gln 40 45

Glu Val Phe Met Leu Ile Val Val Pro Val Ile Ile Phe Val Ala Leu 55 60

Leu Phe Val Gly Ala Gly Val Lys Ile Val Pro Gln Gly Tyr Gln Trp 70 75

Thr Val Glu Arg Phe Gly Arg Tyr Thr Asn Thr Leu Gln Pro Gly Leu 90 95 8.5

Ser Leu Ile Val Pro Phe Met Asp Arg Ile Gly Arg Lys Ile Asn Met 100 105

Met Glu Gln Val Leu Asp Ile Pro Ser Gln Glu Val Ile Ser Lys Asp 120 125 115

Asn Ala Asn Val Thr Ile Asp Ala Val Cys Phe Ile Gln Val Ile Asp 135 140 130

Ala Pro Lys Ala Ala Tyr Glu Val Ser Asn Leu Glu Leu Ala Ile Val 150 155 160 145

Asn Leu Thr Met Thr Asn Val His Asn Lys Tyr Ala Ser Leu Lys Tyr 165 170

<210> 7403 <211> 114 <212> PRT

<213> Enterobacter cloacae

100

<400> 7403

Arg Cys Arg Ser Ala Arg Ile Let Tyr Tyr Ser Gly Pro Gly Arg Arg Trp Pro Asp Asp Gly Ser Asn Thr Asp Ser Glu Tyr Leu Ala Gly Val 20 Arg Gly Val Ser Arg Arg Arg Gly Arg Val Ile Met Ala Thr Phe Ser

40 35 Leu Gly Lys His Pro His Val Glu Leu Cys Asp Leu Leu Lys Leu Glu 55

Gly Trp Ser Glu Ser Gly Ala Gln Ala Lys Ile Val Ile Ala Asp Gly 65 Gln Val Thr Val Asp Gly Ala Val Glu Thr Arg Lys Arg Cys Lys Ile

90 85 Val Ala Gly Gln Thr Val Ser Phe Ala Gly Gln Ser Val Thr Val Thr 105

Ala

<210> 7404 <211> 292

<212> PRT

## <213> Enterobacter cloacae

```
<400> 7404
Thr Asp Lys Arg Glu Cys Arg Met Ser Val Gln Asn Ile Val Asn Ile
                              10
Thr Glu Ala Asn Leu Gln Gln Thr Leu Glu Gln Ser Met Thr Lys Pro
                                           3.0
        20
                          25
Val Leu Phe Tyr Phe Trp Ser Glu Arg Ser Gln His Cys Leu Gln Leu
                      4.0
     35
Thr Pro Val Leu Glu Ser Leu Ala Ala Gln Tyr Asn Gly Gln Phe Ile
                   5.5
Leu Ala Lys Leu Asp Cys Asp Ala Glu Pro Met Val Ala Ser Gln Phe
                                 75
          70
Gly Leu Arg Ala Ile Pro Thr Val Tyr Leu Phe Gln Asn Gly Gln Pro
                             90
           85
Val Asp Gly Phe Gln Gly Pro Gln Pro Glu Glu Ala Ile Arg Ala Leu
         100 105 110
Leu Asp Lys Val Leu Pro Arg Glu Glu Glu Leu Lys Ala Gln Glu Ala
                      120 125
     115
Met Ala Leu Met Gln Glu Gly Lys Tyr Asp Glu Ala Leu Pro Leu Leu
 130 135
                        140
Lys Asp Ala Trp Gln Leu Ser Asn Gln Asn Ser Gln Ile Gly Leu Leu
             150 155
Leu Ala Glu Thr Gln Ile Ala Leu His Arg Pro Glu Asp Ala Glu Ala
             165
                 170 175
Val Leu Lys Thr Val Pro Met Gln Asp Gln Asp Thr Arg Tyr Gln Gly
               185 190
         180
Leu Val Ala Gln Ile Asp Leu Leu Lys Gln Ala Ala Asp Thr Pro Glu
                           205
      195
                      200
Ile Gln Gln Leu Gln Gln Gln Val Ala Asp Asn Pro Gln Asp Ala Ala
 210
                   215 220
Leu Ala Ser Gln Leu Ala Leu Gln Leu His Gln Val Gly Arg Asn Glu
                230 235
225
Glu Ala Leu Glu Leu Leu Phe Ser His Leu Gln Lys Asp Leu Gly Ala
             245 250 255
Ala Asp Gly Gln Ala Arg Lys Met Phe Gln Glu Ile Leu Ala Ala Leu
          260 265 270
Gly Thr Gly Asp Ala Leu Ala Ser Lys Tyr Arg Arg Gln Leu Tyr Ala
       275
Leu Leu Tyr
   290
<210> 7405
<211> 83
<212> PRT
<213> Enterobacter cloacae
<400> 7405
Ser Leu Gly Ser Ala Asn Arg Val Leu Phe Gly Gly Glu Trp Ile Lys
                              10
Glu Gly Ala Leu Val Val Asp Val Gly Ile Asn Arg Leu Glu Asn Gly
                           25
Lys Val Val Gly Asp Val Val Tyr Glu Asp Ala Ala Arg Ala Ser
                                        4.5
```

Tyr Ile Thr Pro Val Pro Gly Gly Val Gly Pro Met Thr Val Ala Thr 50 \$55\$ 60 60 Leu Ile Gln Asn Thr Leu Gln Ala Cys Glu Glu Tyr His Asp Val Glu 65 70 75 80 Asp Ala

<210> 7406

```
<211> 391
<212> PRT
<213> Enterobacter cloacae
<400> 7406
Arg Asp Thr Gly Asp Phe Arg Gly Gln Ser Thr Val Tyr Arg Pro Asp
                             1.0
Asp Val Tyr Asp Asp Trp Gln Ile Ile Arg Cys Leu Lys Glu Ala Ser
                          25
Pro Val Arg Trp Gly Ser Pro Leu Ile Trp Leu Ile Ile Gly Lys Phe
      35
                 40
                                       4.5
Gln Gly Ala Val Leu Lys Lys Val Ser Ile Ile Asp Val Ala Lys His
        55
                          60
Ala Gly Val Ser Val Ser Thr Val Ser Leu Val Leu Arg Gln Lys Gly
                70
                          75
65
Lys Ile Ser Glu Ala Thr Ile Gly Lys Val Asn Ala Ala Ile Thr Thr
                             90
            8.5
Leu Gly Tyr Val His Asn Val Ala Ala Ala Asn Leu Arg Ala Asn Thr
          100 105 110
Ser Asn Leu Ile Gly Leu Ile Leu Arg Asp Phe Ser Asp Ser Phe Ser
                               125
                       120
Ile Lys Val Met Ala Ser Ile Val Gln Glu Leu Glu Lys Gln Gly Tyr
                                    140
 130 135
Met Val Phe Leu Gly Gln Pro Leu Asn Asp Gly Glu His Leu Glu Arg
                 150 155 160
145
Thr Leu Leu Thr Phe Lys Gln Gln Gly Val Ala Gly Val Ile Tyr Leu
             165 170 175
Ala Ser Asp Thr Arg Thr Ala Ser Leu Pro Glu His Ile Arg His Cys
                185 190
          180
Pro Leu Pro Leu Val Ala Val Ser Gln Ser Leu Leu Glu Glu Lys Cys
           200
                            205
 195
Asn Leu Val Met Arg Asp Asn Arg Gln Ala Ala Asn Leu Ala Ala Arg
                                     220
                    215
 210
Tyr Leu Ile Glu Arg Gly His Arg Thr Ile Ala Tyr Ile Gly Gly Arg
                 230
                                 235
Asp Gly Cys Arg Ile Arg Glu Gln Arg Leu Leu Gly Phe Arg Ser Ala
                                  255
                              250
              245
Met Thr Gln Asn Gly Leu Ile Trp Arg Glu Glu Tyr Ser Pro Ala Cys
          260
                           265
Thr Asp Asp Thr Gln Ala Ala Ala Met Ala Thr Arg Gln Leu Leu Glu
      275
                       280
Lys Asn Asn Thr Ile Thr Ala Leu Leu Cys His Ser Pro Asp Ala Met
                    295
                                     300
Ile Gly Ser Ile Ser Gly Ile His Gln Val Gly Arg Thr Val Gly Lys
                                  315 320
                 310
Asp Val Phe Leu Thr Gln Gln Val Ala Leu Ile Gly Phe Glu Asp Met
                               330
              325
Leu His Val Asn Leu Thr Ser Pro Ser Leu Thr Tyr Val Ser Ser Ala
                                            350
          340
                           345
 Ser Glu Glu Thr Gly Arg Gln Ala Ala Gly Leu Met Ile Arg Arg Leu
                                        365
      355 360
 Lys Glu Pro Asp Leu Gln Thr Gln Arg Ile Thr Leu Ser Gly Gln Leu
  370 375
                                      380
 Ile Ala Arg Glu Ser Ala
                 390
<210> 7407
<211> 186
 <212> PRT
 <213> Enterobacter cloacae
```

```
<400> 7407
Gln Ala Pro Ile Cys Asp Pro Ser Thr Gly Arg Arg Thr Thr Ile Thr
Glu Gln Asp Ala Lys Met Val Thr Phe His Thr Asn His Gly Asp Ile
                        25
         2.0
Val Ile Lys Thr Phe Asp Asp Lys Ala Pro Glu Thr Val Lys Asn Phe
           40
Leu Asp Tyr Cys Arg Glu Gly Phe Tyr Asn Asn Thr Ile Phe His Arg
          55
                                    60
Val Ile Asn Gly Phe Met Ile Gln Gly Gly Gly Phe Glu Pro Gly Met
                                 7.5
                70
Arg Gln Lys Glu Thr Lys Glu Ala Ile Lys Asn Glu Ala Asn Asn Gly
85 90 95
Leu Lys Asn Thr Arg Gly Thr Leu Ala Met Ala Arg Thr Gln Ala Pro
         100 105 110
His Ser Ala Thr Ala Gln Phe Phe Ile Asn Val Ala Asp Asn Asp Phe
      115 120
                            125
Leu Asn Phe Ser Gly Glu Ser Leu Gln Gly Trp Gly Tyr Cys Val Phe
                    135
                                    140
  130
Ala Glu Val Val Glu Gly Met Asp Val Val Asp Lys Ile Lys Ala Val
                150 155
Ser Thr Gly Arg Ser Gly Met His Gln Asp Val Pro Lys Glu Asp Val
    165 170
Val Ile Thr Ser Val Thr Val Ser Glu
          180
```

<210> 7408 <211> 242 <212> PRT

<213> Enterobacter cloacae

<400> 7408 Phe Val Ala Thr Leu Phe Ile Ala Asp Leu His Leu Gln Thr Glu Glu Pro Ala Ile Thr Ala Gly Phe Leu Arg Phe Leu Arg Gly Glu Ala Lys 25 3.0 20 Asn Ala Asp Ala Leu Tyr Ile Leu Gly Asp Leu Phe Glu Ala Trp Ile 40 Gly Asp Asp Asp Pro Asn Pro Leu Eis Arg Glu Met Ala Ala Ala Ile 55 Lys Thr Leu Val Asp Ser Gly Val Pro Cys Tyr Phe Ile His Gly Asn 75 70 65 Arg Asp Phe Leu Ile Gly Gln Arg Tyr Ala Arg Glu Ser Gly Met Thr 90 85 Leu Leu Pro Glu Glu Gln Val Leu Asn Leu Tyr Gly Arg Asn Ile Leu 105 100 Ile Met His Gly Asp Thr Leu Cys Thr Asp Asp Thr Gly Tyr Leu Ala 120 115 Phe Arg Ala Lys Val His Thr Pro Trp Ile Gln Lys Val Phe Leu Ala 140 135 130 Leu Pro Leu Phe Ile Arg Asn Arg Ile Ala Ala Arg Met Arg Ala Gly 150 155 Ser Lys Ala Ala Asn Ser Ser Lys Ser Met Thr Ile Met Asp Val Asn 170 165 Pro Gln Ala Val Val Lys Val Met Glu Lys His Arg Val Glr Trp Leu 180 185 Ile His Gly His Thr His Arg Pro Asp Val His Ser Leu Ile Ala Asn 205 195 200 Gly Glu Pro Ala His Arg Val Val Leu Gly Ala Trp His Ser Glu Gly

215

Ser Met Val Lys Val Thr Pro Glu Gly Val Glu Leu Ile Ala Phe Pro 235 225 230 Phe <210> 7409 <211> 363 <212> PRT <213> Enterobacter cloacae <400> 7409 Pro Gly Ser Ala Gly Cys Ser Met Lys Gln Val Cys Val Leu Gly Asn 10 Gly Gln Leu Gly Arg Met Leu Arg Gln Ala Gly Glu Pro Leu Gly Ile 25 20 Ala Val Trp Pro Val Gly Leu Asp Ala Glu Pro Glu Ala Val Pro Phe 4.5 3.5 40 His Gln Ser Val Ile Thr Ala Glu Ile Glu Arg Trp Pro Glu Thr Ala 55 60 Leu Thr Arg Glu Leu Ala Arg His Asn Ala Phe Val Asn Arg Asp Val 75 7.0 Phe Pro Ile Ile Ala Asp Arg Leu Thr Gln Lys Gln Leu Phe Asp Lys 95 90 85 Leu Gly Leu Ala Thr Ala Pro Trp Gln Leu Leu Ser Asp Lys Arg Glu 105 110 100 Trp Asp Asp Val Phe Ala Met Leu Gly Asp Leu Ala Ile Val Lys Arg 115 120 125 Arg Val Gly Gly Tyr Asp Gly Arg Gly Gln Trp Arg Leu Arg Ala Asn 135 140 130 Asp Thr Ala Glu Leu Pro Asp Asp Cys Tyr Gly Glu Cys Ile Val Glu 150 155 160 Gln Gly Ile Asn Phe Ser Gly Glu Val Ser Leu Val Gly Ala Arg Gly 170 175 165 His Asp Gly His Thr Val Phe Tyr Pro Leu Thr His Asn Leu His Gln 185 190 180 Asp Gly Ile Leu Arg Thr Ser Val Ala Phe Pro Gln Ala Asn Ala Asp 200 205 195 Gln Gln Ala Gln Ala Glu Glu Met Leu Ser Ala Ile Met His Glu Leu 215 220 Gly Tyr Val Gly Val Met Ala Met Glu Cys Phe Val Thr Pro Ser Gly 235 240 230 225 Leu Leu Ile Asn Glu Leu Ala Pro Arg Val His Asn Ser Gly His Trp 250 255 245 Thr Gln Asn Gly Ala Ser Ile Ser Gln Pne Glu Leu His Leu Arg Ala 265 270 260 Ile Thr Asp Leu Pro Leu Pro Gln Pro Val Val Thr Ser Pro Ser Val 280 275 Met Ile Asn Leu Ile Gly Thr Asp Leu Asn Tyr Asn Trp Leu Lys Leu 295 300 290 Pro Leu Val His Leu His Trp Tyr Asp Lys Glu Val Arg Pro Gly Arg 315 310 Lys Val Gly His Leu Asn Leu Asn Asp Thr Asp Thr Asp Arg Leu Ser 330 Ala Thr Leu Glu Ala Ile Val Pro Leu Leu Pro Pro Glu Tyr Ala Ser 340 345 Gly Ile Val Trp Ala Gln Ser Lys Leu Lys 360

<210> 7410 <211> 385 <212> PRT <213> Enterobacter cloacae

```
<400> 7410
Val Ser Pro Ala Gly Glu Leu Thr Phe Pro Phe Pro Gly Val Gln Phe
Pro Pro Ile Ala Ala Gln Phe Ser Ser Gly Ile Thr Met Asn Asp Gly
       20
                        25
Thr Asp Tyr Arg Ala Ile Leu Ala Ser Asp Thr Pro Leu Ile Asp Val
   35
                  4.0
                                 45
Arg Ala Pro Ile Glu Phe Ala Gln Gly Ala Met Pro Ala Ala Leu Asn
            55
                                60
Leu Pro Leu Met Asn Asp Asp Glu Arg Ala Ala Val Gly Thr Cys Tyr
           70
                       75
Lys Arg Gln Gly Pro Asp Ala Ala Leu Ala Leu Gly His Ser Leu Val
           85 90
Asn Gly Glu Thr Arg Glu Ala Arg Ile Asn Ala Trp Arg Glu Ala Ser
      100 105 110
Leu Ala His Pro Glu Gly Tyr Leu Cys Cys Ala Arg Gly Gly Gln Arg
                  120 125
Ser His Ile Ser Gln Ala Trp Leu Lys Glu Ala Gly Ile Asp Tyr Pro
130 135 140
Leu Ile Arg Gly Gly Tyr Lys Ala Leu Arg Gln Thr Ala Ile Gln Val
145 150 155
Thr Ile Glu Gln Ser Gln Lys Pro Met Val Leu Ile Gly Gly Cys Thr
      165 170 175
Gly Asn Gly Lys Thr Leu Leu Val Lys Gln His Ala Gln Gly Ile Asp
   180 185 190
Leu Glu Gly Leu Ala His His Arg Gly Ser Ser Phe Gly Arg Thr Leu
195 200 205
Thr Pro Gln Leu Ser Gln Ala Ser Phe Glu Asn His Leu Ala Val Glu
210 215 220
Leu Leu Lys Lys Asp Ala Ala Arg Trp Val Leu Glu Asp Glu Gly Arg
225 230 235 240
Met Ile Gly Ser Asn His Leu Pro Glu Cys Leu Arg Asp Arg Met Val
           245 250 255
Asp Ala Pro Val Val Val Val Glu Asp Pro Phe Glu Val Arg Leu Glu
       260 265 270
Arg Leu Arg Glu Glu Tyr Phe Asp His Met Trp Ala Asp Phe Ser Ala
   275 280 285
Ala Tyr Gly Glu Lys Ala Gly Trp Lys Ala Tyr Ser Glu Tyr Leu His
  290 295
His Gly Leu Tyr Ala Ile Arg Arg Arg Leu Gly Leu Gln Arg Phe Ala
              310
                          315
Glu Phe Thr Ala Leu Leu Asp Ala Ala Leu Val Glu Gln Gln Arg Thr
           325
                         330
Gly Ser Thr Asp Ala His Phe Ser Trp Leu Val Pro Leu Leu Lys Asp
      340
                       345
                                      350
Tyr Tyr Asp Pro Met Tyr Gly Tyr Gln Leu Glu Lys Lys Ala Glu Lys
   355
                  360 365
Ile Val Tyr Arg Gly Thr Tyr Glu Glu Ile Ala Glu Trp Leu Asp Arg
                 375
                                380
```

385

<210> 7411 <211> 296

<212> PRT

<213> Enterobacter cloacae

<400> 7411

Leu Lys Asp Lys Pro Asp Met Pro Gly Ser Gln Arg Gly Ala Gly Leu

```
Phe Ile Lys Arg Val Glu Gly Leu Ala Asp Gln Val His Phe Pro Thr
                         25
Ala Ala Ile Val Gln Thr Gly Glu Asn Gly Gln Gln Arg Gly Leu Thr
     3.5
                      4.0
Gly Thr Gly Phe Thr Asn Gln Gly Asp Gly Phe Gly Thr Phe Asp Asn
Glu Phe Asn Ser Gly Glu Asp Gly Lys Leu Val Phe Pro Leu Thr Asp
               70
                                7.5
Arg Leu Leu Lys Thr Met Asn Phe Asn Asn Val Phe Arg Trp His Leu
            85
                       90
Pro Phe Leu Phe Leu Met Leu Met Thr Phe Arg Ala Ala Ala Ala Asp
        100 105
Thr Leu Leu Ile Leu Gly Asp Ser Leu Ser Ala Gly Tyr Arg Met Ala
    115
           120
Ala Ser Ala Ala Trp Pro Ala Leu Leu Asn Asp Lys Trp Gln Ser Arg
 130 135 140
Ala Ser Val Val Asn Gly Ser Ile Ser Gly Asp Thr Ser Gln Gln Gly
145 150 155
Leu Ser Arg Leu Pro Ala Leu Leu Lys Gln His Gln Pro Arg Trp Val
       165 170
Leu Val Glu Leu Gly Gly Asn Asp Gly Leu Arg Gly Phe Gln Pro Gln
   180 185 190
Gln Thr Glu Gln Thr Leu Arg Thr Ile Leu Gln Thr Ile Lys Ala Ala
195 200 205
Asp Ala Gln Pro Leu Leu Met Gln Ile Arg Leu Pro Ala Asn Tyr Gly
210 215
                                220
Arg Arg Tyr Asn Glu Ala Phe Ser Ala Ile Tyr Pro Lys Leu Ala Lys 225 230 235
Glu Phe Asp Ile Pro Leu Leu Pro Phe Phe Met Glu Glu Val Tyr Leu
       245 250
Lys Pro Gln Trp Met Gln Asp Asp Gly Ile His Pro Asn Arg Asp Ala
 260 265
Gln Pro Phe Ile Ala Asp Trp Met Ala Thr Arg Leu Ala Pro Leu Val
Asn His Asp Ser Ser Asn Ser
 290
```

<210> 7412 <211> 210 <212> PRT

<213> Enterobacter cloacae

<400> 7412

Arg His Gln Thr Gly Arg His Ala Ala Gln Val Ala Gly Arg Asp Pro 1.0 Ser Ala Ser Ala Gly Leu Val Ser Arg Gly Leu Thr Gly Ala Gly Ala Gly Gln His Leu Pro Val Val Pro Gly Lys Pro Ala Pro Leu Pro Gly 4.0 Val Met Met Phe Leu Ser Gln Glu Asp Phe Ala Thr Val Val Arg Ser 55 Thr Pro Leu Ile Ser Ile Asp Leu Ile Val Glu Asn Glu Arg Gly Glu 70 75 Phe Leu Leu Gly Lys Arg Thr Asn Arg Pro Ala Gln Gly Phe Trp Phe 85 90 Val Pro Gly Gly Arg Val Gln Lys Asp Glu Thr Leu Thr Asp Ala Phe 105 100 Glu Arg Leu Thr Leu Ala Glu Leu Gly Leu Gln Leu Pro Met Ala Ala 120 Gly Gln Phe Tyr Gly Val Trp Gln His Phe Tyr Asp Asp Asn Phe Ser

```
Gly Thr Gly Phe Thr Thr His Tyr Val Val Leu Gly Phe Arg Leu Lys
              150
                          155
Val Ser Glu Ala Asp Leu Arg Leu Pro Asp Ser Gln His Asp Asp Tyr
             165
                   170 175
Arg Trp Leu Thr Pro Glu Ala Leu Leu Ala Ser Asp Asn Val His Asp
        180 185 190
Asn Ser Arg Ala Tyr Phe Leu Ala Glu Arg Gln Ala Glu Val Pro Gly
              200
Leu
   210
<210> 7413
<211> 474
<212> PRT
<213> Enterobacter cloacae
<400> 7413
Ile Trp Pro Leu His Gly Gln Gly Gln Leu Leu Pro Glu Lys Gly Val
                               10
Ile Met Glu Lys Leu Thr Cys Phe Lys Ala Tyr Asp Ile Arg Gly Lys
20
                         25
                                             30
Leu Gly Glu Glu Leu Asn Glu Asp Ile Ala Trp Arg Ile Gly Arg Ala
 35
              4.0
Tyr Gly Glu Tyr Leu Lys Pro Gln Thr Ile Val Leu Gly Gly Asp Val
                    5.5
                                      60
Arg Leu Thr Ser Glu Ser Leu Lys Leu Ala Leu Ala Lys Gly Leu Gln
               70
Asp Ala Gly Val Asp Val Leu Asp Ile Gly Leu Ser Gly Thr Glu Glu
            8.5
                               90
Ile Tyr Phe Ala Thr Phe His Leu Gly Val Asp Gly Gly Ile Glu Val
    100
                         105
Thr Ala Ser His Asn Pro Met Asp Tyr Asn Gly Met Lys Leu Val Arg
 115
                        120
                                          125
Lys Gly Ala Arg Pro Ile Ser Gly Asp Thr Gly Leu Arg Asp Val Gln
                    135
                                      1.40
Arg Leu Ala Glu Ala Asn Asp Phe Pro Pro Val Asn Glu Ala Lys Arg
                 150
                                  155
Gly Ser Tyr Lys Gln Ile Asn Leu Gln Lys Glu Tyr Ile Asp His Leu
             165
                               170
                                                 175
Leu Gly Tyr Ile Asn Val Ala Asn Leu Lys Pro Leu Lys Leu Val Ile
          180
                           185
                                            190
Asn Ser Gly Asn Gly Ala Ala Gly Pro Val Val Asp Ala Leu Glu Ala
      195
                        200
                                         205
Arg Phe Lys Ala Leu Asn Val Pro Val Thr Phe Val Lys Val His Asn
  210
                    215
                                      220
Thr Pro Asp Gly Asn Phe Pro Asn Gly Ile Pro Asn Pro Leu Leu Pro
                230
                                   235
Glu Cys Arg Asp Asp Thr Arg Asn Ala Val Ile Glu His Gly Ala Asp
             245
                               250
                                                 255
Met Gly Ile Ala Phe Asp Gly Asp Phe Asp Arg Cys Phe Leu Phe Asp
          260
                            265
Glu Lys Gly Gln Phe Ile Glu Gly Tyr Tyr Ile Val Gly Leu Leu Ala
       275
                      280
                                          285
Glu Ala Phe Leu Glu Lys Asn Pro Gly Ala Lys Ile Ile His Asp Pro
  290
                    295
                                     300
Arg Leu Ser Trp Asn Thr Val Asp Val Val Lys Ala Ala Gly Gly Glu
305
                 310
                                  315
Pro Val Met Ser Lys Thr Gly His Ala Phe Ile Lys Glu Arg Met Arg
                              330
Glu Glu Asp Ala Ile Tyr Gly Gly Glu Met Ser Ala His His Tyr Phe
```

```
345
Arg Asp Phe Ala Tyr Cys Asp Ser Gly Met Ile Pro Trp Leu Leu Val
      355
              360
                              365
Thr Glu Leu Cys Leu Lys Gly Gln Ser Leu Gly Glu Leu Val Arg
          375
                         380
Asp Arg Met Ala Ala Phe Pro Ala Ser Gly Glu Ile Asn Ser Lys Leu
       390 395
Ala Gln Pro Ala Glu Ala Ile Ala Arg Val Glu Gln His Phe Ala Ile
        405 410 415
His Ala Leu Glu Ile Asp Arg Thr Asp Gly Ile Ser Met Ala Phe Pro
       420 425 430
Gln Trp Arg Phe Asn Leu Arg Ser Ser Asn Thr Glu Pro Val Val Arg
    435 440 445
Leu Asn Val Glu Ser Arg Ala Asp Thr Ala Leu Met Glu Ala Arg Thr
 450 455
Lys Asp Ile Leu Ala Leu Leu Asn Gln
               470
<210> 7414
<211> 499
<212> PRT
<213> Enterobacter cloacae
<400> 7414
Thr Lys Arg Arg Thr Lys Met Ser Leu Arg Glu Lys Thr Ile Ser Gly
                            10
Ala Lys Trp Ser Ala Met Ala Thr Ile Val Ile Ile Gly Leu Gly Leu
 20
                         25
Val Gln Met Thr Val Leu Ala Arg Ile Ile Asp Asn His Gln Phe Gly
3.5
               40
Leu Leu Thr Val Ser Leu Val Ile Ile Ala Leu Ala Asp Thr Leu Ser
                 5.5
Asp Phe Gly Ile Ala Asn Ser Ile Ile Gln Arg Lys Glu Ile Ser His
              7.0
                                75
Leu Glu Leu Thr Thr Leu Tyr Trp Leu Asn Val Gly Leu Gly Ile Phe
           8.5
                            90
Val Phe Val Leu Val Phe Leu Leu Ser Asp Val Ile Ala Gly Val Leu
        100
                         105
                                         110
His Asn Pro Asp Leu Ala Pro Leu Met Arg Thr Leu Ser Phe Ala Phe
 115
                     120
                                      125
Val Val Ile Pro His Gly Gln Gln Phe Arg Ala Leu Met Gln Lys Glu
                   135
                                   140
Leu Glu Phe Asn Lys Ile Gly Met Ile Glu Thr Ser Ala Val Leu Ala
   150
                                155
Gly Phe Thr Phe Thr Val Val Ser Ala His Phe Trp Pro Leu Ala Met
            165
                             170
                                   175
Thr Ala Ile Leu Gly Tyr Leu Val Asn Ser Ala Val Arg Thr Leu Leu
         180
                         185
                                         190
Phe Gly Phe Phe Gly Arg Lys Ile Tyr Arg Pro Gly Leu His Phe Ser
 195
                     200
                                      205
Leu Ala Ser Val Ser Ser Asn Leu Arg Phe Gly Ala Trp Leu Thr Ala
 210
                   215
                                   220
Asp Ser Ile Ile Asn Tyr Val Asn Thr Asn Leu Ser Thr Leu Val Leu
               230 235
Ala Arg Ile Leu Gly Ala Ser Val Ala Gly Gly Tyr Asn Leu Ala Tyr
            245
                            250
Asn Val Ala Val Val Pro Pro Met Lys Leu Asn Pro Ile Ile Thr Arg
        260
                         265
                                       270
Val Leu Phe Pro Ala Phe Ala Lys Ile Gln Asp Asp Thr Glu Lys Leu
     275
            280
                                  285
Arg Val Asn Phe Tyr Lys Leu Leu Ser Val Val Gly Ile Ile Asn Phe
```

```
295
Pro Val Leu Leu Gly Leu Met Val Val Ala Ser Asn Phe Val Pro Leu
               310
                               315
Val Phe Gly Glu Lys Trp Asn Ser Ile Ile Pro Ile Leu Gln Leu Leu
            325
                           330
Cys Val Val Gly Leu Leu Arg Ser Val Gly Asn Pro Ile Gly Ser Leu
         340
                     345
                             350
Leu Met Ala Lys Ala Arg Val Asp Ile Ser Phe Lys Phe Asn Val Phe
     355
             360
                            365
Lys Thr Phe Leu Phe Ile Pro Ala Ile Ile Val Gly Gly His Met Ala
                375
                         380
Gly Ala Ile Gly Val Thr Leu Gly Phe Leu Leu Val Gln Ile Val Asn
            390 395
Thr Val Leu Ser Tyr Phe Val Met Ile Lys Pro Val Leu Gly Ser Ser
          405 410 415
Tyr Arg Gln Tyr Ile Leu Ser Leu Trp Leu Pro Phe Tyr Leu Ser Leu
       420
             425 430
Pro Thr Leu Ala Val Ser Tyr Gly Leu Gly Val Val Leu Asn Gly His
   435
                    440
Leu Pro Leu Ala Ala Leu Leu Ala Val Gln Val Ala Ala Gly Ala Leu
450 455 460
Ala Phe Gly Val Met Ile Val Leu Ser Arg Asn Ala Leu Val Val Glu
465 470 475
Met Lys Arg Gln Phe Cys Arg Asn Glu Lys Met Lys Thr Leu Leu Arg
Ala Glv
```

<210> 7415 <211> 432 <212> PRT

<400> 7415

<213> Enterobacter cloacae

Phe Tyr Glu Ala Ile Met Lys Leu Leu Ile Leu Gly Asn His Thr Cys 10 Gly Asn Arg Gly Asp Ser Ala Ile Leu Arg Gly Leu Leu Asp Ala Ile 20 2.5 Asn Thr Leu Lys Pro Glu Thr Glu Val Asp Val Met Ser Arg Tyr Pro 35 40 Val Ser Ser Ser Trp Leu Leu Asn Arg Pro Val Met Gly Asp Pro Leu 5.5 Tyr Ser Gln Met Lys Gln His Asn Asn Ala Ala Gly Val Met Gly Arg 70 7.5 Val Lys Lys Val Leu Arg Arg Tyr Gln His Gln Val Leu Leu Ser 8.5 90 Arg Val Thr Asp Thr Gly Lys Leu Arg Asn Ile Ala Ile Ala Gln Gly 100 105 110 Phe Thr Asp Phe Val Arg Leu Leu Ser Gly Tyr Asp Ala Ile Ile Gln Val Gly Gly Ser Phe Phe Val Asp Leu Tyr Gly Val Pro Gln Phe Glu 135 140 His Ala Leu Cys Thr Phe Met Ala Lys Lys Pro Leu Phe Met Ile Gly 150 155 His Ser Val Gly Pro Phe Gln Asp Pro Gln Phe Asn Gln Leu Ala Asn

Tyr Val Phe Gly His Cys Asp Ala Leu Ile Leu Arg Glu Ser Val Ser

Leu Asp Met Met Lys Arg Ser Glu Ile Asp Thr Thr Lys Val Glu His  $195 \\ 200 \\ 205$  Gly Val Asp Thr Ala Trp Leu Val Asp His Gln Asp Asp Ser Phe Gln

185

170

190

165

180

215 Ala Ser Tyr Ala Val Gln His Trp Leu Asp Val Ala Ala Lys Gln Lys 230 235 240 Thr Val Ala Ile Thr Leu Arg Glu Leu Ala Pro Phe Asp Lys Arg Leu 245 250 255 Gly Thr Thr Gln Ala Ala Tyr Glu Lys Ala Phe Ala Asp Val Val Asn 260 265 270 Arg Val Leu Asp Ser Gly Tyr Gln Val Leu Ala Leu Ser Thr Cys Thr 275 280 285 Gly Ile Asp Ser Tyr Asn Lys Asp Asp Arg Met Val Ala Leu Asn Leu 290 295 300 Arg Asn Leu Val Asn Asp Pro Ser Arg Tyr His Val Val Met Asp Glu 310 315 Leu Asn Asp Leu Glu Met Gly Lys Leu Leu Ser Ala Cys Asp Leu Thr 325 330 335 Val Gly Thr Arg Leu His Ser Ala Ile Ile Ser Met Asn Phe Gly Thr 340 345 350 Pro Ala Ile Ala Ile Asn Tyr Glu His Lys Ser Ala Gly Ile Met Gln 355 360 365 Gln Leu Gly Met Pro Glu Met Ala Val Asp Ile Arg His Leu Leu Asp 370 375 380 Gly Ser Leu Gly Ala Met Val Gly Asp Thr Leu Gly Gln Leu Pro Ala 385 390 395 400 Ile Asn Glu Arg Leu Ala Val Ala Val Lys Ala Glu Arg Glu Lys Gly 405 410 415 Ile Gly Met Val Lys Ser Val Leu Asp Arg Val Arg Glu Gly Lys 425

<210> 7416 <211> 345 <212> PRT

<213> Enterobacter cloacae

<400> 7416 Ser Ser Glu Lys Thr Leu Pro Ala Gin Val Ser Trp Leu Arg Gly Cys 10 His Arg Ala Gly Val Leu Arg Met Thr Lys Gln Arg Ile Phe Val Ala 20 2.5 Gly His Arg Gly Met Val Gly Ser Ala Ile Val Arg Gln Leu Glu Gln 4.0 Arg Gly Asp Val Glu Val Ile Val Arg Thr Arg Asp Glu Leu Asn Leu 50 55 60 Leu Asp Ser Lys Ala Val Gln Asp Phe Phe Ala Ser Glu Arg Ile Asp 65 70 7.5 Gln Val Tyr Leu Ala Ala Ala Lys Val Gly Gly Ile Val Ala Asn Asn 8.5 90 Thr Tyr Pro Ala Asp Phe Ile Tyr Glu Asn Met Met Ile Glu Ser Asn 100 105 Ile Ile His Ala Ala His Met His Asn Val Asn Lys Leu Leu Phe Leu 120 125 Gly Ser Ser Cys Ile Tyr Pro Lys Met Ala Lys Gln Pro Ile Ala Glu 130 135 140 Ser Glu Leu Leu Gln Gly Thr Leu Glu Ala Thr Asn Glu Pro Tyr Ala 145 150 155 Ile Ala Lys Ile Ala Gly Ile Lys Leu Cys Glu Ser Tyr Asn Arg Gln 165 170 175 Tyr Asn Arg Asp Tyr Arg Ser Val Met Pro Thr Asn Leu Tyr Gly Pro 180 185 190 His Asp Asn Phe His Pro Ser Asn Ser His Val Ile Pro Ala Leu Leu 200

Arg Arg Phe His Glu Ala Thr Ala Glu Asn Ala Pro Asp Val Val Val

```
Trp Gly Ser Gly Thr Pro Met Arg Glu Phe Leu His Val Asp Asp Met
                230
                             235
Ala Ala Ala Ser Ile His Val Met Glu Leu Asp Arg Glu Val Trp Gln
             245
                        250
Glu Asn Thr Glu Pro Met Leu Ser His Ile Asn Val Gly Thr Gly Val
         260
                    265 270
Asp Cys Thr Ile Arg Glu Leu Ala Gln Thr Ile Ala Gln Val Val Gly
     275
                     280
                            285
Tyr Lys Gly Arg Val Val Phe Asp Ala Thr Lys Pro Asp Gly Thr Pro
         295 300
Arg Lys Leu Leu Asp Val Thr Arg Leu His Gln Leu Gly Trp Tyr His
     310 315
Glu Val Ser Leu Glu Gln Gly Leu Ala Ser Thr Tyr Gln Trp Phe Leu
          325
                              330
Glu Asn Gln His Arg Phe Arg Gly
          340
<210> 7417
<211> 312
<212> PRT
<213> Enterobacter cloacae
<400> 7417
Leu Gly Leu Tyr Phe Val Asn His Phe Lys Val Glu Asp Lys Met Thr
                  10
Asn Leu Lys Ala Val Ile Pro Val Ala Gly Leu Gly Met His Met Leu
                          25
Pro Ala Thr Lys Ala Ile Pro Lys Glu Met Leu Pro Ile Val Asp Lys
                       4.0
                                         45
Pro Met Ile Gln Tyr Ile Val Asp Glu Ile Val Ala Ala Gly Ile Lys
                    55
                                     60
Glu Ile Val Leu Val Thr His Ser Ser Lys Asn Ala Val Glu Asn His
                7.0
                                 7.5
Phe Asp Thr Ser Tyr Glu Leu Glu Ala Leu Leu Glu Gln Arg Val Lys
       85
                              90
Arg Gln Leu Leu Ala Glu Val Gln Ser Ile Cys Pro Pro Gly Val Thr
    100
                           105
                                            110
Ile Met Asn Val Arg Gln Ala Gln Pro Leu Gly Leu Gly His Ser Ile
      115
                       120
Leu Cys Ala Arg Pro Val Val Gly Asp Asn Pro Phe Ile Val Val Leu
                   135
                                     140
Pro Asp Ile Ile Asp Asn Ala Ser Ala Asp Pro Leu Arg Tyr Asn
                150
                                 155
Leu Ala Ala Met Val Ala Arg Phe Asn Glu Thr Gly Arg Ser Gln Val
             165
                              170
Leu Ala Lys Arg Met Lys Gly Asp Leu Ser Glu Tyr Ser Val Ile Gln
         180
                           185
Thr Lys Glu Pro Leu Glu Thr Glu Gly Gln Val Ser Arg Ile Val Glu
                       200
Phe Ile Glu Lys Pro Asp Gln Pro Gln Thr Leu Asp Ser Asp Leu Met
 210
                    215
                                     220
Ala Val Gly Arg Tyr Val Leu Asn Ala Asp Ile Trp Ala Glu Leu Glu
                230
                                 235
Lys Thr Lys Pro Gly Ala Trp Glu Arg Ile Gln Leu Thr Asp Ala Ile
             245
                              250
Ala Glu Leu Gly Lys Lys Gln Ser Val Asp Ala Met Leu Met Thr Gly
         260
                          265
                                 270
Asp Ser Tyr Asp Cys Gly Lys Lys Met Gly Tyr Met Gln Ala Phe Val
     275
                      280
Asn Thr Gly Leu Arg Asn Leu Lys Glu Gly Ala Lys Phe Arg Lys Cys
```

```
3384
                  295
                                 300
Ile Glu Asn Leu Leu His Glu
<210> 7418
<211> 378
<212> PRT
<213> Enterobacter cloacae
<400> 7418
Arg Asn Ile Asn Met Ser Lys Val Ala Leu Ile Thr Gly Val Thr Gly
                         1.0
Gln Asp Gly Ser Tyr Leu Ala Glu Leu Leu Glu Lys Gly Tyr Glu
                25
                             3.0
Val His Gly Ile Lys Arg Arg Ala Ser Ser Phe Asn Thr Glu Arg Val
          40
Asp His Ile Tyr Gln Asp Pro His Ala Ala Asn Pro Lys Phe His Leu
 50 55
                      60
His Tyr Gly Asp Leu Thr Asp Thr Ser Asn Leu Thr Arg Ile Leu Gln
       7.0
                  7.5
Glu Val Gln Pro Asp Glu Val Tyr Asn Leu Gly Ala Met Ser His Val
      85
                        90
Ala Val Ser Phe Glu Ser Pro Glu Tyr Thr Ala Asp Val Asp Ala Met
        100
                        105
Gly Thr Leu Arg Leu Leu Glu Ala Ile Arg Phe Leu Gly Leu Glu Lys
115
                     120
                           125
Lys Thr Arg Phe Tyr Gln Ala Ser Thr Ser Glu Leu Tyr Gly Leu Val
 130
                  135 140
Gln Glu Ile Pro Gln Lys Glu Thr Thr Pro Phe Tyr Pro Arg Ser Pro
145 150 155
Tyr Ala Val Ala Lys Leu Tyr Ala Tyr Trp Ile Thr Val Asn Tyr Arg
            165
                               175
Glu Ser Tyr Gly Met Tyr Ala Cys Asn Gly Ile Leu Phe Asn His Glu
        180
                       185 190
Ser Pro Arg Arg Gly Glu Thr Phe Val Thr Arg Lys Ile Thr Arg Ala
195
                     200
                           205
Ile Ala Asn Ile Ala Gln Gly Leu Glu Ser Cys Leu His Leu Gly Asn
 210 215
                                 220
Met Asp Ser Leu Arg Asp Trp Gly His Ala Lys Asp Tyr Val Lys Met
225 230
                     235
Gln Trp Met Met Leu Gln Gln Glu Gln Pro Glu Asp Phe Val Ile Ala
            245
                           250
Thr Gly Val Gln Tyr Ser Val Arg Gln Phe Val Glu Met Ala Ala Ala
        260
                        265
Gln Leu Gly Ile Lys Leu Arg Phe Glu Gly Thr Gly Val Glu Glu Lys
                     280
                           285
Gly Ile Val Val Ser Val Thr Gly His Asp Ala Pro Gly Val Lys Pro
  290
                  295
                                 300
Gly Asp Val Ile Val Gln Val Asp Pro Arg Tyr Phe Arg Pro Ala Glu
305
               310 315 320
Val Glu Thr Leu Leu Gly Asp Pro Thr Lys Ala His Glu Lys Leu Gly
            325
                  330 335
Trp Lys Pro Glu Thr Thr Leu Gln Glu Met Val Ser Glu Met Val Ala
        340
               345 350
Lys Asp Leu Glu Ala Ala Lys Lys His Ser Leu Leu Lys Ser His Gly
            360
Tyr Glu Val Ala Ile Ala Leu Glu Ser
  370
```

<210> 7419 <211> 425

<212> PRT <213> Enterobacter cloacae <400> 7419 Gln Gln Ser Gly Val Leu Pro Cys Gly Thr Ser Gly Arg Gly Ala Arg 10 Ser Met Lys Ile Leu Val Tyr Gly Ile Asn Tyr Ser Pro Glu Leu Thr 20 25 Gly Ile Gly Lys Tyr Thr Gly Gla Met Val Glu Trp Met Ala Ser Gln 40 4.5 Gly His Asp Val Arg Val Ile Thr Ala Pro Pro Tyr Tyr Pro Glu Trp 55 60 Lys Val Gly Glu Arg Tyr Ser Ser Trp Arg Tyr Arg Arg Glu Glu Gly 70 75 80 Ala Ala Thr Val Trp Arg Cys Pro Leu Tyr Val Pro Lys Gln Pro Ser 85 90 Thr Leu Lys Arg Leu Ile His Leu Gly Ser Phe Ala Leu Ser Ser Phe 100 105 110 Phe Pro Leu Met Ala Gln Arg Arg Trp Lys Pro Asp Arg Ile Ile Gly 115 120 125 Val Val Pro Thr Leu Phe Cys Thr Pro Gly Met Arg Leu Leu Gly Lys 130 135 140 Leu Ser Gly Ala Arg Thr Leu Leu His Ile Gln Asp Tyr Glu Val Asp 145 150 155 160 Ala Met Leu Gly Leu Gly Met Ala Gly Lys Gly Lys Gly Gly Lys Val 1.65 170 175 Ala Lys Leu Ala Ser Ala Phe Glu Arg Ser Gly Leu His Asn Val Asp 180 185 190 Tyr Val Ser Thr Ile Ser Arg Ser Met Met Asn Lys Ala Gln Glu Lys 195 200 205 Gly Val Pro Ala Glu Lys Val Ile Phe Phe Pro Asn Trp Ser Glu Val 210 215 220 Ala Arg Phe Arg Asp Val Thr Asp Gln Asp Ala Gln Ala Leu Arg Ala 230 235 Gln Leu Gly Leu Pro Ala Glu Gln Lys Ile Ile Leu Tyr Ser Gly Asn 245 250 255 Ile Gly Glu Lys Gln Gly Leu Glu Ser Val Ile Asp Ala Ala Leu Gln 260 265 270 Leu Ser Glu His Pro Trp Met Phe Val Ile Val Gly Gln Gly Gly Gly 275 280 285 Lys Ala Arg Leu Glu Lys Met Ala Ser Glu Arg Gly Leu Thr Asn Ile 295 300 Arg Phe Phe Pro Leu Gln Ser Tyr Asp Ala Leu Pro Ala Leu Leu Lys 305 310 315 Met Ala Asp Cys His Leu Val Val Gln Lys Arg Gly Ala Ala Asp Ala 325 330 Val Leu Pro Ser Lys Leu Thr Asn Ile Leu Ala Val Gly Gly Asn Ala 340 345 350 Val Ile Thr Ala Glu Ala Ala Thr Glu Leu Gly Gln Leu Cys Asn Ser 355 360 Tyr Pro Gly Ile Ala Val Cys Val Glu Pro Glu Ser Val Pro Ala Leu 370 375 380 Val Thr Gly Ile Glu Gln Ala Leu Ala Met Pro Lys Glu Asn Thr Val 390 395 400 385 Ala Arg Glu Tyr Ala Glu Arg Thr Leu Glu Lys Glu Asn Val Leu Ser 405 410 Gln Phe Ile Ala Asp Ile Arg Gly

<210> 7420 <211> 480 <212> PRT <213> Enterobacter cloacae

<400> 7420 Ile Met Ser Gln Thr Thr Leu Tyr Pro Val Val Met Ala Gly Gly Ser 10 Gly Ser Arg Leu Trp Pro Leu Ser Arg Val Leu Tyr Pro Lys Gln Phe 25 30 Leu Cys Leu Lys Gly Asp Leu Thr Met Leu Gln Thr Thr Val Asn Arg 4.0 4.5 Leu His Gly Val Glu Cys Glu Ser Pro Val Val Ile Cys Asr Glu Gln - 55 His Arg Phe Ile Val Ala Glu Gln Leu Arg Gln Leu Asn Lys Leu Thr 70 75 Glu Asn Ile Ile Leu Glu Pro Ala Gly Arg Asn Thr Ala Pro Ala Ile 85 90 95 Ala Leu Ala Ala Leu Ala Ala Lys Arg Ser Ser Pro Asp Cys Asp Pro 100 105 110 Leu Met Leu Val Leu Ala Ala Asp His Val Ile Gln Gln Glu Glu Ala 115 120 125 Phe Arg Asp Ala Val Arg Ala Ala Ile Pro Tyr Ala Glu Asn Gly Lys 130 135 140 Leu Val Thr Phe Gly Ile Val Pro Asp Leu Pro Glu Thr Gly Tyr Gly 145 150 155 160 Tyr Ile Arg Arg Gly Ser Val Thr Pro Gly Glu Gly Asp Ser Val Ala 165 170 175 Phe Asp Val Ala Gln Phe Val Glu Lys Pro Asn Leu Glu Thr Ala Gln 180 185 190 Ala Tyr Val Ala Ser Gly Glu Tyr Tyr Trp Asn Ser Gly Met Phe Leu 205 195 200 Phe Arg Ala Gly Arg Tyr Leu Glu Glu Leu Glu Lys Tyr Arg Pro Asp 210 215 220 Ile Leu Ser Ala Cys Glu Lys Ala Met Ala Val Val Asp Pro Asp Leu 230 235 Asp Phe Ile Arg Val Asp Glu Glu Ala Phe Leu Ala Cys Pro Glu Glu 245 250 255 Ser Ile Asp Tyr Ala Val Met Glu Arg Thr Ala Asp Ala Val Val 260 265 270 Pro Met Asp Ala Gly Trp Ser Asp Val Gly Ser Trp Ser Ser Leu Trp 275 280 285 Glu Ile Ser Ala His Thr Pro Glu Gly Asn Val His His Gly Asp Val 295 300 Ile Ser His Lys Thr Glu Asn Ser Tyr Val Tyr Ala Glu Ser Gly Leu 310 315 Val Thr Thr Val Gly Val Lys Asp Leu Val Val Val Gln Thr Lys Asp 325 330 Ala Val Leu Ile Ala Asp Arg Asn Ala Val Gln Asp Val Lys Lys Val 340 345 350 Val Glu Lys Ile Lys Ala Asp Gly Arg His Glu His His Ile His Arg 360 365 Glu Val Tyr Arg Pro Trp Gly Lys Tyr Asp Ser Ile Asp Ala Gly Glu 375 380 Arg Tyr Gln Val Lys Arg Ile Thr Val Lys Pro Gly Glu Gly Leu Ser 390 395 Val Gln Met His His His Arg Ala Glu His Trp Val Val Val Ala Gly 405 410 415 Thr Ala Lys Val Thr Ile Asp Gly Glu Val Lys Leu Leu Gly Glu Asn 420 425 430 Glu Ser Ile Tyr Ile Pro Leu Gly Ala Thr His Cys Leu Glu Asn Pro 435 440 Gly Lys Ile Pro Leu Asp Leu Ile Glu Val Arg Ser Gly Ser Tyr Leu

```
3387
                   455
Glu Glu Asp Asp Ile Ile Arg Phe Gln Asp Arg Tyr Gly Arg Val
               470
<210> 7421
<211> 489
<212> PRT
<213> Enterobacter cloacae
<400> 7421
Thr Pro Ser Pro Leu Trp Gly Glu Gly Arg Gly Glu Gly Arg Gly Val
                           1.0
Arg Phe Arg Thr Lys Gly Thr Thr Met Thr Asn Leu Lys Lys Arg Glu
      20
                         2.5
Arg Ala Arg Thr Asn Ala Ser Leu Ile Ser Met Val Gln Arg Phe Ser
                      4.0
                           45
Asp Ile Thr Ile Met Val Gly Gly Leu Trp Ala Val Cys Trp Val Ser
                  55
Gly Gln Ser Phe Leu Tyr Met His Leu Leu Met Ala Leu Ile Ala Leu
    7.0
                     75
Val Val Phe Gln Met Ile Gly Gly Met Thr Asp Phe Tyr Arg Ser Trp
       85 90
Arg Gly Val Lys Met Thr Thr Glu Leu Met Leu Leu Leu Gln Asn Trp
        100 105 110
Thr Leu Ser Leu Val Phe Ser Ala Gly Leu Val Ala Phe Ser His Asp
 115 120
Phe Asp Asn Arg Leu Val Thr Tyr Leu Cys Trp Tyr Leu Leu Thr Ser
 130 135 140
Ile Gly Met Val Val Cys Arg Ser Leu Ile Arg Phe Gly Ala Gly Trp
145 150 155
Leu Arg Asn Arg Gly Tyr Asn Arg Arg Phe Val Ala Val Ala Gly Asp
      165 170
Leu Pro Val Gly Gln Val Leu Leu Asp Ser Phe Arg Lys Glu Pro Trp
 180
                         185
Leu Gly Phe Glu Val Val Gly Ile Tyr His Asp Ala Lys Pro Gly Gly
 195
                     200
                                      205
Val Pro Ser Asp Trp Ala Gly Asn Tyr Glu Gln Leu Ile Asp Asp Ala
                215 220
Lys Ala Gly Lys Ile His Asn Val Tyr Ile Ala Met Gln Met Lys Asp
               230
                               235
Glu Ser Arg Ile Lys Lys Leu Met Arg Glu Leu Ala Asp Thr Thr Cys
            245 250
Ser Val Ile Leu Ile Pro Asp Val Phe Thr Phe Asn Ile Leu His Ser
        260 265
                                         270
Arg Ile Glu Glu Val Asn Gly Val Pro Val Val Pro Leu Tyr Asp Thr
 275 280
                                     285
Pro Leu Ser Gly Ile Asn Arg Val Leu Lys Arg Ala Glu Asp Ile Val
                  295
                                  300
Leu Ser Ser Leu Ile Leu Leu Ile Ser Pro Val Leu Cys Cys Ile
               310
                               315
Ala Leu Ala Val Lys Leu Ser Ser Pro Gly Pro Ile Ile Phe Arg Gln
            325
                            330
Thr Arg Tyr Gly Met Asp Gly Lys Pro Ile Met Val Trp Lys Phe Arg
         340
                                         350
Ser Met Lys Val Met Glu Asn Asp Lys Val Val Thr Gln Ala Thr Gln
                     360
Asn Asp Pro Arg Val Thr Arg Val Gly Asn Phe Leu Arg Arg Thr Ser
                  375
                                  380
Leu Asp Glu Leu Pro Gln Phe Ile Asn Val Phe Thr Gly Gly Met Ser
     390
                               395
```

Ile Val Gly Pro Arg Pro His Ala Val Ala His Asn Glu Gln Tyr Arg

405 415

Thr Leu Ile Glu Gly Tyr Met Leu Arg His Lys Val Lys Pro Gly Ile
420 425

Thr Gly Trp Ala Gln Ile Asn Gly Trp Arg Gly Glu Thr Asp Thr Leu
435 445

Glu Lys Met Glu Lys Arg Ile Glu Phe Asp Leu Glu Tyr Ile Arg Glu
450 450 460

Trp Ser Leu Trp Phe Asp Ile Lys Ile Val Phe Leu Thr Ile Phe Lys
465 470 485

Gly Phe Val Asn Lys Ala Ala Tyr
485

<210> 7422 <211> 464 <212> PRT

<213> Enterobacter cloacae <400> 7422 Asn Gly Arg Arg Tyr Ser Ser Ser Ala Gly Arg Ile Ala Gly Cys Asp 10 Gly Gly Arg His Ala Arg Pro Ala Ala Cys Asp Gln Arg Thr Ser Gly 20 25 Gly Gly Gly Lys Ser Arg Thr Arg Lys Arg Tyr Trp His Gly Glu Ile 35 40 4.5 Arg Thr Arg Pro Arg Pro Gly Gly Glu Met Lys Phe Gly Phe Phe Leu 50 55 60 Leu Lys Phe Pro Leu Ser Ser Glu Thr Phe Val Leu Asn Gln Ile Thr 65 70 75 Ala Phe Ile Asp Met Gly Tyr Asp Val Glu Ile Ile Ala Leu Gln Lys 85 90 Gly Asp Thr Gln Asn Thr His Ala Ala Tyr Thr Arg Tyr Gly Leu Glu 100 105 Ala Lys Thr Arg Trp Leu Gln Asp Glu Pro Ala Gly Arg Met Asn Lys 115 120 125 Leu Arg His Arg Ala Gly Gln Thr Leu Arg Gly Leu His Arg Ala Ser 130 135 140 Thr Trp Arg Ala Leu Asn Met Ser Arg Tyr Gly Ala Glu Ala Arg Asn 145 150 155 160 155 160 Leu Ile Leu Ser Ala Ile Cys Gly Gln Thr Ala Gln Pro Tyr Arg Ala 165 170 175 Asp Val Phe Ile Ala His Phe Gly Pro Ala Gly Val Thr Ala Ala Lys 180 185 190 Leu Arg Glu Leu Gly Val Ile Asp Gly Lys Ile Ala Thr Ile Phe His 195 200 205 Gly Ile Asp Ile Ser Ser Arg Glu Val Leu Asn His Tyr Thr Pro Glu 210 215 220 Tyr Gln Gln Leu Phe Arg Arg Gly Asp Met Met Leu Pro Ile Ser Asn 230 235 Leu Trp Ala Gly Arg Leu Lys Thr Met Gly Cys Pro Ser Glu Lys Ile 245 250 255 Thr Val Ser Arg Met Gly Val Asp Met Glu Arg Phe Thr Gln Arg Pro 265 270 Val Lys Val Pro Gly Lys Pro Leu Gln Ile Ile Ser Val Ala Arg Leu 280 Thr Glu Lys Lys Gly Leu His Val Ala Ile Glu Ala Cys Arg Gln Leu 295 300 Lys Ala Arg Gly Val Asp Phe His Tyr Arg Ile Leu Gly Ile Gly Pro 305 310 315 Trp Glu Arg Arg Leu Arg Thr Leu Ile Glu Gln Tyr Gln Leu Glu Asp 325 330 Val Val Glu Met Pro Gly Phe Lys Pro Ser His Glu Val Lys Ala Met

```
340
                           345
Leu Asp Asp Ala Asp Val Phe Leu Leu Pro Ser Val Thr Gly Ala Asp
                       360
                                      365
Gly Asp Met Glu Gly Ile Pro Val Ala Leu Met Glu Ala Met Ala Val
  370
                 375
                           380
Gly Ile Pro Val Val Ser Thr Leu His Ser Gly Ile Pro Glu Leu Ile
                390
                     395 400
Thr Ser Glu His Ser Gly Trp Leu Val Pro Glu Asn Asn Ala Leu Ala
        405 410 415
Leu Ala Asp Arg Leu Ala Ala Phe Ser Asp Ile Asp Gln Gln Thr Leu
        420 425 430
Ile Pro Val Leu Gln Asn Ala Arg Gln Lys Val Glu Ala Glu Phe Asn
   435 440 445
Gln Gln Val Ile Asn Arg Gln Leu Ala Ser Leu Leu Gln Thr Leu
<210> 7423
<211> 466
<212> PRT
<213> Enterobacter cloacae
<400> 7423
Gly Cys Met Leu Lys Lys Ile Thr Arg Arg Arg Phe Val Ser Ser Leu
                             10
Ser Val Leu Ala Ala Met Pro Leu Leu Ser Pro Arg Ala Ala Arg Ala
 20
                          25
                                           3.0
Ala Thr Gly Lys Thr Val Ser Val Asp Arg Tyr Asn Asn Asn Asp Trp
                       4.0
Ile Ala Ala Phe Lys Gln Ala Phe Thr Glu Gly Asp Thr Val Val Val
                   5.5
                                    60
Pro Ala Gly Leu Thr Cys Glu Asn Ile Asn Thr Gly Ile Phe Ile Pro
Asp Gly Lys Thr Leu Leu Ile Arg Gly Ala Leu Lys Gly Asn Gly Arg
                              90
           85
Gly Arg Phe Val Leu Gln Glu Gly Cys Lys Val Ile Gly Glu Gly Glu
         100
                          105
                                           110
Gly Arg Thr His Asn Ile Thr Leu Asp Val Arg Gly Ser Asp Cys Val
     115
                       120
                                        125
Ile Lys Gly Leu Ala Met Ser Gly Phe Gly Pro Val Thr Gln Ile Tyr
  130
                   135
                                    140
Ile Gly Gly Lys Lys Pro Arg Val Met Arg Asn Leu Leu Ile Asp Arg
              150
                                 155
Ile Ala Val Ser Gln Ala Asn Tyr Ala Ile Leu Arg Gln Gly Phe His
             165
                              170
Asn Gln Val Asp Gly Ala Arg Ile Thr Asn Ser Lys Phe Ser His Leu
         180
                          185
                                           190
Gln Gly Asp Ala Ile Glu Trp Asn Val Ala Ile Asn Asp Arg Asn Ile
      195
                       200
                                        205
Leu Ile Ser Asp His Val Ile Asp Asn Ile Asn Cys Thr Asn Gly Lys
  210
                    215
Ile Asn Trp Gly Ile Gly Ile Gly Leu Ala Gly Ser Thr Tyr Asp Asn
                 230
                       235
Asp Tyr Pro Glu Gln Gln Thr Val Lys Asn Phe Val Val Ala Asn Ile
             245
                             250
Thr Gly Ser Asn Cys Arg Gln Leu Val His Val Glu Asn Gly Lys His
          260
                          265
                                           270
Phe Val Ile Arg Asn Ile Lys Ala Ser Asn Ile Thr Pro Asp Phe Ser
                      280
                                        285
Lys Lys Ala Gly Ile Asp Asn Ala Thr Val Ala Ile Tyr Gly Cys Asp
  290
                   295
                                    300
Asn Phe Val Ile Asp Asn Ile Asp Met Val Asn Ser Ala Gly Met Leu
```

```
310
                                 315
Ile Gly Tyr Gly Val Ile Lys Gly Asp Tyr Leu Ser Ile Pro Gln Asn
             325
                     330 335
Phe Lys Leu Asn Asp Ile Arg Leu Asp Asn Arg Gln Leu Ala Tyr Lys
         340
                  345 350
Leu Arg Gly Ile Gln Ile Ser Ser Gly Asn Ala Thr Ser Phe Val Ala
      355
            360 365
Ile Thr Asn Val Glu Met Gln Arg Ala Thr Leu Glu Leu His Asn Lys
  370
       375 380
Pro Gln His Leu Phe Leu Arg Asn Ile Asn Val Met Gln Glu Ser Thr
       390 395
Thr Gly Pro Ala Leu Lys Met Asn Phe Asp Leu Arg Lys Asp Val Arg
          405 410 415
Gly Lys Phe Met Ala Lys Asn Glu Thr Leu Leu Ser Leu Ala Asn Ile
       420 425 430
Lys Ala Val Asn Glu Lys Gly Gln Ser Ser Val Asp Ile Asp Arg Val
 435 440 445
Asp Gln His Val Val Asn Thr Glu Arg Leu Asn Phe Ala Leu Pro His
                   455
Arg
465
<210> 7424
<211> 337
<212> PRT
<213> Enterobacter cloacae
<400> 7424
Arg Ile Glu Trp Ile Met Asn Asp Lys Val Leu Phe Ile Gly Ala Ser
                             1.0
Gly Phe Val Gly Thr Arg Leu Ile Glu Ile Ser Lys Thr Asp Phe Asp
    20
                          25
                                           3.0
Val Thr Asn Phe Asp Lys Gln Gln Ser His Phe Tyr Pro Asp Ile Thr
                    40
                                       4.5
Val Ser Gly Asp Val Arg Asn Gln Asp Gln Leu Asp Gln Ala Leu Ala
                   55
                                    60
Gly Phe Glu Thr Val Val Leu Leu Ala Ala Glu His Arg Asp Asp Val
               70
                                7.5
Ser Pro Thr Ser Leu Tyr Tyr Asp Val Asn Val Gln Gly Thr Arg Asn
             85
                             90
                                              95
Val Leu Ser Ala Met Glu Lys Asn Asn Val Lys Asn Ile Ile Phe Thr
         100
                          105
Ser Ser Val Ala Val Tyr Gly Leu Asn Lys Val Asn Pro Asp Glu Ser
      115
                      120
His Pro His Asp Pro Phe Asn His Tyr Gly Lys Ser Lys Trp Gln Ala
  130
                   135
                                    140
Glu Glu Val Leu Arg Glu Trp Phe Asn Lys Ala Pro Glu Glu Arg Ser
                150
                               155
                                                 160
Leu Thr Ile Val Arg Pro Thr Val Ile Phe Gly Glu Arg Asn Arg Gly
             165
                              170
Asn Val Tyr Asn Leu Leu Lys Gln Ile Ala Gly Gly Lys Phe Ala Met
         180
                          185
Val Gly Ala Gly Thr Asn Tyr Lys Ser Met Ala Tyr Val Gly Asn Ile
      195
                    200
                                        205
Val Glu Phe Ile Lys Phe Lys Leu Thr Asn Val Lys Pro Gly Tyr Asp
  210
                   215
                                    220
Val Tyr Asn Tyr Val Asp Lys Pro Asp Leu Asn Met Asn Gln Leu Val
               230
                               235
Ser Glu Val Glu Lys Ser Leu Asn Lys Lys Ile Pro Ser Val His Leu
            245
                             250 255
Pro Tyr Pro Leu Gly Met Leu Gly Gly Tyr Cys Phe Asp Ile Leu Ser
```

260 265 Lys Val Thr Gly Lys Lys Tyr Ala Ile Ser Ser Val Arg Val Lys Lys 275 280 285 Phe Cys Ala Thr Thr Gln Phe Asp Ala Thr Lys Val His Ser Ser Gly 290 295 300 Phe Lys Ala Pro Tyr Thr Leu Ser Gln Gly Leu Asp Arg Thr Leu Lys 310 315 320 Tyr Glu Phe Val His Glu Lys Lys Asp Asp Ile Thr Phe Val Ser Glu 325 330

<210> 7425 <211> 146 <212> PRT <213> Enterobacter cloacae <400> 7425

Ser Val Lys Ala Ser Pro Met Arg Val Trp Leu Asn Trp Arg Ala Cys 5 10 Ala Lys Arg Arg Ser Ala Ser Cys Ala Thr Ser Met Thr Cys Ile Arg 20 25 3.0 Phe Thr Ser Ala Trp Thr Pro Val Arg Gln Ser Ser Arg Pro Ile Pro 40 4.5 Arg Thr Cys Thr Pro Pro Met Lys Thr Ser Ala Lys Arg Thr Arg Pro 50 55 60 Ser Thr Ala Thr Arg Leu Trp Cys Trp Ala Ala Val Gln Thr Val Ser 70 75 Ala Arg Ala Ser Ser Leu Thr Thr Ala Ala Tyr Thr Pro Leu Trp Arg 85 90 Cys Ala Lys Thr Val Thr Arg Leu Leu Trp Ser Thr Val Thr Arg Lys 100 105 Arg Ser Leu Pro Ile Met Thr Pro Pro Thr Ala Ser Thr Ser Ser Arg 115 120 125 Leu Pro Trp Lys Thr Cys Trp Lys Ser Cys Ala Ser Arg Ser Gln Lys

135

Ala 145

<210> 7426 <211> 232 <212> PRT

<213> Enterobacter cloacae

<400> 7426 Phe Val Ala Ser Val Val Leu Leu Leu Ser Arg Gln Ser Arg Leu Tyr 15 Gly Asp Lys Gly Cys Gln Ser Leu Arg Phe Thr Leu Lys Arg Ser Leu 25 Ala Ser Phe Ser Trp Gly Gly Asn Cys Leu His Ser Leu Leu Gln Glu 4.0 Lys Gln Lys Thr Gly Ile Phe Met Val Leu Ile Ile Tyr Ala His Pro 5.5 Tyr Pro Gln His Ser His Ala Asn Lys Arg Met Leu Glu Gln Ala Arg 70 75 Thr Leu Glu Asn Val Glu Ile Arg Ser Leu Tyr Gln Leu Tyr Pro Asp 85 90 Phe Asn Ile Asp Val Ala Ala Glu Gln Glu Ala Leu Ser Arg Ala Asp 100 105

Leu Ile Val Trp Gln His Pro Met Gln Trp Tyr Ser Thr Pro Pro Leu

120

```
3392
Leu Lys Leu Trp Ile Asp Lys Val Phe Ser His Gly Trp Ala Tyr Gly
                      135
                                     140
His Asn Gly Asn Ala Leu His Gly Lys Ser Leu Met Trp Ala Val Thr
                  150
                                     155
Thr Gly Gly Glu Ser His Phe Glu Ile Gly Ala Phe Pro Gly Phe
              165
                                 170
                                                   175
Asp Val Leu Ala Gln Pro Leu Gln Ala Thr Ala Leu Tyr Cys Gly Leu
          180
                             185
                                               190
Asn Trp Leu Pro Pro Phe Ala Met His Cys Thr Phe Val Cys Asp Asp
       195
                         200
                                           205
Glu Thr Leu Gln Ala Gln Ala Arg His Tyr Lys Gln Arg Leu Leu Glu
 210
        215
Trp Gln Glu Thr His Asn Glv
<210> 7427
<211> 96
<212> PRT
<213> Enterobacter cloacae
<400> 7427
```

Pro Lys Ile Val Arg Ser Ile Thr Lys Ile Gln Leu Arg Ala Gly Glu -5 1.0 Tyr Thr Met Gln Asn Lys Leu Leu Ile Ala Ser Val Leu Ala Ala Thr 20 25 Ala Met Phe Thr Val Ala Gly Cys Ser Ser Asn Gln Ala Val Lys Thr 35 4.0 4.5 Thr Asp Gly Lys Thr Ile Val Thr Asp Gly Lys Pro Gln Val Asp Asp 5.5 50 60 Asp Thr Gly Leu Val Ser Tyr Lys Asn Ala Glu Thr Gly Gln Thr Glu 70 75 Gln Ile Asn Arg Asp Gln Val Lys Ser Met Gly Glu Leu Asp Asn

<210> 7428 <211> 659 <212> PRT <213> Enterobacter cloacae

9.5

<400> 7428 Thr Gly Phe Arg Leu Leu Arg Cys Thr Val Pro Leu Ser Ala Thr Met 10 Lys Pro Cys Arg Arg Leu Val Thr Thr Asn Asn Ala Tyr Leu Ser 25 3.0 Gly Arg Arg Arg Thr Met Asp Ser His Thr Leu Ile Gln Ala Leu Ile 35 4.0 45 Tyr Leu Gly Ala Ala Ala Leu Ile Val Pro Val Ala Val Arg Leu Gly 5.5 60 Leu Gly Ser Val Leu Gly Tyr Leu Ile Ala Gly Cys Val Ile Gly Pro 70 7.5 8.0 Trp Gly Phe Arg Leu Val Thr Asp Ala Glu Ser Ile Leu His Phe Ala 8.5 90 Glu Ile Gly Val Val Leu Met Leu Phe Val Ile Gly Leu Glu Leu Asp 100 105 Pro Gln Arg Leu Trp Lys Leu Arg Ala Ser Val Phe Gly Gly Gly Ala 115 120 Leu Gln Met Leu Ala Cys Gly Leu Leu Gly Gly Phe Cys Ile Leu 135 140 Leu Gly Met Glu Trp Lys Val Ala Glu Leu Ile Gly Met Thr Leu Ala 150 155 Leu Ser Ser Thr Ala Ile Ala Met Gln Ala Met Asn Glu Arg Asn Leu

```
165
                         170
Thr Val Ser Gln Met Gly Arg Ser Thr Phe Ser Val Leu Leu Phe Gln
        180
                 185
                               190
Asp Ile Ala Ala Ile Pro Leu Val Ala Met Ile Pro Leu Leu Ala Thr
            200
     195
                                 205
Ser Gly Ala Ser Thr Thr Leu Gly Ala Phe Ala Leu Ser Ala Leu Lys
              215
Val Val Gly Ala Leu Ala Leu Val Val Leu Leu Gly Arg Tyr Val Thr
      230 235 240
Arg Pro Leu Leu Arg Phe Val Ala Arg Ser Gly Leu Arg Glu Val Phe
          245
               250
Ser Ala Val Ala Leu Phe Leu Val Phe Gly Phe Gly Leu Leu Glu
            265 270
        260
Glu Ala Gly Leu Ser Met Ala Met Gly Ala Phe Leu Ala Gly Val Leu
     275
         280 285
Leu Ala Ser Ser Glu Tyr Arg His Ala Leu Glu Ser Asp Ile Glu Pro
      295 300
Phe Lys Gly Leu Leu Gly Leu Phe Phe Ile Gly Val Gly Met Ser
   310 315 320
Ile Asp Phe Gly Thr Leu Val Thr His Pro Leu Arg Ile Ile Ile Leu
      325 330 335
Leu Val Gly Phe Leu Val Ile Lys Met Ala Met Leu Trp Leu Ile Ala
 340 345 350
Arg Pro Leu Asn Val Pro Lys Pro Gln Arg Arg Trp Phe Ala Val Leu
355 360 365
Leu Gly Gln Gly Ser Glu Phe Ala Phe Val Val Phe Gly Ala Ala Gln
370 375 380
Met Ala Asn Val Leu Asp Pro Glu Trp Ala Lys Ala Leu Thr Leu Ala
385 390 395 400
Val Ala Leu Ser Met Ala Ala Thr Pro Ile Leu Leu Val Leu Leu Thr
   405 410 415
Arg Leu Glu Lys Thr Gly Ser Glu Gln Glu Arg Glu Ala Asp Glu Ile
 420 425
Asp Glu Glu Gln Pro Arg Val Ile Ile Ala Gly Phe Gly Arg Phe Gly
435 440 445
Gln Ile Thr Gly Arg Leu Leu Ser Ser Gly Val Lys Met Val Ile
 450 455 460
Leu Asp His Asp Pro Asp His Val Asp Thr Leu Arg Lys Phe Asp Met
465 470 475 480
Lys Val Phe Tyr Gly Asp Ala Thr Arg Val Asp Leu Leu Glu Ser Ala
         485 490 495
Gly Ala Ala Lys Ala Glu Val Leu Ile Asn Ala Ile Asp Asp Pro Glu
       500 505 510
Thr Ser Met Gln Met Val Glu Leu Val Lys Glu His Phe Pro His Leu
    515 520 525
Thr Ile Ile Ser Arg Ala Arg Asp Val Asp His Tyr Ile Gln Leu Arg
 530 535 540
Gln Ala Gly Val Ala Ala Pro Glu Arg Glu Thr Phe Glu Gly Ala Leu
545 550 555 560
Lys Ser Gly Arg Met Ala Leu Glu Ser Leu Gly Leu Gly Ala Tyr Glu
              570 575
         565
Ala Arg Glu Arg Ala Asp Leu Phe Arg Arg Phe Asn His Glu Met Val
                          590
                     585
Glu Glu Met Val Ala Met Ala Ser Ser Thr Ala Thr Glu Arg Ala Ala
                   600
Val Phe Lys Arg Thr Ser Thr Met Leu Thr Glu Ile Ile Asn Glu Asp
610 615
Arg Asn His Leu Ser Leu Val Gln Arg His Gly Trp Gln Gly Thr Glu
625 630
                 635
Glu Gly Lys His Thr Gly Asp Pro Glu Asp Glu Pro Glu Ser Lys Pro
           645
                        650
```

Ser Ala

```
<210> 7429
<211> 171
<212> PRT
<213> Enterobacter cloacae
<400> 7429
Trp Arg Gln Phe Phe Ala Ser Gly Lys Phe Ser Met Ile Ser Leu Ile
                               1.0
Ala Ala Leu Ala Val Asp Arg Val Ile Gly Met Glu Asn Ala Met Pro
       20
Trp Asn Leu Pro Ala Asp Leu Ala Trp Phe Lys Arg Thr Thr Leu Asn
                     40
Lys Pro Val Val Met Gly Arg Leu Thr Trp Glu Ser Ile Gly Arg Pro
                   55
Leu Pro Gly Arg Lys Asn Ile Val Ile Ser Ser Gln Pro Gly Thr Asp
                                 75
Asp Arg Val Gln Trp Val Lys Ser Val Asp Glu Ala Ile Ala Ala Cys
                                90
Gly Asp Ala Glu Glu Ile Met Val Ile Gly Gly Gly Arg Val Tyr Glu
         100
                          105
                                              110
Gln Phe Leu Pro Lys Ala Gln Lys Leu Tyr Leu Thr His Ile Asp Ala
                         120
Glu Val Glu Gly Asp Thr His Phe Pro Asp Tyr Asp Pro Asp Glu Trp
                    135
                         140
Glu Ser Val Phe Ser Glu Phe His Asp Ala Asp Glu Gln Asn Ser His
              150 155
Ser Tyr Cys Phe Glu Ile Leu Glu Arg Arg
```

<212> PRT <213> Enterobacter cloacae

<210> 7430 <211> 278 165

<400> 7430 Gly Gly Gly Tyr Ala Cys Pro Ser Ser Arg Leu Val Lys Thr Arg Leu Leu Arg Glu Lys Gly Ala Gln Asn Gly Cys Ile Ile Ala Gly Asp Asn 20 25 30 Leu Asp Ala Thr Leu Ala Leu Glu Lys Ala Lys Ala Phe Pro Gly Leu 35 40 Asn Gly Met Asp Leu Ala Lys Glu Val Thr Thr Ala Glu Ala Tyr Ser 55 Trp Thr Gln Gly Ser Trp Thr Leu Glu Gly Asp Leu Pro Glu Ala Lys 70 75 Pro Glu Ser Glu Leu Pro Phe His Val Val Ala Tyr Asp Phe Gly Ala 85 90 Lys Arg Asn Ile Leu Arg Met Leu Val Asp Arg Gly Cys Arg Leu Thr 105 Met Val Pro Ala Gln Thr Ser Ala Glu Asp Val Leu Lys Met Asn Pro 120 125 Asp Gly Ile Phe Leu Ser Asn Gly Pro Gly Asp Pro Ala Pro Cys Asp 130 135 140 Tyr Ala Ile Ala Ala Ile Lys Ser Phe Leu Glu Thr Asp Ile Pro Val 155 Phe Gly Ile Cys Leu Gly His Gln Leu Leu Ala Leu Ala Ser Gly Ala 165 170 Asn Thr Val Lys Met Lys Phe Gly His His Gly Gly Asn His Pro Val

```
180
                           185
                                           190
Lys Asp Ile Asp Asn Asn Thr Val Met Ile Thr Ala Gln Asn His Glv
      195
                    200
                               205
Phe Ala Val Asp Glu Ala Ser Met Pro Ala Asn Leu Arg Val Thr His
           215
                         220
Lys Ser Leu Phe Asp Gly Thr Leu Gln Gly Ile His Arg Thr Asp Lys
       230 235
Pro Ala Phe Ser Phe Gln Gly His Pro Glu Ala Ser Pro Gly Pro His
        245 250 255
Asp Ala Ala Pro Leu Phe Asp His Phe Ile Glu Leu Ile Glu Gln Tyr
       260 265
Arg Lys Ile Ala Lys
<210> 7431
<211> 1081
<212> PRT
<213> Enterobacter cloacae
<400> 7431
Ser Gly Ala Glu Lys Thr Met Pro Lys Arg Thr Asp Ile Lys Ser Ile
                             10
Leu Ile Leu Gly Ala Gly Pro Ile Val Ile Gly Gln Ala Cys Glu Phe
20
                          25
Asp Tyr Ser Gly Ala Gln Ala Cys Lys Ala Leu Arg Glu Glu Gly Tyr
                       40
Arg Val Ile Leu Val Asn Ser Asn Pro Ala Thr Ile Met Thr Asp Pro
       55
                                    60
Glu Met Ala Asp Ala Thr Tyr Ile Glu Pro Ile His Trp Glu Val Val
                7.0
                        75
Arg Lys Ile Ile Glu Lys Glu Arg Pro Asp Ala Val Leu Pro Thr Met
                            90
            85
Gly Gly Gln Thr Ala Leu Asn Cys Ala Leu Glu Leu Glu Arg Gln Gly
         100
                        105
Val Leu Glu Glu Phe Gly Val Thr Met Ile Gly Ala Thr Ala Asp Ala
 115 120
                                        125
Ile Asp Lys Ala Glu Asp Arg Arg Phe Asp Val Ala Met Lys Lys
                   135
                                    140
Ile Gly Leu Asp Thr Ala Arg Ser Gly Ile Ala His Asn Met Glu Glu
             150
                                155
Ala Leu Ala Val Ala Ala Glu Val Gly Tyr Pro Cys Ile Ile Arg Pro
            165
                             170
Ser Phe Thr Met Gly Gly Thr Gly Gly Gly Ile Ala Tyr Asn Arg Glu
         180
                          185
Glu Phe Glu Glu Ile Cys Glu Arg Gly Leu Asp Leu Ser Pro Thr Lys
    195
                      200
                                    205
Glu Leu Leu Ile Asp Glu Ser Leu Ile Gly Trp Lys Glu Tyr Glu Met
                   215
                                     220
Glu Val Val Arg Asp Lys Asn Asp Asn Cys Ile Ile Val Cys Ser Ile
                230
                                 235
Glu Asn Phe Asp Ala Met Gly Ile His Thr Gly Asp Ser Ile Thr Val
            245
                             250
Ala Pro Ala Gln Thr Leu Thr Asp Lys Glu Tyr Gln Ile Met Arg Asn
         260
                          265
                                           270
Ala Ser Met Ala Val Leu Arg Glu Ile Gly Val Glu Thr Gly Gly Ser
                      280
                                       285
Asn Val Gln Phe Ser Val Asn Pro Lys Thr Gly Arg Leu Ile Val Ile
                   295
                                    300
Glu Met Asn Pro Arg Val Ser Arg Ser Ser Ala Leu Ala Ser Lys Ala
                310
                                 315
Thr Gly Phe Pro Ile Ala Lys Val Ala Ala Lys Leu Ala Val Gly Tyr
```

325 330 335 Thr Leu Asp Glu Leu Met Asn Asp Ile Thr Gly Gly Arg Thr Pro Ala 340 345 350 Ser Phe Glu Pro Ser Ile Asp Tyr Val Val Thr Lys Ile Pro Arg Phe 355 360 Asn Phe Glu Lys Phe Ala Gly Ala Asn Asp Arg Leu Thr Thr Gln Met 375 380 Lys Ser Val Gly Glu Val Met Ala Ile Gly Arg Thr Gln Glu Ser 390 395 400 Leu Gln Lys Ala Leu Arg Gly Leu Glu Val Gly Ala Thr Gly Phe Asp 405 410 415 Pro Lys Val Ser Leu Asp Asp Pro Glu Ala Leu Thr Lys Ile Arg Arg 420 425 430 Glu Leu Lys Asp Ala Gly Ala Glu Arg Ile Trp Tyr Ile Ala Asp Ala 435 440 445 Phe Arg Ala Gly Leu Ser Val Asp Gly Val Phe Asn Leu Thr Asn Ile 450 455 460 Asp Arg Trp Phe Leu Val Gln Ile Glu Glu Leu Val Arg Leu Glu Glu 465 470 475 Lys Val Ala Glu Leu Gly Ile Asn Gly Leu Asp Ala Asp Phe Leu Arg 485 490 495 Met Leu Lys Arg Lys Gly Phe Ala Asp Ala Arg Leu Ala Lys Leu Ala 500 505 510 Gly Val Arg Glu Ala Glu Ile Arg Lys Leu Arg Asp Gln Tyr Asp Leu 515 520 525 His Pro Val Tyr Lys Arg Val Asp Thr Cys Ala Ala Glu Phe Ser Thr 530 535 540 Asp Thr Ala Tyr Met Tyr Ser Thr Tyr Glu Asp Glu Cys Glu Ala Asn 545 550 555 Pro Ser Val Asp Arg Asp Lys Ile Met Val Leu Gly Gly Gly Pro Asn 565 570 575 Arg Ile Gly Gln Gly Ile Glu Phe Asp Tyr Cys Cys Val His Ala Ser 580 585 Leu Ala Leu Arg Glu Asp Gly Tyr Glu Thr Ile Met Val Asn Cys Asn 595 600 605 Pro Glu Thr Val Ser Thr Asp Tyr Asp Thr Ser Asp Arg Leu Tyr Phe 610 615 620 Glu Pro Val Thr Leu Glu Asp Val Leu Glu Ile Val Arg Ile Glu Lys 630 635 640 Pro Lys Gly Val Ile Val Gln Tyr Gly Gly Gln Thr Pro Leu Lys Leu 645 650 655 Ala Arg Ala Leu Glu Ala Ala Gly Val Pro Val Ile Gly Thr Ser Pro 660 665 670 Asp Ala Ile Asp Arg Ala Glu Asp Arg Glu Arg Phe Gln Gln Ala Val 675 680 685 Asp Arg Leu Lys Leu Lys Gln Pro Ala Asn Ala Thr Val Thr Ala Ile 695 700 Glu Met Ala Val Glu Lys Ala Lys Glu Ile Gly Tyr Pro Leu Val Val 705 710 715 Arg Pro Ser Tyr Val Leu Gly Gly Arg Ala Met Glu Ile Val Tyr Asp 725 730 735 Glu Ala Asp Leu Arg Arg Tyr Phe Gln Thr Ala Val Ser Val Ser Asn 740 745 Asp Ala Pro Val Leu Leu Asp Arg Phe Leu Asp Asp Ala Val Glu Val 755 760 765 Asp Val Asp Ala Ile Cys Asp Gly Glu Met Val Leu Ile Gly Gly Ile 775 780 Met Glu His Ile Glu Gln Ala Gly Val His Ser Gly Asp Ser Ala Cys 790 795 Ser Leu Pro Ala Tyr Thr Leu Ser Gln Glu Ile Gln Asp Val Met Arg 805 810

```
Gln Gln Val Gln Lys Leu Ala Phe Glu Leu Gln Val Arg Gly Leu Met
              825
      820
Asn Val Gln Phe Ala Val Lys Asp Asn Glu Val Tyr Leu Ile Glu Val
 835
                  840
Asn Pro Arg Ala Ala Arg Thr Val Pro Phe Val Ser Lys Ala Thr Gly
                 855
                                860
Ile Pro Leu Ala Lys Val Ala Ala Arg Val Met Ala Gly Gln Thr Leu
              870
                   875 880
Ala Gln Gln Gly Val Thr Lys Glu Ile Ile Pro Pro Tyr Tyr Ser Val
            885 890 895
Lys Glu Val Val Leu Pro Phe Asn Lys Phe Pro Gly Val Asp Pro Leu
       900 905 910
Leu Gly Pro Glu Met Arg Ser Thr Gly Glu Val Met Gly Val Gly Arg
     915 920 925
Thr Phe Ala Glu Ala Phe Ala Lys Ala Gln Leu Gly Ser Ser Ser Thr
 930 935 940
Met Arg Lys Ser Gly Arg Ala Leu Leu Ser Val Arg Glu Gly Asp Lys
945 950 955
Glu Arg Val Val Asp Leu Ala Ala Lys Leu Leu Lys Gln Gly Phe Glu
  965 970 975
Leu Asp Ala Thr His Gly Thr Ala Ile Val Leu Gly Glu Ala Gly Ile
980 985 990
Asn Pro Arg Leu Val Asn Lys Val His Glu Gly Arg Pro His Ile Gln
995 1000 1005
Asp Arg Ile Lys Asn Gly Glu Tyr Thr Tyr Ile Ile Asn Thr Thr Ala
1010 1015 1020
Gly Arg Gln Ala Ile Glu Asp Ser Lys Leu Ile Arg Arg Ser Ala Leu
1025 1030 1035 1040
Gln Tyr Lys Val His Tyr Asp Thr Thr Leu Asn Gly Gly Phe Ala Thr
     1045 1050 1055
Ala Met Ala Leu Asn Ala Asp Ala Thr Glu Lys Val Ile Ser Val Gln
 1060 1065
Glu Met His Ala Gln Ile Ser Lvs
            1080
<210> 7432
<211> 433
<212> PRT
<213> Enterobacter cloacae
<400> 7432
Asn Gly Lys Ser Met Lys Asn Trp Lys Thr Leu Leu Leu Gly Val Ala
                 10 15
Met Val Ala Asn Thr Ser Phe Ala Ala Pro Gln Val Val Asp Lys Val
      20 25
Ala Ala Val Val Asn Asn Gly Val Val Leu Glu Ser Asp Val Asp Gly
               4.0
Leu Met Lys Ser Val Lys Leu Asn Ser Gly Gln Ala Gly Gln Gln Leu
               5.5
Pro Asp Asp Ala Thr Leu Arg His Gln Ile Leu Glu Arg Leu Ile Met
65 70
                             75
Asp Gln Ile Val Leu Gln Met Gly Gln Lys Met Gly Val Lys Ile Ser
          8.5
                          90
Asp Glu Gln Leu Asp Gln Ala Ile Ala Asn Ile Ala Lys Gln Asn Asn
       100
                       105
                                      110
Ile Thr Pro Asp Gln Met Arg Ser Arg Leu Ala Tyr Asp Gly Ile Ser
     115 120
Tyr Ala Thr Tyr Arg Asn Gln Ile Arg Lys Glu Met Leu Ile Ser Glu
 130 135 140
Val Arg Asn Asn Glu Val Arg Arg Arg Val Thr Ile Leu Pro Gln Glu
              150
```

<210> 7433 <211> 167

Val Asp Ala Leu Ala Lys Gln Val Gly Asn Gln Asn Asp Ala Ser Thr 165 170 Glu Leu Asn Leu Ser His Ile Leu Ile Pro Leu Pro Glu Asn Pro Thr 180 185 Ser Asp Gln Ala Ala Glu Ala Glu Ser Gln Ala Arg Ala Ile Val Glu 195 200 205 Gln Ala Arg Asn Gly Asp Asp Phe Gly Lys Leu Ala Ile Thr Tyr Ser 215 220 Ala Asp Gln Gln Ala Leu Lys Gly Gly Gln Met Gly Trp Gly Arg Ile 230 235 Gln Glu Leu Pro Ser Leu Phe Ala Gln Ala Leu Ser Thr Ala Lys Lys 245 250 255 Gly Asp Ile Val Gly Pro Ile Arg Ser Gly Val Gly Phe His Ile Leu 260 265 270 Lys Val Asn Asp Leu Arg Gly Gln Ser Gln Asn Ile Ser Val Thr Glu 275 280 285 Val His Ala Arg His Ile Leu Leu Lys Pro Ser Pro Ile Met Thr Asp 290 295 300 Asp Gln Ala Arg Ala Lys Leu Glu Gln Ile Ala Ala Asp Ile Lys Ser 305 310 315 Gly Lys Thr Thr Phe Asp Lys Ala Ala Lys Glu Phe Ser Gln Asp Pro 325 330 335 Gly Ser Ala Asn Gln Gly Gly Asp Leu Gly Trp Ala Ala Ala Asp Ile 340 345 Tyr Asp Pro Ala Phe Arg Asp Ala Leu Met Lys Leu Asn Lys Gly Gln 355 360 365 Met Ser Ala Pro Val His Ser Ser Phe Gly Trp His Leu Ile Gln Leu 370 375 380 Met Asp Thr Arg Asn Val Asp Lys Thr Asp Ala Ala Gln Lys Asp Arg 385 390 395 Ala Tyr Arg Met Leu Phe Asn Arg Lys Phe Ser Glu Glu Ala Ala Thr 405 410 415 Trp Met Gln Glu Gln Arg Ala Ser Ala Tyr Val Lys Val Leu Ser Asn

```
<212> PRT
<213> Enterobacter cloacae
<400> 7433
Arg Pro Ser Arg Thr Thr Ser Ala Ser Ala Pro Thr Thr Phe Ser Ala
                               10
Asp Lys Ala Asn Ala Pro Ser Val Val Asp Ala Pro Leu Val Ala Ser
                                                3.0
Ser Gly Ile Ile Ala Thr Ser Gly Met Ala Ala Ile Ser Trp Asn Asn
                       4.0
Ser Thr Glu Lys Val Leu Arg Pro Ile Cys Asp Thr Val Arg Leu Arg
                   55
Ser Phe Ile Ala Cys Met Ala Ile Ala Val Glu Glu Ser Ala Ser Val
           70
                                     75
Met Pro Ile Asn Ser Ala Thr Phe His Ser Ile Pro Ser Arg Met Gln
            8.5
                                 90
Asn Pro Pro Asn Ser Arg Pro Gln Ala Ser Ile Cys Arg Ala Pro Pro
       100
                             105
Pro Asn Thr Glu Ala Arg Ser Pne His Ser Arg Cys Gly Ser Asn Ser
                         120
Arg Pro Ile Thr Asn Ser Ile Ser Thr Thr Pro Ile Ser Ala Lys Cys
                     135
                                        140
```

385

```
Arg Ile Asp Ser Ala Ser Val Thr Ser Arg Lys Pro Gln Gly Pro Ile
         150
                       155
Thr His Pro Ala Ile Arg
             165
<210> 7434
<211> 479
<212> PRT
<213> Enterobacter cloacae
<400> 7434
Phe Gly Leu Leu Ala Asp Arg Lys Leu Gln Gly Thr Ala Arg Val Leu
          5
                            10
Asp Gln Val Trp Arg Phe Asn Ile Asp Tyr Thr Lys Val Ser Asp Pro
       20
                         25
Tyr Tyr Phe Asn Asp Phe Asp Ser Lys Tyr Gly Ser Ser Thr Asp Gly
 35 40
                                    4.5
Tyr Ala Thr Gln Lys Phe Ser Val Gly Tyr Ala Ile Glu Asn Phe Asp
               55
                                   60
Ala Thr Val Ser Thr Lys Gln Phe Gln Val Phe Asp Thr Gln Ser Arg
             70 75
Ser Thr Tyr Gly Ala Glu Pro Gln Leu Asp Val Asn Trp Tyr Gln Asn
            85 90
Asp Val Gly Pro Phe Asp Thr Arg Val Tyr Ala Gln Ala Val His Phe
       100
                         105 110
Val Asn Thr Asn Ser Asp Met Pro Glu Ser Thr Arg Leu His Ile Glu
 115 120
                                       125
Pro Thr Ile Asn Leu Pro Trp Ser Asn Asp Trp Ala Ser Leu Asn Thr
130 135
                                   140
Glu Ala Lys Val Met Ala Thr His Tyr Gln Gln Lys Asn Leu Asp Trp
             150 155
Tyr Asn Lys Arg Tyr Gly Thr Asp Leu Glu Glu Ser Val Asn Arg Thr
           165 170 175
Leu Pro Gln Phe Lys Met Asp Gly Lys Leu Ile Phe Glu Arg Asp Met
       180
                         185
                                          190
Ala Leu Leu Ala Asp Gly Tyr Thr Gln Thr Leu Glu Pro Arg Met Gln
                      200
                                       205
Tyr Leu Tyr Val Pro Tyr Arg Asp Gln Ser Lys Ile Gln Asn Tyr Asp
  210
                                    220
Ser Ser Phe Leu Gln Ser Asp Tyr Ser Gly Leu Phe Arg Asp Arg Thr
225 230
                                235
Tyr Gly Gly Leu Asp Arg Ile Ala Ser Ala Asn Gln Leu Thr Thr Gly
            245
                            250
                                              255
Val Thr Thr Arg Val Tyr Asp Asp Ala Ala Val Glu Arg Phe Asn Val
         260
                         265
                                         270
Ser Val Gly Gln Ile Tyr Tyr Phe Thr Glu Ser Arg Thr Gly Asp Asp
      275
                      280
Asp Ile Asn Trp Glu Lys Asp Asn Lys Thr Gly Ser Leu Val Trp Ala
                   295
                                   300
Gly Asp Thr Tyr Trp Arg Met Thr Asp Arg Trp Gly Leu Arg Gly Gly
305
                    315
               310
                                                 320
Val Gln Tyr Asp Thr Arg Leu Asp Asn Ile Ala Thr Gly Ser Ala Ala
                            330
            325
Ile Glu Tyr Arg Arg Asp Glu Asp Arg Met Leu Gln Leu Thr Tyr Arg
         340
                          345
Tyr Ala Ser Pro Glu Tyr Ile Gin Ala Thr Leu Pro Asn Tyr Ala Asn
      355
                      360
                                      365
Thr Asp Gln Tyr Lys Asp Gly Ile Ser Gln Val Gly Thr Ala Ala Ser
                  375
                                   380
```

Trp Pro Ile Ala Asp Arg Trp Ser Val Val Gly Ala Tyr Tyr Asp

395

```
Thr Asn Ala Gln Lys Pro Ala Asp Gln Met Leu Gly Leu Gln Tyr Asn
              405
                                410
Ser Cys Cys Tyr Ala Ile Arg Val Gly Tyr Glu Arg Lys Leu Asn Gly
          420
                            425
Trp Asp Thr Gln Asn Ser Gln Gly Lys Tyr Asp Asn Val Ile Gly Phe
      435
                        440
                              445
Asn Ile Glu Leu Arg Gly Leu Ser Ser Asn Tyr Gly Leu Gly Thr Gln
 450 455 460
Gln Met Leu Arg Ser Asn Ile Leu Pro Tyr Arg Ser Ser Leu
465 470
<210> 7435
<211> 276
<212> PRT
<213> Enterobacter cloacae
<400> 7435
Tyr Ser Met Thr Asn Arg Val His Gln Gly His Leu Ala Arg Lys Arg
           5
                               10
Phe Gly Gln Asn Phe Leu Asn Asp Gln Phe Val Ile Asp Ser Ile Val
        20
Ser Ala Ile Asn Pro Gln Lys Gly Gln Ala Met Val Glu Ile Gly Pro
                        40
Gly Leu Ala Ala Leu Thr Glu Pro Val Gly Glu Arg Leu Asp Glu Leu
                     55
                                       60
Thr Val Ile Glu Leu Asp Arg Asp Leu Ala Ala Arg Leu Gln Thr His
                70
                                   75
                                                      8.0
Pro Phe Leu Gly Pro Lys Leu Thr Ile Tyr Gln Gln Asp Ala Met Thr
              85
                                90
                                                  95
Met Asn Phe Gly Glu Leu Ser Glu Lys Met Gly Gln Pro Leu Arg Val
          100
                            105
                                              110
Phe Gly Asn Leu Pro Tyr Asn Ile Ser Thr Pro Leu Met Phe His Leu
 115
                        120
                                           125
Phe Ser Tyr Thr Asp Ala Ile Ala Asp Met His Phe Met Leu Gln Lys
 130
         135
                                       140
Glu Val Val Asn Arg Leu Val Ala Gly Pro Asn Ser Lys Ala Tyr Gly
       150
                                                      160
Arg Leu Ser Val Met Ala Gln Tyr Tyr Cys Asn Val Ile Pro Val Leu
             165
                                               175
Glu Val Pro Pro Ser Ala Phe Thr Pro Pro Pro Lys Val Asp Ser Ala
        180
                            185
                                               190
Val Val Arg Leu Val Pro His Lys Thr Met Pro Tyr Pro Val Lys Asp
      195
                        200
Leu Arg Val Leu Ser Arg Ile Tor Thr Glu Ala Phe Asn Gln Arg Arg
   210
                     215
                                       220
Lys Thr Ile Arg Asn Ser Leu Gly Asn Leu Phe Thr Val Asp Val Leu
225
                 230
                                   235
                                                      240
Ala Glu Leu Gly Ile Asp Pro Ala Met Arg Ala Glu Asn Ile Ser Val
              245
                                250
Glu Gln Tyr Cys Lys Leu Ala Asn Tyr Ile Ser Asp Asn Ala Pro Pro
          260
Lys Glu Ser
       275
<210> 7436
<211> 127
<212> PRT
<213> Enterobacter cloacae
```

<400> 7436

Ala Met Ile Asp Ser Pro Arg Val Cys Val Gln Val Gln Ser Val Tyr

<210> 7437 <211> 350 <212> PRT <213> Enterobacter cloacae

<400> 7437 Arg Ser Arg Asn Leu Asp Ala Gly Thr Thr Arg Gln Arg Leu Arg Glu 10 Ser Val Glu Gln Leu Met Lys Pro His Arg Val Val Ile Thr Pro Gly 20 Glu Pro Ala Gly Ile Gly Pro Asp Leu Val Val Gln Leu Ala Gln Cys 40 4.5 Ser Trp Pro Val Glu Leu Val Val Cys Ala Asp Ala Thr Leu Leu Gln 55 60 Asp Arg Ala Ala Leu Leu Gly Leu Pro Leu Thr Leu Leu Pro Tyr Val 7.0 75 Glu Gly Gln Gln Pro Ala Pro Gln Gln Ser Gly Thr Leu Thr Leu Leu 85 90 Ser Val Pro Leu Arg Ala Pro Val Val Pro Gly Glu Leu His Thr Glu 100 105 Asn Gly His Tyr Val Val Glu Thr Leu Ala Arg Ala Cys Asp Gly Cys 120 125 Leu Gln Gly Glu Phe Ala Ala Leu Ile Thr Gly Pro Val His Lys Gly 130 135 140 Val Ile Asn Asp Ala Gly Ile Pro Phe Thr Gly His Thr Glu Phe Phe 150 155 Glu Glu Arg Ser His Ser Pro Lys Val Val Met Met Leu Ala Thr Glu 165 170 175 Ala Met Arg Val Ala Leu Val Thr Thr His Leu Pro Ile Lys Ala Ile 185 190 Pro Asp Ala Ile Thr Pro Glu Leu Leu Arg Glu Ile Ile Gly Ile Leu 200 His His Asp Leu Gln Thr Lys Phe Gly Ile Pro Gln Pro His Val Leu 210 215 220 Val Cys Gly Leu Asn Pro His Ala Gly Glu Gly Gly His Met Gly Thr 230 235 Glu Glu Ile Asp Thr Ile Ile Pro Val Leu Glu Glu Met Arg Ala Lys 245 250 Gly Met Asn Leu Ser Gly Pro Leu Pro Ala Asp Thr Leu Phe Gln Pro 260 265 270 Lys Tyr Leu Asp Asn Ala Asp Ala Val Leu Ala Met Tyr His Asp Gln 280 285 Gly Leu Pro Val Leu Lys Tyr Gln Gly Phe Gly Arg Gly Val Asn Ile 295 300 Thr Leu Gly Leu Pro Phe Ile Arg Thr Ser Val Asp His Gly Thr Ala

```
315
               310
Leu Asp Leu Ala Gly Gln Gly Lys Ala Asp Val Gly Ser Phe Ile Thr
        325
                     330
Ala Leu Asn Leu Ala Ile Lys Met Ile Val Asn Thr Gln
        340
                        345
<210> 7438
<211> 323
<212> PRT
<213> Enterobacter cloacae
<400> 7438
Leu Lys Leu Arg Trp Val Pro Cys Arg Ala Ile Thr Lys Trp Ser Met
        5
                     1.0
Pro Thr Val Met Leu Ser Ala Leu Leu Phe Pro Tyr Ser Val Ser Pro
 20
                 25
                                      3.0
Tyr Leu His Leu Phe Ile Asn Leu Met Ser Thr Tyr Leu Ile Gly Asp
 35 40
Val His Gly Cys Tyr Asp Glu Leu Ile Ala Leu Leu Lys Gln Val Asp
50 55 60
Phe Thr Pro Gly Gln Asp Thr Leu Trp Leu Thr Gly Asp Leu Val Ala
65 70 75
Arg Gly Pro Gly Ser Leu Asp Val Leu Arg Tyr Val Lys Ser Leu Gly
       8.5
                          90 95
Asp Ser Val Arg Met Val Leu Gly Asn His Asp Leu His Leu Leu Ala
        100 105 110
Val Tyr Ala Gly Ile Ser Arg Asn Lys Pro Lys Asp Arg Ile Thr Pro
    115 120
                        125
Leu Leu Glu Ala Pro Asp Ala Asp Glu Leu Leu Asn Trp Leu Arg Arg
130 135 140
Gln Pro Leu Gln Ile Asp Glu Glu Lys Lys Leu Val Met Ala His
145 150 155
Ala Gly Ile Thr Pro Gln Trp Asp Leu Glu Thr Ala Lys Thr Cys Ala
           165 170
                                       175
Arg Asp Thr Glu Ala Val Leu Ala Ser Asp Ser Tyr Pro Phe Phe Leu
        180 185
                           190
Asp Ala Met Tyr Gly Asp Met Pro Asn Asn Trp Ser Asp Asp Leu Ser
     195 200 205
Gly Leu Ala Arg Leu Arg Phe Ile Thr Asn Ala Phe Thr Arg Met Arg
 210 215
                                220
Tyr Cys Phe Pro Asn Gly Gln Leu Asp Met Tyr Cys Lys Asp Thr Pro
225 230 235
Glu Asn Ala Pro Ala Pro Leu Lys Pro Trp Phe Ala Ile Pro Gly Pro
           245
                          250 255
Val Thr Asn Glu Tyr Ser Val Val Phe Gly His Trp Ala Ser Leu Glu
        260
                       265
                                      270
Gly Lys Gly Thr Pro Glu Asn Ile Tyr Ala Leu Asp Thr Gly Cys Cys
                    280
                                   285
Trp Gly Gly Asp Leu Thr Cys Leu Arg Trp Glu Asp Lys Thr Tyr Phe
 290 295 300
Val Gln Pro Ser Asn Arg Gln Leu Asp Leu Gly Glu Gly Glu Ala Val
305
             310
                             315
                                            320
Ala Ser
<210> 7439
<211> 157
<212> PRT
<213> Enterobacter cloacae
```

<400> 7439

Cys Ala Ala Gly Cys Gln Gln Arg Asp His Arg His Gln Arg Asp Gly 1.0 Ser Asn Ile Leu Glu Gln Gln Tyr Gly Glu Gly Ala Ala Pro His Leu Arq His Arg Gln Val Thr Leu Val His Ser Leu His Gly Asn Ser Arg 40 Arg Gly Glu Arg Gln Arg His Ala Asp Gln Leu Arg Asp Phe Pro Leu 55 His Pro Glu Gln Asn Ala Glu Pro Ala Gln Gln Gln Thr Ala Gly Gln 70 His Leu Gln Ser Thr Ser Ala Lys His Arg Gly Ala Gln Phe Pro Gln 85 90 Pro Leu Arg Ile Gln Leu Gln Ala Asn His Glu Gln His Lys His His 100 105 110 Ala Asp Leu Arg Lys Met Gln Asp Arg Leu Gly Ile Arg His Gln Pro 115 120 125 Arg Ala Gln Pro Gln Thr Asn Arg His Gly His Asn 145 150 <210> 7440 <211> 1034 <212> PRT <213> Enterobacter cloacae <400> 7440 Lys Asn Asn Asn Phe Met Leu Phe Cys Phe Glu Leu Asn Leu Lys Asp 10 Ser Gln Tyr Thr Phe Tyr Thr Arg Tyr Leu Met Phe Leu Leu Thr Gln 25 Met Asp Val Tyr Met Ser Lys Lys Phe Phe Lys Leu Asn Asn Thr Thr 35 40 Lys Thr Leu Gly Lys Ile Phe Pro Ala Leu Leu Ile Cys Thr Pro Ala 60 Val Ala Phe Ser Ala Ile Ile Asp Gln Ser Thr Ser Val Pro Gln Asp 70 75 Phe Ser Ala Asp Ala Glu Tyr Val Ile Asn Lys Asp Val Thr Ile Ser 85 90 Ser Ala Gly Ser Glu Ala Ala Val Ser Val Thr Gly Phe Thr Thr 100 105 110 Thr Thr Thr Asn Tyr Gly Asn Ile Ser Gly Thr Gly Asn Gly Leu Asp 115 120 125 Ile Asn Thr Gly Glu Gln Arg Ile Leu Ile Asn Asn Asp Ile Gly Ala 130 135 140 Thr Ile Ser Ser Thr Thr Ala Asn Ala Val Asn Ile Gln Ser Met Leu 145 150 155 160 Gly Asp Phe Asn Asn Ser Gly Asn Ile Ile Gly Ala Glu Asn Gly Met 165 170 Phe Val Gly Glu Asn Ser Ser Ala Val Asn Ile Ile Asn Thr Ser Thr 180 190 185 Gly Met Ile Lys Gly Lys Thr Gly Leu Ser Thr Arg Tyr Gly Ile Gly 195 200 205 Ala Thr Asn Gly Asn Thr Lys Leu Thr Asn Asn Ala Leu Val Glr Gly 235 225 230 240 Thr Glu Asn Gly Ile Asn Val Lys Asp Thr Ala Lys Leu Asp Ile Lys 245 250 Asn Ser Gly Thr Ile Ser Gly Asn Thr Ala Ala Ile Met Phe Ala Ser

265

270

Asn Lys Asn Asn Thr Leu Val Leu Asp Thr Gly Ser Val Leu Val Gly 280 275 285 Asp Val Ile Ser Thr Asn Ser Thr Gly Asn Thr Leu Thr Leu Ile Gly 290 295 Thr Gly Thr Glu Asp Ser Asn Phe Val Gly Leu Asn Glu Gly Asp Gly 310 315 Phe Ala Ser Val Thr Met Asn Gly Glu Asn Trp Ala Leu Ser Gly Asp 325 330 Ile Asp Ile Ile Gly Ser Val Asp Ser Leu Met Ile Asp Lys Gly Ala 340 345 350 Leu Thr Leu Ala Gly Glu Val Ser Asn Thr Gly Asn Thr Arg Val Ala 355 360 365 Lys His Ala Ser Leu Gln Leu Gly Asp Gly Glu Lys Thr Ala Thr Leu 370 375 380 Ser Gly Gly Ile Thr Asn Asn Gly Thr Val Ile Phe Asn Gln Gly Ser 390 395 Asp Phe Thr Phe Ala Thr Asp Met Thr Gly Ser Gly Asn Val Glu Lys 405 410 415 Val Asp Ser Asn Thr Leu Thr Leu Thr Gly Lys Asn Ser Tyr Lys Gly 420 425 430 Asp Thr Val Leu His Gly Gly Thr Thr Leu Val Ser Thr Gly Ala Thr 435 440 445 Leu Gly Val Lys Gly Ser Asn Ala Thr Val Thr Val Glu Asn Gly Ala 450 455 460 Thr Phe Ala Thr Ala Gly Glu Val Asn Asn Asn Ile Ala Val Leu Ser 465 470 475 480 Gly Gly Thr Leu Ala Ala Trp Asn Ala Val Gln Gly Asn Ser Thr Leu 485 490 495 Ser Ala Ser Asp Val Asp Thr Ile Asn Gly Asn Val Thr Asn Gly Gly 500 505 Thr Leu Leu Ser Ala Ala Asp Asn Ser Val Gly Asn Asn Phe Ser 515 520 525 Ile Asn Gly Asp Tyr Thr Gly Ser Asp Gly Ser Gln Ile Val Met Asn 530 535 540 Ser Thr Leu Gly Glu Asp Asn Ser Pro Thr Asp His Leu Thr Ile Thr 545 550 555 Gly Ser Ser Phe Gly Gln Ser Gly Val Ser Ile Thr Asn Ile Gly Gly 565 570 575 Ala Gly Ala Gln Thr Ile Asn Gly Met Glu Ile Val Ser Ile Gly Gly 580 585 590 Ser Ser Glu Ala Gln Leu Thr Leu Ala Lys Pro Val Val Ala Gly Ala 595 600 605 Trp Glu Tyr Asn Leu Tyr Gln His Ser Asp Gly Asn Trp Tyr Leu Glu 615 620 Ser Lys Ala Thr Pro Ser Asp Asp Pro Ser Asp Asp Thr Asp Asp Gly 630 635 Gly Asn Thr Asp Asp Gly Gly Asn Thr Asp Asn Gly Gly Asn Thr Asp 645 650 Asn Gly Gly Asn Thr Asp Asn Gly Gly Asn Thr Asp Asn Gly Gly Asn 660 665 670 Thr Asp Asn Gly Gly Asn Thr Asp Asn Gly Gly Asn Thr Asp Asn Gly 675 680 Gly Asn Thr Asp Asn Gly Gly Asn Thr Asp Asn Gly Gly Asn Thr Asp 695 700 Asn Gly Gly Asn Thr Asp Asn Gly Gly Ser Thr Asp Asn Gly Gly Asn 710 715 Asn Ala Pro Glu Val Met Ala Pro Glu Val Gly Ala Tyr Leu Gly Asn 725 730 Tyr Leu Ala Ala Gln Gly Met Phe Leu His Lys Arg Asp Asp Arg Asp 740 745 750 Gln Ile Thr Phe Arg Asn Glu Asp Asp Leu Asn Thr Trp Met Tyr Val

```
760
Lys Gly Arg Tyr His Glu Asn Asp Ala Gly Gly Asn Lys Val Ser Tyr
                   775
Asp Thr Thr Thr Thr Val Leu Gln Val Gly Ser Asp Phe Met Ser Lys
              790
                     795
Pro Met Asp Asn Gly Ile Leu Arg Ala Gly Gly Met Phe Gly Ala Gly
         805 810 815
Gln Ala Lys Thr His Ser Asp Ala Lys His Asn Val Arg Asp Ala Gln
       820 825 830
Gly Lys Val Asp Gly Phe Asn Val Gly Leu Tyr Ala Thr Trp Gln Glu
    835 840 845
Asp Gln Lys Leu Arg Leu Gly Ser Tyr Val Asp Thr Trp Ala Ala Tyr
 850 855 860
Ser Trp Tyr Asn Asn Lys Val Thr Ser Asn Arg Asn Asp Glu Asp Tyr
       870 875
Asp Ser Glu Gly Phe Ala Ala Ser Val Glu Val Gly His Ala Trp Val
       885 890
Ile Gln Ser Glu Asn Glu Arg Thr Trp Lys Ile Glu Pro Gln Ala Gln
      900 905 910
Val Ile Tyr Ser Tyr Leu Asp Gln Glu Asn His Thr Asp Arg Asp Gly
      915 920 925
Val Arg Val Thr Thr Leu Asp Asn Asp Ser Val Phe Gly Arg Leu Gly
930 935
Val Lys Ala Ser Tyr Phe Gln Gln Lys Asp Val Lys Ala Trp Gln Pro
              950 955
Tyr Val Ala Val Asn Trp Leu Lys Gly Ala Gly Gln Asn Asp Leu Ala
            965 970 975
Phe Asn Asp Glu Thr Val Ser Asn Asp Thr Pro Glu Asp Arg Gly Gln 980 \hspace{1.5cm} 990 \hspace{1.5cm} 985 \hspace{1.5cm} 990 \hspace{1.5cm}
Leu Glu Leu Gly Val Thr Gly Asn Leu Asn Glu Thr Thr Thr Ile Ser
995 1000 1005
Leu Arg Ala Ser Gly Glu Trp Gly Glu Asn Ser Tyr Ala Ala Tyr Gly
1010 1015
                                    1020
Gly His Ile Leu Leu Asn His Arg Trp
                1030
<210> 7441
<211> 407
<212> PRT
<213> Enterobacter cloacae
<400> 7441
Arg Phe Met Ser Pro Ile Glu Lys Ser Ser Lys Leu Asp Asn Val Cys
                             10
Tyr Asp Ile Arg Gly Pro Val Leu Lys Glu Ala Lys Arg Leu Glu Glu
                          25
         20
Glu Gly Asn Lys Val Leu Lys Leu Asn Ile Gly Asn Pro Ala Pro Phe
                      40
Gly Phe Glu Ala Pro Asp Glu Ile Leu Val Asp Val Ile Arg Asn Leu
                   55
Pro Thr Ala Gln Gly Tyr Cys Asp Ser Lys Gly Leu Tyr Ser Ala Arg
                70
Lys Ala Ile Met Gln His Tyr Gln Ala Arg Gly Met Arg Asp Val Thr
          85
                             90
Val Glu Asp Ile Tyr Ile Gly Asn Gly Val Ser Glu Leu Ile Val Gln
         100
                         105
                                          110
Ala Met Gln Ala Leu Leu Asn Ser Gly Asp Glu Met Leu Val Pro Ala
     115
                      120
                                       125
Pro Asp Tyr Pro Leu Trp Thr Ala Ala Val Ser Leu Ser Ser Gly Lys
                           140
         135
```

Ala Val His Tyr Leu Cys Asp Glu Ser Ser Asp Trp Phe Pro Asp Leu

```
150
Asp Asp Ile Arg Ala Lys Ile Thr Pro Arg Thr Arg Gly Ile Val Ile
        165
                  170
Ile Asn Pro Asn Asn Pro Thr Gly Ala Val Tyr Ser Lys Glu Leu Leu
        180
            185 190
Met Glu Ile Val Glu Ile Ala Arg Gln His Asn Leu Ile Ile Phe Ala
 195 200 205
Asp Glu Ile Tyr Asp Lys Ile Leu Tyr Asp Ala Ala Gln His His Ser
210 215 220
Ile Ala Ala Leu Ala Pro Asp Leu Leu Thr Val Thr Phe Asn Gly Leu
225 230 235 240
Ser Lys Thr Tyr Arg Val Ala Gly Phe Arg Gln Gly Trp Met Val Leu
         245 250 255
Asn Gly Pro Lys Lys His Ala Lys Gly Tyr Ile Glu Gly Leu Glu Met
      260 265 270
Leu Ala Ser Met Arg Leu Cys Ala Asn Val Pro Ala Gln His Ala Ile
   275 280
Gln Thr Ala Leu Gly Gly Tyr Gln Ser Ile Ser Glu Phe Ile Val Pro
 290 295 300
Gly Gly Arg Leu Tyr Glu Gln Arg Asn Arg Ala Trp Glu Leu Ile Asn
305 310 315
Asp Ile Pro Gly Val Ser Cys Val Lys Pro Asn Gly Ala Leu Tyr Met
          325
              330 335
Phe Pro Lys Ile Asp Ala Lys Arg Phe Asn Ile His Asp Asp Gln Lys
        340 345 350
Met Val Leu Asp Phe Leu Leu Gln Glu Lys Val Leu Leu Val Gln Gly
     355 360
                                 365
Thr Ala Phe Asn Trp Pro Trp Pro Asp His Val Arg Ile Val Thr Leu
370 375
                              380
Pro Arg Glu Asp Asp Leu Glu Met Ala Ile Ser Arg Phe Gly Arg Phe
385 390
                            395
Leu Ser Gly Tyr His Gln
```

<210> 7442

<211> 201 <212> PRT

<213> Enterobacter cloacae

405

<400> 7442

Pro Met Ser Gln Ser His Phe Phe Ala His Leu Ser Arg Leu Lys Leu 10 Ile Asn Arg Trp Pro Leu Met Arg Asn Val Arg Thr Glu Asn Val Ser 20 25 Glu His Ser Leu Gln Val Ala Met Val Ala His Ala Leu Ala Ala Ile 35 4.0 Lys Asn Arg Lys Phe Asn Gly Gln Val Asn Ala Glu Arg Ile Ala Leu 55 50 60 Leu Ala Met Tyr His Asp Ala Ser Glu Val Leu Thr Gly Asp Leu Pro 75 Thr Pro Val Lys Tyr Phe Asn Ser Gln Ile Ala Gln Glu Tyr Lys Ala Ile Glu Lys Ile Ala Gln Gln Lys Leu Ile Asp Met Val Pro Glu Glu 100 105 Leu Arg Asp Ile Phe Gly Pro Leu Ile Asp Glu His Gln Tyr Thr Glu 115 120 Glu Glu Lys Ser Leu Val Lys Gln Ala Asp Ala Leu Cys Ala Tyr Leu 135 140 Lys Cys Leu Glu Glu Leu Ser Ala Gly Asn Asn Glu Phe Leu Leu Ala 150 155 Lys Thr Arg Leu Glu Lys Thr Leu Glu Ser Arg Arg Ser Glu Glu Met

```
3407
             165
                             170
Asp Tyr Phe Met Arg Met Phe Val Pro Ser Phe His Leu Ser Leu Asp
      180 185
Glu Ile Ser Gln Asp Ser Pro Leu
      195
             200
<210> 7443
<211> 145
<212> PRT
<213> Enterobacter cloacae
<400> 7443
Arg Met Lys Leu Asn Arg Val Leu Ser Ala Gly Arg Cys Met Ser Leu
                          10
Thr Arg Lys Arg Arg Ser Thr Gly Lys Val Thr Leu Ala Asp Val Ala
        20
                         25
                                          30
Gln Leu Ala Gly Val Gly Thr Met Thr Val Ser Arg Ala Leu Arg Thr
 35
                 40
Pro Glu Gln Val Ser Asp Lys Leu Arg Glu Lys Ile Glu Ala Ala Val
                  55
                           60
Gln Glu Leu Gly Tyr Met Pro Asn Leu Ala Ala Ser Ala Leu Ala Ser
65 70 75 80
Ala Ser Ser Trp Thr Ile Ala Met Val Val Pro Asn Leu Ser Glu Ala
      85 90 95
Gly Cys Ser Glu Met Phe Ala Gly Leu Gln Gln Val Leu Gln Pro Ala
   100 105 110
Gly Tyr Gln Ile Met Leu Ala Glu Ser Gln His Arg Leu Glu Gln Glu
 115 120 125
Glu Lys Leu Leu Glu Thr Leu Leu Ala Ser Asn Ile Ala Ala Ala Ile
 130 135
145
<210> 7444
<211> 208
<212> PRT
<213> Enterobacter cloacae
<400> 7444
Leu Ser Val Glu His Phe Asp Thr Val Arg His Trp Leu Lys Asn Ala
                            10
Tyr Ile Pro Val Met Glu Met Gly Ala Met Arg Ala Asp Pro Ile Asp
      20
                         25
Met Asn Ile Gly Ile Asp Asn Val Ala Ala Met Tyr Glu Leu Thr Glu
                  40
Met Val Ile Gln Arg Gly Tyr Gln Asn Ile Gly Val Leu Cys Ala Asn
Gln Glu Gln Trp Ile Phe Gln Gln His Leu Gln Gly Trp Tyr Lys Ala
             7.0
                         7.5
Met Leu Arg His His Leu Ala Pro Asn Arg Val Ile Asn Ala Ala Met
           85
                             90
Pro Pro Asn Phe Ser Thr Gly Ala Ala Gln Leu Pro Glu Phe Leu Leu
   100
                         105
                                110
Ala Trp Pro Glu Leu Asp Ala Leu Val Cys Val Ser Asp Glu Leu Ala
Cys Gly Ala Leu Tyr Glu Cys Gln Arg Arg Arg Ile Lys Val Pro Asp
 130 135
Asp Leu Ala Val Val Gly Phe Gly Asp Ser Asp Val Ser Arg Val Cys
145 150
                                155
Gln Pro Pro Leu Thr Thr Met Ala Val Pro His Arg Lys Ile Gly Ile
```

170

3408 Glu Ala Gly Lys Ala Leu Leu Glu Arg Leu Asn Asp Gly Asp Trp Arg 180 185 Asp His Lys Pro Ile Ala Ser Ser Leu Cys Leu Arg Glu Ser Cys 195 200 <210> 7445 <211> 413 <212> PRT <213> Enterobacter cloacae <400> 7445 Arg Phe Phe Ser His Val Ser Ile Ile Gly Thr Ser Met Ser Ser Lys 10 Leu Val Leu Val Leu Asn Cys Gly Ser Ser Ser Leu Lys Phe Ala Ile 20 25 30 Ile Asp Ala Leu Asn Gly Asp Glu Tyr Leu Ser Gly Leu Ala Glu Cys 35 4.0 4.5 Phe His Leu Pro Glu Ala Arg Ile Lys Trp Lys Met Asp Gly Ser Lys 55 60 Gln Glu Ala Ala Leu Gly Ala Gly Ala Ala His Ser Glu Ala Leu Asn 70 75 Phe Ile Val Asn Thr Ile Leu Ala Gln Lys Pro Glu Leu Ser Ala Gln 85 90 Leu Thr Ala Ile Gly His Arg Ile Val His Gly Gly Glu Lys Tyr Thr 100 105 110 Ser Ser Val Val Ile Asp Asp Ser Val Ile Gln Gly Ile Lys Asp Ser 115 120 125 Ala Ser Phe Ala Pro Leu His Asn Pro Ala His Leu Ile Gly Ile Ala 130 135 140 Glu Ala Leu Lys Ser Phe Pro Ser Leu Lys Asp Lys Asn Val Ala Val 145 150 1.55 Phe Asp Thr Ala Phe His Gln Thr Met Pro Glu Glu Ser Tyr Leu Tyr 165 170 175 Ala Leu Pro Tyr Ser Leu Tyr Lys Glu His Gly Val Arg Arg Tyr Gly 180 185 190 Ala His Gly Thr Ser His Phe Tyr Val Thr Gln Glu Ala Ala Lys Val 195 200 205 Leu Asn Lys Pro Val Glu Glu Val Asn Ile Ile Thr Cys His Leu Gly 210 215 220 Asn Gly Gly Ser Val Ser Ala Ile Arg Asn Gly Lys Cys Val Asp Thr 225 230 235 Ser Met Gly Leu Thr Pro Leu Glu Gly Leu Val Met Gly Thr Arg Ser 245 250 Gly Asp Ile Asp Pro Ala Ile Ile Phe His Leu His Asp Thr Leu Gly 260 265 Met Ser Val Asp Asp Ile Asn Lys Met Leu Thr Lys Glu Ser Gly Leu 280 285 Leu Gly Leu Thr Glu Val Thr Ser Asp Cys Arg Tyr Val Glu Asp Asn 290 295 300 Tyr Ala Glu Lys Ala Asp Ala Lys Arg Ala Met Asp Val Tyr Cys His 305 310 315 Arg Leu Ala Lys Tyr Ile Gly Ser Tyr Thr Ala Leu Met Glu Gly Arg 325 330 Leu Asp Ala Val Ile Phe Thr Gly Gly Ile Gly Glu Asn Ala Ala Met 350 340 345 Val Arg Glu Leu Ser Leu Gly Lys Leu Gly Val Leu Gly Phe Glu Val 355 360 365 Asp His Glu Arg Asn Leu Ala Ala Arg Phe Gly Lys Ser Gly Phe Ile

375

390

Asn Lys Glu Gly Thr Arg Pro Ala Ile Val Ile Pro Thr Asn Glu Glu

380

Leu Val Ile Ala Gln Asp Ala His Arg Leu Thr Ala 405

<210> 7446 <211> 715 <212> PRT

<213> Enterobacter cloacae

385

<400> 7446 Thr Val Ser Arg Thr Ile Met Leu Ile Pro Thr Gly Thr Ser Val Gly 10 Leu Thr Ser Val Ser Leu Gly Val Ile Arg Ala Met Glu Arg Lys Gly 3.0 25 Val Arg Leu Ser Val Phe Lys Pro Ile Ala Gln Pro Arg Ala Gly Gly 40 45 Asp Ala Pro Asp Gln Thr Thr Thr Ile Val Arg Lys Asn Ser Asn Leu 55 60 Pro Ala Ala Glu Pro Leu Lys Met Ser His Val Glu Ser Leu Leu Ser 70 75 Ser Asn Gln Lys Asp Val Leu Met Glu Glu Ile Ile Ala Asn Tyr His 90 85 Ala Asn Ala Gln Asp Ala Glu Val Val Leu Val Glu Gly Leu Val Pro 100 105 Thr Arg Lys His Gln Phe Ala Gln Ser Leu Asn Phe Glu Ile Ala Lys 120 125 115 Thr Leu Asn Ala Glu Ile Val Phe Val Met Ser Gln Gly Thr Asp Thr 135 140 Pro Glu Gln Leu Lys Glu Arg Ile Glu Leu Thr Arg Ser Ser Phe Gly 145 150 155 Gly Ala Lys Asn Thr Ser Ile Thr Gly Val Ile Val Asn Lys Leu Asn 165 170 175 Ala Pro Val Asp Glu Gln Gly Arg Thr Arg Pro Asp Leu Ser Glu Ile 185 190 180 Phe Asp Asp Ser Ser Lys Ala Lys Val Ile Lys Val Asp Pro Ala Lys 205 195 200 Leu Gln Asp Ser Ser Pro Leu Pro Val Leu Gly Ala Val Pro Trp Ser 215 220 210 Phe Asp Leu Ile Ala Thr Arg Ala Ile Asp Met Ala Arg His Leu Asn 230 235 Ala Thr Val Ile Asn Glu Gly Asp Ile Asn Thr Arg Arg Val Lys Ser 250 255 245 Val Thr Phe Cys Ala Arg Ser Ile Pro His Met Leu Glu His Phe Arg 265 260 Ala Gly Ser Leu Leu Val Thr Ser Ala Asp Arg Pro Asp Val Leu Val 280 275 Ala Ala Cys Leu Ala Ala Met Asn Gly Val Glu Ile Gly Ala Ile Leu 295 300 Leu Thr Gly Gly Tyr Glu Met Asp Ala Arg Ile Ser Lys Leu Cys Glu 305 310 315 Arg Ala Phe Ala Thr Gly Leu Pro Val Phe Met Val Asn Thr Asn Thr 330 325 Trp Gln Thr Ser Leu Ser Leu Gln Ser Phe Asn Leu Glu Val Pro Val 340 345 350 Asp Asp His Glu Arg Ile Glu Lys Val Gln Glu Tyr Val Ala Gly Tyr 360 Ile Asn Ala Asp Trp Ile Glu Ser Leu Thr Ala Thr Ser Glu Arg Ser 375 Arg Arg Leu Ser Pro Pro Ala Phe Arg Tyr Gln Leu Thr Glu Leu Ala

390

405

Arg Lys Ala Gly Lys Arg Val Val Leu Pro Glu Gly Asp Glu Pro Arg 410

```
Thr Val Lys Ala Ala Ala Ile Cys Ala Glu Arg Gly Ile Ala Thr Cys
        420
                      425
Val Leu Leu Gly Asn Pro Asp Glu Ile Asn Arg Val Ala Ala Ser Gln
     435
                   440
                                 445
Gly Val Glu Leu Gly Ala Gly Ile Glu Ile Val Asp Pro Glu Val Val
       455
 450
                    460
Arg Glu Ser Tyr Val Ala Arg Leu Val Glu Leu Arg Lys Asn Lys Gly
    470 475
Met Thr Glu Ala Val Ala Arg Glu Gln Leu Glu Asp Asn Val Val Leu
      485 490 495
Gly Thr Leu Met Leu Glu Gln Asp Glu Val Asp Gly Leu Val Ser Gly
   500 505 510
Ala Val His Thr Thr Ala Asn Thr Ile Arg Pro Pro Leu Gln Leu Ile
515 520 525
Lys Thr Ala Pro Gly Ser Ser Leu Val Ser Ser Val Phe Phe Met Leu
 530 535 540
Leu Pro Glu Gln Val Tyr Val Tyr Gly Asp Cys Ala Ile Asn Pro Asp
545 550 555 560
Pro Thr Ala Glu Gln Leu Ala Glu Ile Ala Ile Gln Ser Ala Asp Ser
   565 570 575
Ala Ile Ala Phe Gly Ile Glu Pro Arg Val Ala Met Leu Ser Tyr Ser
 580 585 590
Thr Gly Thr Ser Gly Ala Gly Ser Asp Val Glu Lys Val Arg Glu Ala
                   600
                         605
Thr Arg Ile Ala Gln Glu Lys Arg Pro Asp Leu Met Ile Asp Gly Pro
 610 615
                              620
Leu Gln Tyr Asp Ala Ala Val Met Ala Asp Val Ala Lys Ser Lys Ala
             630
                           635
Pro Asn Ser Pro Val Ala Gly Arg Ala Thr Val Phe Ile Phe Pro Asp
          645
                         650 655
Leu Asn Thr Gly Asn Thr Thr Tyr Lys Ala Val Gln Arg Ser Ala Asp
       660 665
                                    670
Leu Ile Ser Ile Gly Pro Met Leu Gln Gly Met Arg Lys Pro Val Asn
675 680
                                 685
Asp Leu Ser Arg Gly Ala Leu Val Asp Asp Ile Val Tyr Thr Ile Ala
690 695
Leu Thr Ala Ile Glm Ser Ser Glm Glm Glm
             710
```

<210> 7447 <211> 212 <212> PRT

<213> Enterobacter cloacae

<400> 7447

Arg Leu Ile Arg Lys Leu His His Asn Cys Lys Arg Ala Glu Arg Ala 1.0 Leu Arg Arg Glu Gly Phe Pro Met Val Glu Gln Asn His Leu Ala Ser 20 25 30 Thr Glu Trp Val Asp Ile Val Ser Glu Glu Asn Glu Val Ile Ala Gln 35 4.0 4.5 Ala Ser Arg Glu Gln Met Arg Ala Glu Arg Leu Arg His Arg Ala Thr 55 Tyr Ile Val Val His Asp Gly Met Gly Lys Ile Leu Val Gln Arg Arg 7.5 65 Thr Asp Thr Lys Asp Phe Leu Pro Gly Met Leu Asp Ala Thr Ala Gly 85 90 Gly Val Val Gln Ala Asp Glu Val Leu Leu Asp Ser Ala Arg Arg Glu 100 105 110 Ala Glu Glu Glu Leu Gly Ile Ala Gly Val Pro Phe Ala Glu His Gly

```
Gln Phe Tyr Phe Glu Asp Glu His Cys Arg Val Trp Gly Gly Leu Phe
                     135
Ser Cys Val Ser His Gly Pro Phe Ala Leu Gln Glu Glu Glu Val Ser
              150
                      155
Glu Val Ser Trp Met Thr Pro Glu Glu Ile Thr Ala Arg Cys Asp Glu
           165
                  170 175
Phe Thr Pro Asp Ser Leu Lys Ala Leu Ala Leu Trp Met Thr Arg Asn
       180 185 190
Ala Lys Asn Glu Ser Ala Lys Pro Glu Asn Lys Ala Glu Lys Glu Glu
   195 200 205
Glu Ala Glu
  210
<210> 7448
<211> 102
<212> PRT
<213> Enterobacter cloacae
<400> 7448
Trp Gly Val Leu Tyr Ser Lys Lys Gly Ile Thr Met Lys Ile Met Ala
                              10
Ile Cys Gly Ser Gly Leu Gly Ser Ser Phe Met Val Glu Met Asn Ile
                         25
Lys Lys Val Leu Lys Lys Leu Glu Ile Glu Ala Glu Val Glu His Ser
                    40
Asp Leu Ser Ser Ala Thr Pro Gly Ala Ala Asp Leu Phe Val Met Ala
                    55
Lys Asp Ile Ala Ala Ser Ala Ser Val Pro Glu Ser Gln Leu Val Val
65 70
                                  75
Ile Asn Asn Ile Ile Asp Ile Asn Glu Leu Glu Ala Gln Leu Arg Ala
             85
                               90
Trp Phe Glu Arg Gln
<210> 7449
<211> 468
<212> PRT
<213> Enterobacter cloacae
<400> 7449
Gly Glu Val Asp Met Phe Ile Leu Glu Thr Leu Asn Phe Val Val Asp
                               10
Ile Leu Lys Val Pro Ser Val Leu Val Gly Leu Ile Ala Leu Ile Gly
        2.0
                            25
                                              3.0
Leu Val Ala Gln Lys Lys Ala Phe Ser Asp Val Val Lys Gly Thr Ile
      3.5
                        4.0
                                          45
Lys Thr Ile Leu Gly Phe Ile Val Leu Gly Gly Gly Ala Thr Val Leu
  50
                     55
                                      60
Val Gly Ser Leu Asn Pro Leu Gly Gly Met Phe Glu His Ala Phe Asn
                 70
Ile Gln Gly Ile Ile Pro Asn Asn Glu Ala Ile Val Ser Ile Ala Leu
             85
                               90
Glu Lys Tyr Gly Ala Ser Thr Ala Leu Ile Met Ala Phe Gly Met Val
          100
                            105
Ala Asn Ile Ile Val Ala Arg Phe Thr Arg Leu Lys Tyr Ile Phe Leu
      115
                         120
                                         125
Thr Gly His His Thr Phe Tyr Met Ala Cys Met Ile Gly Val Ile Leu
  130
                    135
                                       140
Thr Val Ala Gly Phe Glu Gly Val Gly Leu Val Phe Thr Gly Ser Leu
                 150
                                   155
Ile Leu Gly Leu Ile Met Ala Phe Phe Pro Ala Ile Ala Gln Arg Tyr
```

```
165
                            170
Met Lys Arg Ile Thr Gly Asn Asp Glu Ile Ala Phe Gly His Phe Gly
                         185
         180
                                         190
Thr Leu Gly Tyr Val Leu Ser Gly Trp Ile Gly Ser Lys Val Gly Lys
     195
                      200
                                     205
Gly Ser Arg Ser Thr Glu Glu Met Asn Leu Pro Lys Asn Leu Ser Phe
               215
                       220
Leu Arg Asp Ser Ser Ile Ser Ile Ser Leu Thr Met Met Ile Ile Tyr
225 230 235
Leu Ile Met Ala Val Ser Ala Gly Arg Glu Tyr Val Glu Ala Thr Phe
          245 250 255
Ser Gly Gly Gln Asn Tyr Leu Val Tyr Ala Ile Ile Met Ala Ile Thr
      260 265 270
Phe Ala Ala Gly Val Phe Ile Ile Leu Gln Gly Val Arg Leu Ile Leu
    275 280 285
Ala Glu Ile Val Pro Ala Phe Thr Gly Phe Ser Glu Lys Leu Val Pro
 290 295 300
Asn Ala Arg Pro Ala Leu Asp Cys Pro Val Val Tyr Pro Tyr Ala Pro
    310 315
Asn Ala Val Leu Ile Gly Phe Leu Phe Ser Phe Leu Gly Gly Ile Val
           325 330 335
Gly Leu Phe Ile Cys Gly Gln Phe Ser Trp Val Leu Ile Leu Pro Gly
   340 345
Val Val Pro His Phe Phe Thr Gly Ala Thr Ala Gly Val Phe Gly Asn
355 360
Ala Thr Gly Gly Arg Arg Gly Ala Met Ile Gly Ala Phe Ala Asn Gly
370 375 380
Leu Leu Ile Thr Phe Leu Pro Val Leu Leu Leu Pro Val Leu Gly Ala
385 390 395
Ile Gly Phe Ala Asn Thr Thr Phe Ser Asp Ala Asp Phe Gly Ala Val
            405
                410
Gly Ile Val Leu Gly Asn Leu Ala Arg Phe Leu Ser Pro Phe Ala Ile
             425 430
Thr Gly Leu Val Val Val Leu Phe Ala Leu Leu Val Ala Tyr Asn Val
   435 440 445
Phe Ala Lys Asn Lys Pro Ala Ser Gly Asn Ala Gln Glu Asn Pro Gly
                 455
Ala Lys Ser
465
<210> 7450
<211> 336
<212> PRT
<213> Enterobacter cloacae
<400> 7450
Leu Arg Arg Ala Lys Arg Arg Ser Thr Arg Arg Phe Ala Asn Trp Arg
Leu His Met Ile Lys Val Ala Pro Thr Gly Gln Lys Asp Ala Val Glu
         20
                         25
                                         3.0
Met Arg Lys Val Tyr Ala Gly Phe Val Ala Lys Gln Ile Glu Ala Gly
      35
                     40
                                     45
Ser Glu Ile Ile Ala Leu Glu Ala Asp Leu Met Ser Ser Met Ala Met
                  55
Asp Gly Val Ala Arg Asp Tyr Pro Gln His Val Ile Asn Cys Gly Ile
               70
65
                               75
                                               8.0
Met Glu Ala Asn Val Ile Gly Thr Ala Ala Gly Leu Ser Leu Thr Gly
           85
                            90
Arg Lys Pro Phe Val His Thr Phe Thr Ala Phe Ala Ser Arg Arg Cys
         100
                        105
```

Phe Asp Gln Leu Phe Met Ser Leu Asp Tyr Gln Arg Asn Asn Val Lys

```
And the first scale for front that the first master and family first fir
```

```
Val Ile Ala Ser Asp Ala Gly Val Thr Ala Cys His Asn Gly Gly Thr
                                   140
His Met Ser Phe Glu Asp Met Gly Ile Val Arg Gly Leu Ala His Ser
          150
                                155
Val Val Leu Glu Val Thr Asp Ala Val Met Phe Glu Asp Val Leu Arg
                     170
           165
                                             175
Gln Leu Ile Asp Leu Glu Gly Phe Tyr Trp Val Arg Thr Ile Arg Lys
         180 185
Gln Ala Pro Ser Val Tyr Ala Pro Gly Ser Thr Phe Thr Ile Gly Lys
     195 200
                                    205
Gly Asn Val Leu Arg Glu Gly Thr Asp Ile Thr Leu Ile Ala Asn Gly
 210 215
                                 220
Ile Met Val Ala Glu Ala Leu Glu Ala Ala Arg Gln Leu Glu Gln Glu
225 230 235
Gly Val Ser Ala Ala Val Ile Asp Met Phe Thr Leu Lys Pro Ile Asp
          245 250 255
Arg Met Leu Val Lys Asn Tyr Ala Glu Lys Thr Gly Arg Ile Val Thr
       260 265 270
Cys Glu Asn His Ser Ile His Asn Gly Leu Gly Ser Ala Val Ala Glu
     275 280 285
Val Leu Val Glu Thr Cys Pro Val Pro Leu Arg Arg Val Gly Val Lys
290 295 300
Glu Arg Tyr Gly Gln Val Gly Thr Gln Asp Phe Leu Gln Lys Glu Tyr
305 310 315 320
Gly Leu Thr Ala His Asp Ile Val Ser Ala Ala Arg Glu Leu Leu
             325
<210> 7451
<211> 155
<212> PRT
<213> Enterobacter cloacae
<400> 7451
Gly Thr Ala Met Ser Thr Pro Glu Ile Pro Ser Val Asn Phe Phe Ser
                             10
Leu Phe Arg Arg Gly Gln His Tyr Ala Lys Thr Trp Pro Met Glu Lys
                         25
Arg Leu Ala Pro Met Phe Ile Glu Asn Arg Thr Ile Arg Ala Thr Arg
                 40
Tyr Ala Ile Arg Phe Met Pro Pro Ile Ala Val Phe Thr Leu Cys Trp
                   55
Gin Ile Ala Leu Gly Gly Gln Leu Gly Pro Ala Val Ala Thr Ala Leu
               70
                                7.5
Phe Ala Leu Ser Leu Pro Met Gln Gly Leu Trp Trp Leu Gly Lys Arg
            85
                             90
Ser Val Thr Pro Leu Pro Pro Ser Ile Leu His Trp Phe Tyr Glu Val
          100
                          105
                                        110
Arg Gly Lys Leu Glu Glu Ala Gly Gln Ala Leu Ala Pro Val Glu Gly
      115
                      120 125
Lys Pro Asp Tyr Gln Ala Leu Ala Asp Thr Leu Lys Arg Ala Phe Lys
                   135
                                   140
 130
Gln Leu Asp Lys Thr Phe Leu Asp Asp Leu
                150
<210> 7452
<211> 226
<212> PRT
<213> Enterobacter cloacae
```

Cys Leu Thr Glu Val Arg Val Gln Cys Lys Gly Phe Leu Phe Asp Leu Asp Gly Thr Leu Val Asp Ser Leu Pro Val Val Glu Arg Ser Trp Cys His Trp Ala Asp Arg His Gly Ile Asp His Gln Asp Val Leu Asn Phe Ile His Gly Lys Gln Ala Ile Thr Ser Leu Arg His Phe Leu Ala Gly 55 Arg Ser Glu Glu Glu Ile Gln Ala Glu Phe Arg Tyr Leu Glu Gln Ile 75 7.0 Glu Ala Thr Asp Thr Glu Gly Ile Thr Ala Leu Pro Gly Ala Arg Glu 85 90 9.5 Leu Leu Glu His Leu Asn Glu Ala Gln Ile Pro Trp Ala Ile Val Thr 100 105 110 Ser Gly Ser Val Pro Val Ala His Ala Arg His Lys Ala Ala Gly Leu 115 120 125 Pro Thr Pro Asp Val Phe Ile Thr Ala Glu Arg Val Lys Arg Gly Lys 130 135 140 Pro Glu Pro Asp Ala Phe Leu Leu Gly Ala Glu Leu Leu Gly Leu Ala 150 155 Pro Ala Glu Cys Val Val Val Glu Asp Ala Ala Ala Gly Val Leu Ala 165 170 175 Gly Leu Asn Ala Gly Ser His Val Ile Ala Val Asn Val Pro Ala Gly 180 185 190 Ser Pro Arg Leu Glu Glu Ala Asp Phe Val Leu Asn Thr Leu Thr Ala 195 200 205 Ile Asp Val Ser Lys Ala Ser Asp Gly Val Val Thr Val Ser Leu Lys 215 220

Met 225

<210> 7453 <211> 615

<212> PRT <213> Enterobacter cloacae

<400> 7453 Gln Gly His Val Val Asn Gly Glu Leu Ile Trp Val Leu Ser Leu Leu 1 1.0 Leu Ile Ala Ile Ile Leu Phe Ala Thr Gly Lys Val Arg Met Asp Ala 20 25 3.0 Val Ala Leu Phe Val Ile Val Ala Phe Val Leu Ser Gly Thr Leu Ser 35 4 0 Leu Pro Glu Ala Phe Ser Gly Phe Ser Asp Pro Asn Val Ile Leu Ile 5.0 Ala Ala Leu Phe Ile Ile Gly Asp Gly Leu Val Arg Thr Gly Val Ala 70 75 Thr Met Met Gly Ser Trp Leu Val Lys Val Ala Gly Ser Ser Glu Thr 85 90 95 Lys Met Leu Ile Tyr Leu Met Leu Thr Val Ala Gly Leu Gly Ala Phe 100 105 Met Ser Ser Thr Gly Val Val Ala Ile Phe Ile Pro Val Val Leu Ser 115 120 125 Val Cys Met Arq Met Gln Ile Ser Pro Ser Arg Leu Met Met Pro Leu 135 Ser Phe Ala Gly Leu Ile Ser Gly Met Met Thr Leu Val Ala Thr Pro 150 155 Pro Asn Leu Val Val Asn Ser Glu Leu Ile Arg Glu Gly Leu Glu Gly 165 170 Phe Ser Phe Phe Ser Val Thr Pro Ile Gly Leu Val Val Leu Val Met 180 185 190

```
Gly Ile Ile Tyr Met Leu Leu Thr Arg Phe Ala Leu Lys Gly Glu Lys
                  200 205
 195
Gln Asp Lys Ala Lys Glu Gly Trp Lys Arg Arg Ser Phe Arg Asp Leu
             215
Ile Lys Glu Tyr Arg Leu Thr Gly Arg Ala Arg Arg Leu Ala Ile Arg
                            235
225 230
Pro Gly Ser Pro Met Val Gly Gln Arg Leu Asp Asp Leu Lys Leu Arg
      245 250
Glu Arg Tyr Gly Ala Asn Val Ile Gly Val Glu Arg Trp Arg Arg Phe
      260 265 270
Arg Arg Val Ile Val Asn Val Asn Gly Val Ser Glu Phe Arg Ala Arg
 275 280 285
Asp Val Leu Leu Ile Asp Met Ser Thr Ala Asp Val Asp Leu Arg Glu
 290 295 300
Phe Cys Ser Glu Gln Leu Leu Glu Pro Met Val Leu Arg Gly Glu Tyr
   310 315 320
Phe Ser Asp Gln Ala Leu Asp Val Gly Met Ala Glu Val Ser Leu Ile
     325 330 335
Pro Glu Ser Glu Leu Leu Gly Lys Thr Val Arg Glu Ile Gly Phe Arg
       340 345 350
Thr Arg Tyr Gly Leu Asn Val Val Gly Leu Lys Arg Asp Gly Val Ala 355 360 365
Leu Glu Gly Ala Val Val Asp Glu Pro Ile Leu Leu Gly Asp Ile Phe
370 375 380
Leu Val Val Gly Asn Trp Lys Leu Ile Ser Gln Leu Gly Gln Lys Gly
385 390 395
Arg Asp Phe Val Val Leu Asn Met Pro Ile Glu Glu Ser Asp Ala Ser
    405 410 415
Pro Ala His Ser Gln Ala Pro His Ala Ile Phe Cys Leu Val Leu Met
 420
                      425 430
Val Ala Leu Met Leu Thr Asp Glu Ile Pro Asn Pro Val Ala Ala Ile
435 440 445
Ile Ala Cys Leu Leu Met Gly Lys Phe Arg Cys Ile Asp Ala Glu Ser
 450 455 460
Ala Tyr Lys Ala Ile His Trp Pro Ser Ile Ile Leu Ile Val Gly Met
             470
                          475
Met Pro Phe Ala Leu Ala Leu Gln Lys Thr Gly Gly Val Asp Leu Ile
          485
                         490 495
Val Lys Gly Leu Met Asp Ala Gly Gly Gly Tyr Gly Pro Tyr Leu Met
        500
                      505 510
Met Val Cys Leu Phe Val Met Cys Ala Thr Ile Gly Leu Phe Ile Ser
     515
                   520
Asn Thr Ala Thr Ala Val Leu Met Ala Pro Ile Ala Leu Ala Met Ala
                 535
                               540
Lys Ser Met Gly Val Ser Pro Tyr Pro Phe Ala Met Met Val Ala Met
545
             550 555 560
Ala Ala Ser Ala Ala Phe Met Thr Pro Val Ser Ser Pro Val Asn Thr
           565
                         570 575
Leu Val Leu Gly Pro Gly Asn Tyr Arg Phe Ser Asp Phe Val Lys Leu
        580 585 590
Gly Val Pro Phe Thr Val Leu Val Met Val Val Cys Val Val Leu Ile
   595
                  600
                                  605
Pro Val Leu Phe Pro Phe
  610
<210> 7454
<211> 298
```

<212> PRT

<213> Enterobacter cloacae

<400> 7454

```
Lys Asp Met Ile Asn Ala Asn Arg Pro Ile Met Asn Leu Asp Leu Asp
                          10
Leu Leu Arg Thr Phe Val Ala Val Ala Asp Leu Asn Thr Phe Ala Ala
Ala Ala Ala Val Cys Arg Thr Gln Ser Ala Val Ser Gln Gln Met
                    40
Gln Arg Leu Glu Gln Leu Val Gly Lys Glu Leu Phe Ala Arg His Gly
                 5.5
Arg Asn Lys Leu Leu Thr Glu His Gly Ile Gln Leu Leu Gly Tyr Ala
              70
Arg Lys Ile Leu Arg Phe Asn Asp Glu Ala Cys Met Ser Leu Met Phe
         85
                         90
Ser Asn Leu Gln Gly Val Leu Thr Leu Gly Ala Ser Asp Glu Ser Ala
      100 105 110
Asp Thr Ile Leu Pro Phe Leu Leu Asn Arg Ile Ser Ser Val Tyr Pro
   115 120 125
Lys Leu Ala Leu Asp Val Ser Val Lys Arg Asn Ala Phe Met Val Glu
 130 135 140
Met Leu Thr Glu Asn Glu Val Asp Leu Val Val Thr Thr His Arg Pro
145 150 155
Gly Gln Phe Asp Ser Leu Thr Leu Arg Thr Ser Pro Thr His Trp Tyr
   165 170 175
Cys Ala Ala Glu Tyr Val Leu Gln Lys Gly Glu Pro Ile Pro Leu Val
180 185 190
Leu Leu Asp Asp Pro Ser Pro Phe Arg Asp Met Val Leu Ala Ala Leu
195 200 205
Asn Glu Ala Ser Ile Pro Trp Arg Leu Ala Tyr Val Ala Ser Thr Leu
 210 215 220
Pro Ala Val Arg Ala Ala Val Lys Ala Gly Leu Gly Val Thr Ala Arg
            230 235 240
Pro Val Glu Met Met Ser Pro Asp Leu Arg Val Leu Gly Gln Ser Glu
           245 250 255
Gly Leu Pro Ser Leu Pro Asp Thr Glu Tyr Leu Leu Cys His Asn Ala
   260 265 270
Ala Ser Asn Asn Glu Leu Ala Lys Val Val Phe Glu Ala Met Glu Asn
  275 280
Tyr His Asn Pro Trp Gln Tyr Ala Ala Val
                 295
```

<210> 7455 <211> 185 <212> PRT

<400> 7455

<213> Enterobacter cloacae

Leu Met Lys Leu Met Phe Ala Ser Asp Ile His Gly Ser Leu Pro Ala 10 Thr Glu Arg Val Leu Ser Leu Phe Ala Gln Ser Gly Ala Gln Trp Leu 20 25 Val Ile Leu Gly Asp Val Leu Asn His Gly Pro Arg Asn Ala Leu Pro 40 4.5 Glu Gly Tyr Ala Pro Ala Gln Val Ala Glu Lys Leu Asn His Phe Ala 50 Ser Arg Ile Ile Ala Val Arg Gly Asn Cys Asp Ser Glu Val Asp Gln 70 75 Met Leu Leu His Phe Pro Ile Thr Ala Pro Trp Gln Gln Val Leu Met 90 85

Glu Asn Ser Arg Leu Phe Leu Thr His Gly His Leu Phe Gly Pro Asp 100 105 110 Asn Leu Pro Ser Leu Ala Ala Gly Asp Val Leu Val Tyr Gly His Thr

```
3417
His Ile Pro Val Ala Glu Lys Arg Gly Ala Phe Tyr His Phe Asn Pro
                                  140
                       135
Gly Ser Val Ser Ile Pro Lys Gly Gly Asn Pro Ala Ser Tyr Gly Met
                150
                                 155
Tyr Glu Asp Gly Thr Leu Ser Val Ile Ala Leu Asn Asp Gln Gln Val
             165
                    170
Ile Ala Gln Ile Ala Ile Asn Pro
           180
<210> 7456
<211> 149
<212> PRT
<213> Enterobacter cloacae
<400> 7456
Lys Met Leu Lys Lys Trp Ile Tyr Asp Thr Thr Ile Ile Leu Gln Asp
                                10
Ser Val Glu Ser Trp Pro Gln Ala Leu Glu Leu Cys Ala Lys Pro Leu
                           25
          20
                                              30
Leu Asp Leu Gln Val Ile Ala Pro Glu Tyr Val Thr Ala Ile Ile Glu
                          40
                                           45
Lys His His Thr Leu Gly Pro Tyr Tyr Val Leu Ala Pro Gly Leu Ala
                   5.5
Met Pro His Ala Arg Pro Glu Glu Gly Ala Lys Gly Leu Gly Leu Ser
                 70
                                      75
Leu Leu Lys Leu Lys Gln Gly Val Ser Phe Gly Ala Gly Glu Phe Asp
               85
                                  90
Pro Val Asp Val Ile Val Met Leu Ala Ala Pro Asp Lys His Ser His
           100
                             105
Ile Glu Met Ile Ser Ala Leu Ala Glu Leu Phe Ser Ser Asp Glu Asp
                  120 125
Met Ala Glu Leu His Arg Ala Asn Thr Leu Glu Glu Ile Lys Thr Ile
                      135
Ile Asp Arg Phe
145
<210> 7457
<211> 286
<212> PRT
<213> Enterobacter cloacae
<400> 7457
Arg Ala Gly Lys Pro Arg Ser Gin Ile Met Asn Glu Asn Glu Ile Thr
Glu Leu Ala Arg Gln Ile Arg Leu Glu Thr Leu Lys Ser Leu Thr Gln
           20
                              25
                                                 30
Leu Gly Phe Gly His Tyr Gly Gly Ser Met Ser Val Val Glu Thr Leu
                          40
                                             45
Ala Val Leu Tyr Gly Ala Val Met Lys Ile Asp Pro Ala Asp Pro Asp
  5.0
                       5.5
                                          60
Trp Pro Glu Arg Asp Tyr Phe Val Leu Ser Lys Gly His Ala Gly Pro
                   70
                                      75
Ala Leu Tyr Ser Thr Leu Ala Ile Lys Gly Tyr Phe Pro Ile Asp Glu
                                  90
               85
Leu Ser Thr Leu Asn Gln Asn Gly Thr Arg Leu Pro Ser His Pro Asp
           100
                              105
                                                 110
Arg Leu Lys Thr Arg Gly Val Asp Ala Thr Thr Gly Ser Leu Gly Gln
                          120
                                             125
       115
Gly Ile Ser Ile Ala Gly Gly Met Ala Leu Ser His Lys Leu Ala Gly
                       135
                                          140
```

Arg Pro Asn Arg Val Phe Cys Ile Val Gly Asp Gly Glu Leu Asn Glu

35

```
155
                150
Gly Gln Cys Trp Glu Ala Phe Gln Phe Ile Ala His His Arg Leu Asn
            165
                           170
Asn Leu Thr Val Phe Val Asp Trp Asn Lys Gln Gln Leu Asp Gly Glu
                                            190
         180
                          185
Leu Asp Glu Ile Ile Ser Ala Phe Asp Leu Glu Gly Lys Phe Arg Ala
      195
              200
                                        205
Phe Gly Phe Asp Val Val Thr Val Lys Gly Asp Asp Ile Pro Ala Leu
 210
                 215
                                 220
Leu Glu Val Thr Ala Pro Ile Pro Ala Ala Asp Ala Arg Pro Arg Val
225
          230
                     235
Val Ile Leu Asp Ser Ile Lys Gly Gln Gly Val Pro Tyr Leu Glu Gln
         245 250
                                  255
Leu Ser Asn Ser His His Leu Arg Leu Thr Glu Glu Ser Lys Ala Ala
      260 265
Leu Asn Glu Thr Ile Arg Gln Leu Glu Ala Ser His Asp
              280
<210> 7458
<211> 183
<212> PRT
<213> Enterobacter cloacae
<400> 7458
Gln Ser Val Thr Val Ser Phe Phe Tyr Ser Ala Met Arg Tyr Arg Ser
                            1.0
Arg Lys Met Glu Met Thr His Ala Gln Arg Leu Ile Leu Ser Asn Gln
                     25
Tyr Lys Met Met Thr Met Leu Asp Pro Asp Asn Ala Ala Arg Tyr Ser
3.5
                       40
Arg Leu Gln Thr Ile Val Glu Arg Gly Phe Gly Leu Gln Met Arg Glu
                   5.5
                                     60
Leu Asp Arg Glu Phe Gly Glu Leu Lys Glu Glu Thr Cys Arg Ile Val
                7.0
                        7.5
Ile Asp Ile Met Glu Met Tyr His Ala Leu His Val Ser Trp Thr Asn
                     90 95
Leu Lys Asp Gln Gln Thr Ile Asp Glu Arg Arg Val Thr Phe Leu Gly
        100 105 110
Phe Asp Ala Ala Thr Glu Ala Arg Tyr Leu Ser Tyr Val Arg Phe Met
                       120
                                       125
Val Asn Thr Glu Gly Arg Tyr Thr His Phe Asp Ala Gly Thr His Gly
                    135 140
Phe Asn Ala Gln Thr Pro Met Trp Asp Lys Tyr Gln Arg Met Leu Ser
                150 155 160
Ala Trp His Ala Cys Pro Arg Gln Tyr His Leu Ser Ser Asn Glu Ile
             165
                         170
Gln Gln Ile Ile Asn Ala
          180
<210> 7459
<211> 72
<212> PRT
<213> Enterobacter cloacae
<400> 7459
Pro Val Lys Gly Ile Thr Gly Ala Val Leu Arg Leu Ile Val Leu Phe
                               1.0
Thr Asp Ser Val Asp Leu Asp Ala Ala Phe Leu Ser Ala Asp Gln Gly
       20
                                            3.0
Cys Ser Gly Ala Tyr Gly Leu Leu Leu Asn Asn Ala Ser Ala Thr
```

4.0

Gly Glu Gln Tyr Arg Tyr Arg Gln Ala Lys Asn His Ile Phe His Arg Gly Tyr Ile Pro Gly His Ser <210> 7460 <211> 461 <212> PRT <213> Enterobacter cloacae <400> 7460 Ile Val Leu Lys Gln Val Pro Gly Asn Ala Leu Thr Gly Pro Thr Lys 1.0 Cys Pro Ala Leu Thr Asp Ala Ala Ser Trp Gln Met Gln Tyr Gly Gly 25 30 Tyr Met Thr Trp Phe Ile Asp Arg Arg Leu Asn Gly Lys Asn Lys Ser 4.5 40 Thr Val Asn Arg Gln Arg Phe Leu Arg Arg Tyr Lys Ala Gln Ile Lys 55 60 50 Gln Ser Ile Ser Glu Ala Ile Asn Lys Arg Ser Val Thr Asp Val Asp 7.0 7.5 Ser Gly Glu Ser Val Ser Ile Pro Asn Asp Asp Ile Ser Glu Pro Met 90 95 8.5 Phe His Gln Gly Arg Gly Gly Leu Arg His Arg Val His Pro Gly Asn 100 105 Asp His Phe Val Gln Asn Asp Arg Ile Glu Arg Pro Gln Gly Gly Gly 115 120 125 Gly Gly Ser Gly Ser Gly Gln Gly Gln Ala Ser Gln Asp Gly Glu Gly 130 135 Gln Asp Glu Phe Val Phe Gln Ile Ser Lys Asp Glu Tyr Leu Asp Leu 150 155 145 Leu Phe Glu Asp Leu Ala Leu Pro Asn Leu Arg Lys Asn Gln His Arg 165 170 Gln Leu Asn Glu Tyr Lys Thr His Arg Ala Gly Tyr Thr Ala Asn Gly 185 180 Val Pro Ala Asn Ile Ser Val Val Arg Ser Leu Gln Asn Ser Leu Ala 200 205 195 Arg Arg Thr Ala Met Thr Ala Gly Lys Arg Arg Glu Leu Arg Glu Leu 210 215 220 Glu Thr Ser Leu Lys Val Val Glu Asn Thr Glu Pro Ala Gln Leu Leu 230 235 Glu Glu Glu Arg Leu Arg Lys Glu Ile Ala Glu Leu Arg Ala Lys Ile 250 255 245 Asp Arg Val Pro Phe Ile Asp Thr Phe Asp Leu Arg Tyr Lys Asn Tyr 270 260 265 Glu Lys Arg Pro Glu Pro Ser Ser Gln Ala Val Met Phe Cys Leu Met 285 280 Asp Val Ser Gly Ser Met Asp Gln Ala Thr Lys Asp Met Ala Lys Arg 300 290 Phe Tyr Ile Leu Leu Tyr Leu Phe Leu Ser Arg Thr Tyr Lys Asn Val 310 Glu Val Val Tyr Ile Arg His His Thr Gln Ala Lys Glu Val Asp Glu 330 His Glu Phe Phe Tyr Ser Gln Glu Thr Gly Gly Thr Ile Val Ser Ser 350 345 Ala Leu Lys Leu Met Asp Glu Val Val Lys Glu Arg Tyr Asp Pro Ala 355 360 365 Gln Trp Asn Ile Tyr Ala Ala Gln Ala Ser Asp Gly Asp Asn Trp Ala 370 375 380 Asp Asp Ser Pro Leu Cys His Glu Ile Leu Ala Lys Lys Ile Leu Pro 390 395

Val Val Arg Tyr Tyr Ser Tyr Ile Glu Ile Thr Arg Arg Ala His Gln
405

Thr Leu Trp Arg Glu Tyr Glu His Leu Gln Ala Met Phe Asp Asn Phe
420

Ala Met Gln His Ile Arg Asp Gln Asp Asp Ile Tyr Pro Val Phe Arg
435

Glu Leu Phe Gln Lys Gln Ser Ser Thr Thr Ser Asn
460

<210> 7461 <211> 88 <212> PRT

<213> Enterobacter cloacae

85

<210> 7462 <211> 1121 <212> PRT

<213> Enterobacter cloacae

<400> 7462 Arg Ser Val Cys Gly Ser Asn Glu Ser Val Asn Val Met Ala Asp Val 10 Ala Ser Leu Ala Val Gly Leu His Leu Asn Ala Ala Asn Phe Lys Ser 2.5 Gln Leu Met Gly Ala Tyr Gly Asp Ala Glu Asn Ser Ser Lys Arg Phe 40 Asn Arg Asn Ala Gln Glu Asp Ala Lys Arg Thr Asp Glu Ala Tyr Ser 50 5.5 Arg Met Gly Lys Thr Ile Ala Gly Val Ala Gly Arg Leu Ala Gly Phe 70 Ala Gly Ala Gly Leu Ser Leu Gly Ala Ile Ile Thr Thr Arg Glu 90 85 Tyr Gly Gln Ala Leu Ser Asp Leu Ser Ala Ile Thr Gly Ala Thr Gly 100 105 110 Ala Gln Leu Lys Ser Leu Asp Glu Ala Ala Gln Glu Met Gly Arg Ser 120 Thr Glu Tyr Ser Ala Ser Gln Ala Val Glu Ala Leu Lys Leu Met Ala 140 130 135 Ser Ala Lys Pro Glu Leu Leu Gln Thr Ala Asp Gly Leu Thr Glu Ala 155 150 Thr Lys Ser Ala Leu Thr Leu Ala Gln Ala Ala Gly Ser Thr Leu Pro 170 175 165 Asp Ala Thr Arg Thr Leu Ala Leu Ser Leu Asn Gln Phe Gly Ala Gly 190 180 185 Ala Gln Glu Ala Asp Arg Tyr Ile Asn Val Leu Ala Ala Gly Ala Lys 205 200 195 Phe Gly Ala Ser Glu Ile Ala Asp Thr Ala Ala Ala Ile Lys Asn Gly

215 Gly Val Ala Ala Ala Gln Ala Gly Val Gly Phe Glu Thr Leu Asn Ala 235 230 Ala Ile Gln Val Leu Ala Glu Arg Glu Ile Lys Gly Gly Glu Ala Gly 250 245 Thr Ala Leu Arg Asn Val Ile Leu Ala Leu Glu Lys Gly Thr Asp Lys 260 265 Thr Leu Lys Pro Ser Val Val Gly Leu Ser Gly Ala Leu Asp Asn Leu 275 280 Ser Lys Lys Asn Leu Ser Thr Ala Gln Ala Val Lys Leu Phe Gly Val 290 295 300 Glu Asn Ile Asn Ala Ala Ser Val Leu Val Asp Asn Arg Ser Lys Leu 305 310 315 Asn Ala Leu Thr Leu Ala Leu Thr Gly Thr Gln Thr Ala His Glu Gln 325 330 Ala Ala Ile Arg Val Asn Asn Leu Asn Gly Asp Ile Met Gly Leu Thr 340 345 350 Ser Ala Phe Glu Gly Met Ile Ile Lys Ile Gly Gln Ser Ser Thr Gly 355 360 365 Pro Leu Arg Ser Gly Ile Gln Ser Val Thr Asp Gly Ile Asn Leu Leu 370 375 380 Thr Asp Asn Phe Asn Ala Val Ala Ser Val Ala Leu Tyr Thr Leu Ile 385 390 395 400 Pro Val Leu Ser Thr Lys Leu Thr Ala Gly Leu Arg Glu Asn Ile Ser 405 410 415 Ala Trp Gln Gln Asn Gln Ala Ala Val Lys Ala Ala Ala Ala Gln 420 425 430 Ala Asp Gly Ala Arg Lys Thr Leu Glu Ala Thr Ser Ala Thr Leu Lys 435 440 445 Arg Asn Asp Ala Glu Phe Gly Tyr Tyr Arg Gln Leu Glu Lys Thr Ala 455 460 Arg Gln His Gly Leu Asn Val Asr Tyr Gln Gly Glu Phe Asn Arg Leu 465 470 475 480 Ile Arg Glu Glu Thr Glu Gln Thr Asn Leu Ala Thr Arg Ala Lys Met 485 490 495 Gln Leu Ala Ala Ala Asn Arg Gln Val Ser Leu Thr Ala Arg Ala Ala 500 505 510 Ser Val Ala Val Gly Leu Ala Arg Gly Ala Leu Ala Leu Val Gly Gly 515 520 525 Pro Phe Gly Ala Ala Met Leu Ala Gly Ser Ala Leu Leu Tyr Phe His 535 540 Gln Gln Ala Lys Asp Ala Arg Gln Ser Ala Ile Asn Leu Lys Asp Ala 550 555 560 Val Ile Glu Thr Thr Ala Ala Leu Met Gln Met Ser Asp Lys Gln Leu 565 570 575 Ala Val Lys Gln Ile Asp Leu Gln Asp Gln Tyr Glu Asn Gln Val Thr 585 590 580 Gln Arg Asn Gln Leu Ile Lys Glu Ile Gln Asp Ala Asp Ser Arg Leu 595 600 605 Asp Ser Leu Gly Gly Phe Asp Pro Phe Arg Gln Lys Lys Gly Val Glu 615 620 Asp Ser Lys Lys Arg Ala Glu Ala Asp Leu Glu Ala Val Asn Lys Gly 630 635 625 Leu Glu Thr Thr Gln Ser Asn Leu Glu Asn Val Ser Lys Ala Arg Phe 645 650 655 Leu Val Gln Thr Gly Ile Ala Asp Gln Ala Lys Ser Leu Ala Asn Asp 665 670 660 Ile Lys Asn Ile Thr Ala Gln Thr Ala Lys Ala Gly Glu Gly Val Thr 685 680 Thr Pro Trp Thr Gly Glu Asp Thr Gln Lys Ala Arg Lys Glu Thr Val 690 695

Asn Gln Tyr Leu Gln Leu Arg Arg Glu Ile Glu Glu Ala His Ala Thr 715 Ser Leu Gly Lys Ile Asp Leu Gln Glu Lys Ala Ser Gln Glu Lys Leu 730 735 725 Ile Ala Ala Ala Arg Lys Asn Gly Ala Ser Gln Gln Asp Leu Gln Arg 740 745 750 Ala Leu Leu Met Asn Ala Glu Asn Tyr Gln Lys Gln Arg Asn Glu Leu 755 760 765 Ala Glu Gln Tyr Ser Pro Ala Arg Ser Ala Ile Asn Lys Glu Lys Glu 780 770 775 Ala Ser Gln Glu Leu Lys Ser Leu Leu Asp Ala Arg Leu Leu Thr Glu 785 790 795 800 Lys Glu Tyr Met Ala Ala Arg Val Thr Leu Ser Gln Glu Thr Ser Arg 805 810 815 Gln Ile Leu Gln Ala Gln Ala Asn Ala Leu Ser Ala Pro Arg Leu Glu 820 825 830 Leu Ala Gly Asp Val Asp Pro Leu Ala Gln Gln Arg Asn Gln Leu Ala 835 840 845 Gln Gln Gln Ser Leu Val Glu Thr Tyr Tyr Arg Asn Gly Ala Leu Ser 850 855 860 Lys Gln Gln Tyr Glu Met Leu Met Gln Lys Ser Ser Lys Asp Ser Ala 865 870 875 880 Asp Ala Gln Tyr Gln Thr Ala Leu Glu Leu Tyr Arg Ser Gln Ser Glu 885 890 895 Phe Asn Asn Leu Ala Ile Gly Leu Val Glu Ala Thr Arg Glu Arg Thr 905 910 Thr Asn Val Leu Thr Gly Leu Leu Thr Lys Thr Gln Thr Phe Lys Glu 915 920 925 Gly Val Ile Asn Leu Phe Ser Thr Leu Thr Gln Ser Ile Ile Gln Asn 930 935 940 Leu Val Asp Met Ala Ala Gln Ala Leu Val Thr Asn Thr Ile Leu Ser 945 950 955 960 Ser Ile Met Gly Val Gly Ser Ser Val Leu Gly Gly Val Gly Gly Ser 970 965 Thr Ala Gly Ser Ser Gly Thr Ala Ile Ala Asp Tyr Gly Ser Asn Phe 980 985 990 Gln Phe Asn Ala Lys Gly Gly Val Tyr Ser Ser Ser Asp Leu Ser Ala 995 1000 1005 Tyr Ser Gly Gln Val Val Asp Asn Pro Thr Phe Phe Ala Phe Ala Lys 1010 1015 1020 Gly Ala Gly Val Met Gly Glu Ala Gly Pro Glu Ala Ile Met Pro Leu 1025 1030 1035 1040 Thr Arg Ala Ala Asp Gly Ser Leu Gly Val Arg Ala Val Ser Gly Gly 1045 1050 1055 Ala Ser Glu Gly Ala Ala Pro Gln Val Phe Ile Thr Ile Asn Gly Asp 1060 1065 1070 Gly Ser Thr Ala Ser Gln Ser Ser Gly Gly Leu Glu Lys Phe Gly Lys 1075 1080 1085 Ser Val Gly Asn Phe Val Arg Asp Glu Tyr Arg Lys Leu Ile Gln Ala 1090 1095 1100 Asp Leu Arg Pro Gly Gly Ala Ile Trp Asn Ser Thr Asn Gly Arg Arg 1110 1115 1105

<sup>&</sup>lt;210> 7463 <211> 1340

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Pro Cys Ile Val Cys Val Trp Arg Gly Asp Lys Tyr Arg Arg Thr Gly Leu Pro Gly Ser Ala Pro Leu Arg Pro Pro Ala Asn Arg Arg Gly Asn Tyr Phe Arg Arg Asp Leu Cys Arg Arg Ser Ala Val Asp Asn Lys Pro Phe Tyr Lys Pro Pro Ser Gly Gly Phe Phe Tyr Gly Arg Asp Met Ala Asn Lys Ile Thr Gly Arg Lys Gly Gly Ser Ser Ser Ser Arg Thr Pro 70 Thr Glu Gln Pro Asp Asp Leu Gln Ser Val Ala Lys Ala Lys Ile Leu 90 8.5 Val Ala Leu Gly Glu Gly Glu Phe Ala Gly Gln Leu Thr Gly Lys Asp 100 105 110 Ile Tyr Leu Asp Gly Thr Ala Leu Glu Asn Ala Asp Gly Ser Gln Asn 115 120 125 Phe Ser Gly Val Thr Trp Glu Phe Arg Ser Gly Thr Gln Ala Gln Lys 130 135 140 Tyr Ile Gln Gly Ile Pro Gly Thr Glu Asn Glu Ile Ser Val Gly Thr 145 150 155 160 Glu Val Thr Ser Ala Thr Ala Trp Thr Arg Thr Phe Thr Asn Thr Gln 165 170 175 Leu Ser Ala Val Arg Leu Arg Leu Lys Trp Pro Ser Leu Phe Lys Gln 180 185 190 Glu Asp Asp Gly Asp Leu Val Gly Tyr Ser Val Asn Tyr Ala Ile Asp 195 200 205 Leu Gln Thr Asp Gly Gly Thr Trp Gln Thr Val Leu Asn Thr Ser Val 220 210 215 Thr Gly Lys Thr Thr Ser Gly Tyr Gla Arg Ser His Arg Ile Asp Leu 225 230 235 Pro Gin Ala Gly Ser Thr Trp Thr Ile Arg Leu Arg Lys Ile Thr Ala 245 250 255 Asp Ala Asn Ser Ala Lys Ile Gly Asp Thr Met Thr Leu Gln Ser Phe  $260 \hspace{1cm} 265 \hspace{1cm} 270 \hspace{1cm}$ Thr Glu Val Ile Asp Ala Lys Leu Arg Tyr Pro Asn Thr Ala Leu Leu 275 280 285 Tyr Ile Glu Phe Asp Ser Ser Gln Phe Asn Gly Ser Ile Pro Gln Ile 295 300 Ser Cys Glu Pro Arg Gly Arg Val Ile Arg Val Pro Asp Thr Tyr Asp 305 \$310\$ 315 320Pro Glu Thr Arg Ser Tyr Ser Gly Thr Trp Thr Gly Ala Phe Lys Trp 325 330 335 Ala Trp Thr Asp Asn Pro Ala Trp Ile Phe Tyr Asp Leu Val Val Ser 340 345 350 Asp Arg Phe Gly Leu Gly His Arg Leu Thr Ala Ala Asn Ile Asp Lys 360 355 365 Trp Thr Leu Tyr Gln Val Ala Gln Tyr Cys Asp Gln Met Val Pro Asp 370 375 380 Gly Lys Gly Gly Asp Gly Thr Glu Pro Arg Tyr Thr Cys Asn Val Tyr 390 395 Ile Gln Asp Arg Asn Asp Ala Tyr Thr Val Leu Arg Asp Phe Ala Ala 405 410 415 Ile Phe Arg Gly Met Thr Tyr Trp Gly Gly Asp Gln Ile Val Ala Leu 425 430 420 Ala Asp Met Pro Arg Asp Val Asp Tyr Ser Tyr Thr Arg Ala Asn Val 440 445 435 Val Gly Gly Arg Phe Thr Tyr Ser Ser Ser Thr Thr Lys Thr Arg Tyr 455 460 Thr Thr Ala Leu Val Ser Trp Ser Asp Pro Gly Asn Ala Tyr Ala Asp 475 470 Ala Met Glu Pro Val Phe Glu Gln Ala Leu Val Ala Arg Tyr Gly Phe

```
490
           485
Asn Gln Leu Glu Met Thr Ala Ile Gly Cys Thr Arg Gln Ser Glu Ala
                      505
       500
Asn Arg Lys Gly Arg Trp Gly Ile Leu Thr Asn Asn Lys Asp Arg Val
 515 520
Val Ser Phe Asp Val Gly Leu Asp Gly Asn Ile Pro Gln Pro Gly Tyr
      535
                         540
Ile Ile Ala Val Ala Asp Glu Leu Leu Ser Gly Lys Val Met Gly Gly
545 550
                  555
Arg Ile Ser Ala Val Asn Gly Arg Val Ile Lys Leu Asp Arg Val Ala
      565 570
Asp Ala Ala Ala Gly Asp Arg Leu Ile Leu Asn Leu Pro Ser Gly Ala
       580 585 590
Ser Gln Ser Arg Thr Ile Gln Ala Val Asn Gly Glu Ser Val Thr Val
    595 600
Thr Thr Ala Tyr Ser Glu Thr Pro Gln Ala Glu Ala Val Trp Val Val
 610 615 620
Glu Ser Asn Glu Leu Tyr Ala Gln Gln Tyr Arg Val Val Ser Val Ala
625 630 635
Asp Asn Asp Asp Gly Thr Phe Thr Ile Thr Gly Ala Trp His Asp Pro
    645 650 655
Asp Lys Tyr Ala Arg Ile Asp Thr Gly Ala Ile Ile Asp Gln Arg Pro
 660 665 670
Val Ser Val Ile Pro Pro Gly Asn Gln Thr Pro Pro Ala Asn Ile Val
         680 685
Ile Ser Ser Phe Ser Val Val Gln Gln Asn Ile Ser Val Glu Thr Met
      695 700
 690
Arg Val Ser Trp Asp Gln Ala Gln Asn Ala Val Ala Tyr Glu Ala Gln
   710 715
Trp Arg Arg Asn Asp Gly Asn Trp Val Asn Val Pro Arg Ser Ser Thr
        725 730 735
Thr Ser Tyr Asp Val Pro Gly Ile Tyr Ala Gly Arg Tyr Leu Val Arg
      740 745 750
Val Arg Ala Ile Asn Ala Ala Glu Ile Ser Ser Gly Trp Gly Tyr Ser
 755 760 765
Glu Glu Lys Thr Leu Thr Gly Lys Val Gly Asn Pro Pro Lys Pro Val
      775 780
Gly Phe Ile Ala Ser Asp Asn Val Val Phe Gly Ile Glu Leu Ser Trp
   790 795 800
785
Gly Phe Pro Ala Asn Thr Asp Asp Thr Leu Lys Thr Glu Ile Gln Tyr
           805 810 815
Ser Leu Thr Gly Arg Glu Asp Asp Ala Met Leu Leu Ala Asp Val Pro
        820
            825 830
Tyr Pro Gln Arg Lys Tyr Gln Gln Met Gly Leu Lys Ala Gly Gln Thr
                    840
 835
Phe Trp Tyr Arg Ala Gln Leu Val Asp Arg Ser Gly Asn Glu Ser Gly
       855
Tyr Thr Asp Phe Val Arg Gly Gln Ala Ser Ile Asp Val Ser Asp Ile
                  875 880
      870
Thr Asp Ala Ile Leu Glu Asp Met Lys Gly Ser Asp Thr Phe Lys Asp
                         890 895
           885
Leu Ile Glu Asn Ala Val Asp Ser Ser Gly Lys Leu Ala Glu Leu Ala
         900
                      905
Asp Ala Ile Lys Glu Asn Ala Asp Gly Leu Ala Ala Ala Val Gly Ser
                          925
                    920
Asn Lys Gln Thr Ala Glu Ala Ile Ile Gly Asn Ala Leu Ala Ile Ala
                               940
  930
           935
Asp Val Val Val Arg Gln Thr Ala Gln Gln Gly Ala Asn Ser Ala Thr
                             955
              950
945
Phe Glu Gln Leu Arg Glu Val Ile Ala Thr Glu Thr Glu Ala Arg Val
                          970
            965
```

```
Thr Asp Val Thr Arg Leu Glu Ala Lys Thr Ala Gln Asn Glu Ala Gly
            985
   980
Val Thr Glu Val Arg Gln Ala Leu Ser Asp Glu Ala Gln Ala Arg Ala
 995 1000 1005
Thr Ala Val Asp Gln Leu Thr Ala Ser Thr Gln Val Ile Ser Asp Lys
 1010 1015
                                1020
Ala Asp Ser Ala Ser Ser Lys Ala Asp Ala Ala Ser Gly Lys Ala Asp
1025 1030 1035
Ala Ala Glu Gln Ala Ser Ser Gln Asn Thr Ala Asp Ile Thr Thr Leu
     1045 1050 1055
Arg Gln Val Val Thr Asp Thr Thr Ser Ser Met Ala Ser Arg Leu Glu
        1060 1065 1070
Glu Leu Gly Ala Arg Thr Asp Thr Ala Ser Gly Gly Ile Gln Asn Asn 1075 1080 1085
Ala Ile Ala Leu Ile Thr Ser Thr Leu Ala Gln Val Asp Gln Arg Val
  1090 1095 1100
Arg Leu Ser Ala Gln Tyr Gly Asp Ser Lys Ala Ser Ile Asp Arg Ile
1105 1110 1115 1120
Asp Asn Val Met Ala Ser Asp Arg Glu Ala Thr Ala Arg Ser Leu Leu
      1125 1130 1135
Ser Leu Gln Thr Asp Val Asn Gly Asn Lys Ala Ser Ile Asn Ser Leu
 1140 1145 1150
Asn Gln Thr Phe Ser Asp Tyr Gln Gln Ala Thr Ala Thr Gln Ile Asn
1155 1160 1165
Gly Ile Thr Ala Thr Ile Asn Gly His Thr Ser Ala Ile Thr Thr Asn
1170 1175 1180
Ala Gln Ala Ile Ala Asn Val Asn Gly Asp Leu Lys Ala Met Tyr Ser
              1190 1195
1185
Ile Lys Val Gly Leu Ala Ser Asn Gly Gln Tyr Tyr Ala Ala Gly Met
     1205 1210 1215
Gly Ile Gly Val Glu Asn Thr Pro Ser Gly Met Gln Ser Gln Val Ile
 1220 1225 1230
Phe Val Ala Asp Arg Phe Ala Val Thr His Gln Ala Gly Ala Thr Val
 1235 1240 1245
Thr Leu Pro Phe Val Ile Gln Asn Gly Gln Val Phe Ile Arg Asp Ala
 1250 1255 1260
Leu Ile Gly Asp Gly Thr Ile Asn Asn Asn Lys Ile Gly Lys Tyr Ile
1265 1270 1275 1280
Gln Ser Asn Asn Phe Val Ala Gly Ser Val Gly Trp Arg Leu Asp Lys
1285 1290 1295
Gly Gly Thr Phe Glu Asn Tyr Gly Ser Thr Ala Gly Glu Gly Ala Met
         1300 1305 1310
Lys Gln Thr Asn Gln Thr Ile Ser Val Lys Asp Ala Asn Asn Val Leu
 1315 1320
Arg Val Gln Ile Gly Arg Ile Thr Gly Thr Trp
                 1335
<210> 7464
<211> 254
<212> PRT
<213> Enterobacter cloacae
<400> 7464
Thr Met Ser Leu Asn Ala Asp Tyr Gln Lys Leu Glu Ser Gly Asn Asp
                          10
Val Arg Leu Ile Glu Val Asp Gly Ser Ser Phe Gly Leu Thr Glu Val
                        25
      20
Leu Arg Phe His Asn Tyr Asn Ile Pro His Thr Glu Glu Glu Ile Val
                                 4.5
```

40 Ala Ala Gly Gly Asp Glu Ala Lys Leu Pro Ala Lys Pro Ile Trp Trp

55

```
Gln Gly Asn Glu Tyr Ser Ala Trp Pro Tyr Gln Leu Glu Gly Leu Glu
                             75
Lys Ser Thr Ser Gly Ser Asn Ala Thr Pro Ser Leu Thr Val Ala Asn
          8.5
Ile Glu Ser Ser Ile Ser Ala Leu Cys Leu Ala Tyr Asp Asp Leu Leu
       100
Gln Ala Lys Val Thr Ile His Asp Thr Lys Ala Lys Tyr Leu Asp Ala
 115 120
                                  125
Lys Asn Phe Ala Gly Gly Asn Pro Thr Ala Asp Pro Thr Gln Glu Lys
 130 135
                      140
Leu Gln Val Trp Tyr Ile Asp Gly Lys Thr Thr Glu Leu Ala Gly Glu
145 150 155
Thr Ile Glu Phe Val Leu Ser Ser Pro Met Asp Leu Gln Gly Gln Met
   165 170 175
Ile Pro Thr Arg Gln Leu His Ser Leu Cys Thr Trp Cys Ile Arg Asn
 180 185 190
Lys Tyr Arg Thr Gly Asp Gly Cys Asp Tyr Ala Gly Thr Arg Tyr Phe
 195 200 205
Asp Lys Asn Asn Asn Pro Val Ser Asp Pro Ser Leu Asp Glu Cys Asn
 210 215 220
Gly Thr Leu Thr Ala Cys Lys Leu Arg Phe Gly Glu Ser Asn Glu Leu
225 230 235 240
Ser Phe Gly Gly Phe Pro Gly Tar Ser Leu Ile Arg Ser
           245
```

<213> Enterobacter cloacae <400> 7465 Lys Val Glu Gly Thr Met Gln Glu Val Met Thr Arg Ile Glu Leu Gly 10 Gly Glu Pro Gly Lys Ile Phe Gly Lys Ile His His Arg Leu Ile Asn 25 Lys Val Ser Glu Ala Gly Thr Ala Leu Ala Lys Thr Ile Pro Gly Phe 40 Glu Ser Tyr Met Ile Ser Ser Lys Ser Arg Gly Leu Thr Phe Ala Ile 55 60 Phe Lys Gly Lys Lys Asn Ile Gly Val Asp Asp Leu Gly Phe Pro Val 75 7.0 Thr Gly Glu Val Ile Arg Ile Val Pro Val Ile Ile Gly Ser Lys Lys 85 90 Asp Gly Leu Leu Gln Thr Ile Leu Gly Ala Val Ile Ile Ala Ala Ser  $100 \ \ \, 105 \ \ \, 110$ Ala Ile Gly Ser Tyr Phe Ala Pro Gly Asn Pro Ile Ser Ala Phe Gly 115 120 125 Tyr Lys Phe Gly Ala Ala Met Met Leu Gly Gly Val Val Gln Met Leu 130 135 140 Ser Pro Gln Pro Thr Gly Leu Ala Ser Lys Gln Ser Ala Asp Asn Arg 150 155 Ala Ser Tyr Ala Phe Gly Gly Val Thr Asn Thr Ala Ala Gln Gly Tyr 165 170 175 Pro Val Pro Leu Leu Tyr Gly Arg Arg Arg Ile Gly Gly Ala Ile Ile 180 185 190 Ser Ala Gly Ile Tyr Val Glu Asp Gln Gln 195

<210> 7466 <211> 224 <212> PRT

<210> 7465 <211> 203

<212> PRT

## <213> Enterobacter cloacae

```
<400> 7466
Met Ala Glu Tyr Gly Val Leu Leu Thr Thr Thr Ser Gly Glu Val Trp
Val Thr Ala Asn Ser Ser Pro Ile Ala Leu Gln Ala Arg Lys Thr Ala
                                            30
        20
Ala Leu Gln Gly Thr Ser Gly Phe Asn Thr Lys Val Thr His Thr Phe
    3.5
                       40
                                        45
Pro Ala Gly Gln Pro Val Val Ala Phe Val His Cys Thr Val Glu Val
                   55
                                    60
Glu Ile Thr Gln Thr Ile Ser Gly Asn Thr Ile Thr Ile Asp Phe Leu
          70
                                 7.5
Arg Pro Asn Ala Thr Gly Thr Ala Tyr Val Tyr Phe Phe Ser Ile Phe
                              90
           85
Pro Gln Thr Lys Pro Asp Tyr Gly Leu Ala Val Trp Asp Ala Ser Gly
                          105
Thr Leu Ile Leu Thr Asn Glu Thr Arg Thr Leu Ser Asp Val Val Thr
                                      125
     115 120
Leu Gly Thr Ala Gly Val Asp Ala Ser Ser Gly Tyr Asn Ile Asn Thr
       135
                                     140
Thr Leu Val Gly Lys Trp Ala Cys Met Pro Ala Met Leu Gly Leu Ile
              150 155
Thr Gly Val Ile Ser Ala Gly Gly Gln Pro Gln Pro Tyr Ser Ala Ile
            165 170 175
Tyr Lys Ser Met Ala Lys Leu Glu Gly Ser Asn Thr Arg Ile Phe Ala
                                190
              185
         180
Arg Pro Gln Thr Thr Pro Gly Gly Asn Leu Gln Asn Val Thr Tyr Ser
      195 200 205
Asn Leu Arg Asn Val Ile Met Ala Ile Asn Cys Ala Asn Tyr Asp
  210
```

<211> 120 <212> PRT <213> Enterobacter cloacae

Pro Val Leu Asp Ser Glu Lys His Gly Glu Cys Pro Leu Met Gly Phe 1.0 Ala Ser Pro Ala Thr Asp Tyr Val Glu Arg Gln Leu Ser Pro Ser Val 25 30 20 Leu Cys Asn Ile Gly Ala Glu Ser Arg Val Leu Glu Thr Asp Val Gly 35 40 45 Phe Ala Val Ile Glu Pro Ala Thr Lys Lys Arg Pro Gly Asp Val Leu 5.5 60 Leu Ile Leu Cys Asp Gly His Thr Gln Phe Ala Lys Leu Met Gly Lys 70 7.5 65 Ser Leu Ile Thr Asp Asp Gly Glu Ala Ile Glu Gly Thr Ala Leu Glu 90 8.5 Glu Val Glu Val Leu Gly Arg Val Thr Phe Phe Ile Asn Arg Ala Leu

105

Asp Asp Asp Cys Pro Ala Ile 115 12

<210> 7468 <211> 374

<210> 7467

<400> 7467

<211> 374 <212> PRT

<213> Enterobacter cloacae

<400> 7468

```
Lys Glu Gly Gln Lys Ser Gly Arg Leu Ser Glu Glu Thr Lys Ala Ala
                          1.0
Val Asp Lys Met Ala Ser Glu Phe Asn Ala Leu Arg Glu Ala Glu Lys
                       25
Thr Leu Lys Ala Ala Met Gly Glu Leu Glu Gln His Val Ala Gln Met
                    40
Pro Leu Ala Asn Ala Lys Gln Val Ile Glu Ser Val Gly His Gln Val
                 55
                                60
Ile Ser Ala Glu Ala Leu Lys Thr Phe Ala Ser Ser Val Glu Gly Gly
            70
                             75
Lys Arg Ile Ser Ile Pro Val Lys Ala Ala Leu Thr Ser Val Asp Val
               90
          8.5
Pro Asp Gly Val Val Glu Pro Gln Arg Leu Pro Gly Ile Asp Thr Ala
    100 105
                                      110
Pro Lys Gln Arg Leu Phe Ile Arg Asp Leu Ile Ala Pro Gly Arg Thr
 115 120 125
Ser Ser Ser Ala Ile Phe Trp Val Gln Gln Thr Gly Phe Thr Asn Asn
 130 135 140
Ala Lys Val Val Pro Glu Asn Thr Gln Lys Pro Tyr Ser Glu Ele Glu
145 150 155
Phe Thr Pro Lys Ile Thr Gly Val Ser Tor Ile Ala His Leu Phe Lys
   165 170 175
Ala Ser Lys Gln Ile Leu Asp Asp Phe Ala Gln Leu Gln Ser Thr Val
       180 185 190
Asp Ala Glu Met Arg Tyr Gly Leu Lys Tyr Ala Glu Glu Gln Glu Ile
  195 200 205
Leu Phe Gly Asp Gly Thr Gly Val His Leu His Gly Ile Val Pro Gln
 210 215 220
Ala Ser Ala Phe Asn Pro Ala Phe Thr Val Glu Gln Gln Ser Gly Ile
225 230 235
Asp Asp Leu Arg Leu Ala Met Leu Gln Ala Gln Leu Ala Arg Phe Pro
                          250 255
      245
Ala Ser Gly His Val Leu His Phe Ile Asp Trp Ala Arg Ile Glu Leu
       260 265 270
Thr Lys Asp Ser Leu Gly Arg Tyr Ile Leu Ala Asn Pro Ala Ala Leu
     275 280 285
Thr Gly Pro Thr Leu Trp Gly Leu Pro Val Val Ala Thr Glu Ala Ala
               295 300
Ala Phe Gln Gly Lys Phe Leu Thr Gly Ala Phe Asn Ala Gly Ala Gln
              310
                           315
Ile Phe Asp Arg Glu Asp Ala Asn Val Val Ile Ser Thr Glu Asn Ala
           325
                          330 335
Asp Asp Phe Glu Lys Asn Met Ile Thr Ile Arg Cys Glu Glu Arg Leu
        340
                       345 350
Ala Leu Ala Val Lys Arg Pro Glu Ala Phe Val Tyr Gly Ser Phe Ser
     355
                    360
Thr Gly Ala Gly Ser
```

<210> 7469 <211> 129 <212> PRT <213> Enterobacter cloacae

<400> 7469

370

Ser Ser Ser Arg Arg Gly Asn Leu Glu Gln Tyr Lys Arg Glu Ala Val
1 5 10 15

Met Ala Leu Glu Thr Phe Asn Trp Ser Pro Arg Val Asn Pro Ser Gln
20 25 30

Asp Val Thr Met Arg Thr Arg Glu Ala Gln Phe Gly Asp Gly Tyr Thr

<210> 7470 <211> 241 <212> PRT <213> Enterobacter cloacae

<400> 7470 Ser Gly Ala Asp Met Arg Gln Lys Thr Ile Asp Ala Ile Met Ala His 10 Ala Ala Ala Glu Tyr Pro Arg Glu Cys Cys Gly Val Val Ala Gln Lys 25 Ser Arg Val Glu Arg Tyr Phe Pro Cys Arg Asn Leu Ala Ala Thr Pro 40 Glu Asp Asn Phe Val Leu Cys Pro Glu Asp Tyr Ala Ala Ala Glu Asp 55 Trp Gly Thr Val Ile Ala Ile Val His Ser His Pro Asp Ala Thr Thr 70 75 Gln Pro Ser Glu Leu Asp Lys Ala Gln Cys Asp Ala Thr Leu Leu Pro 90 Trp His Ile Val Ser Trp Pro Glu Gly Asp Leu Arg Thr Ile Gln Pro 100 105 110 Arg Gly Glu Leu Pro Leu Leu Glu Arg Pro Phe Val Leu Gly His Phe 115 120 125 Asp Cys Trp Gly Leu Val Met Ser Tyr Phe Arg Gln Thr His Gly Ile 130 135 Glu Leu His Asp Tyr Arg Val Asp Tyr Pro Trp Trp Glu Lys Asp Tyr 150 155 160 Pro Asp Asn Phe Tyr Gln Asp Cys Trp Tyr Glu Cys Gly Phe Arg Glu 165 170 175 Phe Asp Gly Pro Pro Lys Pro Gly Asp Met Val Ile Met Gln Val Gln 180 185 190 Ala Asp Lys Trp Asn His Ala Gly Ile Leu Leu Glu Gly Asn Met Leu 195 200 205 Leu His His Leu Tyr Gly His Leu Ser Gln Arg Val Pro Tyr Gly Gly 210 215 220 Tyr Trp Gln Glu Arg Thr Met Lys Ile Leu Arg Tyr Lys Ser Leu Cys

<210> 7471 <211> 466 <212> PRT

230

<213> Enterobacter cloacae

<400> 7471
Pro Ala Val Ser Leu Arg Met Gly Gly Ala Val Cys Arg His Arg His
1 5 10 15
Arg His Gln His Leu Asn Val Phe Ile Ser Leu Arg Asn Ala Ser Arg

<212> PRT

```
Lys Asn Gly His Gln Ser Val Thr Leu Ser Val Thr Ile Lys Thr His
                    40
                                 4.5
Glu Glu Lys Gly Met Arg Lys Ala Leu Leu Ala Val Ala Val Ala Gly
                5.5
                          60
Thr Leu Ser Val Thr Phe Gly Ala Gln Ala Gln Asp Thr Pro Asp Gly
              70
                       75
Tyr Gln Leu Glu Gln Val Leu Ile Met Ser Arg His Asn Leu Arg Ala
        8.5
                    90 95
Pro Leu Ala Asn Asn Gly Ser Val Leu Glu Gln Ser Thr Pro Lys Gln
        100 105 110
Trp Pro Glu Trp Asp Val Pro Gly Gly Gln Leu Thr Thr Lys Gly Gly
   115 120 125
Val Leu Glu Val Tyr Met Gly His Tyr Met Arg Glu Trp Leu Ala Glu
 130 135 140
Gln Gly Met Val Lys Thr Gly Glu Cys Pro Pro Ala Asp Thr Val Tyr
145 150 155
Ala Tyr Ala Asn Ser Leu Gln Arg Thr Val Ala Thr Ala Gln Phe Phe
    165 170 175
Ile Thr Gly Ala Phe Pro Gly Cys Asp Val Pro Val His His Gln Glu
 180 185 190
Lys Met Gly Thr Met Asp Pro Thr Phe Asn Pro Val Ile Thr Asp Asn
195 200 205
Ser Pro Glu Phe Arg Glu Lys Ala Leu Lys Ala Met Glu Thr Glu Arg
210 215
                    220
Gln Lys Met Gln Leu Asp Glu Ser Tyr Lys Leu Leu Glu Gln Leu Thr
225 230 235 240
Asn Tyr Ser Asp Ser Pro Ser Cys Lys Glu Lys Lys Val Cys Ser Leu
     245 250 255
Thr Glu Ala Lys Asp Thr Phe Ser Ala Asp Tyr Glu Lys Glu Pro Gly
 260 265 270
Val Ser Gly Pro Leu Lys Val Gly Asn Ser Leu Val Asp Ala Phe Thr
275 280 285
Leu Gln Tyr Tyr Glu Gly Phe Pro Thr Asp Gln Val Ala Trp Gly Glu
290 295 300
Ile Lys Thr Asp Gln Gln Trp Arg Val Leu Ser Lys Leu Lys Asn Gly
   310 315 320
Tyr Gln Asp Ser Leu Phe Thr Ser Thr Glu Val Ala Gln Asn Val Ala
                       330 335
Lys Pro Leu Val Lys Tyr Ile Asp Lys Ala Leu Val Thr Asp Gln Ala
  340 345 350
Lys Ala Pro Lys Ile Thr Leu Leu Val Gly His Asp Ser Asn Ile Ala
   355 360
                                 365
Ser Leu Leu Thr Ala Leu Asp Phe Arg Pro Tyr Gln Leu His Asp Gln
                375
                               380
Gln Glu Arg Thr Pro Ile Gly Gly Lys Ile Val Phe Gln Arg Trp His
                         395
385 390
Asp Lys Asn Thr Asn Gln Glu Leu Met Lys Ile Glu Tyr Val Tyr Gln
         405 410
Ser Ser Asp Gln Leu Arg Asn Ala Ser Val Leu Ser Leu Gln Ser Pro
     420 425
                          430
Ala Gln Arg Val Thr Leu Glu Leu Lys Gly Cys Pro Val Asp Gly Asn
435 440 445
Gly Phe Cys Pro Val Asp Lys Phe Asn Ala Val Met Asp Asn Ala Ala
               455
Lys
465
<210> 7472
<211> 65
```

<213> Enterobacter cloacae

65

<210> 7473

<211> 222

<212> PRT

<213> Enterobacter cloacae

<400> 7473

Ala Gln Asp Arg Lys Trp Arg Ala Lys Met Thr Gln Gly Ala Val Lys 10 Thr Pro Gly Lys Arg Ser Gln Ala Val Ser Ala Lys Lys Gln Ala Ile 20 30 25 Leu Ser Ala Ala Leu Glu Thr Phe Ser Gln Phe Gly Ile His Gly Thr 35 4.0 Arg Leu Glu Gln Val Ala Glu Gln Ala Gly Val Ser Lys Thr Asn Leu 50 55 60 Leu Tyr Tyr Tyr Pro Ser Lys Glu Ala Leu Tyr Val Ala Val Met Gln 70 75 Gln Ile Leu Asp Ile Trp Leu Ala Pro Leu Lys Ala Phe Arg Glu Glu 8.5 90 Leu Ala Pro Leu Val Ala Ile Glu Glu Tyr Ile Arg Leu Lys Leu Glu 100 105 110 Val Ser Arg Asp Tyr Pro Gln Ala Ser Arg Leu Phe Cys Leu Glu Met 115 120 125

Leu Gln Gly Ala Pro Leu Leu Gln Ala Glu Leu Thr Gly Asp Leu Lys 130 135 140 Gln Leu Val Asp Asp Lys Ser Ala Ile Ile Ala Gly Trp Val Ala Ser

145 150 155 160 Gly Lys Leu Ala Pro Val Asp Pro His Gln Leu Ile Phe Met Ile Trp

165 170 175

Ala Ser Thr Gln His Tyr Ala Asp Phe Ala Ala Gln Val Glu Ala Val
180 185 190

Thr Gly Lys Thr Leu Gln Asp Glu Ala Phe Phe Gln Ser Thr Leu Glu

195 200 205
Asn Val Gln Arg Met Ile Ile Glu Gly Ile Arg Val Arg
210 215 220

<210> 7474

<211> 217 <212> PRT

<213> Enterobacter cloacae

<400> 7474

Met Trp Phe Ser Met Leu Ala Leu Ala Ser Ala Ser Ile Thr Gly Pro 1 5 10 15

Met Ser Val Val Arg Arg Pro Gly Leu Pro Met Arg His Ser Ala Ile 20 25 30

Ala Pro Arg Ser Ile Phe Ser Val Trp Ser Ala Thr Ser Ser Cys Lys 35 40 45

```
His Ser Thr Arg Arg Ala Glu Gln Arg Trp Pro Ala Leu Ser Lys Ala
                   55
Glu Ala Ser Thr Ser Thr Thr Thr Cys Ser Val Ser Ala Glu Glu Ser
             70
                                75
Thr Ile Met Ala Phe Met Pro Pro Val Ser Ala Ile Ser Gly Val Gly
            85
                            90
Arg Pro Cys Ala Ser Arg Arg Val Ala Met Leu Arg Cys Ser Arg Glu
         100 105
Ala Thr Ser Val Glu Pro Val Asn Ile Thr Pro Arg Thr Arg Leu Ser
      115
                      120
                          125
Glu Val Ser Leu Ala Pro Thr Val Ser Pro Arg Pro Gly Ser Ser Cys
 130 135 140
Thr Thr Pro Ala Gly Thr Pro Ala Ser Ser Arg Met Leu Met Pro Trp
145
               150 155 160
Ala Ala Ile Ser Gly Val Cys Ser Ala Gly Phe Ala Ser Thr Leu Leu
            165 170 175
Pro Ala Ala Arg Ala Ala Ile Trp Pro Val Lys Ile Ala Ser Gly
        180 185 190
Lys Phe His Gly Leu Ile His Thr Thr Gly Pro Ser Gly Arg Trp Val
 195 200
Ser Leu Ser Lys Ser Ser Arg Thr
210 215
<210> 7475
<211> 178
<212> PRT
<213> Enterobacter cloacae
<400> 7475
Met Glu Asn Ser Phe Val Thr Gly Glu Ser Lys Met Ala Trp Leu Asp
                         10
Thr Leu Leu Asp His Phe Ala His Tyr Pro Thr His Leu Phe Ala Leu
 20
                   25
Leu Val Val Met Ala Leu Ser Lys Ser Thr Val Leu Val Ser Ser Val
35
                   40
Leu Pro Pro Ala Ser Val Met Leu Met Ala Gly Ile Ala Val Ser Gln
 50
                55
Ser Ser Leu His Pro Gly Met Thr Trp Leu Ala Val Val Met Gly Ala
            70
                           75
                                              80
Thr Ala Gly Ser Val Leu Asn Tyr His Ile Gly Gln Leu Met Gly His
           85 90
Thr Arg Leu Val Ser Arg Leu Thr Ala Lys His Ala Asp Lys Ile Leu
      100 105
                                       110
Arg Val Gln His Gln Leu Gln Lys Asn Gly Val Val Ala Leu Phe Thr
115
                     120
                                     125
Ser Arg Phe Leu Ala Val Leu Arg Tyr Ile Val Pro Leu Ala Ala Gly
 130 135
                                 140
Met Leu Arg Met Ser Ala Met Lys Val Tyr Val Val Ser Leu Leu Ser
145 150
                            155 160
Ala Cys Ala Trp Ala Ala Leu Tyr Val Gly Ile Val Thr Gly Ile Ser
           165
                           170
<210> 7476
<211> 503
<212> PRT
```

~213/ EIIC

<213> Enterobacter cloacae

<400> 7476

Met Ala Ile Ser Thr Pro Met Leu Val Thr Phe Leu Val Tyr Ile Phe

Gly Met Ile Leu Ile Gly Phe Leu Ala Trp Arg Ser Thr Lys Asn Phe 25 Asp Asp Tyr Ile Leu Gly Gly Arg Ser Leu Gly Pro Met Val Thr Ala 4.0 Leu Ser Ala Gly Ala Ser Asp Met Ser Gly Trp Leu Leu Met Gly Leu 55 Pro Gly Ala Ile Phe Ile Ser Gly Ile Ser Glu Ser Trp Ile Ala Ile 70 Gly Leu Thr Val Gly Ala Trp Ile Asn Trp Lys Leu Val Ala Gly Arg 85 90 Leu Arg Val His Thr Glu Ala Asn Asn Asn Ala Leu Thr Leu Pro Asp 100 105 110 Tyr Phe Thr Gly Arg Phe Glu Asp Asn Ser Arg Ile Leu Arg Ile Ile 120 125 Ser Ala Val Val Ile Leu Leu Phe Phe Thr Ile Tyr Cys Ala Ser Gly 135 140 Ile Val Ala Gly Ala Arg Leu Phe Glu Ser Thr Phe Gly Met Ser Tyr 150 155 160 Glu Thr Ala Leu Trp Ala Gly Ala Ala Ala Thr Ile Leu Tyr Thr Phe 165 170 175 Val Gly Gly Phe Leu Ala Val Ser Trp Thr Asp Thr Val Gln Ala Ser 180 185 190 Leu Met Ile Phe Ala Leu Ile Leu Thr Pro Val Ile Val Ile Phe Thr 195 200 205 Val Gly Gly Phe Gly Glu Ser Leu Glu Val Ile Lys Gln Lys Ser Ile 210 215 220 Glu Asn Val Asp Met Leu Lys Gly Leu Asn Phe Val Ala Ile Val Ser 230 235 Leu Met Gly Trp Gly Leu Gly Tyr Phe Gly Gln Pro His Ile Leu Ala 245 250 Arg Phe Met Ala Ala Asp Ser His His Thr Ile Val His Ala Arg Arg 260 265 270 Ile Ser Met Thr Trp Met Ile Leu Cys Leu Ala Gly Ala Cys Ala Val 275 280 285 Gly Phe Phe Gly Ile Ala Tyr Phe Asn Asn Asn Pro Ala Gln Ala Gly 290 295 300 Ala Val Asn Gln Asn Ala Glu Arg Val Phe Ile Glu Leu Ala Gln Ile 305 310 315 320 Leu Phe Asn Pro Trp Ile Ala Gly Ile Leu Leu Ser Ala Ile Leu Ala 325 330 Ala Val Met Ser Thr Leu Ser Cys Gln Leu Leu Val Cys Ser Ser Ala 340 345 350 Ile Thr Glu Asp Leu Tyr Lys Ala Phe Leu Arg Lys Gly Ala Ser Gln 355 360 365 Lys Glu Leu Val Trp Val Gly Arg Phe Met Val Leu Leu Val Ala Leu 370 375 380 Val Ala Ile Ala Leu Ala Ala Asn Pro Glu Asn Arg Val Leu Gly Leu 385 390 395 Val Ser Tyr Ala Trp Ala Gly Phe Gly Ala Ala Phe Gly Pro Val Val 405 410 415 Leu Phe Ser Val Met Trp Ser Arg Met Thr Arg Asn Gly Ala Leu Ala 420 425 Gly Met Ile Ile Gly Ala Val Thr Val Ile Val Trp Lys Gln Phe Ala 435 440 Trp Leu Gly Leu Tyr Glu Ile Ile Pro Gly Phe Ile Phe Gly Ser Ile 450 455 Gly Ile Val Val Phe Ser Leu Leu Gly Lys Ala Pro Ser Ala Ser Met 465 470 475 Gln Lys Arg Phe Ala Glu Ala Asp Ala His Tyr His Thr Ala Pro Pro 490

```
Thr Lys Leu Gln Ala Glu
         500
<210> 7477
<211> 325
<212> PRT
<213> Enterobacter cloacae
<400> 7477
Thr Val Ile Lys Gly Ile Ala His Tyr Arg Ile Asp Ser Ser Cys Trp
Cys Pro Met Ser Val Ser Arg Phe Thr Leu Ser Ile Lys Pro Gln Glu
       20
                     25
Ala Ile Leu Ile Leu Ile Thr Met Phe Trp Gly Gly Thr Phe Leu Ala
                    40
Val Gln Tyr Ala Val Thr Met Ser Asp Pro Phe Phe Phe Val Gly Leu
 5.0
                 55
Arg Phe Ala Thr Ala Ala Val Ala Val Ala Leu Ile Ser Leu Lys Thr
    70 75
                                              8.0
Leu Arg Gly Leu Thr Leu Arg Glu Leu Lys Ala Gly Val Ala Ile Gly
         85
                            90
Val Ala Ile Ala Met Gly Tyr Ser Leu Gln Thr Trp Gly Leu Gln Ser
   100 105 110
Ile Ser Ser Ser Lys Ser Ala Phe Ile Thr Ala Met Tyr Val Pro Leu
 115 120 125
Val Pro Leu Gln Trp Leu Cys Leu Gly Arg Met Pro Gly Leu Met
                  135 140
Ser Cys Ile Gly Ile Val Leu Ala Pne Ile Gly Leu Ile Leu Leu Ala
145 150
                             155
                                              160
Gly Pro Glu Asn Asn Leu Leu Ala Leu Gly Pro Gly Glu Ile Ile Thr
            165 170
                                            175
Leu Val Gly Ala Val Ala Ile Ala Ala Glu Ile Ile Leu Ile Ser Ala
        180
                        185
                             190
Trp Ala Gly Lys Val Asp Val Lys Arg Val Thr Val Val Gln Leu Ala
   195 200
                                      205
Thr Ala Ser Leu Val Ala Phe Ala Thr Met Val Pro Ala Gly Glu Ser
 210 215
                                  220
Val Pro Pro Met Ser Thr Gly Leu Ile Val Val Ala Leu Gly Leu Gly
             230 235
Ile Phe Ser Ala Ile Ile Gln Val Thr Met Asn Trp Ala Gln Arg Ser
           245
                            250 255
Val Ser Pro Thr Arg Ala Thr Val Ile Tyr Thr Gly Glu Pro Val Trp
      260
                        265
                             270
Ala Gly Ile Phe Gly Arg Leu Ala Gly Glu Arg Leu Pro Leu Leu Ala
     275 280
                                   285
Leu Val Gly Ala Ala Phe Ile Ile Ala Gly Val Leu Val Ser Glu Leu
 290 295
                                   300
Lys Leu Lys Lys Arg Arg Lys Ala Thr Ala Gly Leu Ser Ala Glu Gln
               310
                               315
Arg Ala Asp Ser
            325
<210> 7478
<211> 364
<212> PRT
<213> Enterobacter cloacae
<400> 7478
Asp Val Leu Gln Leu Ile Val Ile Glu Ile Ala Leu Ala Phe Phe Phe
Leu His Ala Glu Ser Gly Leu Phe Ile Ile Lys Tyr Val Ser Gly Phe
```

```
Phe Glu Ser Leu Leu Lys Phe Ala Ala Glu Gly Thr Asn Phe Val Phe
Gly Gly Met Gly Glu Lys Gly Leu Ala Phe Ile Phe Leu Gly Val Leu
                  55
Cys Pro Ile Ile Phe Ile Ser Ala Leu Ile Gly Ile Leu Gln His Trp
              7.0
                            75
Arg Ile Leu Pro Ile Phe Ile Arg Val Ile Gly Thr Leu Leu Ser Lys
           8.5
                90 95
Leu Asn Gly Met Gly Lys Leu Glu Ser Phe Asn Ala Val Ser Ser Leu
        100 105 110
Ile Leu Gly Gln Ser Glu Asn Phe Ile Ala Tyr Lys Gly Val Leu Gly
   115 120 125
Asp Leu Ser Ser Arg Arg Leu Phe Thr Met Ala Ala Thr Ala Met Ser
 130 135 140
Thr Val Ser Leu Ser Ile Val Gly Ala Tyr Met Thr Met Leu Asp Ala
   150 155
Lys Phe Val Val Ala Ala Leu Ile Leu Asn Met Phe Ser Thr Phe Ile
      165 170 175
Ile Leu Ser Val Ile Asn Pro Thr Arg Pro Glu Ala Glu Pro Asp Ile
 180 185 190
Lys Leu Glu Lys Leu His Glu Ser Gln Ser Phe Phe Glu Met Leu Gly
          200
                         205
Glu Tyr Ile Leu Ala Gly Phe Lys Val Ala Met Ile Ile Leu Ala Met
210 215 220
Leu Ile Gly Phe Ile Ala Leu Ile Ser Ala Val Asn Ala Leu Phe Ser
              230
                              235
Ser Ile Phe Gly Met Ser Phe Gln Gln Ile Leu Gly Tyr Val Phe Tyr
          245
                           250
                                           255
Pro Leu Ala Trp Leu Ile Gly Ile Pro Leu Ser Asp Ala Leu Asn Ala
   260
                        265
                                        270
Gly Ser Ile Met Ala Thr Lys Leu Val Ala Asn Glu Phe Val Ala Met
                  280
                         285
Ile Glu Leu Gln Lys Ile Ala His Gln Met Ser Pro Arg Gly Leu Gly
290 295 300
Ile Leu Ser Val Phe Leu Val Ser Phe Ala Asn Phe Ala Ser Ile Gly
    310
                             315
Ile Val Ala Gly Ala Ile Lys Gly Leu Asn Glu Gln Gln Gly Asn Val
           325 330
Val Ser Arg Phe Gly Leu Arg Leu Val Tyr Gly Ala Thr Leu Val Ser
        340 345
Leu Leu Ser Ala Ser Phe Ala Gly Leu Val Leu
<210> 7479
<211> 108
<212> PRT
<213> Enterobacter cloacae
<400> 7479
Pro Gly Gln Pro Gln Pro Ser Pro Pro Asp Asp Pro Ser Gly Glu Gly
                           10
Arg Leu Leu Gly Gln Arg Asn Gln Thr Arg Pro Asp Gly Arg Ser Gly
      20
Arg Leu Ser Gly Leu Tyr Pro Gln Gly Leu His Arg Arg Leu Leu Pro
```

35 40 45 Arg Leu Arg Glu Lys Thr Ala Arg Arg Ala Glu Pro Asp Leu Ser Ala

Val Arg His Pro Gln Arg Pro His Pro Gly Gly Asp Leu Gln Pro Gly

Gly Ser Glu Leu Leu Ser Gly Pro Val Arg Val Pro Val Ser Ala Arg

55

```
3436
              85
                                               95
His Gly Arg Thr Ala Val Arg Ala Gly Asp Arg
          100
<210> 7480
<211> 147
<212> PRT
<213> Enterobacter cloacae
<400> 7480
Phe Leu Arg Arg Ala Gly Ser Pro Ala Arg Pro Tyr Arg Leu Arg Arg
                           10
Thr Ala Met Pro Lys Ser Val Ile Ile Pro Pro Gly Thr Ser Thr Pro
       20
                           25
Ile Ala Pro Phe Val Pro Gly Thr Leu Ala Asp Gly Val Val Tyr Val
  35
                       40
                                        4.5
Ser Gly Thr Leu Pro Phe Asp Lys Asp Asn Asn Val Val Phe Ile Asn
 50 55
Asp Pro Lys Gly Gln Thr Arg His Val Leu Glu Thr Ile Lys Thr Val
65 70 75
Ile Glu Thr Ala Gly Gly Thr Met Glu Asp Val Thr Phe Asn Ser Ile
          85 90 95
Phe Ile Thr Asp Trp Lys Asn Tyr Ala Ala Ile Asn Glu Ile Tyr Ala
   100
                          105 110
Glu Phe Phe Pro Gly Asp Lys Pro Ala Arg Phe Cys Ile Gln Cys Gly
 115 120 125
Leu Val Lys Pro Glu Ala Leu Val Glu Ile Ala Thr Val Ala His Ile
130 135
                                     140
Ala Lys
145
<210> 7481
<211> 372
<212> PRT
<213> Enterobacter cloacae
<400> 7481
Leu Pro Leu Arg Asp Thr Val Tyr Ser Ala Glu Pro Arg Thr Trp Gly
                         10
                                                15
Ser Pro Phe Arg His Ala Leu Ser Cys Ser Pro Leu Arg Asp Phe Ile
      20
                          25
                                            3.0
Ile Gln Arg Glu Phe Thr Met Ser Tyr Ala Ile His Asn Gln Asn Leu
    35
                      4.0
                                        4.5
Ala Phe Asn Asp Ser Ala Ile Ala Gln Tyr Met Asn Thr Asp Phe Ile
                   55
                                     60
Val Ile Asp Ile Ser Leu Cys Val Ala Leu Ala Arg Glu Gln Phe Phe
                7.0
                                 7.5
Glu Lys Leu Lys Asp Asp Ile Pro Ser His Ile Phe Ile Glu Asp
            8.5
                           90
Asn Gly Arg Ile Ala Gly Leu Ile Ala Val Arg Lys Leu Leu Gln Ala
                           105
Thr Asp Thr Val Gln Pro Val Lys Gly Leu Met Ile Ser Asp Phe Ile
                       120
Gln Leu Lys Pro Glu Asp Glu Arg Ala Asp Val Ala Gly Leu Leu Ala
 130 135
His Ala Gly Ala Asp Val Val Pro Val Val Thr His Gly Lys Leu Val
145 150
                                 155
Gly Cys Leu Thr Glu Arg Glu Ile Ala His Leu Leu Glu Asp Asp Val
```

170

Thr Glu Asp Ala Gln Leu Gln Gly Ala Thr Leu Pro Leu Glu Lys Pro 185

175

190

```
Tyr Leu Glu Thr Ser Ala Phe Ser Leu Trp Lys Lys Arg Ser Val Trp
 195
          200
Leu Leu Leu Phe Val Ala Glu Ala Tyr Thr Ser Ser Val Ile Gln
                  215
                                  220
His Phe Glu Glu Ala Leu Glu Ser Ala Ile Ala Leu Ala Phe Phe Ile
               230
                               235
Pro Leu Leu Ile Gly Thr Gly Gly Asn Ser Gly Thr Gln Ile Thr Ser
            245
                            250
Thr Leu Val Arg Ala Met Ala Leu Gly Glu Val His Leu Arg Asp Val
             265
         260
                             270
Gly Arg Val Leu Arg Lys Glu Met Ser Thr Ser Leu Met Ile Ala Ala
                280 285
Thr Leu Gly Leu Ala Gly Cys Val Arg Ala Trp Met Met Gly Ile Gly
 290
                  295 300
Met Glu Ile Thr Leu Ile Val Ser Leu Thr Leu Val Cys Ile Thr Leu
305
               310 315
Trp Ser Ala Ile Val Ser Ser Val Ile Pro Met Val Leu Lys Arg Cys
            325 330 335
Lys Ile Asp Pro Ala Val Val Ser Ala Pro Phe Ile Ala Thr Leu Ile
    340 345 350
Asp Gly Thr Gly Leu Ile Ile Tyr Phe Lys Ile Ala Gln Tyr Thr Leu
 355
            360
Gly Leu Glu
  370
<210> 7482
<211> 179
<212> PRT
<213> Enterobacter cloacae
<400> 7482
Leu Cys Leu Thr Thr Ile Met Asn Phe Leu Phe Ile Ser Asp Asn Tyr
                      10
Tyr Leu Cys His Gly Val Ser Ser Ser Leu Thr Ser Thr His Leu Ile
 20
                      25
Arg Asp Asp Ala Asp Ile His Asp Leu Asp Gly Val Asp Gln Ala Met
 35
                   40
Asp Phe Ile Ile Ala Ile Glu Gln Asp Lys Leu Arg Asn Lys Thr Ile
                 55 60
Arg Gln Val Lys Lys Val Lys Cys Asp Tyr Ile Val Leu Met His Glu
         7.0
                            75
Ile Glu Ala Asn Ser Ala Val Arg Ile Asp Asn Ile Ile Tyr Ser Ser
         85
                         90
Met His Phe Thr Ala His Pro Phe Gln Gln Leu Met Arg Phe Tyr Arg
      100 105
                                       110
Ala Leu Arg Thr His Ser Phe Thr Arg Arg Glu Tyr Asp Val Leu Lys
 115 120
                                   125
Leu Phe His Leu Glu Asn His Glu Ile Ala Lys Lys Leu Gln Leu Ser
 130 135
                                 140
Met Arg Ser Lys Asn Ile Leu Ala Met Thr Arg Val Lys Ser Ala Ile
Val Asp
```

<sup>&</sup>lt;210> 7483

<sup>&</sup>lt;211> 1364

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 7483 Ser Leu Thr Ile His Ser Phe Ser Ser Leu Gln Thr Arg Ser His Leu 10 Thr Arg Leu His Lys Val Ala Thr Trp Trp Ile Phe His Ala Ile Asn 25 Arg Thr Leu Leu Gln Asn Asn Arg Ser Phe Gly Met Gly Met Thr Thr 4.0 Met Gly Val Lys Leu Asp Asp Ala Thr Arg Glu Arg Ile Lys Thr Ala 55 Ala Thr Arg Ile Asp Arg Thr Pro His Trp Leu Ile Lys Gln Ala Ile 7.0 Phe Asn Tyr Leu Glu Arg Leu Glu Ser Glu Glu Gly Leu Pro Glu Leu 85 90 Pro Ala Leu Leu Ala Gly Ala Ala Asn Glu Ser Glu Glu Ala Ala Thr 100 105 Ala Val Glu Glu Asn His Gln Pro Phe Leu Glu Phe Ala Glu Gln Ile 120 115 125 Leu Pro Gln Ser Val Ser Arg Ala Ala Ile Thr Gly Ala Tyr Arg Arg 135 140 130 Ala Glu Thr Asp Ala Val Pro Met Leu Leu Glu Gln Ala Arg Leu Pro 150 155 Glu Ala Val Ala Ala Gln Ala His Ser Leu Ala Tyr Gln Leu Ala Asp 165 170 175 Lys Leu Arg Asn Gln Lys Thr Ala Ser Gly Arg Ala Gly Met Val Gln 180 185 190 Gly Leu Leu Gln Glu Phe Ser Leu Ser Ser Gln Glu Gly Val Ala Leu 195 200 205 Met Cys Leu Ala Glu Ala Leu Leu Arg Ile Pro Asp Lys Ala Thr Arg 210 215 220 Asp Ala Leu Ile Arg Asp Lys Ile Ser Asn Gly Asn Trp His Ser His 230 235 Ile Gly Arg Ser Pro Ser Leu Pne Val Asn Ala Ala Thr Trp Gly Leu 245 250 255 Leu Phe Thr Gly Lys Leu Val Ser Thr His Asn Glu Ala Asn Leu Ser 260 265 270 Arg Ser Leu Asn Arg Ile Ile Gly Lys Ser Gly Glu Pro Leu Ile Arg 275 280 285 Lys Gly Val Asp Met Ala Met Arg Leu Met Gly Glu Gln Phe Val Thr 295 Gly Glu Thr Ile Ala Glu Ala Leu Ala Asn Ala Arg Lys Leu Glu Asp 310 315 Lys Gly Phe Arg Tyr Ser Tyr Asp Met Leu Gly Glu Ala Ala Leu Thr 325 330 Ala Ala Asp Ala Gln Ala Tyr Met Val Ser Tyr Gln Gln Ala Ile His 340 345 Ala Ile Gly Lys Ala Ser Asn Gly Arg Gly Ile Tyr Glu Gly Pro Gly 355 360 365 Ile Ser Ile Lys Leu Ser Ala Leu His Pro Arg Tyr Ser Arg Ala Gln 370 375 380 Tyr Asp Arg Val Met Glu Glu Leu Tyr Pro Arg Leu Lys Ser Leu Thr 385 390 395 Leu Leu Ala Arg Gln Tyr Asp Ile Gly Ile Asn Ile Asp Ala Glu Asp 4.05 410 Ala Asp Arg Leu Glu Ile Ser Leu Asp Leu Leu Glu Lys Leu Cys Phe 425 Glu Pro Glu Leu Ala Gly Trp Asn Gly Ile Gly Phe Val Ile Gln Ala 435 440 Tyr Gln Lys Arg Cys Pro Phe Val Ile Asp Tyr Leu Ile Asp Leu Ala 455 Ser Arg Ser Arg Arg Leu Met Ile Arg Leu Val Lys Gly Ala Tyr 475

Trp Asp Ser Glu Ile Lys Arg Ala Gln Met Glu Gly Leu Glu Gly Tyr 485 490 Pro Val Tyr Thr Arg Lys Val Tyr Thr Asp Val Ser Tyr Leu Ala Cys 500 505 Ala Lys Lys Leu Leu Gly Val Pro Asn Leu Ile Tyr Pro Gln Phe Ala 515 525 Thr His Asn Ala His Thr Leu Ala Ala Ile Tyr Ser Leu Ala Gly Gln 535 540 Asn Tyr Tyr Pro Gly Gln Tyr Glu Phe Gln Cys Leu His Gly Met Gly 550 555 560 Glu Pro Leu Tyr Glu Gln Val Thr Gly Lys Val Ala Asp Gly Lys Leu 565 570 575 Asn Arg Pro Cys Arg Ile Tyr Ala Pro Val Gly Thr His Glu Thr Leu 580 585 590 Leu Ala Tyr Leu Val Arg Arg Leu Leu Glu Asn Gly Ala Asn Thr Ser 600 605 595 Phe Val Asn Arg Ile Ala Asp Thr Thr Leu Pro Leu Asp Glu Leu Val 610 615 620 Ala Asp Pro Val Gln Ala Val Glu Lys Met Ala Ala Gln Glu Gly Gln 630 635 640 Ile Gly Leu Pro His Pro Lys Ile Ala Leu Pro Arg Glu Leu Tyr Gly 645 650 655 Ala Gly Arg Val Asn Ser Ala Gly Leu Asp Leu Ala Asn Glu His Arg 660 665 670 Leu Ala Ser Leu Ser Ser Ala Leu Leu Asn Ser Ala Leu Gln Lys Trp 675 680 685 Gln Ala Arg Pro Ile Leu Glu Gln Ser Val Glu Asp Gly Glu Met Gln 690 695 700 Pro Val Ile Asn Pro Ala Glu Pro Lys Asp Ile Val Gly Tyr Val Arg 705 710 715 Glu Ala Thr Glu Thr Glu Val Glu Gln Ala Leu Glu Ser Ala Val Asn 725 730 735 Asn Ala Pro Ile Trp Phe Ala Thr Pro Pro Gln Glu Arg Ala Ala Ile 740 745 750 Leu Glu Arg Ala Ala Val Leu Met Glu Asp Gln Met Gln Gln Leu Ile 755 760 765 Gly Ile Leu Val Arg Glu Ala Gly Lys Thr Leu Ser Asn Ala Ile Ala 770 775 780 Glu Val Arg Glu Ala Val Asp Phe Leu His Tyr Tyr Ala Gly Gln Val 785 790 795 Arg Asp Asp Phe Asp Asn Glu Thr His Arg Pro Leu Gly Pro Val Val 805 810 Cys Ile Ser Pro Trp Asn Phe Pro Leu Ala Ile Phe Thr Gly Gln Ile 825 830 Ala Ala Ala Leu Ala Ala Gly Asn Ser Val Leu Ala Lys Pro Ala Glu 835 840 845 Gln Thr Pro Leu Ile Ala Ala Gln Gly Ile Asn Ile Leu Leu Glu Ala 850 855 860 Gly Val Pro Ala Gly Val Val Gin Leu Leu Pro Gly Arg Gly Glu Thr 870 875 Val Gly Ala Lys Leu Thr Ser Asp Asn Arg Val Arg Gly Val Met Phe 885 890 Thr Gly Ser Thr Glu Val Ala Ser Leu Leu Gln Arg Asn Ile Ala Thr 900 905 Arg Leu Asp Ala Gln Gly Arg Pro Thr Pro Leu Ile Ala Glu Thr Gly 915 920 Gly Met Asn Ala Met Ile Val Asp Ser Ser Ala Leu Thr Glu Gln Val 935 940 Val Val Asp Val Leu Ala Ser Ala Phe Asp Ser Ala Gly Gln Arg Cys 950 955 Ser Ala Leu Arg Val Leu Cys Leu Gln Asp Asp Val Ala Asp His Thr

```
965
                         970
Leu Lys Met Leu Arg Gly Ala Met Ala Glu Cys Arg Met Gly Asn Pro
     980
               985
Gly Arg Leu Thr Thr Asp Ile Gly Pro Val Ile Asp Ala Glu Ala Lys
         1000 1005
     995
Ala Asn Ile Glu Asn His Ile Gln Thr Met Arg Ala Lys Gly Arg Pro
  1010 1015 1020
Val Phe Gln Ala Val Arg Glu Asn Ser Glu Asp Ala Arg Glu Trp Gln
1025 1030 1035 1040
Thr Gly Thr Phe Val Pro Pro Thr Leu Ile Glu Leu Ala Ser Phe Asp
        1045 1050 1055
Glu Leu Lys Lys Glu Val Phe Gly Pro Val Leu His Val Val Arg Tyr
      1060 1065 1070
Asn Arg Asn Asn Leu Asn Glu Leu Ile Asp Gln Ile Asn Ala Ser Gly
 1075 1080 1085
Tyr Gly Leu Thr Leu Gly Val His Thr Arg Ile Asp Glu Thr Ile Ala
 1090 1095 1100
Gln Val Thr Gly Asn Ala Lys Val Gly Asn Leu Tyr Val Asn Arg Asn
1105 1110 1115 1120
Met Val Gly Ala Val Val Gly Val Gln Pro Phe Gly Gly Glu Gly Leu
         1125 1130 1135
Ser Gly Thr Gly Pro Lys Ala Gly Gly Pro Leu Tyr Leu Tyr Arg Leu
 1140 1145 1150
Leu Ala Asn Arg Pro Glu Asn Ala Leu Gly Val Thr Leu Ala Arg Gln
1155 1160 1165
Asp Ala Glu Tyr Pro Val Asp Ala Gln Val Lys Ala Val Leu Thr Gln
1170 1175 1180
Pro Leu Asp Ala Leu Ile Lys Trp Ala Glu Asn Arg Pro Glu Leu Arg
1185 1190 1195 1200
Ala Ile Ala Gln Gln Tyr Gly Glu Leu Ala Gln Ala Gly Thr Gln Arg
          1205 1210 1215
Leu Leu Pro Gly Pro Thr Gly Glu Arg Asn Thr Trp Thr Leu Met Pro
1220 1225 1230
Arg Glu Arg Val Leu Cys Val Ala Asp Asn Glu Gln Asp Ala Leu Val
1235 1240 1245
Gln Leu Ala Ala Ala Thr Ala Thr Gly Cys Glu Val Leu Trp Pro Glu
1250 1255 1260
Asp Ala Leu His Arg Asp Leu Ala Lys Gln Leu Pro Lys Ala Val Ser
1265 1270 1275
Ala Arg Ile Arg Phe Ala Lys Ala Asp Ala Leu Leu Thr Gln Pro Phe
          1285 1290 1295
Asp Ala Val Ile Tyr His Gly Asp Ser Asp Gln Leu Arg Glu Leu Cys
       1300 1305 1310
Glu Gln Val Ala Ala Arg Ser Gly Ala Ile Val Ser Val Gln Gly Phe
    1315 1320 1325
Ala Arg Gly Glu Thr Asn Leu Leu Leu Glu Arg Leu Tyr Val Glu Arg
1330 1335 1340
Ser Leu Ser Val Asn Thr Ala Ala Ala Gly Gly Asn Ala Ser Leu Met
            1350
                           1355
Thr Ile Gly
```

```
<210> 7484
```

<sup>&</sup>lt;211> 149

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;400> 748

Arg Cys Ala Asn Lys Ala Pro Glu Thr Glu Pro Tyr Phe Ile Gly Glu 15 10 15 Cys Met Lys Arg Tyr Leu Ile Ala Gly Ala Ala Leu Leu Leu Ser Ala

25 Ser Ala Leu Ala Asp Glu Cys Asp Lys Ala Thr Thr Gln Thr Glu Leu 4.0 Ser Ala Cys Ala Ala Glu Gln Tyr Gln Ala Ala Asp Lys Lys Leu Asn 55 Gln Thr Tyr Gln Ala Ala Ile Lys Arg Ala Ala Ala Pro Gln Arg Asp 7.0 Leu Leu Lys Lys Ala Gln Gln Ala Trp Ile Ala Leu Arg Asp Ala Asp Cys Lys Leu Met Gly Ser Gly Thr Glu Gly Gly Thr Ile Gln Pro Met 100 105 110 Ile Ile Asn Gln Cys Leu Thr Glu Lys Thr Ala Glu Arg Glu Ala Phe 125 120 Leu Ala Ser Leu Met Gln Cys Glu Glu Gly Asn Leu Ser Cys Pro Phe 135 Gln Pro Ala Asp 145 <210> 7485 <211> 261 <212> PRT <213> Enterobacter cloacae <400> 7485 Phe Ser His Arg Arg Gly Asn Leu Arg Arg Ala His Ser Ala Ala Asp 10 Ala Val Pro Arg Pro His Pro Cys Arg Asp Glu Gly Gly Val Met 20 25 Thr Thr Leu Asn Ala Arg Pro Glu Ala Ile Thr Phe Asp Ala Gln Arg 40 Ser Ala Leu Ile Val Val Asp Met Gln Asn Ala Tyr Ala Ser Lys Gly 55 60 Gly Tyr Leu Asp Leu Ala Gly Phe Asp Val Ser Thr Thr Gln Pro Val 7.0 7.5 Ile Glu Asn Ile Lys Thr Ala Val His Ala Ala Arg Ala Ala Gly Met 85 90 Leu Ile Val Trp Phe Gln Asn Gly Trp Asp Asp Gln Tyr Val Glu Ala 100 Gly Gly Pro Gly Ser Pro Asn Phe His Lys Ser Asn Ala Leu Lys Thr 115 120 125 Met Arg Gln Arg Pro Glu Leu Gln Gly Thr Leu Leu Ala Lys Gly Gly 135 1.40 Trp Asp Tyr Gln Leu Val Asp Glu Leu Val Pro Glu Ala Ser Asp Ile 145 150 155 Val Leu Pro Lys Pro Arg Tyr Ser Gly Phe Phe Asn Thr Pro Leu Asp 165 170 175 Ser Leu Leu Arg Ser Arg Gly Ile Arg His Leu Val Phe Thr Gly Ile 180 185 190 Ala Thr Asn Val Cys Val Glu Ser Thr Leu Arg Asp Gly Phe Phe Leu 195 200 Glu Tyr Phe Gly Val Val Leu Glu Asp Ala Thr His Gln Ala Gly Pro 210 215 220 Asp Phe Ala Gln Lys Ala Ala Leu Phe Asn Ile Glu Thr Phe Phe Gly 230 235 240 Trp Val Ser Asn Val Asn Asp Phe Cys Asp Ala Leu Asp Pro Pro Leu 250 Ala Arq Ile Ala

<210> 7486 <211> 286

<212> PRT <213> Enterobacter cloacae

<400> 7486 Ser Pro Lys Arg Trp Leu Lys Leu Pro Pro Leu Arg Thr Ser Arg Ser Glu Ala Ala Met Lys Leu Ser Ile Ser Pro Pro Pro Phe Ala Gly Ala 20 Pro Val Val Val Leu Ile Ala Gly Leu Gly Gly Ser Gly Ser Tyr Trp 35 40 Leu Pro Gln Leu Ala Val Leu Gly Gln Glu Tyr Gln Val Val Cys Tyr Asp Gln Arg Gly Thr Gly Asp Asn Pro Asp Thr Leu Pro Glu Asp Tyr 70 75 Thr Leu Ala His Met Ala Asp Glu Leu Ala Leu Ala Leu Ala Gly Ala 8.5 90 Gly Ile Ala Arg Tyr Cys Val Val Gly His Ala Leu Gly Ala Leu Val 100 105 110 Gly Leu Arg Leu Ala Ile Asp Lys Pro Asp Ala Leu Thr Ala Leu Val 115 120 125 Cys Val Asn Gly Trp Leu Thr Leu Asn Ala His Thr Arg Arg Cys Phe 130 135 140 Asp Val Arg Glu Arg Leu Leu His Ala Gly Gly Ala Gln Ala Trp Val 145 150 155 Glu Ala Gln Pro Leu Phe Leu Tyr Pro Ala Asp Trp Met Ala Ala Arg 165 170 175 Ala Pro Arg Leu Glu Ala Glu Asp Ala Leu Ala Leu Ala His Phe Gln 180 185 Gly Lys Ala Asn Leu Leu Arg Arg Leu His Ala Leu Lys Gln Ala Asp 195 200 205 Phe Ser Arg His Ala Ala Arg Val Arg Cys Pro Val Gln Ile Ile Cys 210 215 220 Ser Thr Asp Asp Leu Leu Val Pro Ser Val Cys Ser Asp Glu Leu His 230 235 Ala Ala Leu Pro His Ala Arg Lys Thr Val Met Arg Gln Gly Gly His 245 250 255 Ala Cys Asn Val Thr Ala Pro Asp Ile Phe Asn Thr Leu Leu Leu Asn 260 265 270

<210> 7487 <211> 197 <212> PRT <213> Enterobacter cloacae

<400> 7487

Met Ser Glu Ala Ile Thr Pro Ala Ala Leu Glu Thr Leu Phe Thr Gly 5 1.0 Ala Arg Thr His Asn Gly Trp Leu Asp Ile Pro Val Ser Asp Glu Thr 20 25 30 Leu Arg Glu Ile Tyr Asp Leu Met Lys Trp Gly Pro Thr Ser Ala Asn 40 Cys Ser Pro Ala Arg Ile Val Phe Val Arg Ser Pro Glu Gly Lys Glu 5.5 Lys Leu Arg Pro Ala Leu Ser Ser Gly Asn Leu Glu Lys Thr Leu Thr 70 75 Ala Pro Val Thr Ala Ile Val Ala Trp Asp Ser Glu Phe Tyr Glu Arg 85 90 Leu Pro Glu Leu Phe Pro His Gly Asp Ala Arg Ser Trp Phe Thr Ala 100 105 110

Gly Leu Ala Ser Leu Leu His Ser Pro Glu Pro Ala Leu 280

```
Ser Pro Ala Leu Ala Glu Glu Thr Ala Phe Arg Asn Ser Ser Met Gln
             120
Ala Ala Phe Leu Ile Phe Ala Cys Arg Ala Leu Gly Leu Asp Thr Gly
                    135
                                    140
Pro Met Ser Gly Phe Asp Arg Glu Lys Val Asp Ala Ala Phe Phe Thr
                150
                                  155
Gly Thr Leu Leu Lys Ser Asn Leu Leu Ile Asn Ile Gly Tyr Gly Asp
             165 170
Thr Thr Glu Leu Tyr Gly Arg Leu Pro Arg Leu Thr Phe Glu Asp Ala
          180
                 185
Cys Gly Leu Ala
      195
<210> 7488
<211> 201
<212> PRT
<213> Enterobacter cloacae
<400> 7488
Cys Lys Met Ala Lys Val Leu Val Leu Tyr Tyr Ser Met Tyr Gly His
                              1.0
Ile Glu Thr Met Ala His Ala Val Ala Glu Gly Ala Asn Arg Val Asp
          20
                          25
Gly Val Glu Val Val Lys Arg Val Pro Glu Thr Met Gln Ala Glu
      35
                       4.0
                                  4.5
Ala Phe Ala Lys Ala Gly Gly Lys Thr Gln Asn Ala Pro Val Ala Thr
                    5.5
Pro Gln Glu Leu Ala Asp Tyr Asp Ala Ile Ile Phe Gly Thr Pro Thr
                7.0
                                 7.5
Arg Phe Gly Asn Met Ser Gly Gln Met Arg Thr Phe Leu Asp Gln Thr
           85
                        90
Gly Gly Leu Trp Ala Ser Gly Ala Leu Tyr Gly Lys Leu Ala Ser Val
        100 105 110
Phe Ser Ser Thr Gly Thr Gly Gly Gly Gln Glu Gln Thr Ile Thr Ser
    115
                       120
                                        125
Thr Trp Thr Thr Leu Ala His His Gly Met Val Ile Val Pro Ile Gly
 130 135
                                     140
Tyr Gly Ala Gln Glu Leu Phe Asp Val Ser Gln Val Arg Gly Gly Thr
145 150 155
Pro Tyr Gly Ala Thr Thr Ile Ala Gly Gly Asp Gly Ser Arg Gln Pro
           165 170
Ser Asn Glu Glu Leu Ser Ile Ala Arg Tyr Gln Gly Glu Tyr Val Ala
       180
                                             190
Gly Leu Ala Lys Lys Leu Asn Gly
      195
<210> 7489
<211> 82
<212> PRT
<213> Enterobacter cloacae
<400> 7489
Pro Asn Arg Arg Thr Ser Met Pro Thr Gln Glu Ser Lys Ala His His
                              10
Val Gly Glu Trp Ala Ser Leu Arg Asn Thr Ser Pro Glu Ile Ala Glu
                           25
Ala Ile Phe Glu Val Ala Asn Tyr Asp Glu Lys Leu Ala Glu Gln Ile
                       40
Trp Glu Glu Gly Asn Asp Glu Val Leu Val Arg Ala Phe Lys Lys Thr
                   5.5
Asp Lys Asp Ser Leu Phe Trp Gly Glu Gln Thr Ile Glu Arg Lys Asn
```

65 7.0 75 80 Val <210> 7490 <211> 61 <212> PRT <213> Enterobacter cloacae <400> 7490 Pro Cys Trp Arg Ala Ser Met Ile Ser Ala Leu Thr Ser Thr Pro Lys 10 Met Arg Thr Val Trp Arg Ser Pro Ser Ile Cys Trp Lys Asn Cys Ala 20 25 Ser Ser Arg Ser Trp Arg Ala Gly Thr Gly Leu Val Ser Leu Ser Arg 40 45 Pro Thr Arg Asn Ala Ala Arg Ser Ser Leu Thr Thr 55 <210> 7491 <211> 393 <212> PRT <213> Enterobacter cloacae <400> 7491 His Pro Asn Asn Lys Val Ile Phe Lys Thr Gly Thr Ala Phe Ala Lys 1 5 10 Thr Pro Leu His Leu Arg Arg Asn Glu Glu Arg Phe Val Met Lys Ile 20 25 Gly Val Phe Val Pro Ile Gly Asn Asn Gly Trp Leu Ile Ser Thr Thr 35 40 Ala Pro Gln Tyr Met Pro Thr Phe Glu Leu Asn Lys Ala Ile Val Gln 50 55 60 Lys Ala Glu His Tyr His Phe Asp Phe Ala Leu Ser Met Ile Lys Leu 65 70 75 Arg Gly Phe Gly Gly Lys Thr Glu Phe Trp Asp His Asn Leu Glu Ser 90 95 Phe Thr Leu Met Ala Gly Leu Ala Ala Val Thr Ser Arg Ile Gln Ile 100 105 110 Tyr Ala Thr Ala Ala Thr Leu Thr Leu Pro Pro Ala Ile Val Ala Arg 115 120 125 Met Ala Ser Thr Ile Asp Ser Ile Ser Gly Gly Arg Phe Gly Val Asn 130 135 140 Leu Val Thr Gly Trp Gln Lys Pro Glu Tyr Glu Gln Met Gly Leu Trp 145 150 155 160 Pro Gly Asp Asp Tyr Phe Ser Arg Arg Tyr Asp Tyr Leu Thr Glu Tyr 165 170 175 Val Gln Val Leu Arg Asp Leu Trp Gly Thr Gly Lys Ser Asp Phe Lys 180 185 190 Gly Asp Phe Phe Thr Met Asn Asp Cys Arg Val Ser Pro Gln Pro Ser 195 200 205 Val Pro Met Lys Val Ile Cys Ala Gly Gln Ser Asp Ala Gly Met Glu 210 215 220 Phe Ser Ala Lys Tyr Ala Asp Phe Asn Phe Cys Phe Gly Lys Gly Val 225 230 235 Asn Thr Pro Ala Ala Phe Ala Pro Thr Ala Ala Arg Met Lys Glu Ala 245 250 Ala Asp Lys Thr Gly Arg Asp Val Gly Ser Tyr Val Leu Phe Met Val 265 260 Ile Ala Asp Glu Thr Asp Glu Ala Ala Arg Ala Lys Trp Gln Arg Tyr

```
Lys Asp Gly Ala Asp Glu Glu Ala Leu Ser Trp Leu Thr Glu Gln Ser
 290
                    295
Gln Lys Asp Thr Arg Ser Gly Ala Asp Thr Asn Val Arg Gln Met Ala
                 310
                                315
Asp Pro Thr Ser Ala Val Asn Ile Asn Met Gly Thr Leu Val Gly Ser
              325
                   330 335
Tyr Ala Ser Val Ala Arg Met Leu Asp Glu Val Ala Ala Val Pro Gly
              345 350
          340
Ala Glu Gly Val Leu Leu Thr Phe Asp Asp Phe Leu Thr Gly Val Glu
      355
                       360 365
Thr Phe Gly Glu Arg Ile Gln Pro Leu Met Gln Cys Arg Ala His Ile
       375 380
Pro Ala Val Thr Lys Glu Val Ala
385 390
<210> 7492
<211> 168
<212> PRT
<213> Enterobacter cloacae
<400> 7492
Gly Ala Ile Met Thr Thr Leu Asp Gln Gln Thr Phe Arg Asp Ala Met
                            10
                                                1.5
Ala Cys Val Gly Ala Ala Val Asn Ile Ile Thr Thr Asp Gly Pro Ala
 20
                           25
                                             30
Gly Met Ala Gly Phe Thr Ala Ser Ala Val Cys Ser Val Thr Asp Thr
35
                       40
                                   4.5
Pro Pro Thr Leu Leu Val Cys Leu Asn Arg Gly Ala Ser Val Trp Pro
 50
                    55
                                     60
Ile Phe Ser Glu Asn Arg Thr Leu Cys Val Asn Thr Leu Ser Ala Gly
    70
                                7.5
                                                    80
Gln Glu Pro Leu Ser Ser Leu Phe Gly Gly Lys Thr Pro Met Ala Asp
       85 90
Arg Phe Ala Ala Ala Arg Trp Gln Thr Gly Glu Thr Gly Cys Pro Arg
        100
                           105
                                             110
Leu Glu Ala Ala Leu Ala Ser Phe Asp Cys Arg Ile Ser Gln Val Val
                       120
Ser Val Gly Thr His Asp Ile Leu Phe Cys Asp Ile Val Ser Ile Ile
                   135
                          140
Arg His Pro Ala Pro Gln Gly Leu Val Trp Phe Asp Arg Gly Tyr His
145 150
                                  155
Ala Leu Met Arg Pro Ala Cys
             165
<210> 7493
<211> 448
<212> PRT
<213> Enterobacter cloacae
<400> 7493
Ser Ala Phe Arg Arg Gln Ile Met Phe Gly Leu Pro His Trp Gln Leu
Lys Ser Thr Ser Thr Glu Glu Gly Val Val Ala Pro Asp Glu Arg Leu
          20
Pro Leu Gly Gln Thr Met Val Met Gly Val Gln His Ala Val Ala Met
                        40
Phe Gly Ala Thr Val Leu Met Pro Met Leu Met Gly Leu Asp Pro Asn
                   5.5
Leu Ala Ile Leu Met Ser Gly Met Gly Thr Leu Leu Phe Phe Val
                 7.0
                                  75
Thr Gly Gly Arg Val Pro Ser Tyr Leu Gly Ser Ser Ala Ala Phe Val
```

```
90
Gly Val Val Ile Ala Ala Thr Gly Phe Asn Gly Gln Gly Ile Asn Pro
         100
                       105
Asn Leu Ser Val Ala Leu Gly Gly Ile Ile Ala Cys Gly Leu Val Tyr
     115
                    120
                                  125
Thr Leu Thr Gly Leu Val Val Met Lys Val Gly Thr Arg Trp Ile Glu
           135
                        140
Arg Met Met Pro Pro Val Val Thr Gly Ala Val Val Met Ala Ile Gly
   150
                  155
Leu Asn Leu Ala Pro Ile Ala Val Lys Ser Val Ser Gly Ser Pro Phe
       165 170 175
Glu Ser Trp Met Ala Val Ile Thr Val Leu Cys Ile Gly Val Val Ala
       180 185 190
Val Phe Thr Arg Gly Met Ile Gln Arg Leu Leu Ile Leu Val Gly Leu
   195 200 205
Ile Ala Ala Cys Leu Val Tyr Ala Leu Leu Ala Asn Val Phe Gly Leu
 210 215 220
Gly Lys Pro Val Asp Phe Thr Leu Ile His Gln Ala Ala Trp Phe Gly
    230 235 240
225
Met Pro His Ile Thr Ser Pro Thr Phe Asn Val Gln Ala Met Met Leu
         245 250 255
Ile Ala Pro Val Ala Val Ile Leu Val Ala Glu Asn Leu Glv His Leu
 260 265 270
Lys Ala Val Ala Gly Met Thr Gly Arg Asn Met Asp Pro Tyr Met Gly
275 280 285
Arg Ala Phe Val Gly Asp Gly Leu Ala Thr Met Leu Ser Gly Ser Val
290 295 300
Gly Gly Ser Gly Val Thr Thr Tyr Ala Glu Asn Ile Gly Val Met Ala 305 $310$
Val Thr Lys Val Tyr Ser Thr Leu Val Phe Val Ala Ala Ala Val Met
        325 330
Ala Met Leu Leu Gly Phe Ser Pro Lys Phe Gly Ala Leu Ile His Thr
 340 345 350
Ile Pro Ala Pro Val Ile Gly Gly Ala Ser Ile Val Val Phe Gly Leu
355 360
                                  365
Ile Ala Val Ala Gly Ala Arg Ile Trp Val Gln Asn His Val Asp Leu
 370 375
                               380
Ser Gln Asn Gly Asn Leu Ile Met Val Ala Val Thr Leu Val Leu Gly
385 390 395
Ala Gly Asp Phe Ala Leu Thr Leu Gly Gly Phe Thr Val Gly Gly Ile
        405 410
                                        415
Gly Thr Ala Thr Phe Gly Ala Ile Leu Leu Asn Ala Leu Leu Ser Arg
       420 425 430
Arg Lys Arg Asp Val Pro Gln Gly Lys Ala Ile Thr Pro Ser Thr
                    440
<210> 7494
<211> 894
<212> PRT
```

<213> Enterobacter cloacae

Ile Thr Ile Asp Phe Gln Ser Ala Asp Gly Ile Val Ala Gly Arg Thr

Pro Val Arg Phe Gln Gly Val Glu Val Gly Thr Val Gln Asp Ile Ser 8.5 90 Leu Gly Lys Gly Leu Asn Lys Ile Gln Val Arg Ala Ser Ile Lys Ser 100 105 Asp Met Gln Asp Ala Leu Arg Ala Glu Thr Gln Phe Trp Leu Val Thr 115 120 Pro Lys Ala Ser Leu Ala Gly Val Ser Gly Leu Asp Ala Leu Val Gly 130 135 140 Gly Asn Tyr Ile Gly Met Met Pro Gly Lys Gly Glu Pro Gln Asp His 150 155 Phe Val Ala Leu Asp Thr Gln Pro Lys Tyr Arg Leu Asn Asn Gly Asp 165 170 175 Leu Met Ile His Leu Arg Ala Pro Asp Leu Gly Ser Leu Asn Ser Gly 185 190 180 Ser Leu Val Tyr Phe Arg Lys Ile Pro Val Gly Arg Val Tyr Asp Tyr 195 200 205 Ala Ile Asn Pro Asn Lys Asp Gly Val Thr Ile Asp Val Leu Ile Glu 210 215 220 Arg Arg Phe Thr Asn Leu Val Lys Lys Gly Ser Arg Phe Trp Asn Val 230 235 Ser Gly Val Asp Ala Asp Leu Ser Leu Ser Gly Ala Lys Val Lys Leu 245 250 255 Glu Ser Leu Ala Ala Leu Val Asn Gly Ala Ile Ala Phe Asp Ser Pro 260 265 270 Ala Asp Ser Ser Pro Ala Ala Ala Glu Asp Thr Phe Gly Leu Tyr Ala 275 280 285 Asp Leu Ala His Ser Gln Arg Gly Val Ile Val Lys Leu Thr Leu Pro 290 295 300 Asp Ala Lys Gly Leu Lys Ala Gly Ser Thr Pro Leu Met Tyr Gln Gly 305 310 315 Leu Glu Val Gly Gln Leu Thr Lys Leu Thr Leu Asn Ala Gly Gly Ser 325 330 335 Val Thr Gly Glu Met Thr Val Asp Pro Ser Val Val Asp Leu Leu Arg 340 345 350 Glu Lys Thr Arg Ile Glu Leu Arg Asn Pro Lys Leu Ser Leu Ser Asp 355 360 365 Ala Ser Ile Ser Ser Leu Leu Thr Gly Ser Thr Phe Glu Leu Ile Pro 370 375 Gly Glu Gly Ala Pro Asn Lys Asn Phe Val Ile Ala Pro Ala Asp Lys 385 390 395 400 Ala Leu Leu Gln Lys Pro Gly Val Leu Thr Val Thr Leu Asn Ala Pro 405 410 415 Glu Ser Tyr Gly Ile Glu Ala Gly Gln Pro Leu Ile Leu His Gly Val 420 425 Gln Val Gly Gln Val Leu Glu Arg Lys Leu Lys Glu Lys Gly Val Ser 435 440 445 Phe Ser Ala Ala Ile Asp Pro Gln Tyr Ser Asn Leu Val His Gly Asp 450 455 460 Ser Lys Phe Val Val Asn Ser Arg Val Asp Val Lys Val Gly Leu Asp 470 475 Gly Val Glu Phe Leu Gly Ala Ser Ala Ser Glu Trp Val Asn Gly Gly 490 495 Ile Arg Ile Leu Pro Gly Ser Lys Gly Ala Leu Arg Glu Ser Tyr Pro 505 510 Leu Phe Ala Asn Leu Asp Lys Ala Ile Glu Asn Ser Leu Gly Asp Leu 515 520 Pro Thr Thr Leu Thr Leu Ser Ala Glu Thr Leu Pro Asp Val Gln 530 535 540 Ala Gly Ser Val Val Leu Tyr Arg Lys Phe Glu Val Gly Glu Val Ile 550 555

```
Thr Val Arg Pro Arg Ala Asp Ala Phe Asp Ile Glu Leu His Ile Lys
                570
Pro Glu Tyr Arg Lys Leu Leu Thr Pro Asn Ser Val Phe Trp Ala Glu
                       585
                                    590
Gly Gly Ala Lys Val Gln Leu Asn Gly Ser Gly Leu Thr Val Gln Ala
                    600
Ser Pro Leu Ser Arg Ala Leu Arg Gly Ala Ile Ser Phe Asp Asn Leu
                 615
Ser Gly Ala Gly Gly Asn Met Arg Lys Gly Asp Lys Arg Ile Leu Phe
              630
                             635
Pro Ser Glu Thr Ala Ala Arg Ala Val Gly Gly Gln Ile Thr Leu His
                          650 655
           645
Thr Phe Asp Ala Gly Lys Leu Ala Glu Gly Met Pro Ile Arg Tyr Leu
        660
                       665 670
Gly Ile Asp Ile Gly Gln Ile Gln Lys Leu Thr Leu Ile Thr Ala Arg
     675
                    680
                        685
Asn Glu Val Gln Ala Thr Ala Val Leu Tyr Pro Glu Tyr Val Gln Thr
 690 695
                                700
Phe Ala Arg Ala Gly Ser Arg Phe Ser Val Val Thr Pro Gln Ile Ser
              710 715 720
Ala Ala Gly Val Glu His Leu Asp Thr Ile Leu Gln Pro Tyr Ile Asn
           725 730 735
Val Glu Pro Gly Arg Gly Asn Ala Arg Arg Glu Phe Glu Leu Gln Glu
        740 745 750
Ala Thr Ile Thr Asp Ser Arg Tyr Leu Asp Gly Leu Ser Ile Val Val
     755
                    760 765
Glu Val Pro Glu Ala Gly Ser Leu Gly Ile Gly Thr Pro Val Leu Phe
                 775 780
Arg Gly Ile Glu Val Gly Thr Val Thr Ser Leu Thr Leu Gly Asn Leu
785 790 795
Ser Asp Arg Val Met Val Gly Leu Arg Ile Ser Gln Arg Tyr Gln His
     805 810
Leu Val Arg Asn Asn Ser Val Phe Trp Leu Ala Ser Gly Tyr Ser Leu
        820 825 830
Asp Phe Gly Leu Thr Gly Gly Val Val Lys Thr Gly Thr Phe Asn Gln
 835 840 845
Phe Ile Arg Gly Gly Ile Ala Phe Ala Thr Pro Pro Gly Thr Pro Leu
 850 855 860
Ala Pro Lys Ala Gln Ala Gly Lys His Phe Leu Leu Glu Ser Glu
865 870 875
Pro Lys Glu Trp Arg Glu Trp Gly Thr Ala Leu Pro Arg
          885
```

<210> 7495 <211> 95 <212> PRT <213> Enterobacter cloacae

```
<210> 7496
<211> 368
<212> PRT
<213> Enterobacter cloacae
<400> 7496
Thr Gly Val Gly Phe Arg Glu Ser Lys Gln Thr Ile Asn Gln Pro Glu
                            1.0
Ile Lys Ile Ala Ala Leu Leu Ile Pro Tyr Ser Leu Ala Phe Lys Ile
         20
                         25
                                  30
Glu Arg Asn Lys Lys Arg Asp Phe His Val Ser Asn Ile His Leu Gln
                          4.5
                    40
Asn Asp Val Phe Tyr Pro His Arg Thr Asn Ile Ile Ser Glu Leu Val
                 55
Arg Gly Lys Arg Val Pro Gly Pro Ile Trp His Lys Arg Asp Tyr Arg
         70
                      75
Leu Lys Phe Leu Leu Arg Ser Leu Leu Phe Trp Ser Ser Thr His Arg
          85
                      90
Met Leu Glu Ala Leu Ser Gly Arg Asp Asp Phe Asp Arg Leu Leu Thr
       100
                     105 110
Ser Gln Ile Thr Leu Pro Ser Lys Thr His Arg Gln Tyr Leu Met Arg
 115 120
Gly Leu Asn Ser Asn Asp Arg Ala Asp Ala Ile Val Ser His Tyr Gln
 130 135 140
Trp Ile Asp Ser Leu Lys Asn Ile Ala Leu Ala His Ala Leu Thr Ser
145 150 155
                                              160
Pro Gln Glu Val Pro Val Val Arg Phe Glu Ala Lys Asn Gly Glu Ile
           165 170 175
Tyr Thr Val His Ala Ser Ser Ala Gly Lys Ala Glu Arg Glu Gly Glu
      180 185 190
Ser Thr Leu Trp Leu His Asp Asn Asp Asn Thr Leu Leu Ala Ser Leu
 195 200 205
Thr Phe Cys Val Ala Arg Ser Asn Gly Arg Thr Val Leu Val Ile Gly
 210 215
                               220
Gly Leu Gln Gly Pro Arg Arg His Val Ser Arg Glu Val Ile Lys Gln
225 230 235
Ala Thr Arg Ala Cys His Gly Leu Phe Pro Lys Arg Val Leu Met Glu
           245 250
Val Ile Phe Gln Leu Ala Ser Arg Ser Asn Ile Ser Ala Ile Phe Ala
                            270
        260
                        265
Val Ser Asp Glu Gly His Val Phe Arg Ala Leu Arg Tyr Arg Leu Ser
     275 280
                                     285
Lys Gly Arg His Phe His Ala Ser Tyr Asp Glu Phe Trp Glu Gly Leu
  290 295
                                  300
Asn Gly Lys Lys Leu Ser Pro Phe Cys Trp Gln Leu Pro Leu Gln Met
               310
                               315
Glu Arg Lys Ala Leu Glu Glu Ile Ala Ser Lys Lys Arg Ala Glu Tyr
            325
                           330
Arg Arg Arg Phe Ala Leu Leu Asp Asp Ile Ala Ala Ser Val Gln Ala
        340
                        345
                                        350
Arg Ile Asp Pro Ala Val Val Ser Gly Lys Ile Gln Thr Lys Ile
                     360
<210> 7497
<211> 91
<212> PRT
<213> Enterobacter cloacae
<400> 7497
Thr Ile Ala Val Thr Leu Pro Pro Gln Lys Lys Glu Lys Glu Met Asn
```

35

1.0 Val Asn Leu Ala Ala Leu Pro Gln Asp Glu Met Asp Lys Val Asn Val 25 Asp Leu Ala Ala Ala Gly Val Ala Phe Lys Glu Arg Tyr Asn Met Pro 4.0 Val Val Ala Glu Val Val Glu Arg Glu Gln Pro Ala His Leu Arg Asp 55 Trp Phe Arg Glu Arg Leu Ile Ala His Arg Leu Ala Ser Val Asn Leu 70 Ser Arg Leu Pro Tyr Glu Pro Lys Val Lys <210> 7498 <211> 228 <212> PRT <213> Enterobacter cloacae <400> 7498 Asn Pro Ser Asp Leu Val Tyr Lys Glu Val Thr Met Ser Arg Trp Asn 10 Ile Ala Ala Ala Gln Tyr Ala Pro Arg His Asn Cys Val Asp Glu His 20 25 Val Lys His His Leu His Phe Ile Ala Glu Ala Ala Trp His Gly Cys 35 40 45 Asp Leu Ile Val Phe Pro Glu Leu Ser Leu Thr Gly Pro Gly Gly Thr 50 55 Ser Leu Pro Pro Pro Pro Asp Asp Leu Gln Leu Ala Pro Leu Leu His 70 75 Ala Ala Gln Ser Arg Phe Ile Thr Val Ile Ala Gly Ile Thr Leu Gln 85 90 Gln His Gly Gln Arg Gln Lys Gly Leu Ala Leu Phe Thr Pro Asn Leu 100 105 110 Ser Thr Ile Arg Arg Tyr Pro Gln Gly Asn Gly Ala Gly Val Ile Pro 120 125 Gly Asp Lys Arg Leu Thr Ile Val Asp Asn Gln Ala Asp Ala Pro Glu 135 140 Leu Asp Pro Glu Ala Thr Leu Phe Thr Ser Ser Leu Ala Val Gly Glu 150 155 His Arg Trp Arg Gln Ser Ile Gly Ser Leu Gln Arg Phe Ala His Lys 165 170 175 Tyr Ala Ile Ala Val Leu Met Ala Asn Ala Arg Gly Gly Ser Ala Leu 180 185 190 Trp Asp Glu Lys Gly Gln Leu Ile Val Arg Ala Asp Lys Gly Glu Leu 200 205 Leu Leu Thr Gly Ser Leu Gly Gln Gln Gly Trp Gln Gly Asp Ile Ile 210 Pro Leu Gly 225 <210> 7499 <211> 226 <212> PRT <213> Enterobacter cloacae <400> 7499 Asp Gln Glu Arg Ser Met Leu Arg Val Ile Asp Thr Glu Thr Cys Asp 10 Leu Gln Gly Gly Ile Val Glu Val Ala Ser Val Asp Val Ile Asp Gly 20 25 Lys Ile Val Asn Pro Met Ser His Leu Val Arg Pro Asp Arg Pro Ile

4.0

```
Ser Ala Gln Ala Met Ala Ile His Arg Ile Thr Glu Ser Met Val Ala
                   55
Asp Lys Pro Trp Ile Glu Glu Ile Ile Pro Leu Tyr His Gly Ser Gln
               70
Trp Tyr Val Ala His Asn Ala Ser Phe Asp Arg Arg Val Leu Pro Glu
            85
                             90
Met Pro Gly Glu Trp Ile Cys Thr Met Lys Leu Ala Arg Arg Leu Trp
         100
                       105
Pro Gly Ile Lys Tyr Ser Asn Met Ala Leu Tyr Lys Ser Arg Lys Leu
      115
                      120
Ser Val Arg Thr Pro Glu Gly Leu His His His Arg Ala Leu Tyr Asp
             135
                                  140
Cys Tyr Ile Thr Ala Ala Leu Leu Ile Asp Ile Met Asn Thr Ser Gly
       150 155 160
Trp Thr Pro Asp Asp Met Ala Thr Ile Thr Gly Arg Pro Ala Leu Leu
         165 170 175
Thr Thr Phe Thr Phe Gly Lys Tyr Arg Gly Lys Pro Val Ser Glu Val
      180 185 190
Ala Asp Lys Asp Pro Gly Tyr Leu Arg Trp Leu Tyr Asn Asn Leu Asp
195 200 205
Arg Met Ser Pro Glu Leu Arg Leu Thr Leu Lys His Tyr Leu Gly Glu
210 215 220
Ala
225
<210> 7500
<211> 438
<212> PRT
<213> Enterobacter cloacae
<400> 7500
Leu Ser Thr Ile Leu Ile Cys Val Arg Leu Met Ala Leu Lys Thr Pro
1 5
                     10
Gln Ile Thr Pro Thr Arg Lys Ile Val Val Arg Thr Val Ser Gln Ala
 20
                         25
Leu Pro Arg Ala His Tyr Gln Arg Cys Pro Gln Cys Asp Thr Leu Phe
35
                40
                                    4.5
Met Leu Pro Lys Met Lys Ser His Gln Ser Ala Phe Cys Pro Cys Cys
                 55
Asp Ala Lys Ile Arg Asp Gly Arg Asp Trp Ser Leu Thr Arg Leu Ala
               70
                    75 80
Ala Met Ala Val Thr Met Leu Leu Leu Met Pro Phe Ala Trp Thr Glu
                            90
Pro Leu Lus Lus Leu Tyr Leu Leu Gly Val Arg Ile Asp Ala Asn Val
Leu Gln Gly Ile Trp Gln Met Thr Arg Gln Gly Asp Pro Leu Thr Ala
     115 120
                                      125
Ala Met Val Leu Phe Cys Val Val Gly Ala Pro Leu Val Leu Val Ala
 130 135
                                   140
Ala Ile Ala Tyr Leu Trp Phe Gly Asn Ile Leu Gly Met Asn Leu Arg
145 150
                                155
                                    160
Pro Val Leu Leu Met Leu Glu Lys Leu Lys Glu Trp Val Met Leu Asp
            165
                            170
Ile Tyr Leu Val Gly Val Gly Val Ala Ser Ile Lys Val Gln Asp Tyr
        180
                         185
                                         190
Ala Phe Leu Gln Pro Gly Ile Gly Leu Phe Ala Phe Ile Ser Leu Val
     195
                     200
Leu Leu Ser Ile Leu Thr Leu Ile His Leu Asn Val Glu Gln Leu Trp
                  215
                         220
Glu Arg Phe Tyr Pro Gln Arg Pro Ala Thr Arg Pro Asp Asp Asn Leu
               230
                                235
```

```
Arg Val Cys Leu Gly Cys His Tyr Thr Gly Phe Pro Asp Lys Arg Gly
            245
                         250 255
Arg Cys Pro Arg Cys His Ile Pro Leu Arg Leu Arg Arg Asn Asn Ser
                       265
         260
Leu Gln Lys Cys Trp Ala Ala Leu Ile Ala Ser Leu Val Phe Leu Phe
                      280
Pro Ala Asn Met Leu Pro Ile Ser Val Ile Tyr Val Asn Gly Ala Arg
       295
                                  300
Glm Glu Asp Thr Ile Leu Ser Gly Ile Ile Ser Leu Ala His Ser Asn
             310
                               315
Val Gly Val Ala Ala Ile Val Phe Ile Ala Ser Ile Leu Val Pro Phe
            325
                           330
                                           335
Thr Lys Val Val Val Met Phe Thr Leu Leu Ile Ser Ile His Phe Lys
         340
             345 350
Cys Glu Gln Gly Leu Arg Thr Arg Ile Leu Leu Leu Arg Phe Val Thr
          360 365
      355
Trp Ile Gly Arg Trp Ser Met Leu Asp Leu Phe Val Ile Ser Leu Met
       375
                       380
Met Ser Leu Ile Asn Arg Asp Gln Leu Leu Ala Phe Thr Met Gly Pro
385
      390 395 400
Ala Ala Phe Tyr Phe Gly Ser Ala Val Ile Leu Thr Ile Leu Ala Val
      405 410 415
Glu Trp Leu Asp Ser Arg Leu Leu Trp Asp Ala His Glu Ser Gly Asn
  420 425
Ala Arg Phe Ala Asp
 435
<210> 7501
<211> 488
<212> PRT
<213> Enterobacter cloacae
<400> 7501
Met Phe Pro Cys Gly Val Pro Val Ala Gln Asn Ser Val Phe Leu Pro
          5
                           1.0
Glu Gln Phe Leu Ala Gln Met Arg Glu Ala Leu Pro Ala His Leu Ser
      20 25
Phe Asp Asp Phe Val Ala Ala Cys Gln Arg Pro Leu Arg Arg Ser Ile
     35
               4.0
Arg Val Asn Thr Leu Lys Thr Ser Val Gly Ala Phe Leu Asp Leu Val
 50 55
Ser Pro Tyr Gly Trp Gln Leu Thr Pro Val Pro Trp Cys Glu Glu Gly
            70
                              75
Phe Trp Ile Glu Arg Asp Asp Glu Glu Ser Leu Pro Leu Gly Ser Thr
           85 90
Ala Glu His Leu Ser Gly Leu Phe Tyr Ile Gln Glu Ala Ser Ser Met
                                        110
Leu Pro Val Ala Ala Leu Phe Ala Asp Gly Asn Gln Pro Glu Arg Val
115 120 125
Met Asp Val Ala Ala Ala Pro Gly Ser Lys Thr Thr Gln Ile Ala Ala
  130 135 140
Arg Met Asn Asn Arg Gly Ala Ile Leu Ala Asn Glu Phe Ser Ala Ser
    150
                              155
                                              160
Arg Val Lys Val Leu His Ala Asn Ile Ser Arg Cys Gly Ile His Asn
           165
                           170
                                            175
Val Ala Leu Thr His Phe Asp Gly Arg Val Phe Gly Ala Ala Leu Pro
        180 185
                                        190
Glu Ala Phe Asp Ala Ile Leu Leu Asp Ala Pro Cys Ser Gly Glu Gly
     195 200
Val Val Arg Lys Asp Pro Asp Ala Leu Lys Asn Trp Ser Val Glu Ser
```

```
Asn Leu Gln Ile Ala Ala Thr Gln Arg Glu Leu Ile Asp Ser Ala Phe
     230
                            235
His Ala Leu Arg Pro Gly Gly Thr Leu Val Tyr Ser Thr Cys Thr Leu
           245 250
Asn Arg Asp Glu Asn Glu Asp Val Cys Leu Trp Leu Lys Gln Arg Tyr
    260
            265
Val Asp Ala Val Glu Phe Leu Pro Leu Asp Thr Leu Phe Asp Ser Ala
                    280
Ser His Ala Ala Thr Pro Glu Gly Phe Leu His Val Phe Pro Gln Ile
                295
                               300
Tyr Asp Cys Glu Gly Phe Phe Val Ala Arg Leu Arg Lys Thr Arg Ala
305
                           315
              310
Val Asp Pro Leu Pro Ala Pro Lys Phe Lys Val Gly Asn Phe Pro Phe
          325 330 335
Ala Pro Val Lys Gly Arg Glu Ala Ala Gln Ala Gln Ala Ala Ala Ser
        340 345
                           350
Lys Val Gly Leu His Trp Asp Glu Ser Leu Arg Leu Trp Met Arg Asp
     355
         360 365
Lys Glu Leu Trp Leu Phe Pro Val Asn Ile Glu Pro Leu Ile Gly Lys
370 375 380
Val Arg Phe Ser Arg Leu Gly Ile Arg Leu Ala Glu Ile His Asn Lys
   390 395 400
Gly Tyr Arg Trp Gln His Glu Ala Val Ile Ala Leu Ala Gly Ser Glu
      405 410 415
Asn Thr Phe Ala Leu Thr His Gln Glu Ala Glu Glu Trp Tyr Arg Gly
 420 425 430
Arg Asp Val Tyr Pro Glu Asp Gly Pro Leu Gln Asp Glu Val Ile Val
435 440 445
Thr Tyr Gln Gly Tyr Pro Leu Gly Leu Ala Lys Lys Val Gly Ser Arg
450 455 460
Leu Lys Asn Ser Tyr Pro Arg Glu Leu Val Arg Asp Gly Arg Leu Phe
465 470
                     475
Thr Gly Asn Asn Arg Ser Ala
    485
```

<210> 7502 <211> 425 <212> PRT <213> Enterobacter cloacae

<400> 7502 Arg Ser Ala Asn Phe Pro Leu Val Arg Leu Ser Pro Tyr Lys Thr Asp 1 5 10 Ala Asn Val Phe Val Tyr Thr Thr Arg Ile Phe Phe Arg Gly Ile Phe 25 Met Thr Leu Leu Gly Thr Ala Leu Arg Pro Ala Ala Thr Arg Val Met 4.0 4.5 Leu Leu Gly Ser Gly Glu Leu Gly Lys Glu Val Ala Ile Glu Cys Gln 5.5 60 Arg Leu Gly Val Glu Val Ile Ala Val Asp Arg Tyr Ala Asn Ala Pro 70 7.5 Ala Met His Val Ala His Arg Ser His Val Ile Asp Met Leu Asp Gly 85 90 Asn Ala Leu Arg Ala Leu Ile Ala Glu Glu Lys Pro Asp Phe Val Val 100 105 Pro Glu Ile Glu Ala Ile Ala Thr Glu Met Leu Val Ala Leu Glu Gln 115 120 Glu Gly Gln Arg Val Val Pro Cys Ala Thr Ala Ala Lys Leu Thr Met 135 140 Asn Arg Glu Gly Ile Arg Arg Leu Ala Ala Glu Glu Leu Gln Leu Pro

155

```
Thr Ser Ser Tyr Arg Phe Ala Gly Asp Lys Ala Ala Phe Leu Gln Ala
            165
Val Glu Glu Ile Gly Tyr Pro Cys Ile Ile Lys Pro Val Met Ser Ser
          180
                          185
                                          190
Ser Gly Lys Gly Gln Ser Phe Ile Arg Asp Ser Ser Thr Leu Asp Gln
      195
                      200
                                      205
Ala Trp Asp Tyr Ala Gln Gln Gly Gly Arg Ala Gly Ala Gly Arg Val
                   215
                        220
Ile Val Glu Gly Val Val Lys Phe Asp Phe Glu Ile Thr Leu Leu Thr
                230
                      235
Val Ser Ala Val Asp Gly Val Tyr Phe Cys Asp Pro Ile Gly His Arg
            245
                          250 255
Gln Glu Asp Gly Asp Tyr Arg Glu Ser Trp Gln Pro Gln Gln Met Ser
         260 265 270
Ala Leu Ala Leu Ala Arg Ala Gln Glu Ile Ala Arg Lys Thr Val Leu
                     280
     275
                                      285
Ala Leu Gly Gly Tyr Gly Leu Phe Gly Val Glu Leu Phe Val Cys Gly
 290 295 300
Asp Glu Val Ile Phe Ser Glu Val Ser Pro Arg Pro His Asp Thr Gly
305
    310 315
Met Val Thr Leu Ile Ser Gln Asp Leu Ser Glu Phe Ala Leu His Val
            325 330 335
Arg Ala Phe Leu Gly Leu Pro Val Gly Gly Ile Arg Gln Tyr Gly Pro
 340 345
                                         350
Ala Ala Ser Ala Val Ile Leu Pro Gln Leu Thr Ser Gln Asn Val Thr
                      360
 355
                                      365
Phe Asp Asn Val Glu Gly Ala Val Gly Ala Gly Leu Gln Val Arg Leu
370
                   375 380
Phe Gly Lys Pro Glu Ile Asp Gly Ser Arg Arg Leu Gly Val Ala Leu
385 390
                                395 400
Ala Thr Gly Glu Asn Val Asp Glu Ala Val Ala Arg Ala Lys Ile Ala
          405
                            410
Ala Thr Ala Val Lys Val Thr Gly
<210> 7503
<211> 95
<212> PRT
<213> Enterobacter cloacae
<400> 7503
Cys Thr Gly Ser Gln Ser Leu Arg Arg Pro Gly Glu Thr Gln Leu Tvr
                            10
Pro Arg Gln Asn Gly Ser Trp Arg Ser Gly Ala Val Ile Leu Leu Pro
         20
                          25
                                          30
Pro Gly Asp Glu Cys Leu Pro Gly Ser Trp Ser Val Leu Pro Gln Trp
                      40
                                      45
Arg Lys Ala Leu Arg Ala Gly Leu Pro Ala Gln Gly Gln Pro Ala Ser
                   55
                             60
Gln Trp Gln Trp Pro Gln Phe Gln Ala Pro Arg Asn Pro Val Phe Pro
                70
                             75
Arg Gln Leu Thr Pro Ala Gly His Cys Arg Gln Ala Tyr Arg
            85
                             90
<210> 7504
<211> 292
<212> PRT
<213> Enterobacter cloacae
```

<400> 7504

Asn Ser Met Leu Ala Leu Ser Tyr Val Ala Leu Leu Phe Ile His Phe

Ala Ala Leu Met Leu Leu Phe Gly Asn Ala Leu Tyr Ser Val Trp Phe Ala Pro Ser Ser Leu Gln Arg Leu Met Thr Arg Arg Phe Gln Arg Gln Gln Lys Leu Ala Ala Leu Ile Ser Leu Met Ala Ala Leu Leu Met Phe 5.5 60 Gly Leu Gln Ser Gly Leu Met Gly Asn Gly Trp Ser Asp Val Ile Arg 70 75 Pro Ala Val Trp Arg Ser Val Leu Gly Thr Gln Phe Gly Gly Val Trp 85 90 Leu Trp Gln Met Val Leu Ala Ala Val Thr Ala Gly Ala Ala Trp Leu 100 Thr Pro Gln Lys Gly Ser Arg Leu Leu Leu Leu Val Met Gly Gln Leu 120 125 Val Leu Leu Ala Gly Val Gly His Ala Ala Met Asn Gly Gly Ala Pro 130 135 Gly Ala Leu His Arg Leu Asn His Ala Leu His Leu Leu Cys Ala Ala 150 155 Thr Trp Val Gly Gly Leu Leu Pro Leu Leu Phe Cys Met Arg Leu Ala 165 170 175 Lys Gly Arg Trp Gln Pro Ala Ala Ile Phe Thr Met Met Arg Phe Ser 180 185 Arg Val Gly His Tyr Ala Val Ala Gly Val Leu Leu Thr Gly Ile Ile 195 200 205 Asn Thr Leu Phe Ile Val Gly Ile Asn Val Pro Trp His Ala Pro Tyr 210 215 220 Val Gln Leu Leu Leu Lys Cys Ala Leu Val Met Met Wet Val Ala 225 230 235 Ile Ala Leu Ala Asn Arg Tyr Phe Leu Val Pro Arg Phe Arg Pro Glu 245 250 Ala Gly Arg Glu Gln Gln Ile Phe Ile Arg Met Thr Gln Ala Glu Val 260 265 270 Val Leu Gly Ala Leu Val Leu Ala Ala Val Ser Leu Phe Ala Thr Trp 280 Glu Pro Phe

<210> 7505 <211> 229 <212> PRT

<213> Enterobacter cloacae

<400> 7505

290

Ala Val Lys Val Thr His Cys Tyr Val Arg Lys Asn Met Ser Gly Trp 1.0 Met Asn Gln Leu Gln Ser Leu Leu Gly Gln Lys Gly Ser Ser Ser Gly 20 Glu Gln Gly Leu Ser Lys Leu Leu Val Pro Gly Ala Leu Gly Gly Leu 4.0 Ala Gly Leu Leu Val Ala Asn Lys Ser Ser Arg Lys Leu Leu Thr Lys 55 Tyr Gly Thr Gly Ala Leu Leu Ala Gly Gly Gly Ala Ile Ala Gly Ser 7.0 75 Val Leu Trp Asn Lys Tyr Lys Asp Lys Val Arg Ser Ala His Gln Asp 8.5 90 Glu Pro Gln Tyr Gly Lys Gln Val Ser Pro Leu Asp Leu Arg Thr Glu 100 105 Arg Leu Ile Leu Ala Leu Val Phe Ala Ala Lys Ser Asp Gly His Ile 115 120 Asp Ala Ser Glu Arg Ala Ala Ile Glu Gln Gln Met Arg Glu Ala Gly

Val Glu Glu Gln Gly Arg Ala Leu Val Ala Gln Ala Ile Glu Gln Pro 150 155 Leu Asp Pro Gln Arg Leu Ala Gln Gly Val Lys Asn Glu Glu Glu Ala 165 170 175 Leu Glu Leu Tyr Phe Leu Ser Cys Ala Ala Ile Asp Ile Asp His Phe 180 185 190 Met Glu Arg Ser Tyr Leu Asn Ala Leu Gly Asp Ala Leu Lys Ile Pro 195 200 205 Gln Asp Val Arg Glu Gly Ile Glu Gln Asp Ile Gln Gln Gln Lys Gln 210 215 220 Thr Leu Ala Gly 225 <210> 7506 <211> 701 <212> PRT <213> Enterobacter cloacae <400> 7506 Asp Val Lys Arg Lys Ser Lys Asn Ala Met Pro Pro Lys Ala Arg Arg 10 Thr Pro Tyr Ala Ile Thr Thr His Gly Asp Thr Arg Ile Asp Asn Tyr 25 Tyr Trp Leu Arg Asp Asp Ser Arg Ser Arg Pro Glu Val Leu Asp Tyr 35 40 4.5 Leu His Glu Glu Asn Asp Tyr Gly Arg Gln Val Met Ala Ser Gln Gln 60 Ala Leu Gln Asp Gln Leu Leu Asn Glu Met Val Gln Arg Ile Pro Gln 65 70 75 Arg Asp Val Ser Ala Pro Trp Cys Lys Asn Gly Tyr Arg Tyr Arg His 85 90 Ile Tyr Glu Pro Gly Asn Glu Tyr Pro Ile Tyr Gln Arg Gln Ser Val 105 Leu Ser Ala Glu Trp Asp Glu Trp Glu Ile Leu Leu Asp Ala Asn Lys 115 120 125 Arg Ala Ala His Ser Glu Phe Tyr Thr Leu Gly Gly Met Ser Ile Ser 130 135 140 Pro Asp Asn Ala Ile Met Ala Leu Ala Glu Asp Tyr Leu Ser Arg Arg 145 150 155 Gln Tyr Gly Leu Arg Phe Arg Asn Leu Glu Thr Gly Asn Trp Tyr Pro 165 170 Glu Met Leu Asp Asn Val Ser Pro Asp Phe Val Trp Gly Asn Asp Ser 180 185 190 Glu Thr Val Tyr Tyr Val Lys Lys His Ala Ser Thr Leu Leu Pro Tyr 200 205 Gln Val Trp Arg His Thr Val Gly Thr Asp Ser Ala Asp Asp Glu Leu 215 220 Val Tyr Glu Glu Lys Asp Glu Thr Phe Tyr Val Ser Leu His Lys Thr 230 235 Ser Ser Arg His Tyr Val Ile Ile Phe Leu Ser Ser Ala Thr Thr Ser 245 250 Glu Val Leu Leu Asp Ala Glu Leu Pro Asp Ala Gln Pro Leu Cys 260 265 Phe Leu Pro Arg Arg Lys Asp His Glu Tyr Ser Leu Asp His Phe Gln 285 280 His Ser Phe Tyr Leu Arg Ser Asn Arg Glu Gly Lys Asn Phe Gly Leu 295 300 Tyr Lys Thr Lys Val Arg Asp Glu Arg Lys Trp Glu Val Leu Ile Pro 310 315 Ala Arg Asp Gln Val Met Leu Glu Gly Phe Thr Leu Phe Thr Asp Trp

13

```
330
Leu Val Val Glu Glu Arg Gln Arg Gly Leu Thr Ser Ile Arg Gln Ile
                                350
        340
                      345
Asn Arg Lys Asn Arg Glu Val Val Gly Ile Ala Phe Asp Asp Pro Ala
     355
                   360
                                  365
Tyr Val Thr Trp Ile Gly Phe Asn Pro Glu Pro Glu Ser Ser Arg Leu
                 375
Arg Tyr Gly Tyr Ser Ser Met Thr Thr Pro Asp Thr Leu Phe Glu Leu
      390
                          395
Asp Met Asp Thr Gly Gln Arg Gln Val Ile Lys Gln Ala Glu Val Arg
           405 410
Gly Phe Glu Ser Glu Asn Tyr Arg Ser Glu His Leu Trp Val Thr Ala
            425
        420
                             430
Arg Asp Gly Val Glu Val Pro Val Ser Leu Val Tyr His Lys Ala His
     435
         440 445
Phe Asn Lys Gly Lys Asn Pro Ile Leu Val Tyr Gly Tyr Gly Ser Tyr
 450 455 460
Gly Ser Ser Met Asp Ala Asp Phe Ser Ser Ser Arg Leu Ser Leu Leu
465 470 475 480
Asp Arg Gly Phe Val Tyr Ala Ile Ala His Ile Arg Gly Gly Glu
      485 490
Leu Gly Gln His Trp Tyr Glu Asp Gly Lys Phe Leu Lys Lys Lys Asn
 500 505 510
Thr Phe Asn Asp Tyr Leu Asp Val Cys Asp Ala Leu Ile Ala Gln Gly
515 520 525
Tyr Gly Asp Pro Gln Leu Cys Phe Gly Met Gly Gly Ser Ala Gly Gly 530 535 540
Met Leu Met Gly Ala Val Ile Asn Gln Arg Pro Glu Leu Phe Lys Gly
545 550 555
Val Ile Ala Gln Val Pro Phe Val Asp Val Val Thr Thr Met Leu Asp
      565 570 575
Glu Ser Ile Pro Leu Thr Thr Gly Glu Phe Glu Glu Trp Gly Asn Pro
 580 585 590
Gln Asp Glu Thr Tyr Tyr Arg Tyr Met Lys Glu Tyr Ser Pro Tyr Asp
595 600
Asn Val Glu Ala Lys Ala Tyr Pro His Met Leu Val Thr Thr Gly Leu
610 615 620
His Asp Ser Gln Val Gln Tyr Trp Glu Pro Ala Lys Trp Val Ala Lys
625 630 635
Leu Arg Glu Leu Lys Thr Asp Asp Asn Leu Leu Leu Cys Thr Asp
        645 650 655
Met Asp Ser Gly His Gly Gly Lys Ser Gly Arg Phe Lys Ser Tyr Glu
     660 665 670
Gly Val Ala Leu Glu Tyr Ala Phe Leu Ile Gly Leu Ala Gln Asp Thr
     675 680 685
Leu Pro Gly Arg Ala Gly Thr Gln Ala Ser Pro Lys
<210> 7507
<211> 114
```

<212> PRT

<213> Enterobacter cloacae

<400> 7507

Arg Pro Gly Asn Ala Leu Tyr Val Ile Asn Pro Ser Thr Leu Val Gln

3458 5.5 Tyr Pro Leu Asn Asp Val Ala Glu Gln Gln Val Ala Ser Gly Lys Ser 70 75 Asn Gly Gln Pro Val Ser Val Ile Gln Val Asp Asp Pro Ala Asn Pro 85 90 Gly Gln Lys Lys Ser Leu Ala Pro Phe Ile Glu Arg Ala Glu Lys Leu 105 Cys <210> 7508 <211> 167 <212> PRT <213> Enterobacter cloacae <400> 7508

Ile Met Asn Lys Thr Glu Phe Tyr Ala Asp Leu Asn Arg Asp Phe Lys 1.0 Ala Leu Met Ala Gly Glu Thr Ser Phe Leu Ala Thr Leu Ala Asn Thr 20 25 Ser Ala Leu Leu Phe Glu Arg Leu Ser Asp Val Asn Trp Ala Gly Phe 35 40 45 Tyr Leu Leu Glu Gly Asp Thr Leu Val Leu Gly Pro Phe Gln Gly Lys 50 5.5 Leu Ala Cys Val Arg Ile Pro Val Gly Arg Gly Val Cys Gly Thr Ala 7.0 7.5 Val Ala Thr Arg Gln Val Gln Arg Val Glu Asp Val His Ala Phe Asp 85 90 Gly His Ile Ala Cys Asp Ala Ser Ser Asn Ser Glu Ile Val Leu Pro 100 105 110 Leu Val Val Lys Asn Gln Ile Ile Gly Val Leu Asp Ile Asp Ser Thr 115 120 Val Phe Ser Arg Phe Thr Ala Glu Asp Glu Gln Gly Leu Arg Ala Leu 130 135 140 Ala Ala Asn Leu Glu Asn Val Leu Ala Asp Thr Asp Tyr His Lys Phe

Ala Ala Asn Leu Glu Asn Val Leu Ala Asp Thr Asp Tyr His Lys Ph 145 150 150 155 160 Phe Ala Ser Val Ala Gly

<210> 7509 <211> 172 <212> PRT

<213> Enterobacter cloacae

<400> 7509 Ser Gly Asn Phe Met Glu Asn Gln Pro Lys Leu Asn Ser Ser Lys Glu 10 Val Ile Ala Phe Leu Ala Glu Arg Phe Pro Gln Cys Phe Ser Ala Glu 20 25 3.0 Gly Glu Ala Arg Pro Leu Lys Val Gly Ile Phe Gln Asp Leu Val Ala 35 40 Arg Val Glu Gly Glu Met Asn Leu Ser Lys Thr Gln Leu Arg Ser Ala 55 Leu Arg Leu Tyr Thr Ser Ser Trp Arg Tyr Leu Tyr Gly Ile Lys Pro 75 70 Gly Ala Thr Arg Val Asp Leu Asp Gly Asn Pro Cys Gly Glu Leu Asp 85 90 Glu Gln His Val Glu His Ala Arg Lys Gln Leu Glu Glu Ala Lys Ala 100 105 110 Arg Val Gln Ala Gln Arg Ala Glu Gln Gln Ala Lys Lys Arg Glu Ala

```
3459
Ala Ala Asn Gly Gln Glu Asp Ala Pro Arg Arg Glu Arg Lvs Pro
  130
                    135
Arg Pro Ala Pro Arg Arg Thr Glu Asn Asn Asp Arg Lys Pro Arg Ala
                           155
Val Phe Thr His Gly Pro Gly Arg Thr Ala Ile Ala
               165
<210> 7510
<211> 130
<212> PRT
<213> Enterobacter cloacae
<400> 7510
Arg Lys Gly Met Ile Val Met His Phe Thr Pro Ser Arg Val Ala Cys
                               1.0
Ala Leu Ala Phe Leu Leu Ser Ser Ala Thr Ala Thr Ser Ala Leu Ala
          20
                             25
His Ala His Leu Lys Gln Gln Ser Pro Gln Glu Asn Thr Val Ala Val
    35
                          40
                                           45
Ala Pro Glu Val Ile Thr Leu Asn Phe Ser Glu Gly Ile Glu Pro Ala
 5.0
                      5.5
Phe Ser Gly Val Val Val Thr Asp Ala Gln Gln His Lys Ile Gln Thr
               70
                                    7.5
Gly Ala Val Lys Arg Asp Glu Lys Asp Asn Ala Lys Leu Ile Val Pro
                                 90
            85
Leu Glu Lys Pro Leu Thr Thr Gly Thr Tyr Thr Val Asp Trp His Val
         100 105
Val Ser Val Asp Gly His Lys Thr Lys Gly Ser Tyr His Phe Ser Val
   130
<210> 7511
<211> 259
<212> PRT
<213> Enterobacter cloacae
<400> 7511
Arg Pro Gly Asn Lys Gly Leu Ile Ala Gln Arg Ser Leu Phe Pro Ala
                                  10
Gly Leu Trp Phe Val Trp Ile Arg Glu Ile Arg Arg Gln Phe Met Thr
                              25
Phe Ser Val Ala Ala Ile Leu Leu Thr Gly Gly Val Ile Tyr Gln Lys
      35
                          40
                                             4.5
Ile Glu Gly Glu His Trp Arg His Val Trp Val Ala Ser Asp Ile His
                      5.5
                                         60
Gly Cys Tyr Gln Trp Leu Met Asp Glu Leu Lys Arg Arg His Phe Asn
                  70
Pro Asp Thr Asp Leu Leu Ile Ser Val Gly Asp Ile Ile Asp Arg Gly
                                  90
Pro Asp Ser Val Lys Cys Leu Gln Leu Met Gln Glu Asn Trp Phe Tyr
           100
                              105
                                                 110
Ala Ile Arg Gly Asn His Glu Gln Met Ala Leu Asp Ala Leu Ile Asn
                          120
       115
Asn Asp Phe Ser Leu Trp Ser Ile Asn Gly Gly Asn Trp Phe Thr Gly
                      135
                                         140
Leu Lys Asp Ala Gln Gln Lys Gln Ala Lys Gly Leu Leu Asp Ala Cys
                 150
                                      155
Arg Asp Leu Pro His Ile Ile Glu Ile Thr Cys Lys Asn Gly Leu Asn
                                  170
              165
```

Val Ile Ala His Ala Asp Tyr Pro Ser Ala Glu Tyr Gly Trp His Lys

180 185 Pro Val Asp Ala Glm Arg Val Leu Trp Asp Arg Asp Arg Leu Met Gly 200 205 Phe Met Val Gly Lys Gly Gln Gly Ile Ser Gly Ala Asp His Phe Trp 215 220 Phe Gly His Thr Pro Val Asp Lys Arg Tyr Asp Phe Asn Asn Leu His 230 235 240 Tyr Ile Asp Thr Gly Ala Val Phe Gly Gly Phe Leu Thr Leu Ala Gln 245 250 Leu Gln

<210> 7512 <211> 72 <212> PRT <213> Enterobacter cloacae

<400> 7512 Glu Gln Gly Glu Arg Ala Ile Met Asn Ile Ser Asp Ile Ile Gln Leu 10 Val Val Leu Cys Ala Leu Ile Phe Leu Pro Leu Gly Tyr Tyr Ala Arg 20 2.5 30 His Ser Leu Arg Arg Ile Arg Asp Thr Val Arg Leu Leu Phe Val Lys 35 40 Pro Arg Tyr Ile Lys Pro Ala Gly Thr Leu Ser Arg Ala Pro Asn Val 5.5 Lys Ala Asn Arg Lys His Asp

<210> 7513 <211> 529 <212> PRT

<213> Enterobacter cloacae

<400> 7513

Lys Phe Asp Glu Lys Arg Asp Thr Val Asp Ser Ile Phe Ser Ile Gly 10 Ile Gln Ser Leu Trp Asp Glu Leu Arg His Met Pro Val Gly Gly Val 30 Trp Trp Val Asn Thr Asp Arg Asn Glu Asp Ala Ile Ser Leu Val Asn 4.5 Gln Thr Ile Ala Ala Gln Gly Lys Asp Ser Arg Val Ala Ile Ile Thr 55 Met Gly Asp Glu Pro Lys Ser Ile Ile Arg Leu Asp Ser Asn Arg Gly 7.0 7.5 8.0 Pro Gln Thr Val Arg Leu Phe Ser Met Pro Ala Glu Ala Asp Ser Leu 85 90 Tyr Phe Leu Pro Arg Asp Ile Gln Cys Ser Ile Val Pro Glu His Tyr 105 100 Leu Leu Val Leu Lys Cys Ser Asn Asn Gly Leu Gln Asn Ile Pro Ser 115 120 Glu Lys Leu Leu Lys Trp Leu Glu Arg Ile Asn Arg Trp Ala Lys Asn 135 140 Gln Asn Cys Thr Leu Leu Val Val Asn Pro Glv Ser Asn Asn Asp Lvs 150 155 Leu Phe Ser Leu Leu Met Ser Glu Tyr Arg Ser Leu Tyr Gly Leu Ala 165 170 Ser Ile Arg Val Gln Thr Asp Ser His Leu Tyr Asp Val Ala Phe Trp 190 185 Cys Asn Glu Lys Gly Val Ser Ser Arg Gln Gln Leu Thr Leu Lys His

200

```
Val Gly Asp Glu Trp His Leu Ala Gln Gln Glu Glu Thr Val Val Gln
 210
              215
Pro Arg Ser Asp Glu Lys Arg Val Leu Ser His Ile Ala Val Leu Glu
            230
                    235
Gly Ala Pro Ala Leu Ser Glu His Trp Ser Leu Phe Asp Thr Asn Glu
           245 250 255
Ala Leu Phe Asp Glu Ala Arg Thr Thr Gln Ala Ala Thr Ile Ile Phe
        260 265 270
Ser Leu Ile Gln Asn Asn Gln Ile Glu Thr Leu Ala Arg His Ile His
     275 280 285
Thr Leu Arg Arg Gln Arg Gly Ser Ala Leu Lys Ile Val Val Arg Glu
 290 295 300
Asn Asn Thr Ser Leu Arg Ala Thr Asp Glu Arg Leu Leu Gly Cys
305 310 315 320
Gly Ala Asn Met Val Ile Pro Trp Asn Ala Pro Leu Ser Arg Cys Leu
      325 330
Thr Leu Ile Glu Ser Ile Gln Gly Gln Gln Phe Asn Arg His Val Pro
 340 345 350
Glu Asp Ile Ser Thr Leu Leu Ser Met Thr Gln Pro Met Lys Leu Arg
355 360 365
Gly Tyr Gln Lys Trp Asp Thr Phe Cys Asp Ala Val Gly Asn Met Met
370 375 380
Ser Asn Thr Leu Leu Pro Ala Asp Gly Lys Gly Val Met Val Ala Leu
385 390
                           395 ' 400
Arg Pro Val Pro Gly Ile Arg Val Glu Gln Ala Leu Thr Leu Cys Arg
   405 410 415
Pro Asn Arg Ile Gly Asp Ile Met Thr Ile Gly Asp Asn Arg Leu Val
       420 425 430
Leu Phe Leu Ser Phe Cys Arg Val Asn Asp Leu Asp Thr Ala Leu Asn
435 440 445
His Ile Phe Pro Leu Pro Thr Gly Asp Ile Phe Ser Asn Arg Met Val
450 455 460
Trp Phe Glu Asp Asn Leu Ile Ser Ala Glu Leu Val Gln Met Arg Ala
465 470 475
Leu Ala Pro Glu Lys Trp Ala Lys Pro Leu Pro Val Thr Ser Gly Ala 485 \hspace{1.5cm} 490 \hspace{1.5cm} 490 \hspace{1.5cm} 495 \hspace{1.5cm}
Lys Pro Val Leu Asn Ala Lys His Asp Gly His Val Trp Arg Arg Val
     500 505 510
Pro Glu Pro Leu Arg Leu Leu Asp Glu Asn Lys Glu Ser Ala Pro Leu
                   520
```

```
<210> 7514
<211> 571
<212> PRT
<213> Enterobacter cloacae
```

<400> 7514 Val Ala Leu Arg Thr Ser Arg Gln Thr Glu Ash Met Thr Ash Ser Thr 10 Tyr Thr Ser Ser Ala Pro Ser Pro Leu Trp Gln Tyr Trp Arg Gly Leu 25 Ser Gly Trp Asn Phe Tyr Phe Leu Val Lys Phe Gly Leu Leu Trp Ala 35 40 Gly Tyr Leu Asn Phe His Pro Leu Leu Asn Leu Val Phe Met Ala Phe 50 55 Leu Leu Met Pro Ile Pro Asn Leu Arg Leu His Arg Ile Arg His Trp 70 75 Val Ala Ile Pro Ile Gly Phe Ala Leu Phe Trp His Asp Thr Trp Leu 90 95

Pro Gly Pro Glu Ser Ile Met Ser Gln Gly Ser Gln Val Ala Gly Phe 100 105 Ser Ala Asp Tyr Met Leu Asp Leu Val Glu Arg Phe Ile Asn Trp Gln 115 Met Ile Gly Ala Val Phe Val Leu Leu Val Ala Trp Leu Phe Leu Ser 135 140 Gln Trp Ile Arg Val Thr Val Phe Val Val Ala Ile Met Ile Trp Leu 150 155 Asn Val Leu Thr Leu Thr Gly Pro Ser Phe Ser Leu Trp Pro Ala Gly 165 170 175 Gln Pro Thr Thr Thr Val Thr Thr Thr Gly Gly Ser Ala Ala Ala Thr 180 185 190 Val Ala Thr Ala Gly Asp Thr Pro Val Val Gly Asp Ile Pro Ala Gln 195 200 205 Thr Ala Pro Pro Thr Ser Thr Asn Leu Asn Ala Trp Leu Ser Ser Phe 210 215 220 Tyr Ala Ala Glu Asp Lys Arg Glr. Thr Lys Phe Pro Asp Ala Leu Pro 225 230 235 240 Ala Asp Ala Gln Pro Phe Glu Leu Leu Val Ile Asn Ile Cys Ser Leu 245 250 255 Ser Trp Ala Asp Val Asp Ala Ala Gly Leu Met Ser His Pro Leu Trp 260 265 270 Ser His Phe Asp Ile Gln Phe Lys Asp Phe Asn Ser Ala Thr Ser Tyr 275 280 285 Ser Gly Pro Ala Ala Ile Arg Leu Leu Arg Ala Ser Cys Gly Gln Pro 290 295 300 Ser His Lys Asn Leu Tyr Gln Pro Ala Ala Asn Gln Cys Tyr Leu Phe 305 310 315 Asp Asn Leu Ala Lys Leu Gly Phe Thr Gln His Leu Met Met Gly His 325 330 335 Asn Gly Gln Phe Gly Asn Phe Leu Lys Glu Val Arg Glu Gln Gly Gly 340 345 350 Met Gln Ala Pro Leu Met Asp Gln Lys Gly Leu Pro Val Thr Leu Leu 355 360 365 Gly Phe Asp Gly Ser Pro Val Tyr Asp Asp Thr Ala Val Leu Gln Arg 370 375 380 Trp Leu Asp Thr Val Gly Lys Glu Glu Gly Thr Arg Ser Ala Thr Phe 385 390 395 Tyr Asn Thr Leu Pro Leu His Asp Gly Asn His Tyr Pro Gly Val Ser 405 410 415 Lys Thr Ala Asp Tyr Lys Ala Arg Ala Gln Lys Phe Phe Asp Glu Leu 425 430 420 Asn Ala Phe Phe Asn Glu Leu Glu Lys Ser Gly Arg Lys Val Met Val 435 440 445 Val Val Val Pro Glu His Gly Gly Ala Leu Lys Gly Asp Arg Met Gln 450 455 460 Val Ser Gly Leu Arg Asp Ile Pro Ser Pro Ser Ile Thr Asn Val Pro 470 475 Ala Gly Ile Lys Phe Phe Gly Met Lys Ala Pro His Gln Gly Ala Pro 485 490 495 Val Glu Ile Thr Gln Pro Ser Ser Tyr Leu Ala Ile Ser Glu Leu Val 500 505 510 Ala Arg Ala Val Asp Gly Lys Leu Phe Val Glu Asp Ser Val Asn Trp 520 525 Asp Gln Leu Thr Ser Gly Leu Pro Gln Thr Ala Glu Val Ser Glu Asn 530 535 540 Ala Asn Ala Val Val Ile Gln Tyr Gln Asn Lys Pro Tyr Val Arg Leu 545 550 555 Asn Ala Gly Asp Trp Val Pro Tyr Pro Gln 565 570

115

```
<210> 7515
<211> 338
<212> PRT
<213> Enterobacter cloacae
<400> 7515
Ser Ser Leu Tyr Trp Pro Asn Gly Arg Ser Glu Cys Arg Gly Asp His
                          10
Cys Val Lys Asp Asn Thr Ile Pro Leu Thr Leu Ile Gly Ile Leu Ala
        20
                       25
Asp Gly Glu Phe His Ser Gly Glu Gln Leu Gly Glu Gln Leu Gly Met
                   4.0
Ser Arg Ala Ala Ile Asn Lys His Ile Gln Thr Leu Arg Asp Trp Gly
            55
                       60
Val Asp Val Phe Thr Val Pro Gly Lys Gly Tyr Ser Leu Pro Glu Pro
65 70
                        7.5
Ile Gln Leu Leu Asn Glu Glu Ile Ile Arg Ser Gln Ile Gly His Gly
         85 90
Asn Val Ala Val Leu Pro Val Ile Asp Ser Thr Asn Gln Tyr Leu Leu
 100 105 110
Asp Arg Leu Ser Glu Leu Lys Ser Gly Asp Ala Cys Val Ala Glu Tyr
115 120 125
Gln Gln Ala Gly Arg Gly Arg Gly Arg Lys Trp Phe Ser Pro Phe
130 135 140
Gly Ala Asn Leu Tyr Leu Ser Met Tyr Trp Arg Leu Ala Gln Gly Pro
145
              150
                             155
Ala Ala Ala Ile Gly Leu Ser Leu Val Ile Gly Ile Val Met Ala Glu
      165 170 175
Val Leu His Asp Leu Gly Ala Asp Gln Val Arg Val Lys Trp Pro Asn
        180 185 190
Asp Leu Tyr Leu Asn Asp Arg Lys Leu Ala Gly Ile Leu Val Glu Leu
195 200
                                 205
Thr Gly Lys Thr Gly Asp Ala Ala Gln Ile Val Ile Gly Ala Gly Leu
210 215 220
Asn Met Val Met Arg Asn Val Gin Asn Asp Val Val Asn Gin Ala Trp
225 230 235
Thr Asn Leu Gln Glu Ala Gly Ile Thr Ile Asp Arg Asn Thr Leu Ala
   245 250 255
Val Arg Met Ile Asn Glu Leu Arg Ser Ser Leu Thr Leu Phe Glu Gln
     260 265
Glu Gly Leu Ala Pro Phe Leu Ser Arg Trp Glu Lys Leu Asp Asn Phe
    275 280 285
Ile Asn Arg Pro Val Lys Leu Leu Ile Gly Asp Lys Glu Ile Tyr Gly
                 295
                                300
Thr Ser Arg Gly Ile Asp Ala Gln Gly Ala Leu Leu Leu Glu Gln Asp
            310 315 320
Gly Val Ile Lys Pro Trp Val Gly Gly Glu Ile Ser Leu Arg Ser Ala
           325
Glu
<210> 7516
<211> 881
<212> PRT
<213> Enterobacter cloacae
<400> 7516
Thr Ala Gly Ala Cys Arg Glu Phe Ser Met Ser Arg Leu Thr Asn Trp
                          10
```

Leu Leu Ile Pro Pro Val Ser Ser Arg Leu Ser Glu Arg Tyr Arg His 25

Tyr Arg Tyr His Gly Ala Ser Ser Leu Ser Ala Ala Leu Gly Cys Leu 40 Trp Met Ile Leu Ala Trp Met Phe Ile Pro Leu Glu His Pro Arg Trp Gln Arg Ile Arg Ala Arg His Gly Glu Leu Tyr Pro His Ile Asn Pro 70 Asp Lys Pro Arg Pro Leu Asp Pro Ala Arg Tyr Ala Ile Gln Ser Ile 85 90 Trp Leu Leu Ala Thr Ser Thr Gly Ala Glu Lys Lys Thr Ser Arg Trp 105 100 Arg Ser Phe Asp Arg Val Gln Asn Leu Arg Glu His Tyr His Gln Trp 115 120 125 Leu Asp Arg Leu Pro Asp Arg Val Gly Asp Lys Thr Gly His Leu Asp 130 135 140 Asn Gln Lys Glu Leu Gly His Leu His Pro Gly Leu Arg Arg Phe Ile 150 155 160 Leu Gly Val Val Val Val Phe Ser Leu Ile Leu Ala Leu Val Cys Ile 165 170 175 Thr Gln Pro Phe Asn Pro Leu Ala Gln Phe Thr Phe Leu Ile Leu Leu 180 185 190 Trp Gly Val Ala Leu Leu Val Arg Arg Ile Pro Gly Arg Phe Ser Ala 195 200 205 Leu Met Leu Ile Val Leu Ser Leu Thr Val Ser Cys Arg Tyr Ile Trp 210 215 220 Trp Arg Tyr Thr Ser Thr Leu Asn Trp Asp Asp Pro Val Ser Leu Val 225 230 235 240 Cys Gly Leu Val Leu Leu Phe Ala Glu Thr Tyr Ala Trp Ile Val Leu 245 250 255Val Leu Gly Tyr Phe Gln Val Ile Trp Pro Leu Asn Arg Gln Pro Val 260 265 270 Pro Leu Pro Lys Asp Thr Thr Gln Trp Pro Thr Val Asp Leu Phe Val 275 Pro Thr Tyr Asn Glu Asp Leu Ser Val Val Lys Asn Thr Ile Tyr Ala 290 295 300 Ala Leu Gly Ile Asp Trp Pro Lys Asp Lys Ile Lys Ile Trp Ile Leu 305 310 315 Asp Asp Gly Gly Arg Ala Glu Phe Arg Gln Phe Ala Asp Glu Val Gly 325 330 335 Val Glu Tyr Ile Ala Arg Thr Thr His Glu His Ala Lys Ala Gly Asn 345 350 Ile Asn Asn Ala Leu Lys Tyr Ala Lys Gly Glu Phe Val Ser Ile Phe 360 365 Asp Cys Asp His Val Pro Thr Arg Ser Phe Leu Gln Met Thr Met Gly 375 380 Trp Phe Leu Lys Glu Lys Glu Leu Ala Met Met Gln Thr Pro His His 390 395 Phe Phe Ser Pro Asp Pro Phe Glu Arg Asn Leu Gly Arg Phe Arg Lys 405 410 Thr Pro Asn Glu Gly Thr Leu Phe Tyr Gly Leu Val Gln Asp Gly Asn 420 430 425 Asp Met Trp Asp Ala Thr Phe Phe Cys Gly Ser Cys Ala Val Ile Arg 435 440 Arg Lys Pro Leu Asp Glu Ile Gly Gly Ile Ala Val Glu Thr Val Thr 455 460 Glu Asp Ala His Thr Ser Leu Arg Leu His Arg Leu Gly Tyr Thr Ser 470 475 Ala Tyr Met Arg Ile Pro Gln Ala Ala Gly Leu Ala Thr Glu Ser Leu 485 490 Ser Ala His Ile Gly Gln Arg Ile Arg Trp Ala Arg Gly Met Val Gln 500 505 Ile Phe Arg Leu Asp Asn Pro Leu Met Gly Lys Gly Leu Lys Leu Ala

```
520
Gln Arg Leu Cys Tyr Val Asn Ala Met Phe His Phe Leu Ser Gly Ile
              535
                         540
Pro Arg Leu Ile Phe Leu Thr Ala Pro Leu Ala Phe Leu Leu His
        550
                    555
Ala Tyr Ile Ile Tyr Ala Pro Ala Leu Met Ile Ala Leu Phe Val Leu
                 570
          565
Pro His Met Ile His Ala Ser Leu Thr Asn Ser Lys Ile Gln Gly Lys
        580 585
                                590
Tyr Arg His Ser Phe Trp Ser Glu Ile Tyr Glu Thr Val Leu Ala Trp
     595 600
                       605
Tyr Ile Ala Pro Pro Thr Met Val Ala Leu Ile Asn Pro His Lys Gly
 610
      615
                              620
Lys Phe Asn Val Thr Ala Lys Gly Gly Leu Val Glu Glu Glu Tyr Val
         630 635
Asp Trp Val Ile Ser Arg Pro Tyr Ile Phe Leu Val Leu Leu Asn Ile
          645 650 655
Val Gly Val Ile Val Gly Ile Trp Arg Tyr Phe Tyr Gly Pro Glu Asn
       660
            665
Glu Ile Leu Thr Val Phe Val Ser Met Ala Trp Val Phe Tyr Asn Leu
 675 680 685
Ile Ile Leu Gly Gly Ala Val Ala Val Ser Val Glu Ser Lys Gln Val
690 695 700
Arg Arg Ala His Arg Val Glu Ile Ser Met Pro Ala Ala Ile Ala Arg
705 710 715
Asp Asp Gly His Leu Phe Ser Cys Thr Val His Asp Phe Ser Asp Gly
        725 730
Gly Leu Gly Ile Lys Ile Asn Gly Gln Ala Lys Val Leu Glu Gly Gln
        740 745 750
Lys Val Asn Leu Leu Leu Lys Arg Gly Gln Gln Glu Tyr Val Phe Pro
755 760 765
Thr Gln Val Val Arg Val Arg Gly Asn Glu Val Gly Leu Gln Leu Met
770 775 780
Pro Leu Thr Lys Lys Gln His Ile Asp Phe Val Gln Cys Thr Phe Ala
785 790 795
Arg Ala Asp Thr Trp Ala Leu Trp Gln Asp Ser Phe Pro Glu Asp Lys
         805 810 815
Pro Leu Glu Ser Leu Leu Asp Ile Leu Lys Leu Gly Phe Arg Gly Tyr
       820 825 830
Arg His Leu Ala Glu Phe Ala Pro Ser Ser Val Lys Leu Ile Phe Arg
835 840
Ser Leu Thr Ser Leu Val Ser Trp Val Val Ser Phe Ile Pro Arg Arg
850 855
Pro Glu Arg Asp Glu Ala Lys Gln Ala Asp Pro Val Met Ala Gln Gln
```

```
<210> 7517
<211> 1169
<212> PRT
<213> Enterobacter cloacae
```

<400> 7517
Ile Thr Thr Gly Leu Gly Pro Gly Met Arg Thr Phe Thr Leu Asn Leu 1
5 10 15
Leu Thr Leu Ser Leu Gly Leu Ala Leu Met Pro Leu Ala Gln Ala Ala 20
20 25
Asn Ser Pro Gln Gln Arg Gln Leu Leu Glu Gln Val Arg Leu Gly Glu 35
Ser Thr Gln Arg Glu Asp Leu Val Arg Gln Ser Leu Tyr Arg Leu Glu

Leu Ile Asp Pro Asn Asn Pro Asp Val Ile Ala Ala Arg Phe Arg Tyr 70 75 Leu Leu Arg Gln Gly Asp Thr Ala Gly Ala Gln Lys Glu Leu Asp Arg 85 90 Leu Lys Gly Met Ala Ala Asp Ser Ser Ala Tyr Gln Ser Ser Arg Thr 100 105 Thr Met Leu Leu Ser Thr Pro Asp Gly Arg Gln Ala Leu Gln Gln Ala 115 120 125 Arg Leu Leu Ala Thr Thr Gly His Thr Gln Glu Ala Ile Ala Ala Tyr 135 140 Asp Lys Leu Phe Asp Gly Lys Pro Pro Ser Gly Asp Ile Ala Thr Glu 150 155 160 Tyr Trp Asn Val Val Ala Lys Glu Pro Ala Arg Arg Asn Leu Ala Ile 165 170 175 Asn Gln Leu Lys Lys Ile Asn Ala Ser Ser Pro Gly Asn Val Pro Leu 180 185 190 Gln Ser Ser Leu Ala Gln Leu Leu Phe Gln Ser Gly Arg Arg Asp Glu 195 200 205 Gly Phe Ala Val Leu Gln Glu Met Ala Lys Ser Asn Asn Gly Arg Ser 210 215 220 Gln Ala Ser Asp Met Trp Tyr Gln Gln Ile Lys Asp Gln Pro Val Ser 225 230 235 Ser Ala Ser Val Thr Ala Leu Gln Gln Tyr Leu Ser Val Phe Ser Asp 245 250 255 Gly Asp Asn Val Thr Ala Ala Arg Thr Gln Leu Glu Ala Gln Gln Lys 260 265 270 Gln Leu Ala Asp Pro Ala Phe Arg Ala Lys Ala Glu Gly Leu Ala Ala 275 280 285 Val Asp Ala Gly Gln Gly Ser Lys Ala Val Thr Glu Leu Gln Lys Ala 290 295 300 Val Ser Ala Asn His Ala Asp Ser Glu Ala Val Gly Ala Leu Gly Gln 305 310 315 Ala Tyr Ser Gln Lys Gly Asp Arg Ala Arg Ala Val Ala Gln Phe Glu 325 330 335 Lys Ala Ile Ala Leu Asp Pro Gln Ser Asp Asn Arg Gly Lys Trp Asp 340 345 350 Ser Leu Leu Lys Val Asn Arg Tyr Trp Leu Leu Ile Gln Gln Gly Asp 355 360 365 Asn Ala Leu Lys Ala Asn Asn Thr Ala Gln Ala Glu Arg Tyr Tyr Gln 370 375 Gln Ala Arg Asn Ile Asp Asn Thr Asp Ser Tyr Ala Val Leu Gly Leu 385 390 395 Gly Asp Ala Ala Ala Arg Lys Asp Asn Asp Ala Ala Glu Arg Tyr 405 410 Tyr Arg Gln Ala Leu Arg Met Asp Ser Gly Asn Ser Asn Ala Val Arg 420 425 Gly Leu Ala Asn Ile Tyr Arg Ala Gln Ser Pro Glu Lys Ala Thr Gln 435 440 445 Phe Ile Gln Ser Leu Ser Ala Ser Gln Arg Arg Ser Ile Asp Asp Ile 450 455 460 Glu Arg Ser Leu Thr Asn Glu Gln Leu Ser Ala Gln Ala Glu Gln Leu 465 470 475 Glu Ser Glu Gly Lys Tyr Ala Gln Ala Ala Glu Ile Gln Arg Arg Arg 490 495 485 Leu Ala Leu Ser Pro Gly Asp Val Trp Ile Thr Tyr Arg Leu Ser Arg 505 500 Asp Leu Tyr Ser Ala Gly Gln Arg Ser Gln Ala Asp Asn Leu Met Arg 520 Gln Leu Ala Ser Gln Lys Pro Gly Asp Pro Asp Gln Val Tyr Ala Ser 535

Gly Leu Tyr Leu Ser Gly Asn Asp Gln Asp Arg Ala Ala Leu Ala His 550 555 545 Leu Asn Thr Leu Pro Arg Asp Lys Trp Asn Gly Asn Ile Gln Ala Leu 565 570 Ala Asp Arg Leu Gln Ser Asn Gln Val Leu Glu Thr Ala Asn Arg Leu 580 585 590 Arg Asp Ser Gly Lys Glu Gln Glu Ala Glu Thr Leu Leu Arg Gln Gln 595 600 Pro Pro Ser Thr Arg Ile Asp Leu Thr Leu Ala Asp Trp Ala Glu Gln 615 620 Arg Gly Asp His Glu Ala Ala Lys Thr Ala Tyr Asn Thr Ile Leu Gln 630 635 640 Arg Glu Pro Gln Asn Glu Asp Ala Ile Leu Gly Leu Thr Glu Val Ser 645 650 655 Leu Ala Gln Gly Asn Lys Asp Ala Ala Arg Ala Ala Leu Ala Lys Leu 660 665 670 Pro Ala Ala Gln Asn Gly Glu Pro Leu Ser Ile Asn Met Gln Arg Arg 675 680 685 Leu Ala Met Ala Gln Ala Gly Leu Gly Asp Pro Ala Ala Ala Glu Lys 690 695 700 Thr Phe Asn Ala Ile Leu Pro Gln Ala Lys Ser Gln Pro Pro Ser Met 705 710 715 720 Glu Ser Ala Leu Val Met Arg Asp Ala Ala Arg Phe Gln Ala Gln Asn 725 730 735 Gly Gln Pro Gln Gln Ala Leu Asp Thr Trp Lys Asp Ala Met Val Ser 740 745 750 Ser Gly Ile Thr Thr Thr Arg Pro Thr Asp Asn Asp Ser Phe Thr Arg 755 760 765 Leu Thr Arg Asn Asp Glu Lys Asp Asp Trp Leu Lys Arg Gly Val Arg 770 775 780 Ser Asp Ala Gly Asp Leu Tyr Arg Gln Gln Asp Leu Asn Val Thr Leu 785 790 795 Gln His Asp Tyr Trp Gly Ser Ser Gly Thr Gly Gly Tyr Ser Asp Leu 805 810 815 Lys Ala His Thr Thr Met Leu Gln Val Asp Ala Pro Leu Ser Asp Gly 820 825 830 Arg Met Phe Phe Arg Ser Asp Leu Val Ash Met Ash Ala Gly Ser Phe 835 840 Asp Thr Asp Asn Gly Thr Tyr Asp Pro Thr Trp Gly Thr Cys Ala Glu 855 860 Thr Pro Cys His Gly Ser Thr Asn Gln Ser Ala Asn Gly Ala Ser Val 865 870 875 880 Ala Val Gly Trp Gln Asn Lys Thr Trp Ala Trp Asp Ile Gly Thr Thr 885 890 895 Pro Met Gly Phe Asp Val Val Asp Val Val Gly Ser Leu Ser Tyr Ser 905 910 900 Asn Asp Leu Gly Pro Ile Gly Tyr Thr Leu Asn Ala His Arg Arg Pro 920 Ile Ser Ser Ser Val Leu Ala Phe Ala Gly Gln Lys Asp Pro Asn Thr 935 940 Asp Thr Thr Trp Gly Gly Val Arg Ala Thr Gly Gly Gly Val Ser Met 945 950 955 Ser Tyr Asp Lys Gly Glu Ala Asn Gly Ile Trp Ser Ser Leu Ser Ala 965 970 975 Asp Ser Leu Thr Gly Lys Asn Val Glu Asp Asn Trp Arg Val Arg Trp 980 985 990 Met Thr Gly Tyr Tyr Lys Leu Ile Asn Gln Asn Asn Glu Arg Leu 1000 1005 Thr Val Gly Val Ser Asn Met Leu Trp His Tyr Asp Lys Asp Leu Ser 1010 1015 1020 Gly Tyr Ser Leu Gly Gln Gly Gly Tyr Tyr Ser Pro Gln Glu Tyr Val

1025 1030 1035 Ser Phe Ala Leu Pro Val Asn Trp Arg Lys Arg Thr Glu Asn Trp Ser  $1045 \hspace{1cm} 1050 \hspace{1cm} 1050$ Trp Glu Leu Gly Gly Ser Val Ser Trp Ser His Ser Lys Thr Lys Asp 1060 1065 1070 Val Met Arg Tyr Pro Leu Gln Gly Leu Ile Pro Asp Asn Glu Pro Gly 1075 1080 1085 Arg Tyr Thr Asp Lys Gly Val Met Glu Thr Gly Ser Ser Ser Ser Gly 1090 1095 1100 Thr Gly Tyr Thr Ala Arg Ala Ile Val Glu Arg Arg Val Thr Ser Asn 1110 1115 1105 Trp Phe Val Gly Leu Gly Val Asp Ile Gln Glu Ala Lys Asp Tyr Thr 1125 1130 1135 Pro Ser His Ala Leu Leu Tyr Val Arg Tyr Ser Ala Ala Gly Trp Gln 1140 1145 1150 Gly Asp Met Asp Leu Pro Pro Glu Pro Leu Val Pro Tyr Ala Asp Trp 1155 1160 1165

<210> 7518 <211> 700 <212> PRT <213> Enterobacter cloacae <400> 7518 Val Cys Leu Lys Ser Ala Ala Ile Gly Tyr Thr Arg Thr His Gln Val 10 Tyr Thr Leu Val Arg Pro Ala Leu Arg Val Leu Trp Arg Val Ile Leu 20 25 30 Arg Val Ser Arg Ser Leu Thr Ile Lys Gln Met Ala Met Val Ser Ala 35 40 45 Val Thr Met Leu Phe Val Phe Ile Phe Cys Val Ile Leu Leu Phe His 50 55 60 Ser Val Gln Gln Asn Arg Tyr Asn Thr Ala Ser Gln Leu Gly Ser Ile 65 70 75 Ala Arg Ser Val Arg Glu Pro Leu Ser Ala Ser Ile Leu Lys Gly Asp 85 90 Ile Pro Glu Ala Glu Ser Ile Leu Lys Arg Ile Gln Pro Ala Gly Ile 100 105 110 Val Ser Arg Ala Asp Val Val Leu Pro Asn Gln Phe Gln Ala Leu Arg 115 120 125 Met Ser Phe Ile Pro Glu Arg Ser Val Pro Met Met Val Met Arg Leu 130 135 140 Phe Glu Leu Pro Val Gln Ile Ser Leu Pro Leu Tyr Ser Leu Glu Arg 145 150 155 160 Pro Ala Asn Pro Gln Pro Leu Ala Tyr Leu Val Leu Gln Ala Asp Ser 165 170 175 Tyr Arg Met Tyr Lys Phe Val Met Ser Trp Val Ala Thr Leu Val Thr 180 185 190 Thr Tyr Leu Leu Teu Thr Leu Met Leu Ser Val Ala Leu Thr Trp Cys 195 200 205 Ile Asn Arg Leu Ile Val His Pro Leu Arg Arg Ile Ala Arg Glu Leu 210 215 220 Asn Asp Leu Ser Pro Gln Glu His Met Gly His Gln Leu Pro Leu Pro 225 230 235 240 Arg Leu His His Asp Asp Glu Ile Gly Met Leu Val Arg Ser Tyr Asn 245 250 255 Ile Asn Gln Gln Arg Val Leu Arg Gln Gln Glu Glu Leu Ser Ser Asn 260 265 270 Ala Thr Arg Phe Pro Val Ser Asp Leu Pro Asn Lys Ala Phe Leu Met

```
280
Ala Leu Leu Glu Gln Thr Val Ala Arg Gln Gln Thr Thr Ala Leu Met
               295
                               300
Val Ile Ala Cys Glu Thr Leu Gln Asp Thr Ala Gly Val Leu Lys Glu
          310 315
Ser Gln Arg Glu Met Leu Leu Leu Thr Leu Val Glu Lys Val Lys Ser
         325 330
Val Leu Ala Pro Arg Met Val Leu Thr Gln Val Ser Gly Tyr Asp Leu
        340 345 350
Val Val Ile Ala His Gly Val Lys Glu Pro Trp His Ala Ile Thr Leu
    355 360 365
Gly Gln Gln Val Leu Thr Val Ile Asn Glu Arg Leu Pro Ile Gln Gly
  370 375 380
Ile Gln Leu Arg Pro Ser Ala Ser Ile Gly Ile Ala Met Tyr Tyr Gly
    390 395
Gly Leu Thr Ala Glu Gln Leu Tyr Arg Arg Ala Phe Ser Ala Ala Phe
      405 410 415
Thr Ala Arg Arg Lys Gly Lys Asn Gln Ile Gln Phe Phe Asp Pro Glu
       420 425 430
Gln Met Glu Lys Ala Gln Gln Arg Leu Thr Glu Glu Ser Asp Ile Leu
     435 440 445
Thr Ala Met Asp Asn Arg Gln Phe Ala Leu Trp Leu Gln Pro Gln Val
450 455 460
Asn Leu Arg Thr Gly Glu Val Tar Ser Ala Glu Ala Leu Leu Arg Met
465 470 475 480
Gln Gln Pro Asp Gly Thr Trp Glu Leu Pro Glu Gly Met Ile Glu Arg
          485 490 495
Ile Glu Ser Cys Gly Leu Met Val Thr Val Gly Tyr Trp Val Leu Glu
        500 505 510
Glu Thr Cys Arg Gln Leu Ala Ala Trp Gln Gln Arg Gly Ile Thr Leu
515 520 525
Pro Leu Ser Val Asn Leu Ser Ala Leu Gln Leu Met His Pro Thr Met
530 535
                    540
Val Pro Glu Met Leu Glu Leu Ile His Arg Tyr Arg Ile Gln Pro His
545 550
                            555
Thr Leu Ile Leu Glu Val Thr Glu Ser Arg Cys Ile Asp Asn Pro Asp
               570
           565
                                     575
Asp Ala Val Ala Ile Leu Lys Pro Leu Arg Asn Ala Gly Ile Arg Ile
        580
                       585
Ala Leu Asp Asp Phe Gly Met Gly Tyr Ser Gly Leu Arg Gln Leu Gln
 595 600
                        605
His Met Lys Thr Leu Pro Val Asp Val Leu Lys Ile Asp Lys Thr Phe
                615
                               620
Val Glu Gly Leu Pro Glu Asp Cys Ser Leu Val Gln Ala Ile Ile Gln
             630
                             635
Met Ala His Ser Leu Asn Leu His Val Ile Ala Glu Gly Ile Glu Thr
           645
                         650
                                      655
Asp Ala Gln Arg Glu Trp Leu Ala Ala Ala Gly Val Glu Ser Gly Gln
        660
                       665
Gly Phe Leu Phe Asp Arg Ala Val Pro Thr Asp Ile Phe Glu Gln Arg
              680
Tyr Leu Ala Asp Ala Gly Asn Asn Ala Lys Val
                 695
```

<210> 7519 <211> 189

<212> PRT

<213> Enterobacter cloacae

<400> 7519

Pro Tyr Lys Ala Cys Ser Phe Ser Phe Gln Gly His Pro Met Lys Thr

```
Ser Leu Phe Lys Ser Leu Tyr Phe Gln Val Leu Thr Ala Ile Ala Ile
                           25
Gly Ile Leu Leu Gly His Tyr Tyr Pro Glu Leu Gly Ala Gln Met Lys
                        40
Pro Leu Gly Asp Ala Phe Val Lys Leu Ile Lys Met Ile Ile Ala Pro
                 55
                                      60
Val Ile Phe Cys Thr Val Val Thr Gly Ile Ala Gly Met Glu Ser Met
        70
                                7.5
Lys Ala Val Gly Arg Thr Gly Ala Val Ala Leu Leu Tyr Phe Glu Ile
           8.5
                         90
Val Ser Thr Ile Ala Leu Ile Ile Gly Leu Ile Ile Val Asn Val Val
               105
         100
Gln Pro Gly Ala Gly Met Asn Val Asp Pro Ala Thr Leu Asp Ala Lys
     115 120
Ala Val Ala Val Tyr Ala Glu Gln Ala Lys Asp Gln Gly Ile Val Ala
130 135
Phe Leu Leu Asp Val Ile Pro Ser Ser Val Ile Gly Ala Phe Ala Ser
145 150 155
Gly Asn Ile Leu Gln Val Leu Leu Phe Ala Val Leu Phe Gly Phe Val
          165 170
Leu His Gln Gln Gly Ala Glu Gly Ser Ala His Ala Arg
<210> 7520
<211> 392
<212> PRT
<213> Enterobacter cloacae
<400> 7520
Gly Thr Ala Arg His Gln Thr Ser Glu Glu Ala Ile Arg Lys Asp Gly
                              10
Leu Phe Ala Phe Leu His Leu Leu Pro Phe His Lys Gln Ile Thr Tyr
Pro Pro Ile Tyr Thr Val Asn Tyr Pro Gly Phe Cys Ile Arg Ile Ala
3.5
                       4.0
Ser Met Asn His Ser Leu Lys Pro Trp Asn Thr Phe Gly Ile Gln Arg
                  55
                               60
Asn Ala Asn Gln Ile Val Arg Ala Glu Ser Ala Gln Gln Leu Leu Asn
                                75
                70
Ala Trp Gln Asn Ala Thr Gly Asn Gly Glu Pro Val Leu Ile Leu Gly
            8.5
                              90
Glu Gly Ser Asn Val Leu Phe Leu Asp Asp Phe Ala Gly Thr Val Ile
         100
                           105
                                             110
Val Asn Arg Ile Met Gly Ile Glu Cys Lys Glu Ser Ala Asp Ser Trp
     115
                        120
                                         125
His Leu His Val Gly Ala Gly Glu Asn Trp His His Leu Val Gln Tyr
                   135
                                      140
Thr Leu Glu Lys Gly Met Pro Gly Leu Glu Asn Leu Ala Leu Ile Pro
                 150
                                  155
Gly Cys Ala Gly Ser Ser Pro Ile Gln Asn Ile Gly Ala Tyr Gly Ile
             165
                               170
                                               175
Glu Leu Lys His Val Cys Glu Tyr Val Asp Cys Ile Glu Leu Ala Thr
                                             190
          180
                           185
Gly Thr Ala Lys Arg Leu Thr Ala Glu Gln Cys Arg Phe Gly Tyr Arg
                        200
      195
```

Asp Ser Ile Phe Lys His Asp Tyr Gln Asp Arg Phe Val Ile Val Ala

Val Gly Leu Arg Leu Ala Lys Ala Trp Lys Pro Val Leu Thr Tyr Gly

Asp Leu Thr Arg Leu Asp Pro Ala Thr Val Thr Pro Arg Glu Val Phe

220

215

230

```
245
Asp Ser Val Cys His Met Arg Met Thr Lys Leu Pro Asp Pro Lys Val
       260
                     265
Asn Gly Asn Ala Gly Ser Phe Phe Lys Asn Pro Val Ile Ser Ser Glu
      275
                     280
                                      285
Asn Ala Lys Ala Phe Leu Ala Gly Trp Pro Thr Ala Pro His Tyr Pro
          295
                                  300
Gln Ala Asp Gly Ser Val Lys Leu Ala Ala Gly Trp Leu Ile Asp Gln
       310
                    315
Cys Glu Leu Lys Gly Thr Thr Leu Gly Gly Ala Ala Val His Arg Gln
           325 330
Gln Ala Leu Val Leu Ile Asn Gln Ser Asn Ala Thr Ser Glu Asp Val
        340
             345 350
Val Asn Leu Ala His His Val Arg Gln Arg Val Gly Glu Lys Phe Asn
  355 360 365
Val Trp Leu Glu Pro Glu Val Arg Phe Ile Gly Arg Thr Gly Glu Val
 370 375
Asn Ala Val Glu Thr Ile Ala
               390
<210> 7521
<211> 261
<212> PRT
<213> Enterobacter cloacae
<400> 7521
Val Cys Pro Thr Thr Ile Arg Lys Pro Leu Met Ala Val Leu Gly Leu
                          10
Gin Gly Val Arg Gly Gly Val Gly Thr Thr Ser Val Thr Ala Ala Leu
20
                        25
Ala Trp Ser Leu Gln Val Leu Gly Glu Ser Val Leu Val Ile Asp Ala
35 40
Cys Ser Asp Asn Leu Leu Arg Met Ser Phe Asn Val Asp Phe Thr His
       55
                         60
Ala Asn Gly Trp Gly Arg Ala Leu Leu Asp Asp Lys Asp Trp Arg Asp
               70
                    75
Ala Gly Leu Arg Tyr Thr Ser Gln Leu Asp Leu Leu Pro Phe Gly Gln
           8.5
                            90 95
Leu Thr Glu Thr Glu Arg Gly Asn Glu Ala Ala Tyr Gln Arg Leu Phe
        100 105
                                        110
Ser Arg Phe Ile Thr Ala Leu Gln Ser Leu Lys Glu Ser Gly His Tyr
    115 120 125
Gln Trp Ile Leu Leu Asp Leu Pro His Gly Ala Ala Ser Leu Thr Arg
 130 135
                                  140
Gln Leu Leu Ala Gln Cys Asp His Val Leu Ser Ile Ala Asn Val Asp
               150
                               155
Ala Asn Cys His Ile Arg Leu His Gln Gln Pro Met Pro Ala Asn Ala
           165
                            170
His Ile Leu Ile Asn Asp Leu Arg Ile Gly Ser Gln Ile Gln Asp Asp
         180
                        185
                                        190
Leu Tyr Gln Val Trp Leu Gln Ser Gln Arg Arg Leu Leu Pro Met Val
     195
                     200
                                     205
Ile His Arg Asp Glu Ala Met Ala Glu Cys Leu Ala Ser Lys Gln Pro
  210 215
                                  220
Leu Gly Glu Tyr Arg Ser Asp Ser Leu Ala Ala Glu Glu Ile Leu Thr
              230
                              235
Leu Ala Asn Trp Cys Leu Leu His Phe Ala Lys Arg Pro Glu Pro Ala
                            250
         245
                                            255
Gly Ser Ser Val
         260
```

```
3472
<210> 7522
<211> 847
<212> PRT
<213> Enterobacter cloacae
<400> 7522
Phe Ser Gly His Leu Leu His Trp Phe Pro Gly Ser Cys Arg Ser Phe
Arg Val Asp Leu Ser Glu Met Lys Arg Ser Arg Arg Thr Arg Leu Trp
Leu Asn Asn Asp Asp Asn Ala Met Lys Thr Lys Leu Ser Trp Leu Cys
    35
                    4.0
                         4.5
Ala Val Ala Met Gly Met Ser Ala Leu Pro Ala Thr Val Ala Asn Ala
 50 55
                      60
Ala Pro Asp Asn Ala Ala Thr Thr Pro Ala Pro Thr Val Pro Val Val
         70
                           75
Ala Gln Ala Thr Asp Pro Val Val Thr Ala Ala Pro Gly Gln Thr Glu
         85 90 95
Asn Val Val Pro Asn Gln Pro Thr Tnr Gly Asn Thr Leu Pro Gly Asp
      100 105 110
Asn Pro Val Val Gly Gln Val Met Pro Gly Val Pro Gly Ala Ser Ala
115 120 125
Pro Val Val Ala Glu Asn Thr Pro Ser Arg Asp Val Lys Leu Thr Phe
130 135 140
Ala Gln Ile Ala Pro Pro Pro Gly Ser Met Val Leu Arg Gly Ile Asn
145 150 155
Pro Asn Gly Gly Ile Glu Phe Gly Met Arg Ser Asp Glu Val Val Ser
     165 170 175
Lys Ala Met Leu Asn Leu Glu Tyr Thr Pro Ser Pro Ser Leu Leu Pro
        180 185 190
Val Gln Ser Gln Leu Lys Val Tyr Leu Asn Asp Glu Leu Met Asp Val
195 200 205
Leu Pro Val Thr Lys Glu Gln Leu Gly Lys Lys Thr Leu Ala Gln Val
210 215 220
Pro Ile Asn Pro Leu Phe Ile Thr Asp Phe Asn Arg Val Arg Leu Glu
225 230 235 240
Phe Val Gly His Tyr Arg Asp Val Cys Glu Asn Pro Ala Ser Ser Thr
         245 250 255
Leu Trp Leu Asp Val Gly Arg Asn Ser Ser Leu Gln Met Thr Tyr Gln
        260 265 270
Pro Leu Ala Leu Lys Asn Asp Leu Ser Ala Phe Pro Val Pro Phe Phe
     275 280 285
Asp Pro Arg Asp Asn Arg Pro Leu Asn Leu Pro Met Val Phe Ala Gly
                295
                                300
Ser Pro Asp Val Thr Glu Gln Leu Ala Ala Ser Ile Val Ala Ser Trp
              310
                             315
Phe Gly Ser Arg Ser Gly Trp Arg Gly Gln Ser Phe Pro Val Met Tyr
            325
                           330
                                         335
Asp Lys Met Pro Asp Lys Asn Ala Ile Val Phe Ala Thr Asn Ala Lys
        340
                        345
                                       350
Arg Pro Ala Phe Leu Arg Asp His Pro Glu Val Lys Ala Pro Thr Ile
     355
                    360
                                    365
Glu Met Ile Ser His Pro Asp Asn Pro Tyr Val Lys Leu Leu Val Ile
                 375
                                 380
Phe Gly Arg Asp Asp Lys Asp Leu Val Gln Ala Ala Lys Gly Ile Ala
              390
                              395
Gln Gly Asn Ile Leu Phe Arg Gly Asn Ser Val Val Val Asp Glu Val
```

420

Lys Pro Leu Leu Ala Arg Lys Pro Tyr Asp Ala Pro Asn Trp Val Arg

425 Thr Asp Arg Ala Ile Thr Phe Gly Glu Leu Lys Thr Tyr Glu Glu Gln

410

<400> 7523

```
440
Leu Gln Ser Thr Gly Leu Glu Pro Ser Pro Val Ser Leu Ser Leu Asn
          455
                       460
Leu Pro Pro Asp Leu Tyr Leu Leu Arg Thr Asn Gly Ile Asp Ile Asn
     470 475
Leu Asn Tyr Arg Tyr Thr Ala Pro Ala Thr Lys Asp Ser Ser Arg Met
          485
              490
Asp Ile Ser Leu Asn Asn Gln Phe Leu Gln Ser Phe Ser Leu Thr Ser
      500
           505 510
Ser Gln Glu Thr Asn Arg Leu Met Leu Arg Leu Pro Val Leu Gln Gly
 515
           520
                                525
Leu Leu Asp Gly Lys Thr Asp Val Ser Ile Pro Ala Leu Lys Leu Gly
 530 535 540
Ala Val Asn Gln Leu Arg Phe Asn Phe Gln Tyr Met Asn Pro Met Pro
           550 555 560
Gly Gly Ser Val Glu Asn Cys Ile Thr Phe Gln Pro Val Gln Asn His
         565 570 575
Val Val Ile Gly Asp Asp Ser Thr Ile Asp Phe Ser Lys Tyr Tyr His
      580 585 590
Phe Ile Ala Met Pro Asp Leu Arg Ala Phe Ala Asn Ala Ser Phe Pro
595 600 605
Phe Ser Arg Met Ala Asp Leu Ser Glu Ser Ile Val Val Met Pro Lys
610 615 620
Ala Ala Asn Glu Gly Gln Val Ala Thr Leu Leu Asp Thr Met Gly Thr
625 630 635 640
Val Gly Ala Gln Thr Gly Leu Pro Ala Ile Asn Val Thr Val Thr Asp
      645 650 655
Asp Gly Ser Gln Ile Gln Asn Lys Asp Ala Asp Ile Met Val Ile Gly
     660 665 670
Asn Ile Pro Asp Lys Leu Lys Asp Glu Lys Arg Val Asp Leu Leu Val
675 680 685
Gln Ala Ala Gln Ser Trp Val Asn Thr Pro Leu Arg Gln Thr Glu Phe
690 695 700
Pro Ser Ile Met Pro Asp Ser Gly Asp Arg Gln Ala Asn Ile Arg Thr
705 710 715
Thr Val Ser Ser Thr Gly Pro Met Ala Ala Ile Val Gly Phe Gln Ser
          725 730 735
Pro Tyr Asn Asp Gln Arg Ser Val Ile Ala Leu Leu Ala Asp Ser Pro
      740 745 750
Arg Gly Tyr Glu Leu Leu Asn Thr Ala Met Asn Asp Ser Gly Lys Arg
755 760 765
Ala Ala Met Phe Gly Ser Val Ser Val Ile Arg Glu Ser Gly Val Asn
770 775 780
Ser Leu Arg Val Gly Asp Val Tyr Tyr Val Gly His Leu Pro Trp Phe
785 790 795 800
Glu Arg Leu Trp Tyr Ala Leu Ser Asn His Pro Val Leu Leu Ala Val
         805 810 815
Leu Ala Ala Leu Ser Val Val Leu Leu Ala Trp Val Leu Trp Arg Leu
       820 825 830
Leu Arg Ile Ile Ser Arg Arg Arg Leu Asn Pro Asp His Glu
                   840
<210> 7523
<211> 371
<212> PRT
<213> Enterobacter cloacae
```

Ala Val Met Lys Ile Phe Azg Gly Cys Val Val Ala Ala Leu Met Leu I 5 10 15 Ala Ala Ala Asn Leu His Ala Ala Cys Arg Trp Pro Ala Trp Glu Thr

```
Phe Lys Gln Asp Tyr Met Ser Glu Ser Gly Arg Val Ile Asp Pro Ser
                     40
Asp Ala Arg Lys Ile Thr Thr Ser Glu Gly Gln Ser Tyr Gly Leu Phe
                   55
Phe Ala Leu Ala Ala Asn Asp Arg Lys Ala Phe Asp Leu Leu Ala
          70
Trp Thr Arg Asp Asn Leu Ala Glu Gly Asp Leu Ala Gln His Leu Pro
           8.5
                 90
Ala Trp Leu Trp Gly Lys Lys Asp Asp Glu Thr Trp Ala Val Ile Asp
        100
             105 110
Pro Asn Ser Ala Ser Asp Ala Asp Ile Trp Ile Ala Trp Ser Leu Leu
                          125
    115 120
Glu Ala Gly Arg Leu Trp Lys Asn Pro Asp Tyr Thr Arg Thr Gly Lys
  130 135
                                 140
Ala Leu Leu Thr Arg Ile Ala Ser Glu Glu Val Val Lys Val Pro Gly
145 150 155
Leu Gly Ser Met Leu Leu Pro Gly Lys Val Gly Phe Ala Glu Glu Ser
      165 170 175
Val Trp Arg Phe Asn Pro Ser Tyr Leu Pro Pro Gln Leu Ala Ser Tyr
        180 185 190
Phe Thr Arg Phe Gly Ala Pro Trp Thr Thr Leu Arg Glu Thr Asn Leu
195 200 205
Arg Leu Leu Glu Thr Ala Pro Lys Gly Phe Ser Pro Asn Trp Val
                  215 220
Lys Tyr Gln Lys Lys Gly Gly Trp Gln Leu Ser Gln Asp Ala Ser Leu
    230 235
Ile Gly Ser Tyr Asp Ala Ile Arg Val Tyr Leu Trp Val Gly Met Met
                 250
           245
Asn Asp Asn Asp Pro Gln Lys Ala Arg Leu Leu Ala Arg Phe Lys Pro
      260 265
Met Ala Thr Thr Thr Ile Lys Gln Gly Leu Pro Pro Glu Lys Val Asp
275 280 285
Val Ala Thr Gly Lys Arg Thr Gly Asp Gly Pro Val Gly Phe Ser Ala
             295
                                 300
Ser Leu Leu Pro Phe Leu Gln Asn Arg Asp Ala Gln Ala Val Gln Arg
     310 315
Gln His Val Ala Asp Arg Phe Pro Asp Asn Asn Ala Tyr Tyr Ser Tyr
            325
                           330
Val Leu Thr Leu Phe Gly Gln Gly Trp Asp Gln His Arg Phe Arg Phe
       340 345
Thr Val Gln Gly Glu Leu Leu Pro Asp Trp Gly Gln Glu Cys Ala Arg
Ser His
  370
<210> 7524
<211> 83
<212> PRT
<213> Enterobacter cloacae
<400> 7524
Trp Ala Gly Arg Leu Ala Ala Ser Glu Ser Tyr Asp Phe Thr Gln Arg
Asp Glu Lys Arg Met Gln Asn Asn Glu Pro Ala Thr Pro Val Asp Ser
                        25
Ser Leu Gly Tyr Thr Phe Gln Asn Asp Phe Leu Ala Leu Thr Gln Ala
   35
                     40
Phe Ser Leu Pro Glu Ile Asp Tyr Thr Asp Ile Ser Gln Arg Glu Gln
                 5.5
Leu Ala Ala Ile Lys Arg Trp Pro Leu Leu Ala Glu Phe Ala Gln
```

65 70 75 80 Gln Gln

<210> 7525 <211> 116 <212> PRT

<213> Enterobacter cloacae

<400> 7525

Arg Asn Leu Arg Ser Asp Met Gly Tyr Leu Cys Arg Asn Ala Met Ser 10 Arg Gln His Glu Pro Val Gly Gln Arg Arg Gln Arg Gly Arg Arg Leu 20 25 3.0 Ala Glu Gln Asn Leu Gly Val Gly Tyr Arg Tyr Asn Ala Asp Gly Leu 35 40 4.5 Arg Arg Gly Arg Cys Gly Gly Gln Pro Glu Leu Gln Gln Arg Phe Arg 5.5 60 Ala Asp Trp Leu His Pro Glu Arg Pro Ser Pro Ser Asp Phe Gln Leu 65 70 75 80 Gly Ala Gly Leu Arg Arg Ala Lys Arg Ser Gln Tyr Arg His His Leu

85 90 95 Gly Arg Arg Ala Cys His Azg Trp Arg Arg Glu His Glu Leu Arg Gln 100 105 110

Arg Arg Ser

115

<210> 7526 <211> 340 <212> PRT

<213> Enterobacter cloacae

195

210

<400> 7526

Val Arg Cys Met Ser Pro Thr Ile Tyr Asp Ile Ala Arg Val Ala Gly Val Ser Lys Ser Thr Val Ser Arg Val Leu Asn Lys Gln Thr Asn Ile 25 Ser Pro Glu Ala Arg Glu Lys Val Leu Lys Ala Ile Glu Glu Leu Asn 45 4.0 Tyr Gln Pro Asn Lys Leu Ala Arg Ala Leu Thr Ser Ser Gly Phe Asp 55 Ala Ile Met Val Ile Ser Thr Arg Ser Thr Lys Thr Thr Ala Gly Asn 70 75 Pro Phe Phe Ser Asp Val Leu His Ala Ile Thr Ala Lys Ala Glu Glu 90 8.5 Glu Gly Phe Asp Val Ile Leu Gln Thr Ser Lys Ser Ser Glu Asp Asp 100 105 Leu Gln Lys Cys Val Gly Lys Ile Lys Gln Lys Met Ile Lys Gly Ile 115 120 125 Ile Met Leu Ser Ser Pro Ala Asn Glu Ser Phe Phe Ala Thr Leu Asp 135 140 Glu Tyr Gly Val Pro Val Val Val Ile Gly Lys Val Glu Gly Asn Tyr 150 145 155 160 Gln Asn Ile Tyr Ser Val Asp Thr Asp Asn Phe His Asp Ser Ala Ile 165 170 Leu Thr Asp Ser Phe Ile Lys His Gly Arg Thr Lys Ile Ala Cys Leu 185 180 190 His Ala Pro Leu Asp Tyr His Val Ser Ile Asp Arg Leu Ala Gly Tyr

Lys Ser Ser Leu Glu Lys His Gly Ile Ala Ile Asn Pro Asp Trp Val

215

205

```
Ile Asp Gly Gly Tyr Thr His Glu Ser Ala Leu Gln Ala Ala Cys Gln
225
              230
                             235
Leu Leu Ser Ser Asp Asn Pro Pro Asp Ala Val Phe Ala Thr Asp Ser
           245
                         250
                                      255
Met Lys Leu Leu Ser Leu Tyr Arg Ala Ala Asp Glu Leu Asn Leu Thr
        260
             265 270
Ile Pro Glu Gln Val Ala Met Ala Gly Tyr Ser Asp Pro Met Leu Ser
         280 285
     275
Leu Ile Leu Thr Pro Ala Pro Gly Gly Phe Asp Ile Pro Thr Arg Lys
 290 295 300
Leu Gly Glu Glu Ser Cys Asp Leu Leu Phe Arg Cys Ile Ala Gly Lys
305 310 315 320
Pro Ala Pro His Lys Val Lea Val Glu Thr His Phe Ser Asp Ala Ala
   325 330 335
Ser Leu Arg
        340
<210> 7527
<211> 269
<212> PRT
<213> Enterobacter cloacae
<400> 7527
Cys Gln Ala Ile Phe His Thr His Gly Asn Tyr Leu Ile Lys Arg Gly
                        10
Phe Cys Thr Thr Leu Pro Glu Val Thr Leu Ser Ser Gly Phe Thr Met
   20
                       25
Ala Thr Thr Arg Pro Arg Thr Glu Arg Gly Ala Phe Pro Pro Gly Thr
35 40
Glu His Tyr Gly Arg Ser Phe Leu Gly Ala Pro Leu Ile Trp Phe Pro
50 55
Ala Pro Glu Ala Asp Arg Asn Ser Gly Leu Ile Ile Ala Gly Thr His
65 70
                           75
Gly Asp Glu Asn Ser Ser Val Val Thr Leu Ser Cys Ala Leu Arg Thr
         85
                         90 95
Leu Ala Pro Asp Leu Arg Arg His His Val Ile Leu Thr Val Asn Pro
        100 105 110
Asp Gly Cys Gln Leu Gly Leu Arg Ala Asn Ala Arg Gly Val Asp Leu
     115 120
                                  125
Asn Arg Asn Phe Pro Ala Ala Asn Trp Arg Ala Gly Glu Thr Val Tyr
 130 135 140
Arg Trp Asn Ser Ser Ala Glu Glu Arg Asp Val Val Leu Leu Thr Gly
145 150 155 160
Asp Lys Pro Gly Ser Glu Pro Glu Tnr Gln Ala Leu Cys Gln Leu Ile
          165
                         170 175
His Lys Ile His Pro Ala Trp Val Ile Ser Phe His Asp Pro Leu Ala
        180 185
                                     190
Cys Ile Glu Asp Pro Arg His Thr Ala Leu Gly Gln Trp Leu Ala Asp
     195 200
                                   205
Ala Phe Ala Leu Pro Leu Val Ser Ser Val Gly Tyr Glu Thr Pro Gly
  210 215
Ser Phe Gly Ser Trp Cys Ala Asp Leu Ser Leu His Cys Ile Thr Ala
           230
                            235
                                            240
Glu Phe Pro Pro Ile Ser Ser Asp Glu Ala Ser Glu Lys Tyr Leu Arg
          245
                         250
                                         255
Ala Met Thr Asp Leu Leu Arg Trp Gln Pro Gln Arg
        260
              265
```

<210> 7528 <211> 177 <212> PRT

## <213> Enterobacter cloacae

<400> 7528 Leu Phe Val Asn Arg Lys Ile Ser Met Ser Gln Leu Val His Phe Gln 10 Gly Asn Pro Val Ala Val Ala Gly Ser Ile Pro Gln Ser Gly Ser Lys 20 Ala Gln Pro Phe Thr Leu Val Ala Lys Asp Leu Ser Asp Val Thr Leu 40 Ser Gln Phe Ala Gly Lys Arg Lys Val Leu Asn Ile Phe Pro Ser Ile 5.5 Asp Thr Gly Val Cys Ala Ala Ser Val Arg Lys Phe Asn Gln Leu Ala 70 Thr Glu Met Asp Asn Thr Val Val Leu Cys Ile Ser Ala Asp Leu Pro 85 90 Phe Ala Gln Ser Arg Phe Cys Gly Ala Glu Gly Leu Ser Asn Val Ile 100 105 110 Thr Leu Ser Thr Leu Arg Ser Pro Asp Phe Leu Glu Lys Tyr Gly Val 115 120 125 Ala Ile Ser Glu Gly Ala Leu Lys Gly Leu Ala Ala Arg Ala Val Leu 130 135 140 Val Ile Asp Glu Asn Asp Asn Val Val Phe Ser Glu Leu Val Asn Glu 145 150 155 160 Ile Thr Thr Glu Pro Asp Tyr Thr Ala Ala Leu Glu Ala Leu Lys Ala 165

<210> 7529 <211> 279 <212> PRT

<213> Enterobacter cloacae

<400> 7529 Lys Leu Ile Arg Ala Asn Val Leu Pro Ala Ala Ser Cys Glu Asn Gly 10 Asp Ile Ile Gly Ser Gly Ala Asp Val Thr Glu Tyr Gln Ile Gly Asp 20 25 Ser Val Cys Cys Tyr Gly Pro Leu Gln Glu Thr Val Ile Val Asn Ala 35 40 Val Asn Asn Tyr Lys Leu Arg Lys Met Pro Gln Gly Ala Ser Trp Lys 50 55 60 Asn Ala Val Cys Tyr Asp Pro Ala Gln Phe Ala Met Ser Gly Val Arg 70 75 Asp Ala Asn Val Arg Val Gly Asp Phe Val Val Val Val Gly Leu Gly 85 90 Ala Ile Gly Gln Ile Ala Ile Gln Leu Ala Lys Lys Ala Gly Ala Ser 100 105 110 Val Val Ile Gly Val Asp Pro Ile Glu His Arg Cys Glu Ile Ala Arg 120 Arg His Gly Ala Asp His Cys Leu Asn Pro Ile Gly Thr Asp Val Gly 135 140 Leu Glu Ile Lys Lys Leu Thr Gly Lys Gln Gly Ala Asp Val Ile Ile 150 155 Glu Thr Ser Gly Phe Ala Asp Ala Leu Gln Ser Ala Leu Arg Gly Leu 170 175 165 Ala Tyr Gly Gly Thr Ile Ser Tyr Val Ala Phe Ala Lys Pro Phe Ala 180 185 190 Ala Gly Phe Asn Leu Gly Arg Glu Ala His Phe Asn Asn Ala Lys Ile 200 205 Val Phe Ser Arg Ala Cys Ser Glu Pro Asn Pro Asp Tyr Pro Arg Trp

215 Ser Arg Lys Arg Ile Glu Glu Thr Cys Trp Glu Leu Leu Met Asn Gly 235 230 Tyr Leu Asn Cys Glu Asp Leu Ile Asp Pro Val Val Thr Phe Thr Thr 245 250 Ser Pro Glu Ser Tyr Met Lys Tyr Val Asp Gln His Pro Glu Leu Ser 260 265 Ile Lys Met Gly Val Thr Phe 275 <210> 7530 <211> 359 <212> PRT <213> Enterobacter cloacae <400> 7530 Met Leu Arg Met Thr Ser Val Met Ser Ala Ser Thr Pro Leu Pro Leu 10 Arg Val Ala Ile Ile Gly Ala Gly Gln Val Ala Asp Lys Val His Ala 25 20 Ser Tyr Tyr Ala Thr Arg Ser Asp Val Gln Met Val Ala Val Met Asp 35 40 45 Ser Arg Leu Glu Gln Ala Gln Ala Phe Ala Glu Arg Tyr Ala Ile Pro 50 55 60 Ser Ala Trp Gln Asp Ala His Glu Met Leu Gln Glu Val Lys Pro Asp 65 70 75 Val Val Ser Val Cys Ser Pro Asn Arg Phe His Phe Glu His Val Met 85 90 95 Ala Ala Leu Glu Ala Gly Cys His Val Met Cys Glu Lys Pro Pro Ala 100 105 110 Met Thr Pro His Gln Ala Asp Glu Met Arg Leu Ala Ala Arg Lys Ala 115 120 125 Gly Lys Val Leu Ala Tyr Asp Phe His His Arg Phe Ala Leu Asp Thr 130 135 Gln His Leu Arg Asp Ala Val Met Asn Gly Thr Leu Gly Glu Ile Tyr 145 150 155 160 Phe Thr Ser Ala Gln Ala Leu Arg Arg Cys Gly Val Pro Gly Trp Gly 165 170 175 Val Phe Thr Asn Lys Ser Leu Gln Gly Gly Gly Pro Leu Ile Asp Ile 180 185 190 Gly Ile His Met Leu Asp Ala Ala Met Tyr Val Leu Gly Phe Pro Pro 195 200 Val Lys Arg Val Thr Ala His Ser Phe Gln Arg Leu Gly Asn Arg Lys 210 215 220 His Thr Gly Gln Phe Gly Glu Trp Asp Pro Ala Gln Phe Thr Val Glu 230 235 Asp Ala Leu Phe Gly Thr Ile Glu Phe Cys Asn Gly Gly Ile Leu Arg 245 250 Leu Asp Thr Ser Phe Ala Leu Asn Ile Arg Glu Gln Ser Ile Met Asn 260 265 270 Val Ser Phe Cys Gly Glu Lys Ala Gly Ala Thr Leu Phe Pro Ala His 275 280 285 Ile Tyr Asn Asp Glu Ala Gly Val Leu Gln Thr Leu Thr Gln Arg Glu 290 295 Glu Ala Asp Asp Arg Arg His Leu Arg Ser Met Asp Ala Phe Val Arg 310 315 His Val Leu Gly Glu Pro Val Met Ile Ala Asp Ala Glu Gln Gly Leu 325 330 335 Val Ile Gln Gln Leu Val Ala Ala Leu Tyr Glu Ala Ala Glu Thr Gly 340 345 Glu Ser Val Thr Leu Cys

```
<210> 7531
<211> 255
<212> PRT
<213> Enterobacter cloacae
```

<400> 7531 Arg Cys Gly Val Lys Arg Cys Met Tyr Gln Gly Gly Arg Ser Val Asn Val Arg Thr Phe Leu Tyr Leu Leu Met Gly Pro Leu Pro Arg Arg Gly 20 25 3.0 Ala Met Thr Leu Asn Ala Val Val Phe Asp Leu Asp Gly Val Ile Thr 35 40 4.5 Asp Thr Ala His Leu His Phe Leu Ala Trp Arg Ala Val Ala Glu Glu 55 60 Ile Gly Ile Thr Phe Asp Glu Val Phe Asn Glu Gln Leu Lys Gly Ile 70 75 Ser Arg Met Asp Ser Leu Gln Arg Ile Leu Ile His Gly Gly Lys Glu 85 90 Gly Met Phe Ser Asp Glu Gln Arg Leu Ala Leu Ala Arg Lys Lys Asn 100 105 110 Ala Leu Tyr Val Gln Ser Leu Ser Ser Leu Thr Gln Asp Ser Leu Leu 115 120 125 Pro Gly Ile Arg Asp Val Leu Ala Asp Ile Arg Ala Ala Lys Val Lys 130 135 140 Ile Gly Leu Ala Ser Val Ser Leu Asn Ala Pro Gly Ile Leu His Ala 145 150 155 Leu Gly Ile His Gln Ala Phe Asp Phe Cys Ala Asp Ala Ser Arg Ile 165 170 175 Ser Arg Ser Lys Pro Asp Pro Glu Ile Phe Leu Ala Ala Cys Lys Gly 180 185 190 Leu Asn Val Arg Pro Glu Glu Ala Ile Gly Ile Glu Asp Ala Ala Ala 195 200 205 Gly Val Asp Ala Ile Asn Ala Ala Gly Met Leu Ser Val Gly Ile Gly 210 215 220

Pro Gly Leu Asn His Ala Gly Leu Gln Leu His Ser Thr Gln Glu Leu 225 230 240 Thr Trp Glu Arg Leu Thr Ala Phe Trp Ala Ser Arg Ala Tyr

250

<210> 7532 <211> 309 <212> PRT <213> Enterobacter cloacae

245

<400> 7532 Arg Asn Ile Leu Met Ser Thr Leu Leu Arg Ser Ala Ala Leu Val Leu 10 Cys Ala Gly Val Ser Cys Ala Gln Ala Thr Glu Ser Ala Lys Gln Trp 20 25 Glu Phe Asn Ile Gly Ala Met Tyr Glu Ile Glu Asn Val Glu Gly Gln 4.0 Ala Asp Asp Lys Asp Gly Leu Tyr Glu Pro Ser Val Trp Phe Asn Ala 55 Thr Trp Asp Ala Trp Thr Ile Ser Leu Ala Met Tyr Gln Glu Gly Pro 70 75 Val Asp Tyr Ser Ser Met Thr Arg Gly Thr Tyr Phe Asp Arg Pro Glu 8.5 90 Val Glu Leu Arg Tyr Arg Ile Ile Gly Thr Asp Asp Phe Thr Leu Gly 100 105 110

```
Leu Thr Gly Gly Phe Arg Asn Tyr Ser Tyr His Phe Lys Asp Glu Asp
                   120
      115
Gly Ala Lys Ala Gly Ser Ala Asn Met Gln Arg Tyr Lys Ile Gln Pro
                135
                                    140
Asp Trp Asp Val Lys Leu Thr Asp Asp Trp Arg Phe Gly Gly Trp Phe
   150
                    155
Ala Met Tyr Gln Phe Ala Asn Asp Leu Ala Lys Thr Gly Tyr Ser Asp 165 \\ 170 \\ 175
Ser Arg Val Glu Thr Glu Thr Gly Phe Thr Trp Thr Ile Asn Glu Thr
     180 185 190
Val Ser Ala Lys Val Asn Tyr Tyr Leu Glu Arg Gly Phe Asn Met Asp
 195 200 205 '
Ser Ser Arg Asn Asn Gly Glu Phe Ser Thr Gln Glu Ile Arg Ala Tyr
210 215 220
Leu Pro Ile Ser Leu Gly Gln Thr Thr Leu Thr Pro Tyr Thr Arg Leu
225 230 235 240
Gly Leu Asp Arg Trp Ser Asn Trp Asp Trp Gln Asp Asp Pro Glu Arg
       245 250 255
Glu Gly His Asp Phe Asn Arg Leu Gly Met Leu Tyr Ala Tyr Asp Phe 260 \hspace{1cm} 265 \hspace{1cm} 265 \hspace{1cm} 270 \hspace{1cm}
Asn Asn Gly Leu Ser Met Thr Leu Glu Tyr Ala Tyr Glu Trp Glu Asn 275 280 285
His Asp Glu Gly Glu Ser Asp Arg Phe His Tyr Ala Gly Ile Gly Val
                   295
Asn Tyr Ala Phe
305
<210> 7533
<211> 344
<212> PRT
<213> Enterobacter cloacae
<400> 7533
Cys Met Ser Ser Ala Val Ser Thr Ala Asn Gln Phe Ser Ala Phe Pro
                             10
Ala Cys Lys Glu Ser Val Met Arg Ser Val Lys Val Tyr Glu Glu Ala
                   2.5
Trp Pro Leu His Thr Pro Phe Val Ile Ser Arg Gly Ser Arg Asn Glu
      35
                     4.0
Ala Cys Val Val Val Glu Cys Glu Glu Asp Gly Val Lys Gly Val
 5.0
                 55 60
Gly Glu Cys Thr Pro Tyr Pro Arg Tyr Gly Glu Ser Leu Ala Ser Val
                           7.5
65 70
Met Ala Gln Ile Met Thr Val Val Pro Glu Leu Gln Ala Gly Leu Thr
            85
                             90
Arg Glu Ala Leu Gln Leu Arg Leu Pro Ala Gly Ala Ala Arg Asn Ala
         100 105
                               110
Ile Asp Cys Ala Leu Trp Ser Leu Glu Ala Ala Lys Arg Gln Lys Pro
      115 120
                                      125
Leu Pro Ala Leu Leu Asp Val Tnr Leu Pro Gln Ser Ile Val Thr Ala
 130
                 135
                                    140
Gln Thr Val Val Ile Gly Glu Pro Glu Gln Met Ala Ala Ser Ala Gln
                150
145
                                155
Ala Leu Tyr Ala Thr Gly Ala Thr Leu Leu Lys Val Lys Leu Asp Asp
                           170
                                           175
             165
Arg Leu Ile Ser Glu Arg Met Val Ala Ile Arg Ala Ala Val Pro Asp
                        185
                                     190
Ala Thr Leu Ile Val Asp Ala Asn Glu Ser Trp His Ser Glu Gly Leu
      195
                                        205
Ala Ala Arg Cys Gln Leu Leu Ala Asp Leu Gly Val Ala Met Leu Glu
```

```
Gln Pro Leu Pro Ala Glu Asp Asp Ala Ala Leu Ala Asn Phe Ile His
                             235
Pro Leu Pro Val Cys Ala Asp Glu Ser Cys His Thr Arg Glu Ser Leu
          245 250 255
Ser Ala Leu Lys Gly Arg Tyr Glu Met Val Asn Ile Lys Leu Asp Lys
        260 265 270
Thr Gly Gly Leu Thr Glu Ala Leu Ala Leu Ala Gln Asp Ala Gln Ala 275 \\ \hspace{1.5cm} 280 \\ \hspace{1.5cm} 285
Gln Gly Phe Ala Leu Met Leu Gly Cys Met Leu Cys Thr Ser Arg Ala
 290 295 300
Ile Gly Ala Ala Leu Pro Leu Val Asn Ser Val Arg Phe Ala Asp Leu 305 310 315 320
Asp Gly Pro Thr Trp Leu Ala Val Asp Val Ser Pro Ala Leu Asn Phe
       325 330 335
Thr Ser Gly Val Leu His Leu
        340
<210> 7534
<211> 286
<212> PRT
<213> Enterobacter cloacae
<400> 7534
Ser Met Ser Ile Ser Thr Arg Asn Ser Val Ser Lys Trp Ala Ser Leu
                      10
Phe Lys Leu Arg Thr Ala Ile Met Lys Ile Ala Thr Gln Asn Gln Ala
20
                      2.5
Phe Phe Pro Thr Ala Ile Met Glu Lys Phe Glu Tyr Ile Lys Ala Met
                   40
Gly Phe Asp Gly Tyr Glu Ile Asp Gly Arg Leu Leu Val Glu Asn Leu
Asp Glu Val Lys Ala Ala Ile Lys Ala Thr Gly Leu Pro Val Thr Thr
   70
                             75
Ala Cys Gly Gly Tyr Asp Gly Trp Ile Gly Asp Phe Ile Glu Glu Arg
           85
                      90
Arg Leu Asn Gly Leu Gln Gln Ile Glu Arg Ile Leu Glu Ala Leu Ala
      100 105 110
Glu Val Gly Gly Lys Gly Ile Ile Val Pro Ala Ala Trp Gly Met Phe
 115 120 125
Thr Phe Arg Leu Pro Pro Met Thr Ser Pro Arg Ser Leu Asp Gly Asp
 130 135 140
Arg Lys Ala Val Ser Ala Ser Leu Arg Trp Leu Asp Glu Val Ala Ala
145 150 155
Arg Thr Gly Thr Thr Val Tyr Leu Glu Pro Leu Asn Arg Tyr Gln Asp
                170
            165
His Met Ile Asn Thr Leu Ala Asp Ala Arg Arg Tyr Ile Glu Glu Asn
        180
                        185 190
Gly Leu Lys His Val Gln Ile Ile Gly Asp Phe Tyr His Met Asn Ile
   195
                     200 205
Glu Glu Asp Ser Leu Thr Glu Ala Leu His Gln Asn Arg Asp Leu Leu
                  215
                                  220
 210
Gly His Val His Ile Ala Asp Asn His Arg Tyr Gln Pro Gly Ser Gly
               230
                               235
Ser Leu Asp Phe Ala Ser Leu Phe Asp Gln Leu Arg Ala Asp Asn Tyr
          245
                           250
Gln Gly Tyr Val Val Tyr Glu Cys Arg Val Arg Ala Asp Asp Pro Ala
        260
                        265 270
Gln Ala Tyr Lys Asp Ser Leu Thr Tyr Leu Arg Glu Cys
```

<211> 375

```
<212> PRT
<213> Enterobacter cloacae
<400> 7535
Arg Arg Ser Gly His Pro Gly Arg Ile Asp Lys Glu Leu Ile Met Ala
Gln Leu Ser Leu Lys His Ile Gln Lys Ile Tyr Asp Asn Gln Val His
        20
                  25
                                       3.0
Val Val Lys Asp Phe Asn Leu Glu Ile Glu Asp Lys Glu Phe Ile Val
                                   4.5
     35
        40
Phe Val Gly Pro Ser Gly Cys Gly Lys Ser Thr Thr Leu Arg Met Ile
               5.5
Ala Gly Leu Glu Glu Ile Ser Ala Gly Glu Leu Ile Ile Asp Gly Val
                     75
            70
Cys Met Asn Asp Val Pro Ala Lys Ser Arg Asp Ile Ala Met Val Phe
                               9.5
           85 90
Gln Asn Tyr Ala Leu Tyr Pro His Met Thr Val Tyr Asp Asn Met Ala
        100 105 110
Phe Gly Leu Lys Met Gln Lys Ile Ala Pro Ser Val Ile Glu Glu Arg
     115 120 125
Val Thr Trp Ala Ala Gln Ile Leu Gly Leu Arg Asp Tyr Leu Gln Arg
 130 135 140
Lys Pro Gly Ala Leu Ser Gly Gly Gln Arg Gln Arg Val Ala Leu Gly
145 150 155 160
Arg Ala Ile Val Arg Glu Ala Gly Val Phe Leu Met Asp Glu Pro Leu
           165 170 175
Ser Asn Leu Asp Ala Lys Leu Arg Val Gln Met Arg Ala Glu Ile Ser
      180 185 190
Lys Leu His Gln Lys Leu Asn Thr Thr Met Ile Tyr Val Thr His Asp
195 200
Gln Thr Glu Ala Met Thr Met Ala Thr Arg Ile Val Ile Leu Lys Asp
210
                  215
                                 220
Gly Ile Ile Gln Gln Val Gly Ala Pro Lys Gln Val Tyr Asn Glu Pro
225
              230
                            235 240
Ala Asn Met Phe Val Ala Gly Phe Ile Gly Ser Pro Ala Met Asn Phe
           245
                           250 255
Ile Arg Gly Ala Ile Asp Asp Arg Tyr Phe Val Thr Glu Thr Leu Arg
         260 265 270
Leu Glu Ile Pro Glu Asp Lys Leu Ala Val Leu Asn Ala Gln Gly Tyr
     275
                   280
Gln Arg Lys Ala Val Val Phe Gly Ile Arg Pro Glu Asp Ile Leu Thr
                  295
                                 300
   290
Val Gln Arg Ser Gly Glu Asn Ile Thr Ala Lys Ile Ser Val Ala Glu
               310
                              315
305
Leu Thr Gly Ala Glu Phe Met Leu Tyr Ala Thr Val Gly Gly His Glu
            325
                          330
                                           335
Leu Val Val Arg Ala Gly Ala Ala Asp Asp Tyr Val Ala Gly Asp Asn
                        345
                                        350
         340
Ile Gly Ile Gln Phe Asp Met Asn Lys Cys His Phe Phe Asp Ala Asp
                     360
      355
Thr Glu Thr Ala Ile Arg
   370
<210> 7536
<211> 353
<212> PRT
<213> Enterobacter cloacae
<400> 7536
```

Ile Ala Met Thr Glu Pro Leu Lys Pro Arg Ile Asp Phe Thr Gly Gln

- 0 Leu Glu Gln Thr Pro His Glu Ala Phe Lys Thr Ala Gln Thr Phe Ser 25 30 20 Gly Pro Gln Ala Asp Asn Phe Ala Pro Val Leu Ala Asp Glu Pro Met 35 40 Val Glu Glu Gly Gln Ala Glu Ala Val Val Asp Ala Ala Leu Arg Pro Lys Arg Ser Leu Trp Arg Lys Met Val Thr Ala Gly Leu Ala Leu Phe 70 75 Gly Val Ser Val Ile Gly Gln Gly Val Gln Trp Gly Val Asn Ala Trp 85 90 Gln Thr Gln Asp Trp Val Ala Leu Gly Gly Cys Ala Ala Gly Ala Leu 100 105 Ile Val Gly Ala Gly Val Gly Ser Val Val Ser Glu Trp Arg Arg Leu 115 120 125 Trp Arg Leu Arg Gln Arg Ala His Glu Arg Asp Glu Ala Arg Asp Leu 130 135 140 Leu His Ser His Gly Thr Gly Lys Gly Arg Ala Phe Cys Glu Lys Leu 145 150 155 Ala Ala Gln Ala Gly Ile Asp His Ser His Pro Ala Leu Gln Arg Trp 165 170 175 Tvr Ala Ala Ile His Glu Thr Gln Asn Asp Gln Glu Val Val Thr Leu 180 185 190 Tyr Ala His Ile Val Gln Pro Val Leu Asp Ala Gln Ala Arg Arg Glu 195 200 205 Ile Ser Arg Ser Ala Ala Glu Ser Thr Leu Met Ile Ala Val Ser Pro 210 215 220 Leu Ala Met Val Asp Met Ala Phe Ile Ala Trp Arg Asn Leu Arg Leu 230 235 Ile Asn Arg Ile Ala Arg Leu Tyr Gly Ile Glu Leu Gly Tyr Tyr Ser 245 250 255 Arg Leu Arg Leu Phe Lys Leu Val Leu Leu Asn Ile Ala Phe Ala Gly 260 265 270 Ala Ser Glu Leu Val Arg Glu Val Gly Met Asp Trp Met Ser Gln Asp 275 280 285 Leu Ala Ala Arg Leu Ser Ala Arg Ala Ala Gln Gly Ile Gly Ala Gly 290 295 300 Leu Leu Thr Ala Arg Leu Gly Ile Lys Ala Met Glu Val Cys Arg Pro 305 310 315 Leu Pro Trp Ile Asp Gly Asp Lys Pro Arg Leu Gly Asp Phe Arg Arg 325 330 335 Glu Leu Ile Gly Gln Leu Lys Glu Thr Leu Asn Lys Lys Pro Ala Gln

<210> 7537 <211> 546 <212> PRT

<213> Enterobacter cloacae

```
Asn Thr Phe Ser Ser Leu Met Ala Glu Ile Arg Arg Ile Ala Gly Val
                    90
         8.5
Thr Asp Val Arg Thr Ile Pro Trp Met Pro Ser Glu Arg Glu His Leu
      100
                    105
Ala Leu Ser Ala Leu Leu Glu Ala Met Pro Glu Pro Phe Leu Ser Leu
   115
        120
Asp Leu Lys Asn Lys Val Glu Arg Val Asn Gln Ala Ser Cys Gln Leu
 130 135 140
Phe Ala Gln Thr Gln Glu Lys Leu Ile Gly His His Ala Thr Gln Leu
   150 155 160
Ile Thr Gly Phe Asn Phe Gln Arg Trp Leu Asp Ser Asn Pro Gln Asn
      165 170 175
Thr His Ser Glu His Val Val Ile Asn Gly Gln Asn Phe Leu Met Glu
     180 185 190
Ile Thr Pro Val Tyr Leu Lys Gly Glu Asn Ala Ala Arg Val Leu Thr
195 200 205
Gly Ala Val Ile Met Leu Arg Ser Thr Val Arg Met Gly Arg Gln Leu
 210 215 220
Gln Asn Leu Ser Ser Gln Asp Val Gly Ala Phe Ser Gln Ile Ile Ala
225 230 235
Val Ser Pro Lys Met Arg His Val Ile Asp Gln Ala Arg Lys Leu Ala
      245 250 255
Asn Leu Thr Ala Pro Leu Leu Ile Thr Gly Asp Thr Gly Thr Gly Lys
 260 265 270
Asp Leu Leu Ala His Ala Val His Met Ala Ser Pro Arg Ala Ala Lys
275 280
                          285
Pro Tyr Leu Ala Leu Asn Cys Ala Ser Ile Pro Glu Asp Ala Val Glu
290 295 300
Ser Glu Leu Phe Gly His Ala Pro Glu Gly Lys Lys Gly Phe Phe Glu
305 310 315 320
Gln Ala Asn Gly Gly Ser Val Leu Leu Asp Glu Ile Gly Glu Met Ser
          325 330
Pro Arg Met Gln Ala Lys Leu Leu Arg Phe Leu Asn Asp Gly Thr Phe
 340
                      345
Arg Arg Val Gly Glu Asp His Glu Val His Val Asp Val Arg Val Ile
355 360
Cys Ala Thr Gln Lys Asn Leu Val Glu Leu Val Gln Lys Gly Val Phe
      375
 370
Arg Glu Asp Leu Tyr Tyr Arg Leu Asn Val Leu Thr Leu Asn Ile Pro
385 390 395 400
Pro Leu Arg Asp Cys Pro Gln Asp Ile Met Pro Leu Thr Glu Leu Phe
         405 410 415
Val Ala Arg Phe Ala Asp Glu Gln Gly Val Pro Arg Pro Lys Leu Ser
      420
                      425
Ala Asp Leu Gly Thr Val Leu Thr Arg Tyr Gly Trp Pro Gly Asn Ile
     435
                    440
                                  445
Arg Gln Leu Lys Asn Ala Val Tyr Arg Ala Leu Thr Gln Leu Glu Gly
                    460
      455
 450
Tyr Glu Leu Arg Pro Gln Asp Ile Leu Leu Pro Asp Tyr Asp Ala Gly
   470
                            475
Thr Val Ser Val Gly Glu Glu Ala Met Glu Gly Ser Leu Asp Asp Ile
         485 490
                                       495
Thr Ser Arg Phe Glu Arg Ser Val Leu Thr Gln Leu Tyr Arg Ser Tyr
        500
                    505
                                    510
Pro Ser Thr Arg Lys Leu Ala Lys Arg Leu Gly Val Ser His Thr Ala
Ile Ala Asn Lys Leu Arg Glu Tyr Gly Leu Asn Gln Lys Lys Gly Asp
                535
                              540
Glu
```

```
<210> 7538
<211> 770
<212> PRT
<213> Enterobacter cloacae
<400> 7538
Ser Arg Gly Asn Arg Gly Lys Arg Asp Val Met Leu Asn Gln Ser Val
                         1.0
Leu Thr Asp Pro Ser Phe Cys Pro His Ser Leu Asn Lys Tyr Ala Ser
     20 25
                             3.0
Ile Met Ala Cys Gly Asn Gly Tyr Met Gly Ile Arg Ala Thr His Glu
          4.0
Glu Asp Tyr Thr Gln Gln Thr Arg Gly Met Tyr Leu Ala Gly Leu Tyr
      55
His Arg Ala Gly Arg Asn Glu Thr Thr Glu Leu Ile Asn Leu Pro Asp
65 70 75 80
Val Thr Gly Val Glu Val Glu Leu Asp Gly Val Asn Phe Thr Leu Leu
               90
Ser Gly Glu Ile Leu Glu Trp Gln Arg Glu Leu Ala Phe Ala Asn Gly
       100 105 110
Glu Leu His Arg Asn Val Val Trp Arg Ser Pro Asp Gly Lys Arg Tyr
115 120 125
Arg Leu Glu Ser Arg Arg Phe Val Ser Leu Asp Gln Leu Pro Leu Val
130 135 140
Ala Met Arg Leu Ser Ile Thr Pro Leu Asp Gly Ala Ala Gln Ala Val
145 150 155
Leu Lys Thr Gly Ile Asp Ala Thr Gln Thr Asn Ser Gly Arg Gln His
           165 170 175
Leu Asp Glu Ile Ser Val Arg Val Phe Asp Gln His Tyr Met Gln Gly
  180 185
Val Tyr Glu Thr Gln Asp Arg Ala Ser Glu Val Val Val Ser Ala Phe
   195 200 205
Cys Gln Leu Ser Ala Gln Ser Asp Ser Cys Phe Thr Ala Lys Asn Arg
210 215 220
Arg Leu Ser Val His His Ser Leu Thr Ile Ser Gln Gly Asp Thr Val
225 230 235
Thr Leu Glu Lys Ile Val Trp Leu Thr His Arg Ser Asp Lys Ala Leu
          245
                         250
Ser Gln Glu Ser Phe Ala Arg Asn Ala Leu Ala Asp Leu Lys Val Cys
       260 265 270
Ala Ala Arg Gly Tyr Asp Ala Leu Leu Glu Ser Ser Ala Tyr Ala Trp
     275 28C 285
Glu Ala Val Trp Arg Asp Ala Arg Val Glu Val Thr Cys Ala Glu Gln
                 295
                               300
Gln Asp Gln Leu Ala Leu Asp Tyr Ala Val Trp His Leu Thr Thr Met
305 310
                            315
Thr Pro Ala His Ser Glu Arg Ser Ser Ile Ala Ala Lys Gly Leu Thr
          325 330
Gly Glu Gly Tyr Lys Gly His Val Phe Trp Asp Thr Glu Ile Phe Leu
                      345
                                     350
        340
Leu Pro Phe His Leu Phe Thr Arg Pro Gln Ile Ala Arg Ser Leu Leu
     355
                   360
                                  365
Arg Tyr Arg Trp Leu Asn Leu Ser Gly Ala Arg Glu Lys Ala Arg Arg
  370 375
                               380
Asn Gly Trp Pro Gly Ala Leu Phe Pro Trp Glu Ser Ala Ala Ser Gly
```

405

420

Glu Glu Glu Thr Pro Glu Phe Ala Ala Ile Asn Ile Arg Thr Gly Val

425

395

430

410 Arg Gln Lys Val Ala Ser Ala Leu Ala Glu His His Ile Val Ala Asp

```
Ile Ala Trp Ala Val Val Ala Tyr Trp Gln Ala Thr His Asp Asp Ala
                  440
  435
Phe Met Arg Asn Glu Gly Leu Thr Leu Leu Met Glu Thr Ala Ser Phe
                      460
                 455
Trp Met Gly Arg Ala Thr Glu Ile Asn Gly Arg Leu Glu Ile His Asp
     470 475
465
Val Ile Gly Pro Asp Glu Tyr Thr Glu His Val Asn Asn Asn Ala Tyr
         485 490 495
Thr Asn Tyr Leu Ala Trp His Asn Val Ala Cys Ala Arg Gln Phe Met
        500 505 510
Ala Lys Phe Gly Arg Glu Asp Ala Arg Phe Thr Glu Asn Ala Gly Lys
    515 520 525
Phe Leu Ala Arg Leu Trp Leu Pro Glu Ala Asp Ala Glu Gly Val Ile
530 535 540
Pro Gln Asp Asp Thr Phe Met Ala Lys Pro Ala Ile Asp Leu Ser Arg
     550 555 560
Tyr Lys Ala Lys Ala Gly Lys Gln Thr Ile Leu Leu Asp Tyr Ser Arg
           565 570 575
Ala Glu Val Asn Glu Met Gln Ile Leu Lys Gln Ala Asp Val Val Met
        580 585
Leu Asn Tyr Leu Leu Pro Glu Arg Phe Thr Pro Gln Gln Cys Ala Ala
595 600 605
Asn Leu Ala Phe Tyr Glu Pro Arg Thr Ile His Asp Ser Ser Leu Ser
610 615
                                620
Lys Ala Ile His Gly Ile Val Leu Ala Arg Cys Gly Asp Thr Glu Gly 625 630 635 640
Ala Tyr Ala Phe Trp Arg Asp Gly Ile Ala Ile Asp Leu Gly Asp Asp
           645
                          650 655
Pro His Ser Ser Asp Asp Gly Ile His Ala Ala Thr Gly Ala Ile
                       665 670
        660
Trp Leu Gly Ala Ile Gln Gly Phe Ala Gly Leu His Ile Ser Glu Gly 675 680 685
Glu Leu His Leu Ala Pro Lys Leu Pro Ala His Trp Gln Lys Leu Ala
 690 695
                                700
Phe Pro Leu Arg Trp Arg Gly Ala Thr Met His Ile Thr Cys Glu Asp
              710 715
Asp Leu Leu Thr Ile Glu Thr Thr Ala Pro Val Thr Leu Thr Leu Trp
           725
                          730 735
Gly Lys Thr Leu His Val Ser Gly Arg Lys Val Cys Glu Arg Lys Asp
        740 745 750
Phe Leu Val Pro Val Asn Gly Thr Ala Thr Thr Glu Gly Arg His Asp
                    760
Ala
  770
<210> 7539
<211> 469
<212> PRT
<213> Enterobacter cloacae
<400> 7539
```

```
Arg Phe Thr Tyr Asp Glu Gly Leu Ala Gln Leu Tyr Gly Glu Pro Pro
Ala Trp Pro Thr Pro Thr Arg Gly Val Ser Glu Ile Arg Leu Ala Leu
        100
                       105
Arg Phe Arg Ser Asn Glu Ser Leu Met Arg His Phe Lys Glu Thr Ser
                    120
   115
Thr Leu Tyr Leu Glu Ile Val Asp Tyr Pro Gly Glu Trp Leu Leu Asp
                                140
      135
Leu Pro Met Leu Ala Gln Asp Tyr Leu Asn Trp Ser Arg Gln Met Thr
145 150 155
Gly Leu Leu Gln Gly Gln Arg Ala Glu Trp Ser Thr Gln Trp Arg Gln
      165 170 175
Leu Cys Glu Gly Leu Asp Pro Leu Ala Pro Ala Asp Glu Asn Arg Leu
    180 185 190
Ala Val Ile Ala Glu Ala Trp Thr Asp Tyr Leu His Gln Cys Lys Gln
     195 200 205
Glu Gly Leu His Phe Ile Gln Pro Gly Arg Phe Val Leu Pro Gly Asp
 210 215 220
Leu Ala Gly Ala Pro Ala Leu Gln Phe Phe Pro Trp Pro Asp Val Asp
225 230 235 240
Ser Ile Gly Glu Ser Lys Leu Ala Gln Ala Asp Lys Thr Thr Asn Ala
     245 250 255
Gly Met Leu Arg Glu Arg Tyr Asn Tyr Tyr Cys Glu Lys Val Val Lys
        260 265 270
Gly Phe Tyr Lys Asn His Phe Leu Arg Phe Asp Arg Gln Ile Val Leu
275 280
Val Asp Cys Leu Gln Pro Leu Asn Ser Gly Pro Gln Ala Phe Asn Asp
 290
               295
                                300
Met Arg Leu Ala Leu Thr Gln Leu Met Gln Ser Phe His Tyr Gly Gln
305 310 315
Arg Thr Leu Phe Arg Arg Leu Phe Ser Pro Val Ile Asp Lys Leu Leu
           325
                          330 335
Phe Ala Ala Thr Lys Ala Asp His Val Thr Val Asp Gln His Ala Asn
        340
                       345 350
Met Val Ser Leu Leu Gln Gln Leu Val Gln Asp Ala Trp Gln Asn Ala
     355
                    360
Ala Phe Glu Gly Ile Ser Met Asp Cys Leu Gly Leu Ala Ser Val Gln
 370
                 375
                                380
Ala Thr Gln Ser Gly Leu Ile Asp Leu Asn Gly Glu Lys Ile Pro Ala
              390 395
Leu Arg Gly Asn Arg Leu Ser Asp Gly Glu Pro Leu Thr Val Tyr Pro
           405
                          410 415
Gly Glu Val Pro Ala Arg Leu Pro Gly Gln Ala Phe Trp Gln Ser Gln
        420 425 430
Gly Phe Gln Phe Glu Ala Phe Arg Pro Gln Ser Met Asn Val Asp Gln
  435 440 445
Pro Leu Pro His Ile Arg Leu Asp Ala Ala Leu Glu Phe Leu Ile Gly
 450
                 455
                                460
Asp Lys Leu Arg
465
<210> 7540
<211> 542
<212> PRT
<213> Enterobacter cloacae
<400> 7540
Gly Asp Arg Met Lys His Pro Val Ser Leu Leu Cys Thr Ala Leu Trp
                          10
Leu Cys Gly Leu Ser Ser Leu Ser Tyr Ala Ala Glu Val Pro Glu Gly
```

Thr Val Leu Ala Gln Lys Gln Glu Leu Val Arg His Ile Lys Asp Glu 4.0 Pro Ala Ser Leu Asp Pro Ala Lys Ala Val Gly Leu Pro Glu Ile Gln 55 Val Ile Arg Asp Leu Tyr Glu Gly Leu Val Asn Gln Asn Glu Lys Gly 70 Glu Leu Val Pro Gly Val Ala Thr Arg Trp Gln Ser Asn Asp Asn Arg 90 85 Val Trp Thr Phe Thr Leu Arg Asp Asn Ala Lys Trp Ser Asp Gly Thr 105 100 Pro Val Thr Ala Gln Asp Phe Val Tyr Ser Trp Arg Arg Leu Val Asp 115 120 125 Pro Lys Thr Thr Ser Pro Phe Ala Trp Phe Ala Ala Leu Ala Gly Ile 135 140 Asn Asn Ala Gln Ser Ile Ile Asp Gly Lys Ala Ala Pro Asp Thr Leu 145 150 155 Gly Val Thr Ala Val Asp Ala Lys Thr Leu Arg Val Gln Leu Asp Lys 165 170 175 Pro Leu Pro Trp Phe Ser Asn Leu Thr Ala Asn Phe Ala Phe Tyr Pro 180 185 190 Val Gln Lys Ala Asn Val Glu Ser Gly Lys Glu Trp Thr Arg Pro Gly 195 200 205 Ala Leu Ile Gly Asn Gly Ala Tyr Val Leu Lys Asp Arg Val Val Asn 210 215 220 Glu Lys Leu Val Val Glu Pro Asn Ser His Tyr Trp Asp Asn Ala Arg 225 230 235 240 Thr Val Leu Lys Lys Val Thr Phe Val Pro Ile Asn Gln Glu Ser Ser 245 250 255 Ala Thr Lys Arg Tyr Leu Ala Gly Asp Ile Asp Ile Thr Glu Ser Phe Pro Lys Asn Met Tyr Gln Lys Leu Leu Lys Asp Ile Pro Gly Gln Val 275 280 285 Tyr Thr Pro Pro Gln Leu Gly Thr Tyr Tyr Tyr Ala Phe Asn Thr Gln 290 295 300 Lys Gly Pro Thr Ala Asp Ala Arg Val Arg Leu Ala Leu Ser Met Thr 305 \$310\$ 315 320Ile Asp Arg Arg Ile Met Ala Glu Lys Val Leu Gly Thr Gly Glu Lys 325 330 335 Pro Ala Trp His Phe Thr Pro Asp Val Tnr Ala Gly Phe Thr Pro Glu 340 345 350 Thr Ser Pro Phe Glu Gln Met Ser Gln Gln Glu Leu Asn Ala Gln Ala 360 365 355 Lys Thr Leu Leu Gln Ala Ala Gly Tyr Gly Pro Gln Arg Pro Leu Lys 375 Leu Thr Leu Leu Tyr Asn Thr Ser Glu Asn His Gln Lys Ile Ala Ile 385 390 395 Ala Val Ala Ser Met Trp Lys Lys Asn Leu Gly Val Asp Val Lys Leu 405 410 415 Gln Asn Gln Glu Trp Lys Thr Tyr Ile Asp Ser Arg Asn Thr Gly Asn 420 425 430 Phe Asp Val Ile Arg Ala Ser Trp Val Gly Asp Tyr Asn Glu Pro Ser 435 440 445 Thr Phe Leu Ser Leu Leu Thr Ser Ser His Ser Gly Asn Ile Ser Arg 450 455 460 Phe Asn Asp Pro Ala Tyr Asp Lys Ile Ile His Gln Ala Thr Leu Glu 470 475 Thr Thr Glu Lys Ala Arg Asn Ala Asp Tyr Asn Met Ala Glu Lys Ile 485 490 495 Leu Thr Glu Lys Ala Pro Ile Ala Pro Ile Tyr Gln Tyr Thr Asn Gly 500 505 510 Arg Leu Ile Lys Pro Trp Val Lys Gly Tyr Pro Ile Asn Asn Pro Glu

```
520
Asp Val Ala Tyr Ser Arg Thr Met Tyr Ile Glu Lys His
  530
                 535
<210> 7541
<211> 366
<212> PRT
<213> Enterobacter cloacae
<400> 7541
Leu Pro Ala Ala Gly Gln Pro Ile Arg Pro Ile Cys Ser Arg Ser Thr
Ser Thr Thr Pro Pro Leu Ser Ile Ser Ile Trp Ala Met Ala Arg Arg
   20
                       25
                                       3.0
Trp Arg Gly Ser Cys Ser Trp Trp Trp Pro Ser Ser Pro Val Ser Pro
    35
                    40
                                   45
Leu Ser Arg Arg Asn Thr Gly Cys Ser Thr Pro Pro Ile Lys Glu Ala
      55
                                60
Lys Met Ala Asp Ile Gln Gln Leu Ser Thr Ala Arg Ser Val Ala Glu
     70
                             75
Arg Glu Val Ala Arg Thr Leu Arg Arg Glu Lys Ile Asn Ala Ser Val
         85 90 95
Arg Tyr Val Ile Leu Leu Val Val Gly Leu Leu Met Leu Tyr Pro Leu
        100 105 110
Val Trp Met Phe Ser Ala Ser Phe Lys Pro Asn His Glu Ile Phe Thr
115 120 125
Thr Leu Ser Leu Trp Pro Ala His Ala Thr Trp Asp Gly Phe Val Asn
130 135 140
Gly Trp Lys Thr Gly Thr Glu Tyr Asn Phe Gly His Tyr Met Leu Asn
145 150 155 160
Thr Phe Lys Tyr Val Ile Pro Lys Val Ile Leu Thr Ile Ile Ser Ser
         165 170 175
Thr Ile Val Ala Tyr Gly Phe Ala Arg Phe Glu Ile Pro Trp Lys Lys
        180 185 190
Phe Trp Phe Ala Thr Leu Ile Thr Thr Met Leu Leu Pro Ser Thr Val
195 200 205
Leu Leu Ile Pro Gln Tyr Leu Met Phe Arg Glu Met Gly Met Leu Asn
               215 220
Ser Tyr Met Pro Leu Tyr Leu Pro Leu Ala Phe Ala Thr Gln Gly Phe
225 230 235 240
Phe Val Phe Met Leu Ile Gln Phe Leu Arg Gly Val Pro Arg Asp Met
           245
                          250 255
Glu Glu Ala Ala Gln Ile Asp Gly Cys Asn Ser Ile Gln Val Leu Trp
        260 265 270
Tyr Val Val Val Pro Ile Leu Lys Pro Ala Ile Ile Ser Val Ala Leu
     275 280
                                    285
Phe Gln Phe Met Trp Ser Met Asn Asp Phe Ile Gly Pro Leu Ile Tyr
                 295
                                 300
Val Tyr Ser Val Asp Lys Tyr Pro Ile Ala Leu Ala Leu Lys Met Ser
              310
                             315 320
Ile Asp Val Thr Glu Gly Ala Pro Trp Asn Glu Ile Leu Ala Met Ala
           325
                          330
Ser Ile Ser Ile Leu Pro Ser Ile Ile Val Phe Phe Leu Ala Gln Arg
                       345
Tyr Phe Val Gln Gly Val Thr Ser Ser Gly Ile Lys Gly
      355
                     360
                                    365
```

<sup>&</sup>lt;210> 7542 <211> 380

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 7542
Glu Gly Asn Thr Met Ala Glu Val Ile Phe Asn Lys Leu Glu Lys Val
Tyr Ser Asn Gly Phe Lys Ala Val His Ala Ile Asp Leu Lys Ile Ala
        20
Glu Gly Glu Phe Met Val Ile Val Gly Pro Ser Gly Cys Ala Lys Ser
                     40
Thr Thr Leu Arg Met Leu Ala Gly Leu Glu Thr Ile Ser Gly Glu
Val Arg Ile Gly Asp Lys Ile Val Asn Asn Leu Ala Pro Lys Glu Arg
            7.0
                              7.5
Gly Ile Ala Met Val Phe Gln Asn Tyr Ala Leu Tyr Pro His Met Thr
         85
                           90
Val Arg Glu Asn Leu Ala Phe Gly Leu Lys Leu Ser Lys Leu Pro Lys
       100 105
Asp Gln Ile Glu Ser Gln Val Asn Glu Ala Ala Lys Ile Leu Glu Leu
     115 120 125
Glu Glu Leu Leu Asp Arg Leu Pro Arg Gln Leu Ser Gly Gly Gln Ala
 130 135 140
Gln Arg Val Ala Val Gly Arg Ala Ile Val Lys Lys Pro Asp Val Phe
    150 155
Leu Phe Asp Glu Pro Leu Ser Asn Leu Asp Ala Lys Leu Arg Ala Ser
     165 170 175
Met Arg Ile Arg Ile Ser Asp Leu His Lys Gln Leu Lys Lys Ser Gly
        180 185 190
Lys Pro Ala Thr Thr Val Tyr Val Thr His Asp Gln Thr Glu Ala Met
                    200 205
Thr Met Gly Asp Arg Ile Cys Val Met Lys Leu Gly His Ile Met Gln
               215 220
 210
Val Asp Thr Pro Asp Asn Leu Tyr His Lys Pro Arg Asn Met Phe Val
             230 235 240
Ala Gly Phe Ile Gly Ala Pro Glu Met Asn Ile Arg Lys Ser Val Leu
           245 250 255
Val Glu Lys Ala Gly Gln Leu His Ile Ala Ile Gly Asp Glu Thr Met
        260 265 270
Pro Leu Asn Ala Glu Lys Gln Glu Lys Val Ala Ala Tyr Ala Gly Gln
      275
                    280
                         285
Glu Ile Tyr Tyr Gly Val Arg Pro Glu Phe Val Ser Leu Ser Asp Glu
                  295
                                 300
Pro Phe Pro Asn Gly Gly Cys Ser Gly Glu Met Val Arg Val Glu Asn
                              315
305
               310
Met Gly His Glu Phe Phe Val Tyr Leu Lys Val Ala Asp Tyr Glu Leu
            325
                           330
Thr Ala Arg Ile Pro Ser Asp Glu Ala Lys Pro Met Ile Asp Lys Gly
         340
                        345
                                        350
Leu His Arg Lys Val Tyr Phe Thr Phe Glu Met Asn Lys Cys His Ile
 355
                   360
Phe Asp Ala Lys Thr Glu Gln Asn Leu Ser Leu
   370
                  375
<210> 7543
<211> 341
<212> PRT
<213> Enterobacter cloacae
```

<400> 7543

Met Ala Thr Ile Lys Asp Val Ala Arg Leu Ala Gly Val Ser Val Ala 1 5 10 15 Thr Val Ser Arg Val Ile Asn Asn Ser Pro Lys Ala Ser Asp Ala Ser 20 25 30

```
Arg Gln Ala Val Gln Asp Ala Met Glu Asn Leu Asn Tyr His Pro Asn
                     40
Ala Asn Ala Arg Ala Leu Ala Gln Gln Ser Thr Glu Thr Ile Gly Leu
                  55
Val Val Gly Asp Val Ser Asp Pro Phe Phe Gly Ala Met Val Lys Ala
                              75
Val Glu Gln Val Ser Tyr His Thr Gly Asn Phe Leu Leu Ile Gly Asn
                           90
Gly Tyr His Asn Glu Gln Lys Glu Arg Gln Ala Ile Glu Gln Leu Ile
             105 110
        100
Arg His Arg Cys Ala Ala Leu Val Val His Ala Lys Met Ile Pro Asp
      115
            120 125
Ala Glu Leu Ile His Leu Met Lys Gln Met Pro Gly Met Val Ile Ile
 130 135 140
Asn Arg Ile Ile Pro Gly Phe Glu Thr Arg Cys Val Ala Leu Asp Asp
     150 155
Arg Tyr Gly Ala Trp Leu Ala Thr Arg His Leu Ile Gln Gln Gly His
           165 170
Thr Arg Ile Gly Tyr Leu Cys Ser Asn His Pro Ile Ser Asp Ala Glu
        180
             185
Asp Arg Leu Gln Gly Tyr Tyr Asp Ala Leu Arg Glu Ala Gly Leu Pro
195 200
                        205
Cys Asn Asp Arg Leu Val Ala Tyr Gly Glu Pro Asp Glu Ser Gly Gly
210 215
                                220
Glu Gln Ala Met Thr Glu Leu Leu Gly Arg Gly Arg Asn Phe Thr Ala
225 230
                              235
Val Ala Ser Tyr Asn Asp Ser Met Ala Ala Gly Ala Met Gly Val Leu
           245
                          250
                                          255
Asn Asp Asn Gly Ile Asp Val Pro Ala Glu Ile Ser Leu Ile Gly Phe
 260
                       265 270
Asp Asp Val Leu Val Ser Arg Tyr Val Arg Pro Arg Leu Thr Thr Val
275 280
                                    285
Arg Tyr Pro Ile Val Thr Met Ala Thr Gln Ala Ala Glu Leu Ala Leu
 290 295
                                 300
Ala Leu Ala Glu His Arg Pro Pro Pro Glu Ile Thr His Leu Phe Ser
305 310 315 320
Pro Thr Leu Val Arg Arg His Ser Val Val Ser Pro Ala Glu Ala Val
           325
                           330
Ser Glu Gln Arq
```

<210> 7544

<211> 319 <212> PRT

<213> Enterobacter cloacae

<400> 7544

Tyr Gly Thr Arg Ser Ala Ile Arg Cys Pro Met Pro Ala Val Asn Leu 10 Arg His Ile Glu Ile Phe His Ala Val Met Thr Thr Gly Asn Leu Thr 20 25 30 Glu Ala Ala His Met Leu His Thr Ser Gln Pro Thr Val Ser Arg Glu 40 Leu Ala Arg Phe Glu Lys Val Leu Gly Leu Lys Leu Phe Glu Arg Thr 5.5 Arg Gly Arg Leu His Pro Thr Val Gln Gly Leu Arg Leu Phe Glu Glu 7.0

Val Gln Arg Ser Trp Tyr Gly Leu Asp Arg Ile Val Ser Ala Ala Glu 85 90

Ser Leu Arg Glu Phe Arg Gln Gly Glu Leu Ser Ile Val Cys Leu Pro 105

```
Val Phe Ser Gln Ser Phe Leu Pro Val Leu Leu Gln Pro Phe Leu Ala
                  120
      115
Arg Tyr Pro Glu Val Ser Leu Thr Ile Val Pro Gln Glu Ser Pro Leu
                                     140
                   135
Leu Glu Glu Trp Leu Ser Ala Gln Arg His Asp Leu Gly Leu Thr Glu
             150
                              155
Thr Leu Val Thr Pro Ala Gly Thr Glu Arg Thr Glu Leu Leu Ser Leu
                              170
                                                175
           165
Asp Glu Val Cys Val Leu Pro Ala Ser His Pro Leu Ala His Lys Thr
     180
                                            190
                          185
Val Leu Thr Pro Ala Asp Phe His Gly Glu Asn Tyr Ile Ser Leu Ser
   195 200 205
Gln Thr Asp Ser Tyr Arg Gln Leu Leu Asp Gly Leu Phe Ala Glu His
  210 215 220
Gln Val Lys Arg Arg Met Val Met Glu Thr His Ser Ala Ala Ser Ile
225 230 235
Cys Ala Met Val Arg Ala Gly Val Gly Ile Ser Val Val Asn Pro Leu
                              250 255
          245
Thr Ala Met Asp Tyr Ala Ser Ser Gly Val Val Leu Arg Arg Phe Ser
    260 265 270
Val Ser Val Pro Phe Thr Val Ser Leu Ile Arg Pro Leu His Arg Pro
 275 280 285
Ala Ser Ala Leu Val Asp Ala Phe Ser Glu His Leu Ile Ala His Ala
 290 295 300
Arg Gln Val Ala Leu Arg Leu Pro Asp Leu Gln Lys Pro Leu
                310
<210> 7545
<211> 112
<212> PRT
<213> Enterobacter cloacae
<400> 7545
Gln Gly Glu Asn Met Phe Ile Phe His Lys Glu Thr Thr Leu Glu Asp
                              10
Leu Gly Asn Gly Val Thr Arg Arg Ile Leu Ala His Asp Gly Arg Met
                           25
Met Ala Val Glu Val Asn Phe Glu Glu Gly Ala Ile Gly Pro Met His
                       40
                                        4.5
Asn His Pro His Glu Gln Leu Thr Tyr Val Leu Ser Gly Glu Phe Glu
                    5.5
Phe Thr Ile Gly Glu Glu Lys His Val Val Thr Ala Gly Asp Thr Leu
                70
Tyr Lys Ala Pro His Val Met His Gly Cys Val Cys Leu Lys Pro Gly
                       90
             8.5
Thr Leu Leu Asp Thr Phe Thr Pro Val Arg Glu Asp Phe Leu Lys
          100
                           105
<210> 7546
<211> 450
<212> PRT
<213> Enterobacter cloacae
<400> 7546
Thr Ser Val Ile Phe Leu Thr Glm Lys Leu Asn Arg Thr Ser Leu Ser
                               10
Asp Gly Val Ile Lys Met Lys Lys Val Leu Leu Ser Ala Ala Ile Ser
                           25
        20
Ala Thr Leu Gly Leu Thr Ala Leu Pro Ser Met Ala Gln Asn Val Asp
                        4.0
      35
Leu Arg Met Ser Trp Trp Gly Gly Asn Gly Arg His Gln Val Thr Leu
```

```
Lys Ala Leu Glu Glu Phe His Lys Gln Asn Pro Asp Ile Asn Val Lys
                      75
           7.0
Ala Glu Tyr Thr Gly Trp Asp Gly His Leu Ser Arg Leu Thr Thr Gln
          85
                 90
Ile Ala Gly Gly Thr Glu Pro Asp Val Met Gln Thr Asn Trp Asn Trp
       100 105 110
Leu Pro Ile Phe Ser Lys Thr Gly Asp Gly Phe Tyr Asp Leu Asn Lys
115 120 125
Met Lys Asp Val Ile Asp Leu Ser Gln Phe Asp Pro Lys Glu Leu Gln
 130 135 140
Thr Thr Thr Val Asp Gly Lys Leu Asn Gly Ile Pro Ile Ser Val Thr
145 150 155
Ala Arg Val Phe Tyr Phe Asn Asp Glu Thr Trp Lys Lys Ala Gly Ile
        165 170 175
Ala Tyr Pro Lys Thr Trp Asp Glu Leu Met Ala Ala Gly Lys Thr Phe
      180 185 190
Glu Ser Lys Leu Gly Lys Gln Tyr Tyr Pro Val Ile Leu Glu His Gln
 195 200 205
Asp Thr Leu Ala Leu Leu Asn Ser Tyr Met Ile Gln Lys Tyr Asn Ile
 210 215 220
Pro Ala Val Asp Glu Lys Thr Lys Lys Phe Ser Tyr Thr Lys Glu Gln
   230 235
Trp Val Glu Phe Phe Gln Thr Tyr Lys Lys Leu Ile Asp Ser His Val
      245 250 255
Met Pro Asp Thr Lys Tyr Tyr Ala Ser Phe Gly Lys Ser Asn Met Tyr
260 265 270
Glu Met Lys Pro Trp Ile Gln Gly Glu Trp Gly Gly Thr Tyr Met Trp
275 280 285
Asn Ser Thr Ile Asn Lys Tyr Ser Asp Asn Leu Lys Pro Pro Ala Lys
290 295 300
Leu Glu Leu Gly Asn Tyr Pro Met Leu Pro Gly Ala Thr Asp Ala Gly
305 310 315 320
Leu Phe Phe Lys Pro Ala Gln Met Leu Ser Ile Gly Lys Thr Thr Lys
         325 330 335
Asn Pro Glu Ala Ala Ala Lys Leu Ile Asn Phe Leu Leu Asn Ser Lys
       340
                     345
                                   350
Glu Gly Val Asp Thr Leu Gly Leu Glu Arg Gly Val Pro Leu Ser Lys
    355
           360
                                 365
Val Ala Val Gln Tyr Leu Thr Glu Asp Gly Thr Ile Lys Glu Asp Asp
               375
                               380
Pro Ser Val Ala Gly Leu Arg Leu Ala Gln Ser Leu Pro Ala Lys Leu
                           395
             390
Thr Val Ser Pro Tyr Phe Asp Pro Gln Ile Val Ala Gln Phe Gly
          405 410
Thr Ser Leu Gln Tyr Ile Asp Tyr Gly Gln Lys Thr Val Glu Glu Thr
            425
Ala Ala Asp Phe Gln Arg Gln Ala Glu Arg Ile Leu Arg Arg Ala Met
     435 440
  450
```

<210> 7547 <211> 373

<212> PRT

<213> Enterobacter cloacae

<400> 7547

Gly Phe Ala Leu Pro Thr Ser Leu Met Arg Arg Met Val Cys Val Lys  $_1$  5  $_1$  0  $_1$ 5 Leu Gln Thr Ile Thr Trp Lys Gln Glu Phe Arg Met Ala Thr Met Leu

```
25
Asp Val Ser Leu Arg Ala Gly Val Ser Lys Ala Thr Val Ser Arg Val
                    40
Leu Asn Gly Thr Gly Gln Val Lys Glu Ser Thr Arg Gln Gln Val Phe
                 55
Arg Ala Met Glu Glu Leu Gly Tyr Arg Pro Asn Phe Leu Ala Arg Ser
    70
                      75
Leu Ala Asn Gln Thr Ser Asn Ser Ile Gly Leu Val Val Ser Thr Phe
                  90
Asp Gly Phe Tyr Phe Gly Arg Leu Leu Gln Gln Ala Ser Arg Gln Thr
       100 105 110
Glu Lys His Gly Lys Gln Leu Ile Val Thr Asp Gly His Asp Ala Pro
     115 120 125
Glu Gln Glu Glu Gln Ala Val Gln Met Leu Ala Asp Arg Lys Cys Asp
 130 135 140
Ala Ile Val Leu Tyr Thr Arg Tyr Met Ser Glu Lys Thr Ile Leu Lys
            150 155 160
Leu Ile Asn Ser Val Gln Thr Pro Leu Val Ile Ile Asn Arg Glu Val
      165 170 175
Ser Gln Ala Ala Asp Arg Cys Val Phe Phe Glu Gln Gln Asp Ala Ala
   180 185 190
Phe Lys Ala Val Asp Tyr Leu Ile Ser Gln Gly His Arg Glu Ile Ala
195 200 205
Cys Ile Thr Val Pro Ile His Thr Pro Thr Gly Lys Ala Arg Leu Met
210 215 220
Gly Tyr Arg Lys Ala Leu Glu Lys His Gly Ile Arg Leu Asp Glu Arg
   230 235
Arg Ile Lys Tyr Gly Asp Ala Gly Met Thr Arg Gly Tyr Glu Leu Cys $245$ $250$ $255$
Lys Glu Leu Ile Ala Glu Lys Thr Ser Phe Ser Ala Leu Phe Ala Cys
 260 265 270
Asn Asp Asp Met Ala Leu Gly Ala Ser Lys Ala Leu His Gln Ala Gly
275 280 285
Leu Lys Ile Pro Gln Asp Ile Ser Leu Phe Gly Phe Asp Asp Ala Pro
290 295 300
Ser Ala Lys Trp Leu Glu Pro Ala Leu Ser Ser Val Tyr Leu Pro Ile
   310 315
Asp Asn Met Ile Val Thr Ala Ile Asp Gln Ala Ile Arg Leu Thr Lys
           325 330 335
Asn Gln Pro Val Glu Ala Ile Pro Pro Phe Thr Gly Thr Leu Val Leu
   340
                    345 350
Arg Asp Ser Val Thr Thr Gly Pro Trp Phe Asn Gln Thr Ser Ser Asn
   355
                    360
Ala Ser Ser Ser
  370
<210> 7548
<211> 299
<212> PRT
<213> Enterobacter cloacae
<400> 7548
Val Cys Met Asn Glu Asn Lys Leu Leu Gly Leu Ala Trp Ile Ser Pro
                          10
Tyr Ile Ile Gly Leu Ile Leu Phe Thr Ala Phe Pro Phe Val Ser Ser
```

Tyr Ile Ile Gly Leu Ile Leu Phe Thr Ala Phe Pro Phe Val Ser Ser 20 25 30

Phe Phe Leu Ser Phe Thr Asp Tyr Asp Leu Met Ser Pro Pro Val Phe 35 40

Asn Gly Ile Glu Asn Tyr Arg Tyr Met Phe Thr Glu Asp Thr Leu Phe 50 60

Trp Lys Ser Met Gly Val Thr Phe Ala Tyr Val Phe Leu Thr Ile Pro

```
75
Leu Lys Leu Ala Phe Ala Leu Gly Ile Ala Phe Val Leu Asn Phe Lys
           85
                         90
Leu Arg Gly Ile Gly Phe Phe Arg Thr Ala Tyr Tyr Ile Pro Ser Ile
        100
                      105
                                      110
Leu Gly Ser Ser Val Ala Ile Ala Val Leu Trp Arg Ala Leu Phe Ala
     115 120
                         125
Ile Asp Gly Leu Leu Asn Ser Phe Ile Gly Val Phe Gly Phe Asp Pro
   130 135 140
Val Asn Trp Leu Gly Glu Pro Ser Leu Ala Leu Met Ser Val Thr Leu
   150 155
                                            160
Leu Arg Val Trp Gln Phe Gly Ser Ala Met Val Ile Phe Leu Ala Ala
            165
                170
Leu Gln Asn Val Pro Gln Ser Gln Tyr Glu Ala Ala Met Ile Asp Gly
       180 185
                               190
Ala Ser Lys Trp Gln Met Pne Met Lys Val Thr Val Pro Leu Ile Thr
   195 200
                                   205
Pro Val Ile Phe Phe Asn Phe Ile Met Gln Thr Thr Gln Ala Phe Gln
210 215 220
Glu Phe Thr Gly Pro Tyr Val Ile Thr Gly Gly Gly Pro Thr Tyr Ser
             230
                   235
Thr Tyr Leu Phe Ser Leu Tyr Ile Tyr Asp Thr Ala Phe Lys Tyr Phe
           245
                         250 255
Asp Met Gly Tyr Gly Ala Ala Leu Ala Trp Ile Leu Phe Leu Val Val
                      265 270
       260
Ala Val Phe Ala Gly Ile Ala Phe Lys Ser Ser Lys Tyr Trp Val Phe
                     280
                                     285
Tyr Ser Ala Asp Lys Gly Gly Lys Asn Gly
                   295
<210> 7549
<211> 475
<212> PRT
<213> Enterobacter cloacae
<400> 7549
Ser Gln Asn Lys Ala Pro Val Gly Ala Ile Phe Gly Ile Pro Ile Val
                         10
Ser Gly Cys Pro Ser Tyr Ser Ile Lys Ala Leu Leu Leu Arg Tyr Tyr
                      25
       20
                                        3.0
Pro Met Ala Phe Gln Glu Lys Leu Ile Asp Ala Leu Gly Ser Phe Ala
 35
                     40
                                     4.5
Thr Thr Phe Asn Ser Tyr Arg Tyr Ile Gln Ala Ile Lys Ser Ala Phe
                 55
                         60
Ile Thr Leu Met Pro Val Ile Ile Val Gly Ala Phe Ser Val Leu Ile
             70
                               75
Ser Asn Met Val Leu Asp Pro Lys Asn Gly Leu Ala Ser Phe Gln Ser
          85
                           90
Leu Ser Phe Leu Ala Ala Leu Lys Pro Ile Thr Ser Ala Leu Asn Tyr
        100
                        105
                                     110
Ala Thr Leu Asn Phe Leu Asn Ile Gly Ala Val Phe Leu Ile Gly Ile
    115
                     120
                                     125
Glu Leu Gly Arg Ile Asn Gly Ile Lys Ser Leu Phe Pro Gly Leu Leu
   130
                  135
                                  140
Ala Val Ile Cys Phe Ile Cys Val Thr Pro Thr Thr Val Glu Met Leu
             150
                              155
Val Asp Gly Glu Met His Val Val Lys Asp Val Leu Leu Arg Gln Phe
          165
                           170
Ser Asp Thr Arg Ser Leu Phe Leu Gly Met Phe Ile Ala Ile Leu Ser
               185
         180
                               190
```

Val Glu Ile Tyr Cys Trp Leu Glu Asn Arg Arg Gly Leu Lys Ile Arg

```
200
Met Pro Asp Thr Val Pro Pro Asn Val Ala Ala Ser Phe Ser Ala Leu
210
        215 220
Ile Pro Ala Ile Ile Thr Thr Thr Ala Ile Ala Thr Phe Gly Phe Val
           230 235
Phe His Gln Ile Thr Gly Met Tyr Leu Tyr Asp Ala Val Tyr Gln Val
          245 250 255
Val Gln Gln Pro Leu Glu Arg Val Val Gln Ser Leu Pro Gly Ile Leu
     260 265 270
Leu Leu Met Phe Val Ala Gln Leu Phe Trp Val Ile Gly Ile His Gly
   275 280 285
Asn Gln Met Ile Lys Pro Ile Arg Glu Pro Leu Leu Gly Ala Ile
290 295 300
Thr Val Asn Met Ser Ala Phe Glu Gln Gly Lys Glu Val Pro Asn Ile
           310 315
Ile Thr Met Pro Phe Trp Asp Val Tyr Met Ser Ile Gly Gly Ser Gly
          325
                        330
                            335
Leu Thr Ile Gly Leu Leu Ile Ala Val Met Ile Ala Thr Lys Arg Lys
      340
                     345 350
Glu Met Lys Glu Ile Ala Lys Leu Ser Ile Gly Pro Gly Ile Phe Asn
 355 360 365
Ile Asn Glu Pro Val Ile Pne Gly Met Pro Ile Met Leu Asn Pro Ile
              375
Leu Ala Ile Pro Phe Ile Ile Thr Pro Leu Val Thr Gly Ser Ile Gly
385 390 395
Tyr Phe Ala Thr Val Thr Gly Phe Ala Gly Lys Ala Val Val Met Val
        405 410 415
Pro Trp Thr Thr Pro Pro Leu Ile Asn Ala Trp Leu Ser Thr Ala Gly
      420 425 430
Ser Met Gly Ala Val Ile Thr Gln Phe Ile Cys Ile Val Thr Ala Val
435 440 445
Ile Ile Tyr Leu Pro Phe Val Lys Ile Ala Ser Arg Arg Ala Glu Gln
450 455 460
Ala Ala Leu Gln Gln Ala Thr Asp Asn Ala
           470
```

<210> 7550 <211> 498

<212> PRT <213> Enterobacter cloacae

<400> 7550 Lys Leu Pro His Ala Ala Gln Ser Arg Pro Arg Cys Asn Lys Pro Pro Ile Thr His Glu Asp Arg Met Ser Ile Lys Gln Ile Thr Ile Pro Gln Asp Phe Met Leu Gly Ala Ala Ala Ser Ala Trp Gln Thr Glu Gly Trp 35 40 Ser Gly Lys Lys Pro Gly Gln Asp Ser Trp Ile Asp Leu Trp Tyr Lys 55 Asn Asp Arg His Val Trp His Asn Gly Tyr Gly Pro Ala Val Ala Thr 70 Asp Phe Ile Asn Arg Phe Arg Glu Asp Val Ala Leu Met Lys Gln Ala 90 Gly Leu Thr His Tyr Arg Thr Ser Ile Asn Trp Ser Arg Phe Leu Thr 105 100 110 Asp Tyr Glu Asn Ala Thr Val Asp Glu Glu Tyr Ala Ala Tyr Tyr Asp 115 120 125 Ala Leu Phe Asp Glu Met His Arg Gln Gly Ile Glu Pro Met Ile Cys 135 140 Leu Glu His Tyr Glu Leu Pro Gly Val Gln Leu Glu Thr Tyr Gly Gly

```
155
Trp Ala Ser Lys His Val Val Glu Leu Phe Val Arg Tyr Ala Glu Lys
                         170
          165
Val Phe Glu Arg Phe His Gly Lys Val Thr Arg Trp Phe Thr Phe Asn
                                  190
       180
                      185
Glu Pro Ile Val Val Gln Thr Arg Val Tyr Leu Asp Ala Leu Arg Trp
   195
            200
                                 205
Pro Tyr Glu Gln Asn Thr Ser Thr Trp Met Gln Trp Asn His His Lys
 210 215
                        220
Val Leu Ala Thr Ala Lys Val Val Lys Leu Phe Arg Glu Lys Gly Tyr
   230 235
Asp Gly Ser Val Gly Cys Ile Leu Asn Pro Glu Val Thr Tyr Pro Arg
         245 250 255
Ser Arg Ala Pro His Asp Glu Arg Ala Ala Glu Met Tyr Asp Leu Phe
       260 265 270
Tyr Asn Arg Val Phe Leu Asp Pro Leu Val His Gly Arg Tyr Pro Gln
  275 280 285
Ala Leu Phe Thr Leu Leu Ala Gln His Gln Val Gln Trp Asp Tyr Thr
 290 295 300
Ala Asp Glu Leu Ala Leu Ile Ala Asp Asn Thr Val Asp Glu Leu Gly
305 310 315
Ile Asn Leu Tyr Tyr Pro His Arg Val Lys Ala Pro Ser Arg Ala Trp
         325 330 335
His Pro Glu Thr Pro Phe His Pro Ala Tyr Tyr Tyr Glu Pro Phe Glu
      340 345 350
Leu Pro Gly Arg Arg Met Asn Thr Ser Arg Gly Trp Glu Ile Phe Pro
355 360 365
Arg Ile Ile Tyr Asp Met Ala Met Arg Ile Lys Asn Asp Tyr Arg Asn
  370 375
Ile Asp Trp Phe Val Ala Glu Ser Gly Met Gly Val Glu Asn Glu Ala
385 390 395
Gln Phe Arg Asn Arg Asp Gly Ile Iie Asp Asp Thr Tyr Arg Ile Ala
          405
               410 415
Phe Ile Ser Glu His Leu Tyr Tyr Thr Leu Leu Ala Arg Glu Ala Gly
        420
                     425 430
Ala Asn Cys His Gly Tyr Met Leu Trp Ala Phe Thr Asp Asn Val Ser
   435 440 445
Pro Met Asn Ala Phe Lys Asn Arg Tyr Gly Leu Ile Glu Ile Asp Leu
               455
Glu Asn Gln Arg Ala Arg Arg Ala Lys Lys Ser Ala Ser Trp Phe Arg
465 470 475 480
Gln Leu Arg Asp Glu Arg Val Leu Thr Leu Arg Val Asp Asp Glu Trp
```

```
<210> 7551
<211> 265
<212> PRT
```

Lys

<sup>&</sup>lt;213> Enterobacter cloacae

7.0 75 Tyr Val Met Arg Ile Pro Glu Glu His Glu Asn Glu Glu Glu Arg Phe 85 90 95 Leu Asn Ser Asp Val Gly Pro Phe Glu Ile Leu Gln Ala Arg Gln Leu 100 105 110 Leu Glu Ser Asn Ile Ala Ala Phe Ala Ala Lys Met Ala Thr Arg Ala 115 120 125 Asp Ile Asp Asn Leu Arg Arg Ile Ile Glu Gln Glu Gln Arg Ala Ile 130 135 140 Ala Ala Asp Asp Arg Ser Gln Asp Asn Asn Lys Met Phe His Leu Val 145 150 155 Leu Ala Gly Ala Thr Gln Asn Gln Met Leu Leu Ala Thr Val Glu Ser 165 170 Val Trp His His Met Asp Ser Ser Pro Leu Trp Gln Gln Phe Asn Gly 185 190 180 His Ile Ala Ser Arg Ala Trp Arg Leu Lys Trp Leu Gly Asp Arg Gln 200 205 Thr Ile Leu Ala Ala Leu Arg Arg Arg Asp Val Met Gly Ala Trp Gln 210 215 220 Ala Met Phe Gln His Leu Glu Asn Val Lys Lys Ser Leu Leu Glu Leu 235 225 230 Ser Asp Glu Asp Ala Pro Asp Phe Asp Gly Tyr Leu Phe Glu Ser Val 245 250 Pro Leu Phe Gln Gly Lys Leu Val 260

<210> 7552 <211> 774 <212> PRT

<213> Enterobacter cloacae

<400> 7552 Leu Val Arg Ile Pro Gly Thr Phe Ser Tyr Ser Ser Leu Ala Pro Thr Cys Ala Asp Ala Gln Val Pne Phe Arg Leu Cys Phe Cys Tyr Arg Ser Leu Thr Thr Ser Arg Val Ile Cys His His Leu Tyr Leu Ser His Trp 4.0 Leu Ala Lys Gly Val Glu Met Leu Phe Gly Phe Phe Arg Thr Leu Phe 55 Arg Val Leu Phe Arg Ile Arg Val Thr Gly Asp Thr Gln Ala Leu Tyr 70 75 Gly Glu Arg Val Leu Ile Thr Pro Asn His Val Ser Phe Leu Asp Gly 8.5 90 Val Leu Leu Ala Leu Phe Leu Pro Val Arg Pro Val Phe Ala Val Tyr 100 105 110 Ser Ser Ile Ser Glu Lys Trp Tyr Met Arg Trp Leu Lys Pro Leu Ile 115 120 125 Asp Phe Val Pro Leu Asp Pro Thr Lys Pro Met Met Ile Lys His Leu 135 140 Val Arg Leu Ile Gly Gln Gly Arg Pro Val Val Ile Phe Pro Glu Gly 145 150 155 160 Arg Ile Ser Val Thr Gly Ser Leu Met Lys Ile Tyr Asp Gly Ala Gly 165 170 175 Phe Val Ala Ala Lys Ser Gln Ala Thr Val Val Pro Leu Arg Ile Asp 185 190 Gly Ala Glu Leu Thr Phe Phe Ser Arg Leu Lys Gly Leu Val Lys Gln 195 200 Arg Leu Phe Pro Lys Ile Thr Leu His Ile Leu Pro Pro Thr Ser Leu 210 215 220 Pro Met Pro Glu Ala Pro Arg Ala Arg Asp Arg Arg Lys Ile Ala Gly

```
230
Glu Met Leu His Gln Ile Met Met Glu Ala Arg Met Ala Val Arg Pro
                   250
          245
Arg Glu Thr Leu Tyr Glu Ser Leu Leu Ser Ala Gln Tyr Arg Tyr Gly
       260
            265
Ala Lys Lys Asn Cys Ile Glu Asp Ile Asn Phe Thr Pro Asp Thr Tyr
   275 280
                         285
Arg Lys Leu Leu Thr Lys Thr Leu Phe Val Gly Arg Ile Leu Glu Lys
 290 295 300
Tyr Ser Lys Gln Gly Glu Lys Ile Gly Leu Met Leu Pro Asn Ala Gly
305 310 315
Ile Ser Ala Ala Val Ile Phe Gly Ala Val Ser Arg Gly Arg Ile Pro
      325 330 335
Ala Met Met Asn Tyr Thr Ala Gly Val Lys Gly Leu Ser Ser Ala Ile
  340 345 350
Thr Ala Ala Gln Ile Asn Thr Val Phe Thr Ser Arg Gln Phe Leu Asp
 355 360 365
Lys Gly Lys Leu Trp His Leu Pro Glu Gln Leu Thr Gln Val Arg Trp
 370 375 380
Val Phe Leu Glu Asp Leu Lys Ala Asp Val Thr Thr Ala Asp Lys Leu
385 390 395
Trp Ile Phe Ala His Leu Leu Met Pro Arg Leu Ala Gln Val Lys Gln
         405 410 415
Gln Pro Glu Asp Asp Ala Ile Ile Leu Phe Thr Ser Gly Ser Glu Gly
 420 425 430
Asn Pro Lys Gly Val Val His Ser His Lys Ser Ile Leu Ala Asn Val
435 440 445
Glu Gln Ile Lys Thr Ile Ala Asp Phe Thr Ala Asn Asp Arg Phe Met
      455 460
Ser Ala Leu Pro Leu Phe His Ser Phe Gly Leu Thr Val Gly Leu Phe
465 470 475 480
Thr Pro Leu Leu Thr Gly Ala Glu Val Phe Leu Tyr Pro Ser Pro Leu
   485 490 495
His Tyr Arg Ile Val Pro Glu Leu Val Tyr Asp Arg Asn Cys Thr Val
 500 505 510
Leu Phe Gly Thr Ser Thr Phe Leu Gly Asn Tyr Ala Arg Phe Ala Asn
     515 520 525
Pro Tyr Asp Phe Phe Arg Val Arg Tyr Val Val Ala Gly Ala Glu Lys
 530 535 540
Leu Gln Asp Ser Thr Arg Gln Ile Trp Gln Asp Lys Phe Gly Leu Arg
545 550 555 560
Ile Leu Glu Gly Tyr Gly Val Thr Glu Cys Ala Pro Val Val Ser Ile
           565 570 575
Asn Val Pro Met Ala Ala Lys Pro Gly Thr Val Gly Arg Ile Leu Pro
      580 585
Gly Leu Asp Ala Arg Leu Leu Ala Val Pro Gly Ile Glu Asp Gly Gly
         600
     595
Arg Leu Gln Leu Lys Gly Pro Asn Val Met Asn Gly Tyr Leu Arg Val
              615 620
Glu Asn Pro Gly Val Leu Glu Ala Pro Thr Ala Glu Asn Val Asn Gly
                            635 640
              630
Glu Val Glu Thr Gly Trp Tyr Asp Thr Gly Asp Ile Val Arg Phe Asp
                         650 655
           645
Asp Gln Gly Phe Val Gln Ile Gln Gly Arg Ala Lys Arg Phe Ala Lys
                      665
Ile Ala Gly Glu Met Val Ser Leu Glu Met Val Glu Thr Leu Ala Thr
     675
                   680
                       685
Ala Val Ser Ala Glu Lys Met His Ala Thr Val Val Lys Ser Asp Ala
                695
Ser Lys Gly Glu Ala Leu Val Leu Phe Thr Thr Asp Gly Glu Leu Lys
                             715
```

Arg Asp Ala Leu Leu Arg Tyr Ala Arg Glu His Gly Ile Pro Glu Leu 730 725 Ala Val Pro Arg Asp Ile Arg Tyr Leu Lys Gln Leu Pro Val Leu Gly 745 740 Ser Gly Lys Pro Asp Phe Val Thr Leu Lys Gly Met Val Glu Glu Ala 755 760 Glu Gln Gln Asn Ala 770

<210> 7553

<211> 405

<212> PRT

<213> Enterobacter cloacae

<400> 7553 Phe Leu His Ser Cys Met Ile Cys Tyr Thr Gly Thr Ser Gln Ala Glu 10 Phe His Cys Ile Leu Lys Arg Arg Thr Val Met Ser Ala Met Asp Phe Lys Lys His Thr Asp Leu Asn Phe Pro His Tyr Ala Pro Pro Ala Val 4 C Ser Ala Lys Glu Ile Asp Leu Leu Gly Leu Leu Asp Val Leu Leu Ala 55 60 Ala Lys Lys Arg Ile Ile Thr Ile Val Phe Ala Phe Ala Leu Val Gly 65 70 75 Leu Ala Ile Ala Phe Leu Ile Pro Gln Lys Trp Thr Ser Lys Ala Val 85 90 95 Ile Thr Pro Ala Glu Gln Thr Gln Trp Ser Ser Leu Arg Gln Met Met 100 105 110 Val Ala Leu Gln Val Leu Asp Val Asp Val Lys Ile Thr Arg Ala Asp 115 120 125 Val Cys Asn Leu Phe Ile Lys Lys Phe Gln Ser Gln Ser Leu Leu Glu 130 135 140 Glu Tyr Met Lys Ser Ser Pro Tyr Val Met Ala Gln Leu Asp Gly Ala 150 155 Asp Val Asp Pro Leu Glu Leu His Arg Ala Val Val Asn Ile Ala Glu 165 170 175 Lys Met Lys Ala Val Asp Asn Thr Gln Glu Lys Asn Ala Asp Lys Ala 180 185 190 Pro Tyr Leu Ser Trp Thr Leu Ser Phe Thr Ala Pro Thr Ala Glu Asp 1 9 5 200 205 Ala Gln Lys Val Leu Asn Gly Tyr Ile Gln Tyr Ile Ser Arg Ile Val 210 215 220 Glu Gln Glu Thr Met Gln Asn Ile Arg Asp Gln Leu Ile Leu Lys Thr 230 235 Lys Thr Val Gln Gln Gln Leu Glu Ser Asp Arg Val Arg Leu Thr Asn 245 250 Ile His Asn Thr Asn Leu Gln Arg Leu Asn Tyr Ser Leu Glu Val Ala 260 265 Asn Ala Ala Gly Ile Lys Lys Pro Val Tyr Ser Asn Gly Gln Ala Val 275 280 285 Lys Asp Asp Pro Asp Tyr Ser Val Ala Leu Gly Ala Asp Gly Ile Ala 290 295 300 Gln Lys Leu Gln Ile Glu Lys Asn Leu Lys Asp Val Ser Glu Leu Asn 31.0 315 Ala Asp Phe Gln Asn Arg Glu Tyr Tyr Leu Ala Gln Leu Gln Lys Leu

Ser Phe Glu Asp Val Ser Leu Glu Pro Phe Lys Tyr Gln Leu Ser Pro 340 345 350 Ser Met Pro Val Lys Lys Asp Gly Pro Gly Lys Ala Leu Ile Val Leu 360

330 335

325

Pro Val Thr Glu

405

<210> 7554 <211> 395 <212> PRT

<213> Enterobacter cloacae

<400> 7554

His Gln Lys Arg Arg Ser Thr Glu Arg Leu Phe Leu Phe Gln Glu Ile 1 5 10 15 Phe Ala Tyr Arg Arg Lys Gly Ile Gln Gln Gly Ala Gly Phe Gln Ala 20 25 Asp Dla Ala Val Mig Mig Charles Arg Day Day Charles Clu Clu Val Dla Arg

Asn Ala Ala Val His His Val Arg Arg Phe Ile Glu Gly Val Ala Arg
35 40 45
Gly His His Met Leu Leu Leu Ala Asn Gly Gly Lou Lye Phe Pro Arg

Gly His His Met Leu Leu Leu Ala Asn Gly Glu Leu Lys Phe Pro Arg 50 55 60

Glu Asn Val Gly Glu Leu Leu Met Arg Val Val Met His Arg Ala Asn 65 70 75 80

Arg Ala Phe Leu Glu Ile His Phe His Arg His His Pro Ala Val Val 85  $90\,$  95 Arg Gln Asn Thr Thr Arg His Ala Val Ala Gln Ile Leu Lys Arg Gly

100 105 110 Leu Phe Met Glu Asn Lys His Ile Phe Ala Leu Leu Cys Asn Glu Thr

115 120 125 Leu Phe Gln Leu Thr Tyr Leu Thr Arg Arg Glu Lys Glu Thr Phe Ser

130 135 140

Gln Ile Thr Gly Lys Ala Ile Thr Ser Leu Leu His Trp Val Lys Arg 145 155 150 160 Thr Gly Gly Lys Met Lys Thr Ile Gly Ley Ley Gly Met Sor Trp

Thr Gly Gly Lys Met Lys Thr Ile Gly Leu Leu Gly Gly Met Ser Trp 165 170 Glu Ser Thr Ile Pro Tyr Tyr Arg Leu Ile Asn Glu Gly Val Lys Gln

180 185 190

Arg Leu Gly Gly Leu His Ser Ala Ser Leu Leu Leu His Ser Val Asp
195 200 205

Phe His Glu Ile Glu Ala Cys Gln Ser Ser Gly Glu Trp Asp Lys Ala 210 215 220

Gly Gln Ile Leu Ala Asp Ala Ala Leu Gly Leu Glu Arg Ala Gly Ala 225 230 235 240

Gln Gly Ile Leu Leu Cys Thr Asn Thr Met His Lys Val Ala Ser His 245 250 255 Ile Glu Asp Arg Cys Ser Leu Pro Phe Leu His Ile Ala Asp Ala Thr

260 265 270
Gly Arg Ala Ile Arg Thr Ala Gly Met Thr Arg Val Ala Leu Leu Gly

275 280 285

Thr Arg Tyr Thr Met Glu Gln Asp Phe Tyr Arg Gly Arg Leu Ser Ser 290 295

290 295 300 300 Gln Phe Gly Ile Glu Ser Leu Ile Pro Glu Glu Ala Asp Arg Ala Arg 305 310 315 320

Ile Asn Gln Ile Ile Phe Asp Glu Leu Cys Leu Gly Thr Phe Ser Glu
325 330 335

Ala Ser Arg Ala Trp Tyr Val Ser Val Ile Glu Lys Leu Ala Gln Gln 340 345 350 Gly Ala Glu Gly Val Ile Phe Gly Cys Thr Glu Ile Gly Leu Leu Val

355 360 365 Pro Ala Asp Arg Ser Pro Ile Ser Val Phe Asp Thr Ala Ala Ile His

375



Ala Ala Asp Ala Val Glu Phe Met Leu Ser 390 <210> 7555 <211> 455 <212> PRT <213> Enterobacter cloacae <400> 7555 Ala Cys Ser Ile Ser Phe Leu His Arg Leu Thr Ile Lys Arg Tyr Phe 10 Leu Phe Ser Ser Gly Tyr Gly Val Met Ile Lys Asn Arg Phe Pro Glu 25 20 Thr Thr Met Pro Arg Pro Leu Asn Gln Thr Glu Thr Asp Leu Asn Ala 35 40 45 Asp Asn Leu Leu Arg Leu Pro Ala Glu Phe Gly Cys Pro Val Trp Val 55 Tyr Asp Ala Gln Ile Val Arg Glu Lys Ile Ala Ala Leu His Gln Phe 65 70 75 Asp Val Val Arg Phe Ala Gln Lys Ala Cys Ser Asn Ile His Ile Leu 85 90 95 Arg Leu Met Arg Glu Gln Gly Val Lys Val Asp Ser Val Ser Leu Gly 100 105 110 Glu Ile Glu Arg Ala Leu Val Ala Gly Phe Asp Pro Lys Ala Asp Ser 115 120 125 Asp Ala Ile Val Phe Thr Ala Asp Leu Ile Asp Asp Ala Thr Leu Ala 130 135 140 Arg Val His Glu Leu Gln Ile Pro Val Asn Ala Gly Ser Val Asp Met 145 150 155 Leu Glu Gln Leu Gly Gln Val Ser Pro Gly His Arg Val Trp Leu Arg 165 170 175 Val Asn Pro Gly Phe Gly His Gly His Ser Gln Lys Thr Asn Thr Gly 180 185 190 Gly Glu Asn Ser Lys His Gly Ile Trp Tyr Ala Asp Met Pro Ala Ala 195 200 205 Leu Glu Val Leu Gln Arg Tyr Asn Leu Lys Leu Val Gly Ile His Met 215 220 His Ile Gly Ser Gly Val Asp Tyr Gly His Leu Glu Gln Val Cys Gly 225 230 235 Ala Met Val Arg Gln Val Ile Asp Phe Gly Gln Asp Leu Glu Ala Ile 245 250 255 Ser Ala Gly Gly Gly Leu Ser Ile Pro Tyr Arg Glu Gly Glu Glu Ala 265 270 Ile Asp Thr Asp His Tyr Tyr Gly Leu Trp Ser Ala Ala Arg Asp Arg 275 280 Ile Ala Ala His Leu Gly His Ala Val Lys Leu Glu Ile Glu Pro Gly 290 295 300 Arg Phe Leu Val Ala Glu Ala Gly Val Leu Val Ala Gln Val Arg Ser 310 315 Val Lys Glu Met Gly Ser Arg His Phe Val Leu Ile Asp Ala Gly Phe 325 330 335 Asn Asp Leu Met Arg Pro Ser Met Tyr Gly Ser Tyr His His Ile Thr 340 350 345 Ala Leu Ala Ala Asp Gly Arg Asp Leu Val Asn Ala Pro Arg Ile Glu 355 360 365 Thr Val Val Ala Gly Pro Leu Cys Glu Ser Gly Asp Val Phe Thr Gln 375 380 Glm Glu Gly Gly Lys Val Glu Thr Arg Ser Leu Pro Glu Val Lys Pro 390 395 Gly Asp Tyr Leu Val Leu His Asp Thr Gly Ala Tyr Gly Ala Ser Met

410

```
Ser Ser Asn Tyr Asn Ser Arg Pro Leu Leu Pro Glu Val Leu Phe Asp
             425
       420
Asn Gly Val Ala Arg Leu Ile Arg Arg Arg Gln Thr Ile Gln Glu Leu
      435
                      440
Leu Ala Leu Glu Leu Val
   450
                   455
<210> 7556
<211> 310
<212> PRT
<213> Enterobacter cloacae
<400> 7556
Arg Ala Trp Leu Lys Arg Gln Asn Ser Lys Met Arg Glu Ser Val His
                            10
Thr Asn Thr Ser Ile Trp Ser Lys Gly Met Met Ala Val Ile Ala Ala
       20
                         25
                                         3.0
Gln Phe Leu Ser Ala Phe Gly Asp Asn Ala Leu Leu Phe Ala Thr Leu
    35
                      4.0
                                 4.5
Ala Leu Leu Lys Ala Glu Phe Tyr Pro Asp Trp Ser Gln Pro Ile Leu
5.0
                                   60
                  55
Gln Met Val Phe Val Gly Ala Tyr Ile Val Phe Ala Pro Phe Val Gly
               7.0
                               75
Gln Val Ala Asp Ser Phe Pro Lys Gly Arg Val Met Met Phe Ala Asn
            85 90 95
Ser Leu Lys Leu Leu Gly Ala Ala Ser Ile Cys Phe Gly Ile Asn Pro
         100 105
Phe Val Gly Tyr Thr Leu Val Gly Ile Gly Ala Ala Ala Tyr Ser Pro
     115
          120
Ala Lys Tyr Gly Ile Leu Gly Glu Leu Thr Thr Gly Asp Lys Leu Val
               135 140
 130
Lys Ala Asn Gly Leu Met Glu Ser Ser Thr Ile Ala Ala Ile Leu Leu
145 150 155 160
Gly Ser Val Ala Gly Gly Val Leu Ala Asp Trp His Val Leu Ala Ala
            165
                 170
Leu Gly Ile Cys Ala Leu Met Tyr Gly Gly Ala Val Ile Ala Asn Leu
         180
                       185
Phe Ile Pro Lys Leu Ala Val Ala Arg Pro Gly Gln Ser Trp Arg Phe
           200
                                      205
Gly Pro Met Thr Gly Ser Phe Phe Asn Ala Cys Arg Val Leu Trp Arg
 210 215
                                 220
Asn Gly Glu Thr Leu Phe Ser Leu Met Gly Thr Ser Met Phe Trp Gly
               230 235
Ala Gly Val Thr Leu Arg Phe Leu Leu Val Leu Trp Val Pro Val Ala
             245
                             250
Leu Gly Ile Thr Asp Asn Ala Thr Pro Thr Tyr Leu Asn Ala Met Val
                          265 270
         260
Ala Val Arg Ile Val Val Arg Ala Gly Ala Ala Ala Lys Leu Val Thr
                      280
                                      285
Leu Glu Asn Arg Pro Arg Ala Ala Cys Leu Pro Gly Ile Leu Asp Trp
                  295
                                   300
Gly Pro Ala Phe Cys Ser
305
<210> 7557
<211> 180
<212> PRT
<213> Enterobacter cloacae
<400> 7557
Ser Arg Gly Arg Ile Lys Met Gln Tyr Thr Arg Leu Gly Lys Ser Asp
```

```
10
Leu Leu Val Ser Arg Ile Cys Met Gly Cys Met Gly Phe Gly Asp Pro
                            25
Leu Thr Gly Gln His Arg Trp Thr Leu Asp Glu Thr Ala Ser Arg Asp
       35
                         4.0
Ile Ile Arg Tyr Gly Leu Glu Lys Gly Ile Asn Phe Tyr Asp Thr Ala
                     55
Ile Ala Tyr Gln Asn Gly Ser Ser Glu Arg Tyr Val Gly Arg Ala Leu
                 7.0
Arg Glu Met Ala Lys Arg Glu Asp Val Val Leu Ala Thr Lys Phe Leu
             85
                               90
Pro Arg Thr Ala Ala Gln Ile Ala Ala Gly Ile Gly Gly Lys Glu Ala
        100 105
Ile Ala Arg Ser Leu Asp Gln Ser Leu Gln Asn Leu Gly Met Asp Tyr
    115 120 125
Ile Asp Leu Tyr Ile Tyr His Ile Trp Asp Tyr Asn Thr Pro Val Ile
 130 135 140
Glu Val Leu Glu Ala Leu His Ala Ala Val Thr Ala Gly Lys Val Arg
145 150 155
Ala Ile Gly Ile Ser Asn Cys Tyr Ala Trp Gln Leu Ala Lys Ala Asn
             165
                               170
Ala Leu Ala
          180
<210> 7558
<211> 121
<212> PRT
<213> Enterobacter cloacae
<400> 7558
Arg Glu Gly Leu Thr Ala Phe Val Ser Val Gln Ser His Tyr Asn Leu
                               1.0
Ile Met Arg Glu Asp Glu Arg Glu Leu Phe Gly Leu Cys Ala Glu Asp
                           25
Asp Ile Ala Met Thr Pro Tyr Ser Ala Leu Ala Ser Gly Arg Leu Ser
                       40
Arg Lys Glu Gly His Thr Arg Arg Ala Ser Glu Asp Ala Tyr Ala Arg
                  5.5
                                     60
Gly Lys Tyr Asp Ser Thr Ala Glu Gln Asp Arg Ser Ile Ile Glu Arg
           70
                                  75
Val Ala Glu Leu Ala Glu Arg His Gln Val Ser Met Thr Glu Ile Ser
             85 90
Leu Ala Trp Leu Leu Thr Lys Val Thr Ser Pro Val Val Gly Ala Arg
         100 105
Lys Lys Ile Thr Ser Met Ala Arg
      115
<210> 7559
<211> 203
<212> PRT
<213> Enterobacter cloacae
<400> 7559
Thr Arg Ile Tyr Arg Val Leu Cys Gln Gln Gly Met Pro Leu Arg Leu
                            10
Leu Ser Ile Tyr Asn Ser His Leu Arg Asn Thr Met His Ile Arg Lys
          20
Gly Leu Ser Thr Asp Leu Ala Arg Leu Glu Cys Cys Asp Phe Ser Phe
     3.5
                     40
                                         4.5
Thr Val Asp Glu Ile Ala Arg Glu Pro Phe Leu Asn Gly Asp Leu His
```

```
Ile Glu Ala Leu Thr Glu Pro Tyr Leu Lys Thr Tyr Glu Leu Asp Leu
Gln Thr Leu Glu Asn His Cys Val Asn Pro Asp Ser Ile Phe Leu Ile
           85
Ala Glu Thr Asp Asp Gly Glu Ile Ala Gly Phe Ile Thr Ala Ser Cys
         100
                         105
Asn Trp Asn Lys Phe Ile Ser Val Asp Tyr Ile Ala Val Glu Arg Ser
    115
                                     125
Lys Arg Arg Thr Gly Ala Ala His Lys Leu Met Ser Ala Thr His Val
 130 135
                       140
Trp Ala Arg Ser Leu Asn Ala Pro Gly Leu Arg Leu Glu Thr Gln Asn
145 150 155 160
Val Asn Val Ser Ala Cys Leu Phe Tyr Arg His Tyr Gly Phe Ile Leu
       165 170 175
Gly Gly Tyr Asp Arg Tyr Leu Tyr Asn Ala Leu Pro Glu Lys Asp Glu
        180 185 190
Val Ala Leu Phe Trp Tyr Tyr Met Leu Ala
             200
<210> 7560
<211> 197
<212> PRT
<213> Enterobacter cloacae
<400> 7560
Arg Leu Ile Leu Glu Leu Thr Ile Lys Glu Ala Gly Met Ser Thr Gly
                       10
Asn Asn His Thr Leu His Tyr Pro Arg Pro Pro Phe Ala Glu Gln Pro
                       25
Gln Arg Ala Pro Gly Leu Ala Ser Glu Met Lys Pro Ile Pro Asp His
                40 45
Gly Glu Thr Ser Tyr Ile Gly Ser Gly Lys Leu Ala Gly Lys Lys Ala
50 55 60
Leu Ile Thr Gly Gly Asp Ser Gly Ile Gly Arg Ala Val Ala Ile Ala
            70
                              75
Tyr Ala Arg Glu Gly Ala Asp Val Ala Ile Gly Tyr Leu Pro Glu Glu
            85
                            90
Glu Ser Asp Ala Ala Ser Val Ile Ala Leu Ile Gln Ala Glu Gly Arg
        100 105 110
Lys Ala Val Ala Ile Pro Gly Asp Ile Arg Val Glu Ser Phe Cys Asp
     115 120 125
Thr Leu Val Glu Lys Ala Val Ala Glu Leu Gly Gly Leu Asp Ile Leu
 130 135 140
Val Asn Asn Ala Gly Arg Gln Gln Tyr Cys Glu Ser Ile Asp Asp Leu
145 150
                               155
Thr Thr Ala Asp Phe Asp Ala Thr Phe Lys Thr Asn Val Tyr Ala Pro
           165 170
Phe Trp Ile Thr Lys Ala Ala Leu Arg Leu His Pro Arg Glu Arg Ala
         180
                      185
Arg Ser Arg Ala
      195
<210> 7561
<211> 403
<212> PRT
<213> Enterobacter cloacae
<400> 7561
Gly Gly Ser Gln Pro Gly Trp Gly Ile Pro Ser Gly Gly Leu Gly Arg
```

Phe Ile Gln Lys Pro Pro Asn Cys Ser Glu Asn Val Leu Met Asp Gly

```
25
Arg Leu Ile Arg Gly Gln Asn Pro Val Ser Ala His Gly Val Gly Gly
     35
                   4.0
                                  45
Ala Leu Leu Asn Ala Val Gly Gln Pro Ser Lys Asn Ile His Leu Ser
                 55
Phe Thr Val Thr His Pro Leu Trp Pro Val Tyr Val Ser Asn Val Pro
            70
                           75
Ala Phe Phe Gln Glu Leu Asn Met Lys Ser Leu Pro Ser Val Ala Leu
        8.5
                       90
Gly Thr Trp Ser Trp Gly Thr Gly Phe Ala Gly Gly Asp Thr Val Phe
       100 105
                           110
Gly Asn His Leu Ser Asp Thr Gln Met Ala Asp Val Phe Thr Thr Ala
   115 120 125
Met Ser Lys Gly Leu Asn Leu Trp Asp Thr Ala Ala Val Tyr Gly Met
 130 135 140
Gly Ser Ser Glu Ala Ala Leu Gly Ala Leu Val Arg Gln Phe Pro Arg
145 150 155 160
Glu Asp Met Ile Leu Ser Thr Lys Phe Thr Pro Gln Ile Ala Asn Glu
        165 170 175
Gln Ser Ala Gln Pro Val Ser Asp Met Leu Glu Ala Ser Leu Gly Arg
 180 185 190
Leu Gly Val Asp Ala Ile Asp Ile Tyr Trp Ile His Asn Pro Leu Asp
195 200 205
Val Glu Lys Trp Thr Pro Gly Leu Ile Pro Leu Leu Gln Ser Gly Lys
210 215 220
Val Lys Arg Val Gly Val Ser Asn His Asn Leu Ala Gln Ile Arg Arg
225 230 235
Ala Asn Glu Ile Leu Asn Ala Ser Gly Tyr Ser Leu Ser Ala Val Gln
      245 250 255
Asn His Tyr Ser Leu Leu Tyr Arg Ala Ser Glu Glu Ala Gly Ile Leu
      260 265 270
Gly Tyr Cys Arg Gln Asn Asn Ile Thr Phe Phe Ala Tyr Met Val Leu
275 280 285
Glu Gln Gly Ala Leu Ser Gly Arg Tyr Asp Ser Asn His Pro Met Pro
290 295 300
Ala Gly Ser Gly Arg Ala Glu Ser Tyr Asn Ala Val Leu Pro Gln Leu
305 310 315
Glu Arg Leu Thr Ala Ala Met Lys Lys Met Gly Ala Asp Arg Asn Ala
           325 330 335
Ser Val Ala Gln Ile Ala Ile Ala Trp Ala Ile Ala Lys Gly Thr Leu
        340 345 350
Pro Leu Val Gly Ala Thr Lys Val His His Val Leu Asp Ala Ala Cys
    355 360
Ala Ser Asp Ile Gln Leu Arg Asp Glu Glu Ile Ile Leu Leu Glu Gln
 370 375 380
Leu Ala Thr Glu Thr Arg Val Asp Thr Arg Gly Ala Trp Glu Lys Pro
              390
                             395
Met Val
```

```
<210> 7562
<211> 358
<212> PRT
<213> Enterobacter cloacae
```

```
40
Thr Val Ala Asp Gly His Asn Pro Asp Arg Ser Arg Pro Gln Ile Glu
                 55
Lys Asn Ala Leu Ile Asn Ala Lys Gly Ala Asp Leu Gly Ser Arg Arg
Leu Arg Asp Met Asp Glu Ala Gly Ile Thr Leu Gln Ile Leu Ser Val
          85
Gly Gly Phe Pro Gln Leu Ala Pro Gly Asp Glu Ala Val Thr Leu Asn
        100
                       105
                              110
Thr Ala Ala Asn Asp Arg Leu Ala Gly Ala Val Arg Asn His Pro Asp
                  120
                            125
     115
Arg Phe Ala Ala Phe Ala Thr Leu Pro Trp Ala Gln Pro Glu Glu Ala
                         140
      135
Glu Lys Glu Leu Val Arq Ala Val Glu Lys Leu Gly Phe Lys Gly Ala
    150 155
Leu Leu Asn Gly Arg Pro Ser Ser Cys Phe Leu Asp His Pro Asp Tyr
         165 170 175
Asp Ser Leu Leu Ser Arg Phe Asn Lys Leu Asn Val Pro Leu Tyr Leu
      180 185 190
His Pro Gly Leu Pro Leu Lys Ser Val Gln Gln Ala Tyr Phe Thr Gly
         200
 195
                         205
Phe Asn Ala Glu Val Asn Ala Arg Leu Ser Met Phe Gly Trp Gly Trp
210 215
His His Glu Ala Gly Ile His Leu Leu Arg Leu Met Leu Ser Gly Ala
225 230 235
Phe Asp Lys Tyr Pro His Leu Gln Val Ile Ser Gly His Trp Gly Glu
           245
                 250
Met Leu Pro Phe Trp Leu Gln Arg Leu Asp Asp Ser Leu Pro Leu Ala
            265 270
Ala Thr Gly Leu Ser Arg Thr Leu Thr Arg Thr Phe Gln Glu His Val
275 280 285
Tyr Val Thr Pro Ser Gly Met Leu Thr Leu Pro His Phe Gln Phe Ile
      295
Tyr Ala Leu Met Gly Ala Asp Arg Ile Leu Phe Ser Val Asp Tyr Pro
305 310
                             315
Tyr Gln Thr Leu Asp Gly Val Lys Thr Phe Ile Asp Ser Leu Pro Val
           325
                          330
Asn Lys Ala Glu Lys Glu Ala Ile Ala Phe Arg Asn Ala Glu Arg Leu
Leu Gly Ile Thr Ala
     355
```

<210> 7563 <211> 194 <212> PRT <213> Enterobacter cloacae

```
100
                         1.05
Ala Pro Gln Ala Leu Tyr Thr Ala Asp Gly Phe Phe Gly His Ala Ile
     115
                    120
                                      125
Glu Glu Tyr Leu Ile Pro Phe Glu Thr Thr Ala Lys Leu Cys Asn Leu
                                   140
                135
Glu Leu Leu Glu Pro Val Tyr Thr Cys Gly Ile Ser Tyr Ala Asp Arg
                                155
145
       150
Asp Ala Asp Lys Leu Ala Gln Gln Lys Thr Leu Ala Arg Glu His Ala
        165 170 175
Leu Arg Leu Val His Leu Leu Asn Ser Val Val Asn Asn Pro Glu Gly
                        185
Glu
<210> 7564
<211> 214
<212> PRT
<213> Enterobacter cloacae
<400> 7564
Arg Phe Thr Val Leu Leu Arg Gln Arg Arg Phe Met Met Val Leu Leu
                       10
Gln Arg Arg Ala Ala Ala Leu Phe Leu Phe Ala Phe Ile Phe Leu Met
20
                25
                                         3.0
Pro Ala Ser His Ala His Ser Arg Glu Lys Thr Asp Ile Lys Thr Leu
3.5
                  4.0
                                      4.5
Val Ile Val Ser His Pro Tyr Pro Glu Arg Ser Val Leu Thr Lys Gly
50 55
                        60
Leu Gln Glu Ala Ala Glu Ser Leu Glu Gly Val Thr Val Arg Asn Leu
65 70 75
Glu Thr Leu Tyr Gly Tyr Asp Thr Arg Arg Ile Asn Gly Asp Ala Glu
          85
                            90
Arg Lys Met Met Arg Glu His Arg Arg Val Val Phe Ile Phe Pro Thr
   100 105 110
His Trp Phe Asn Ile Thr Pro Met Met Lys Ala Trp Leu Asn Glu Thr
115 120 125
Trp Gly Ser Val Gly Pro Gly Let Trp Gln Gly Lys Glu Met Phe Ile
                  135 140
Val Ser Thr Ala Ala Gly Gly Ser Ser Thr Tyr Gly Thr Asp Gly Arg
               150 155 160
Ile Gly Val Ser Leu Ala Asp Val Phe Leu Pro Met Lys Ala Ser Ala
            165 170 175
Leu His Ala Gly Met Thr Trp Leu Pro Pro Leu Val Phe Glu Ser Ala
         180 185 190
Ser Ser Asp Arg Leu Pro Ser Tyr Gln His Gln Leu Ile Glu Arg Leu
 195
Lys Gln Pro Phe Gln
  210
<210> 7565
<211> 254
<212> PRT
<213> Enterobacter cloacae
<400> 7565
Asn Val Leu Asn Ser His Phe Ser Lys Arg Ile Ile Val Lys Lys Thr
                                          15
                            10
Leu Met Leu Leu Ile Cys Met Leu Ile Ser Ser Pro Val Phe Ala Thr
                       25
Lys Leu Asp Ala Pro Asp Lys Arg Val Met Asn Ile Phe Glu Leu Gly
      35
                      4.0
```

```
Val Arg Pro Asp Arg Asp Lys Asp Phe Ala Asp Val Ala Arg Gln Thr
                   55
                                   60
Ile Ser Ala Ser Val Asp His Glu Ala Gly Thr Leu Ala Met Tyr Ala
                                 75
                70
Leu His Arg Ser Asp Asn Pro Arg Gln Ala Phe Met Val Glu Leu Tyr
                             90
             85
Glu Asn Glu Asn Ala Tyr Arg Lys His Leu Asn Ala Glu Pro Tyr Lys
                         105
    100
Ala Phe Ala Asp Arg Ala Pro Asp Ile Ile Asp Gln Lys Asn Lys Ile
 115 120 125
Thr Leu Glu Pro Gln Phe Leu Gly Asp Lys His Ile Ile Pro Asp Glu
 130 135
                                    140
Arg Thr Ile Asn Asn Leu Val Ile Val Glu Val Lys Pro Glu Phe Gln
145 150
                                155
Thr Glu Phe Lys Asn Ile Val Leu Pro Glu Met Ala Glu Ser Leu Lys
      165 170 175
Val Glu Lys Gly Val Leu Ala Met Tyr Ala Ala Thr Asp Ser Gln Thr
       180 185 190
Pro Asn Arg Trp Tyr Phe Tyr Glu Ile Tyr Ala Ser Glu Glu Ala Tyr
195 200 205
Gln Leu His Arg Gln Thr Pro His Phe Arg Asp Tyr Leu Arg Gln Thr
210 215 220
Ala His Met Ser Ala Ser Lys Asn Ala Ile Pro Val Lys Pro Val Phe
225 230 235
Leu Arg Asn Lys Ser Gly Ile Lys Gln Asp Pro His Arg 245 \ \ 250
<210> 7566
<211> 273
<212> PRT
<213> Enterobacter cloacae
<400> 7566
Pro Val Arg Ile Asn Met Lys Ser Val Ile Ala Ala Ala Met Ser
                            10
Leu Val Ile Ser Asp Phe Ala Thr Ala Glu Glu Thr Arg Gly Lys Ala
                        25
                                          3.0
Met Met Lys Ile Glu Pro Ser Thr Ile Ser Glu Ala Asp Ile Arg Ser
    35
                       40 45
Val Ser Pro Ala Leu Ala Arg Phe Gly Arg Glu Ala Ile Thr Glu Asp
                   55
Leu Trp Thr Arg Asp Ala Leu Ser Pro Arg Asp Arg Ser Met Val Thr
65 70 75 80
Val Ala Met Leu Ile Ala Arg Asn Gln Pro Gly Asp Leu Lys His Tyr
            8.5
                             90
Met Asp Ile Ala Leu Asp Asn Gly Val Thr Pro Ala Glu Leu Ser Glu
                        105
         100
Ile Ile Thr His Leu Ala Phe Tyr Ser Gly Trp Pro Asn Ala Met Ser
                      120 125
      115
Ala Val Ser Val Thr Lys Ala Val Phe Glu Thr Arg Gly Val Thr Ala
                                   140
                   135
Asp Ala Leu Pro Asp Ala Ser Pro Asp Leu Leu Pro Leu Asn Gln Gln
                150 155
Ala Glu Lys Gln Arg Ser Glu Thr Val Glu Lys Asn Val Gly Pro Ile
                              170
             165
Ser Pro Gly Leu Val Lys Phe Thr Ala Asp Pro Leu Phe Leu Asp Leu
                          185 190
          180
Trp Gln Arg Pro Ala Leu Lys Pro Arg Asp Arg Ser Leu Ile Thr Val
      195
                      200
                                        205
Ser Ala Leu Ile Ala Ser Gly Gln Ser Ala Gln Ile Gly Tyr His Leu
```

215

<210> 7567

Asn Arg Ala Met Asp Asn Gly Leu Ser Val Glu Glu Ala Gly Glu Ile 225 230 235 235 240 Val Thr Gln Ala Ala Phe Tyr Ala Gly Trp Pro Asn Ala Phe Thr Ala 245 Ala Pro Val Val Gly Glu Val Leu Asn Asn Arg Ser Ser Lys Arg 260 265 270

<211> 497 <212> PRT <213> Enterobacter cloacae <400> 7567 Gly Val Ser Cys Asn Asp Lys Val Gln Met Val Arg Leu Pro Pro Cys - 5 10 Lys Ser His Leu Tyr Ser Phe Val Ile His Thr Leu Phe Ser Glu Asp 25 30 20 Asn Leu Met Thr Leu Phe Ser Ser Gln Pro Gly Asp Glu Gly Leu Pro 40 Gly Pro Ala Arg Ala Arg Val Met Ala Ala Ile Met Thr Thr Leu 50 55 Met Gly Val Phe Asp Gly Thr Met Ile Asn Ile Ala Leu Pro Ser Met 75 80 7.0 Ala Gln Glu Met Gln Val Pro Ala Ser Ile Ala Val Trp Phe Ala Asn 85 90 Gly Tyr Leu Leu Ala Ala Ala Met Ser Leu Ala Ile Phe Ala Ala Leu 100 105 110 Ala Ala Arg Leu Gly Tyr Arg Pro Val Phe Leu Ala Gly Leu Thr Thr 120 125 115 Phe Thr Leu Thr Ser Leu Gly Cys Ala Leu Ala Lys Thr Pro Glu Val 130 135 140 Leu Ile Gly Met Arg Val Leu Glr. Gly Ile Gly Gly Ala Ala Thr Leu 145 150 155 160 Ser Ile Ala Pro Ala Ile Leu Arg Ser Val Phe Pro Gly Arg Leu Leu 165 170 175 Gly Arg Ile Leu Gly Leu His Ala Leu Leu Ile Ala Ser Ser Ser Ala 185 190 180 Ile Gly Pro Val Leu Gly Gly Thr Ile Leu His Thr Leu Ser Trp Gln 200 205 195 Trp Leu Phe Ala Ile Asn Val Val Pro Gly Thr Leu Ala Leu Leu Leu 215 220 210 Ala Val Lys Ala Leu Pro Arg Asp Ala Val Arg Lys Gin Ala Pro Phe 235 225 230 Asp Thr Pro Gly Ala Ile Leu Ser Ala Leu Leu Leu Gly Ser Thr Ile 250 245 Met Ala Ala Asn Ser Leu Gln Glu Ala Thr Tyr His Pro Gly Ser Leu 265 260 Cys Trp Thr Val Leu Ala Ala Leu Ser Gly Met Ala Phe Ile Trp Gln 280 285 Ile Arg Arg Thr Asp Asn Pro Leu Leu Pro Pro Thr Met Phe Lys Asn 295 300 290 Glu Arg Phe Thr Leu Ala Ala Phe Thr Ser Met Ile Ala Phe Val Ser 315 310 Gin Gly Ile Thr Phe Ile Ala Leu Pro Phe Leu Phe Gln Ser Glu Tyr 330 Gly Tyr Ser Pro Val Leu Ser Ala Leu Leu Phe Thr Pro Trp Pro Leu 345 340 350 Gly Ile Val Leu Ile Ala Pro His Ala Gly Arg Trp Ala Asp Thr Ile 360

```
Ser Ala Pro Ala Ile Ser Thr Leu Gly Leu Val Ile Phe Val Val Gly
                 375
                                 380
 370
Leu Ile Leu Leu Ala Thr Leu Pro Asp Arg Pro Thr Met Trp Asp Ile
              390
                             395
Cys Leu Arg Ser Leu Val Cys Gly Met Gly Phe Gly Cys Phe Gln Ser
     405 410
                               415
Pro Asn Asn Arg Glu Met Leu Ser Asn Val Ile Arg Glu His Ala Ser
   420 425
                                      430
Tyr Ala Ser Gly Val Leu Ser Ile Met Arg Thr Phe Gly Gln Cys Leu
     435 440 445
Gly Ala Ala Ala Val Ala Val Leu Leu Ala Ala Asp Glu Arg Ser Ile
 450 455 460
His Val Ala Leu Trp Val Ala Ala Ala Ala Ser Ala Val Ala Val Val
465 470 475
                                 480
Val Ser Ala Ser Arg Leu Arg Lys Ile Thr His Pro Ala Glu Thr Gly
          485 490
```

```
<210> 7568
<211> 183
<212> PRT
<213> Enterobacter cloacae
<400> 7568
His Ala Arg Cys Pro Gly Arg Gly Arg Ser Cys His Arg Lys Thr Ala
Gly Lys Glu Thr Ala Val Gly Arg Val Thr Ala Pro Glu Pro Leu Ser
          20
                             25
Ser Val His Gln Leu Ala Glu Phe Val Ser Gly Glu Ala Val Leu Asp
 35
                         40
Glu Trp Leu Lys Gln Arg Gly Leu Lys Asn Gln Ala Leu Gly Ala Ala
50
                     55
Arg Thr Phe Val Ile Cys Lys Thr Gly Thr Lys Gln Val Ala Gly Phe
                  70
                                    75
Tyr Ser Leu Ala Thr Gly Ser Val Asn His Thr Gln Ala Thr Gly Asn
                                90
              8.5
Leu Arg Arg Asn Met Pro Asp Pro Ile Pro Val Ile Ile Leu Ala Arg
                             105 110
          100
Leu Ala Val Asp Val Ser Leu Arg Gly Asn Gly Leu Gly Ala Asp Leu
       115
                       120
                                          125
Leu His Asp Ala Val Leu Arg Cys Tyr Arg Val Ala Glu Asn Ile Gly
                                        140
  130
Val Arg Ala Ile Met Val His Ala Leu Thr Glu Glu Ala Lys Ala Phe
                  150
                                    155
145
Tyr Ile His His Gly Phe Lys Ala Ser Gln Thr Gln Glu Arg Thr Leu
              165
                                170
Phe Leu Arg Leu Pro Gln
           180
```

<212> PRT <213> Enterobacter cloacae

<210> 7569 <211> 828

<400> 7569 Trp Arg Ser Ser Ala Met Ile Pro Ser Ser Thr Tyr Arg Ile Gln Phe 10 Arg Asn Gly Met Thr Phe Asp Arg Val Ala Asp Leu Ile Pro Tyr Met 25 30 Lys Asp Leu Gly Ile Ser His Leu Tyr Ala Ser Pro Val Phe Thr Ala ALCOHOLOGY IN THE SECOND SECON

Thr Thr Asn Ser Thr His Gly Tyr Asp Val Thr Asp Pro Asn Glu Ile 55 60 Asp Pro Ala Ile Gly Gly Arg Glu Gly Phe Asp Arg Met Ala Ala Ala 75 70 Leu Lys Gln Ala Gly Met Gly Leu Ile Leu Asp Ile Val Pro Asn His 90 Met Ser Thr Ser Leu Glu Asn Arg Trp Trp Arg Asp Val Ile Glu His 100 105 110 Gly Gly Gln Ser Arg Tyr Ala Ala Tyr Phe Asp Ile Asp Trp Ser Arg 115 120 Pro Leu Thr Leu Pro Phe Leu Gly Asp Thr Phe Glu Ala Glu Leu Glu 130 135 140 Arg Gly Thr Ile Thr Leu Lys Arg Asp Ser Val Thr Asn Ser Ala Ala 130 155 Leu Val Tyr Tyr Asp Thr Ala Tyr Pro Leu Asn Pro Gly Thr Tyr Ala 165 170 175 Glu Gly Lys Ser Ile Ala Glu Ile His Glu Ala Gln Ser Trp Arg Leu 180 185 190 Met Ser Trp Arg Glu Ala Pro Lys Gln Leu Ser Trp Arg Arg Phe Phe 195 200 205 Glu Ile Thr Gly Leu Val Gly Val Arg Val Glu Asp Glu Ala Val Phe 210 215 220 Ala Asp Thr His His Leu Ile Leu Glu Leu Val His Ala Gly Val Val 225 230 235 240 Asp Gly Leu Arg Ile Asp His Val Asp Gly Leu Ala Asp Pro Leu Gly 245 250 255 Tyr Leu Gln Arg Leu Arg Ala Ala Thr Gly Pro Asp Cys Tyr Ile Thr 260 265 270 Val Glu Lys Ile Leu Ala Lys Gly Glu Gln Leu Pro Pro Glu Trp Pro 275 280 285 Ile Ser Gly Thr Thr Gly Tyr Glu Phe Ile Ala Ser Leu Ala Glu Val 290 295 300 Leu Val Asp Asp Thr Asn Leu Ser Arg Leu Glu Met Leu Tyr Asp Glu 310 315 Thr Leu Gly Thr Thr Val Asp Arg Gln Ala Glu Leu Arg Asn Ala Lys 325 330 335 Gly Leu Met Thr Asp Arg Asn Phe Glu Gly Glu Phe Thr Thr Leu Leu 345 350 Lys Ile Ala Ser Glu Leu Ala Gly His Asn Gly Ala Glu Val Glu His 355 360 365 Asp Asp Ile Arg His Ala Leu Arg Glu Leu Leu Ile Ala Phe Pro Val 370 375 380 Tyr Arg Thr Tyr Gly Thr Ala Glu Gly Leu Thr Pro Pro Asp Val Ala 390 395 385 Leu Leu Ser Arg Val Val Ala Ser Val Asn Ala Ser Glu Pro Ala Leu 410 415 405 Ser Leu Ile Val Arg Ile Leu Thr Gly Asp Leu Pro Glu His Asp His 425 430 420 Ala Leu Ala Ser Leu Phe Arg Thr Arg Phe Gln Gln Leu Thr Gly Pro 440 435 Leu Met Ala Lys Ser Val Glu Asp Thr Leu Phe Phe Arg His Asn Leu 460 455 Glu Leu Ala Leu Asn Glu Val Gly Ala Asp Pro Thr Pro Arg Ala Phe 470 475 Ser Leu Ser Arg Phe His Gln Glu Met Arg Ile Arg Leu Ala Arg Gln 485 490 495 Pro Asp Ala Leu Leu Gly Thr Ser Thr His Asp Thr Lys Arg Gly Glu 500 505 510 Asp Ala Arg Ala Arg Leu Tyr Thr Leu Thr Glu Ala Pro Asp Leu Trp 515

```
Gly Glu Asn Leu Ala Arg Trp Arg Gln Met Asn Gln Thr Gln Val Arg
                   535 540
Phe Leu Asn Asp Gly Thr Ala Pro Asn Ala Ala Asp Thr Trp Met Ile
               550
                       555
Phe Gln Ala Leu Ala Gly Val Trp Pro Ala Thr Leu Ser Pro Glu Asp
            565
                   570
Arg Asp Gly Leu Lys Ser Leu Glu Glu Arg Phe Leu Gly Phe Ile Glu
         580
                         585
Lys Ala Leu Arg Glu Ala Lys Gln Arg Thr Asp Trp Ile Asp Ser Asn
                    600 605
Glu Gly Tyr Glu Ser Val Val Leu Asp Tyr Val Arg His Leu Leu Ser
       615 620
Pro Asp Asn Thr Leu Phe Leu Arg Asp Phe Ser Ala Ala Leu Gln Pro
    630 635 640
Phe Ile Arg Ala Gly Leu Met Asn Ser Leu Ser Gln Thr Val Ile Lys
       645 650 655
Leu Thr Ala Pro Gly Val Pro Asp Ile Tyr Gln Gly Ser Glu Gly Leu
   660 665 670
Asn Phe Ser Leu Val Asp Pro Asp Asn Arg Arg Glu Pro Asp Phe Ala
675 680 685
Ala Leu Ala Glu Asn Leu Ser Val Ala Asp Gly Thr Val Phe Asn Asp
690 695
                                  700
Ala Gln Arg Trp Arg Asp Gly Ser Val Lys Gln Tyr Val Thr Ala Thr 705 \phantom{000}710\phantom{0} 710 \phantom{000}720\phantom{0}
Leu Leu Arg Leu Arg Pro His Tyr Pro Ala Leu Phe Arg Tyr Gly Asp
  725 730
Trp Leu Pro Leu Lys Val Thr Gly Glu Arg Glu Glu Asn Leu Ile Val
 740
                        745 750
Tyr Ala Arg Ile Lys Asp Asp Glu Ala Leu Ile Val Ala Val Pro Arg
755 760 765
Leu Val Phe Asp Val Thr Asp Asn Ala Leu Leu Trp Ala Asn Thr Ile
770 775
                                  780
Val Ala Ile Pro Gln Glu Leu Ala Gly Lys His Tyr Arg Asp Leu Phe
785 790 795 800
Thr Gly Glu Arg Arg Leu Leu Pro Asp Tar Leu Asp Leu Thr Ser Glu
     805 810
Lys Gly Cys Leu Leu Val Leu Leu Thr Cys Asp
         820
<210> 7570
<211> 697
<212> PRT
<213> Enterobacter cloacae
<400> 7570
Ser Arg Arg Thr Lys Met Pro Lys Asp Thr Thr Phe Glu Ile Arg Ala
                         10
Gly His Gly Gln Gln Leu Gly Ala Asn Tyr Asp Gly Lys Gly Val Asn
                        25
                                        3.0
Phe Ala Leu Phe Ser Ala His Ala Glu Arg Val Glu Leu Cys Leu Phe
                     40
Asp Pro Ser Gly Lys Thr Glu Ile Ala Arg Leu Glu Leu Pro Glu Tyr
                55
Thr His Glu Val Trp His Gly Tyr Val Pro Asp Leu Lys Pro Gly Ala
        70
Leu Tyr Gly Tyr Arg Val Tyr Gly Pro Tyr Asp Pro Glu Asn Gly His
```

90 Arg Phe Asn Pro Asn Lys Leu Leu Ile Asp Pro Tyr Ala Arg Glu Leu

Val Gly Asp Ile Glu Trp Asn Asp Ala His Phe Gly Tyr Glu Leu Gly 120

85

His Asp Glu Leu Asp Leu Ser Phe Asp Thr Arg Asp Ser Ala Pro Phe 130 135 140 Thr Pro Lys Cys Lys Val Ile Asp Pro Asn Ala Val Asp Trp Gln Asp 150 155 Ser Arg Arg Pro Asp Ile Pro Trp Pro His Thr Val Val Tyr Glu Ser 170 175 165 His Val Lys Gly Phe Thr Gln Leu Asn Pro Ala Ile Gln Pro Glu Leu 180 185 190 Arg Gly Thr Phe Glu Gly Met Gly His Lys Ala Ser Val Glu Tyr Ile 195 200 205 Lys Ser Leu Gly Ile Thr Ser Val Glu Leu Leu Pro Val His Trp Phe 210 215 220 Pro Asp Asp Gln His Leu Leu Asp Arg Gly Leu Lys Asn Phe Trp Gly 225 230 235 240 Tyr Asn Ser Leu Gly Phe Phe Ala Pro Ala Ser Arg Tyr Tyr Gly Pro 245 250 255 Ala Gly Ile Gln Gly Phe Arg Asp Met Val Arg Ala Tyr His Asp Ala 260 265 270 Gly Ile Glu Val Ile Leu Asp Val Val Tyr Asn His Thr Ala Glu Gly 275 280 285 Asn Glu Leu Gly Pro Thr Leu Ser Phe Lys Gly Ile Asp Asn Phe Cys 290 295 300 Tyr Tyr Arg Thr Met Pro Asp Gln His Arg Tyr Tyr Ile Asn Asp Thr 305 310 315 320Gly Thr Gly Asn Thr Val Asn Thr Ser His Pro Arg Val Leu Gln Met 325 330 335 Val Met Asp Ser Leu Arg Tyr Trp Ala Glu Ser Met Gln Ile Asp Gly 340 345 350 Phe Arg Phe Asp Leu Gly Thr Ile Leu Gly Arg Glu Pro Glu Gly Phe 355 360 365 Asp Pro Arg Gly Gly Phe Phe Asp Ala Val Thr Gln Asp Pro Val Leu 370 375 380 Ser Lys Leu Lys Leu Ile Gly Glu Pro Trp Asp Ile Gly Pro Gly Gly 385 390 395 Tyr Gln Val Gly Gly Phe Pro Pro Gly Trp Gly Glu Trp Asn Asp Lys 405 410 415 Tyr Arg Asp Thr Val Arg Glu Tyr Trp Lys Gly Asp Asn Val Ser Asn 425 430 Asp Phe Ala Ala Arg Leu Leu Gly Ser Gly Asp Leu Tyr Asp Leu Arg 435 440 445 Gly Arg Arg Pro Trp Ala Ser Val Asn Phe Ile Thr Ala His Asp Gly 450 455 460 Phe Thr Leu Asn Asp Leu Val Ser Tyr Asn Glu Lys His Asn Ala Asp 470 475 Asn Gly Glu Asp Asn Asn Asp Gly His Asn Asp Asn Arg Ser Tyr Asn 485 490 495 Tyr Gly Glu Glu Gly Pro Thr Glu Asn Pro Asp Ile Ile Ala Thr Arg 505 510 Glu Arg Gln Lys Arg Asn Phe Leu Thr Thr Leu Phe Phe Ser His Gly 515 520 525 Thr Pro Met Leu Leu Ala Gly Asp Glu Phe Gly Arg Thr Gln Lys Gly 530 535 540 Asn Asn Asn Gly Tyr Cys Gln Asp Ser Glu Ile Ser Trp Val Asn Trp 555 550 Glu Gly Leu Thr Glu Asn Asp Glu Lys Leu Arg Asp Phe Thr Arg Arg 565 570 Leu Ile Ala Leu Arg Ala Thr Gln Pro Leu Leu Arg Arg Glu Asn Trp 585 580 590 Arg Asp Gly Leu Glu Ile Arg Trp Phe Asn Ala Gly Gly Gly Pro Gln 600 595 605 Gln Ser Glu Gln Trp Asp Glu Gly Ser Thr Leu Gly Leu Ala Ile Ser

```
615
Arg Pro Asp Leu Glu Glu Glu Gly Val Trp Gln Asp Val Leu Met
         630
                           635
Leu Phe Asn Pro Phe Glu Gly Thr Val Pro Phe Gln Ile Pro Gln Phe
                          650 655
           645
Gly Glu Gly Gly Trp Val Leu Glu Leu Ser Thr Ser Glu Asp Ala Thr
             665
Thr Gly Glu Ile Ile Thr Glu Ser Val Asp Tyr Glu Leu Ala Gly Arg
            680
Ser Ile Thr Leu Phe Arg Arg Pro
<210> 7571
<211> 321
<212> PRT
<213> Enterobacter cloacae
<400> 7571
Asn Ala Leu Ser Glu Cys Thr Gly Met Ser Ala Met Thr Asp Pro Asp
                  10
Phe Asn Leu Leu Ile Ala Leu Asp Ile Leu Leu Ser Glu Ala Ser Val
20 25
                           30
Ala Gly Ala Ala Arg Arg Leu Asn Leu Ser Thr Ser Ala Met Ser Arg
35 40 45
Thr Leu Ser Arg Leu Arg Asp Val Thr Gly Asp Pro Ile Leu Val Arg
50 55
                                60
Ala Gly Arg Asn Met Val Leu Thr Pro Trp Ala Glu Ala Thr Arg Asp
65 70 75 80
Arg Ala Arg Arg Ala Val His Glu Thr Arg Ala Val Leu Gln Pro Ser
        85 90 95
Thr Glu Thr Phe Ser Ala Arg Ser Leu Ala Arg Leu Phe Thr Ile Arg
 100 105 110
Ala Asn Asp Gly Phe Val Val Ala Phe Gly Pro Ala Leu Ile Ala Ala
115 120 125
Val Ala Asp Ala Ala Pro Asp Val Cys Ile Arg Phe Ala Pro Lys Pro
130 135 140
Glu Lys Thr Ser Arg Tyr Leu Arg Glu Gly Leu Val Asp Leu Glu Ile
145 150 155 160
Gly Val Gln Ser Asn Met Gly Pro Glu Ile Arg Leu Gln Arg Leu Phe
           165
                          170 175
Glu Asp Arg Phe Val Gly Val Val Arg Lys Gly His Pro Leu Ala Asn
        180 185 190
Gln Ala Glu Ile Gly Val Lys Asp Tyr Val Ala Trp Gly His Val Val
                    200
                        205
Ala Ser Pro Glu Gly Ala Leu His Gly Ser Val Asp Asp Ala Leu Ala
                215
                                220
Glu Leu Gly Thr Lys Arg Lys Ile Ala Ser Val Val Pro Gly Phe Pro
              230 235
Thr Ala Leu Ser Val Ala Leu Ala Ser Asp Leu Val Ala Met Ile Pro
           245
                          250 255
Ala Leu Tyr Leu Leu Asn Gln Gln Ile Thr Glu Gln Leu His Val Phe
        260 265
Glu Leu Pro Phe Lys Ser Arg Arg Ile Thr Val Ser Gln Met Trp His
    275
                    280
                                    285
Pro Arg Met Glu Arg Asp Pro Gly His Arg Trp Leu Arg Glu Gln Ile
 290 295
                       300
Leu Ala Ile Cys Gly Val Glu Arg Ser Asp Met Ile Lys Ser Ala Val
305
               310
                              315
```

```
<210> 7572
<211> 98
<212> PRT
```

Val

<213> Enterobacter cloacae

<400> 7572 Ser Asn Cys Tyr Thr Arg Gly Ile Pro Met Lys Ser Asp Val Gln Leu Asn Leu Arg Ala Lys Glu Ser Gln Arg Ala Leu Ile Asp Ala Ala Ala 20 25 Glu Ile Leu His Lys Ser Arg Thr Asp Phe Ile Leu Glu Met Ala Cys 4.0 4.5 Gln Ala Ala Glu Asn Val Ile Leu Asp Arg Arg Val Phe Asn Phe Asn 50 55 60 Asp Glu Gin Tyr Ala Glu Phe Ile Asp Met Leu Asp Ala Pro Val Ala 7.0 75 80 Asp Asp Pro Ala Ile Glu Lys Leu Leu Ala Arg Lys Pro Gln Trp Asp 85 90

<210> 7573 <211> 596 <212> PRT <213> Enterobacter cloacae

<400> 7573 Met Glu Phe Arg Thr Cys Arg Arg His Trp Gly Ala Glu Phe Ile Ser 10 Asp Asp Val Val Arg Phe Arg Val Trp Ala Glu Gly Gln Lys Asp Leu 20 25 Thr Leu Arg Leu Thr Asp Thr Asp Ile Pro Met Ala Ala Val Gly Asp 35 40 Gly Trp Phe Gln Ile Asp Val Pro Gly Val Arg His Gly Thr Thr Tyr 55 Gln Phe Val Leu Gln Asp Gly Met Ala Val Pro Asp Pro Ala Ser Arq 70 75 Ala Gln Gln Ala Asp Val Asn Gly Pro Ser Val Val Ile Asp Pro Arg 85 90 Arg Ser Leu Pro Ala Gln Arg Glu Trp Gln Gly Arg Pro Trp Glu Glu 105 110 100 Thr Val Ile Tyr Glu Leu His Ile Gly Thr Phe Thr Gly Glu Gly Thr 115 120 125 Phe Arg Ser Ala Ile Asp Lys Leu Pro Tyr Leu Ala Glu Leu Gly Ile 130 135 140 Thr Gln Leu Glu Val Met Pro Val Ser Gln Phe Gly Gly Ala Arg Gly 145 150 155 160 Trp Gly Tyr Asp Gly Val Leu Leu Tyr Ala Pro His Ser Ala Tyr Gly 165 170 175 Thr Pro Asp Asp Phe His Ala Phe Ile Asp Ala Ala His Ala Leu Gly 185 180 190 Leu Ser Val Val Leu Asp Ile Val Leu Asn His Phe Gly Pro Glu Gly 200 205 Asn Tyr Leu Pro Leu Leu Ser Pro Ala Phe Phe His Gln Asp Arg Met 210 215 220 Thr Pro Trp Gly Asn Gly Ile Ala Tyr Glu Val Glu Ala Val Arg Gln 235 230 Tyr Ile Ala Glu Ala Pro Leu Phe Trp Leu Ser Glu Tyr His Leu Asp 245 250 Gly Leu Arg Phe Asp Ala Ile Asp Gln Ile His Asp Asp Ala Glu Thr 265

```
His Ile Leu Pro Glu Ile Ala Gln Arg Ile Arg Asp Ala Phe Pro Asp
     275
                    280
Arg His Ile His Leu Thr Thr Glu Asp Ser Arg Asn Val Ile Phe Leu
                  295
His Pro Arg Asp Glu His Gly Gln Thr Pro Leu Phe Thr Ala Glu Trp
           310
                              315
Asn Asp Asp Phe His Asn Ala Ala His Val Phe Ala Thr Gly Glu Ser
           325
                           330
His Ala Tyr Tyr Gln Asp Phe Ala Phe Glu Pro Glu Lys Lys Leu Ala
        340
                        345
                                      350
Arg Ala Leu Ala Glu Gly Phe Val Tyr Gln Gly Glu Ile Ser Leu Gln
     355
                         365
                    360
Thr Gly Lys Ser Arg Gly Val Glu Cys Arg Glu Gln Pro Pro Gln Phe
  370 375
                      380
Phe Val Asp Phe Ile Gln Asn His Asp Gln Val Gly Asn Arg Ala Gln
      390
                             395
Gly Glu Arg Leu Ile Ser Leu Ala Gly Ala Asp Lys Thr Arg Val Leu
         405 410
Phe Ala Ala Leu Leu Ser Pro His Ile Pro Leu Leu Phe Met Gly
 420 425 430
Glu Glu Tyr Gly Glu Thr His Pro Phe Leu Phe Phe Thr Asp Phe His
435 440 445
Gly Asp Leu Ala Lys Ala Val Arg Glu Gly Arg Ala Lys Glu Phe Thr
450 455 460
Gly His Ala Gly His Asp Glu Thr Val Pro Asp Pro Asn Asp Leu Asn
465 470 475
Thr Phe Met Arg Ser Lys Leu Asp Trp Asn Lys Ala Asp Thr Glu Glu
    485 490 495
Gly Arg Ala Trp Leu His Val Thr Arg Glu Leu Ile Val Leu Arg Gln
  500 505 510
Arg Phe Ile Val Pro Leu Leu Lys Gln Arg Gly Thr Val Glu Gly Asn
515 520
Val Leu Gln Thr Ala Leu Gly Met Val Ala Val Ser Trp Arg Phe Pro
530 535
                                540
Ser Gly Thr Leu Ser Leu Ala Leu Asn Ile Gly Lys Lys Pro Leu Ala
545 550 555 . 560
Leu Pro Asp Leu Pro Gly Lys Thr Ile Phe Ser Trp Pro Glu Ala Val
        565 570 575
Glu Asn Leu Pro Pro Asn Ser Ile Val Val Arg Phe Ala Asp Gly Glu
                       585
Ala Ala Leu
     595
<210> 7574
<211> 221
<212> PRT
<213> Enterobacter cloacae
<400> 7574
Cys Phe Ile Ser Ala Asp Pro Ala Ser Ser Arg Gly Glu Asp Leu Val
                        10
Gly Lys Lys Val Gly Met Thr Arg Ile Phe Thr Glu Asp Gly Val Ser
                       25
Ile Pro Val Thr Val Ile Glu Val Glu Ala Asn Arg Val Thr Gln Val
                   40
                                   4.5
Lys Asp Leu Ala Asn Asp Gly Tyr Arg Ala Ile Gln Val Thr Thr Gly
               55
                                60
```

Ala Lys Lys Ala Asn Arg Val Thr Lys Pro Glu Ala Gly His Phe Ala

Lys Ala Gly Val Glu Ala Gly Arg Gly Leu Trp Glu Phe Arg Leu Ala

```
Glu Gly Glu Glu Phe Thr Val Gly Gln Asp Ile Ser Val Glu Leu Phe
        100
                              105
Ala Asp Val Lys Lys Val Asp Val Thr Gly Thr Ser Lys Gly Lys Gly
       115
                          120
Phe Ala Gly Thr Val Lys Arg Trp Asn Phe Arg Thr Gln Asp Ala Thr
                      135
                                         140
His Gly Asn Ser Leu Ser His Arg Val Pro Gly Ser Ile Gly Gln Asn
                  150
                                     155
Gln Thr Pro Gly Lys Val Phe Lys Gly Lys Lys Met Ala Gly Gln Leu
                                 170
               165
                                                    175
Gly Asn Glu Arg Val Thr Val Gln Ser Leu Asp Val Val Arg Val Asp
                                  190
          180
                              185
Ala Glu Arg Asn Leu Leu Leu Val Lys Gly Ala Val Pro Gly Ala Thr
      195
                       200
                               205
Gly Ser Asp Leu Ile Val Lys Pro Ala Val Lys Ala
                      215
   210
<210> 7575
<211> 123
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(101)
<400> 7575
Arg Arg Lys Gly Ile Ala Met Glu Leu Val Leu Lys Asp Ala Gln Ser
                                1.0
Ala Leu Thr Val Ser Glu Thr Thr Phe Gly Arg Asp Phe Asn Glu Ala
 20
                             25
Leu Val His Gln Val Val Val Ala Tyr Ala Ala Gly Ala Arg Gln Gly
 35
                       40
Thr Arg Ala Gln Lys Thr Arg Ala Glu Val Thr Gly Ser Gly Lys Lys
                   55
Pro Trp Arg Gln Lys Gly Thr Gly Arg Ala Arg Ser Gly Ser Ile Lys
                 70
                                    75
Asn Pro Ile Trp Arg Ser Gly Gly Val Asp Phe Ala Ala Arg Pro Gln
              85
                          90
Glu Thr Gln Ser Xaa Val Asn Lys Lys Met Leu Arg Gly Ala Leu Lys
         100 105
Ser Ile Leu Val Gln Leu Gly Thr Ser Gly Ser
      115
<210> 7576
<211> 307
<212> PRT
<213> Enterobacter cloacae
<400> 7576
Leu Gln His Asp Gly Ser Leu Arg Ala Ala Ser Met Phe Lys Gln Tyr
                                 10
                                                    1.5
Leu Gln Val Thr Lys Pro Gly Ile Ile Phe Gly Asn Leu Ile Ser Val
                             25
                                                3.0
Ile Gly Gly Phe Leu Leu Ala Ser Lys Gly Ser Ile Asp Tyr Thr Leu
                         40
Phe Ile Tyr Thr Leu Val Gly Val Ser Leu Val Val Ala Ser Gly Cys
                    55
Val Phe Asn Asn Tyr Ile Asp Met Asp Ile Asp Lys Lys Met Glu Arg
                                     7.5
                                                       80
Thr Lys Asn Arg Val Leu Val Lys Gly Leu Ile Ala Pro Ser Val Ser
```

```
Leu Val Tyr Ala Thr Leu Leu Gly Ile Ala Gly Phe Met Leu Leu Trp
                         105
         100
Phe Gly Ala Asn Pro Leu Ala Cys Trp Leu Gly Val Met Gly Phe Val
             120
      115
                                      125
Val Tyr Val Arg Val Tyr Ser Leu Tyr Met Lys Arg His Ser Val Tyr
            135
                                   140
Gly Thr Leu Ile Gly Ser Leu Ser Gly Ala Ala Pro Pro Val Ile Gly
          150
                     155
Tyr Cys Ala Val Thr Asn Glu Phe Asp Ser Gly Ala Leu Ile Leu Leu
           165 170
                                            175
Ala Ile Phe Ser Leu Trp Gln Met Pro His Ser Tyr Ala Ile Ala Ile
         180
                      185
                                 190
Phe Arg Phe Lys Asp Tyr Gln Ala Ala Asn Ile Pro Val Leu Pro Val
     195 200 205
Val Lys Gly Ile Ser Val Ala Lys Asn His Ile Thr Leu Tyr Ile Ile
 210 215 220
Ala Phe Ala Val Ala Thr Leu Met Leu Ser Leu Gly Gly Tyr Ala Gly
225 230 235
Tyr Lys Tyr Leu Val Val Ala Ala Ala Val Ser Val Trp Trp Leu Gly
       245 250 255
Met Ala Leu Arg Gly Tyr Lys Val Glu Asp Asp Lys Val Trp Ala Arg
 260 265 270
Lys Leu Phe Val Phe Ser Ile Val Ala Ile Thr Ser Leu Ser Val Met
275 280 285
Met Ser Val Asp Phe Met Val Pro Asp Ser Gln Asn Leu Leu Thr Tyr
290 295
Val Trp
305
<210> 7577
<211> 458
<212> PRT
<213> Enterobacter cloacae
<400> 7577
Thr Glu Val Val Met Asn Asp Tyr Lys Met Thr Pro Gly Glu Leu Arg
                            10
Ala Thr Trp Gly Leu Gly Thr Val Phe Ser Leu Arg Met Leu Gly Met
                         25
Phe Met Val Leu Pro Val Leu Thr Thr Tyr Gly Met Ala Leu Gln Gly
                      4.0
Ala Ser Glu Ala Leu Ile Gly Leu Ala Ile Gly Ile Tyr Gly Leu Ala
50 55
Gln Ala Ile Phe Gln Ile Pro Phe Gly Leu Leu Ser Asp Arg Val Gly
               7.0
                               75
Arg Lys Pro Leu Ile Val Gly Gly Leu Leu Val Phe Val Leu Gly Ser
                            90
Ile Ile Ala Ala Leu Ser His Ser Ile Trp Gly Ile Ile Leu Gly Arg
                         105
Ala Leu Gln Gly Ser Gly Ala Ile Ala Ala Ala Val Met Ala Leu Leu
                      120
                          125
Ser Asp Leu Thr Arg Glu Gln Asn Arg Thr Lys Ala Met Ala Phe Ile
                  135
                                   140
Gly Val Ser Phe Gly Val Thr Phe Ala Ile Ala Met Val Leu Gly Pro
               150
                                155
Ile Ile Thr His Ser Leu Gly Leu His Ala Leu Phe Trp Met Ile Ala
                            170 175
            165
Met Leu Ala Thr Ile Gly Ile Ala Leu Thr Leu Trp Val Val Pro Asp
```

185 Ser Lys Asn His Val Leu Asn Arg Glu Ser Gly Met Val Lys Gly Cys

```
200
Phe Ser Lys Val Ile Val Glu Pro Arg Leu Leu Lys Leu Asn Phe Gly
                  215
                            220
Ile Met Cys Leu His Ile Leu Leu Met Ser Thr Phe Val Ala Leu Pro
               230
                               235
Gly Gln Leu Ala Ala Gly Phe Pro Ala Ala Glu His Trp Lys Ile
            245
                      250
Tyr Leu Val Thr Met Leu Ile Ser Phe Val Ser Val Val Pro Phe Ile
        260
                   265
Ile Tyr Ala Glu Val Lys Arg Lys Met Lys Arg Val Phe Val Gly Cys
     275
                  280
                             285
Val Ala Leu Leu Ile Ala Glu Ile Val Leu Trp Gly Ala Gly Pro
                295 300
His Phe Trp Glu Leu Ile Ala Gly Val Gln Leu Phe Phe Leu Ala Phe
             310 315
Asn Leu Met Glu Ala Leu Leu Pro Ser Leu Ile Ser Lys Glu Ser Pro
         325 330 335
Ala Gly Tyr Lys Gly Thr Ala Met Gly Ile Tyr Ser Thr Ser Gln Phe
       340
             345 350
Leu Gly Val Ala Ile Gly Gly Ser Leu Gly Gly Trp Val Asp Gly Leu
 355 360 365
Phe Asp Ser Gln Thr Val Phe Leu Ala Gly Ala Leu Leu Ala Met Leu
 370 375 380
Trp Leu Phe Val Ala Ser Thr Met Lys Glu Pro Arg Tyr Val Ser Ser
385 390 395
Leu Arg Val Glu Ile Pro Asp Asp Val Ala Ile Gly Asp Ala Leu Gln
       405 410
Gln Arg Leu Glu Ala Thr Glu Gly Val Ser Glu Val Leu Ile Val Pro
 420 425 430
Glu Glu Arg Ser Ala Tyr Val Lys Ile Asp Ser Lys Val Thr Asn Arg
435 440
Phe Glu Val Glu Gln Ala Leu Lys Ala
450
<210> 7578
<211> 205
<212> PRT
<213> Enterobacter cloacae
<400> 7578
Asp Lys Gly Ser Met Pro Asp Gly Thr Ile Leu Ser Thr Ile Ala Ala
                           1.0
Ile Cys Asp Phe Lys Glu Leu Asn Ala Met Thr Arg Arg Tyr Leu Lys
                        25
                                        3.0
Ile Val Leu Val Gly Ser Leu Phe Thr Leu Ser Ala Cys Ala Gln Gln
                     4.0
                                     4.5
Ser Glu Val Arg Glu Met Lys Gln Ser Val Asn Thr Leu Asn Val Ala
 50 55
                                 60
Met Asp Lys Leu Asn Lys Glu Thr Val Lys Ile Thr Gln Gln Asn Ala
              7.0
                              7.5
Leu Asn Ala Lys Ser Ser Asn Gly Val His Leu Leu Pro Gly Ala Asn
                            90
Thr Pro Ala Arg Leu Asn Ser Gln Ile Gly Thr Leu Lys Met Ser Leu
        100 105
                             110
Val Asn Val Ala Ala Asn Ala Asp Gly Thr Arg Ala Thr Leu Arg Ile
     115
                     120
```

Gln Gly Glu Ser Asn Asp Pro Leu Pro Ala Phe Ser Gly Thr Val Glu

Trp Gly Gln Ile Gln Gly Thr Thr Glu Ser Tyr Gln Glu Val Asn Val

155 Lys Asn Gln Leu Phe Thr Ala Pro Ala Ser Thr Leu Ala Pro Ser Asp

130 135 140

370

170 165 Val Asp Ile Pro Leu Gln Leu Ser Gly Leu Thr Pro Glu Gln Leu Gly 185 190 180 Phe Ile Arg Ile His Asp Ile Gln Pro Ala Ala Gln 200 <210> 7579 <211> 677 <212> PRT <213> Enterobacter cloacae <400> 7579 Ala Thr Arg Lys Pro Leu Thr Lys Gly Pro Arg Lys Lys Met Phe Gly 1.0 Lys Leu Thr Leu Asp Ala Val Pro Tyr His Glu Pro Ile Ile Met Val 20 25 Thr Val Ala Ala Ile Ile Ile Gly Gly Ala Ala Leu Val Gly Leu Ile 35 4.0 4.5 Thr Tyr Phe Gly Lys Trp Ser Tyr Leu Trp Asn Glu Trp Leu Thr Ser 50 55 60 Val Asp His Lys Lys Leu Gly Ile Met Tyr Cys Ile Val Gly Ile Val 7.0 75 Met Leu Ile Arg Gly Phe Ala Asp Ala Ile Met Met Arg Ser Gln Gln 90 95 85 Ala Leu Ala Ser Ala Gly Glu Ala Gly Phe Leu Pro Pro His His Tyr 100 105 110 Asp Gln Ile Phe Thr Ala His Gly Val Ile Met Ile Phe Phe Val Ala 115 120 125 Met Pro Leu Val Ile Gly Leu Met Asn Val Val Pro Leu Gln Ile 130 135 140 Gly Ala Arg Asp Val Ala Phe Pro Phe Leu Asn Asn Leu Ser Phe Trp 145 150 155 160 Phe Thr Val Val Gly Val Ile Leu Val Asn Leu Ser Leu Gly Val Gly 165 170 175 Glu Phe Ala Gln Thr Gly Trp Leu Ala Tyr Pro Pro Leu Ser Gly Ile 180 185 190 Glu Tyr Ser Pro Gly Val Gly Val Asp Tyr Trp Ile Trp Ala Leu Gln 195 200 205 Leu Ser Gly Val Gly Thr Thr Leu Thr Gly Ile Asn Phe Phe Val Thr 210 215 220 Ile Leu Lys Met Arg Ala Pro Gly Met Thr Met Phe Lys Met Pro Val 230 235 Phe Thr Trp Ala Ser Leu Cys Ala Asn Val Leu Ile Ile Ala Ser Phe 250 255 245 Pro Ile Leu Thr Val Thr Ile Ala Leu Leu Thr Leu Asp Arg Tyr Leu 260 265 270 Gly Thr His Phe Phe Thr Asn Asp Met Gly Gly Asn Met Met Met Tyr 280 285 Ile Asn Leu Ile Trp Ala Trp Gly His Pro Glu Val Tyr Ile Leu Val 295 300 Leu Pro Val Phe Gly Val Phe Ser Glu Ile Ala Ala Thr Phe Ser Arg 305 310 315 Lys Arg Leu Phe Gly Tyr Thr Ser Leu Val Trp Ala Thr Val Cys Ile 325 330 335 Thr Val Leu Ser Phe Ile Val Trp Leu His His Phe Phe Thr Met Gly 345 340 Ala Gly Ala Asn Val Asn Ala Phe Phe Gly Ile Thr Thr Met Ile Ile 360 365 355 Ala Ile Pro Thr Gly Val Lys Ile Phe Asn Trp Leu Phe Thr Met Tyr

375

Gln Gly Arg Ile Val Phe His Ser Ala Met Leu Trp Thr Ile Gly Phe

```
390
                              395
Ile Val Thr Phe Ser Val Gly Gly Met Thr Gly Val Leu Leu Ala Val
      405
                       410
Pro Gly Ala Asp Phe Val Leu His Asn Ser Leu Phe Leu Ile Ala His
                               430
      420
                425
Phe His Asn Val Ile Ile Gly Gly Val Val Phe Gly Cys Phe Ala Gly
 435 440
                           445
Val Thr Tyr Trp Trp Pro Lys Ala Phe Gly Phe Thr Leu Asn Glu Lys
         455 460
Trp Gly Lys Arg Ala Phe Trp Phe Trp Ile Ile Gly Phe Phe Val Ala
      470 475 480
Phe Met Pro Leu Tyr Val Leu Gly Phe Met Gly Met Thr Arg Arg Leu
         485 490 495
Ser Gln Gln Ile Asp Pro Gln Phe His Pro Met Leu Met Ile Ala Ala
      500 505 510
Gly Gly Ala Ala Leu Ile Ala Cys Gly Ile Leu Cys Gln Leu Ile Gln
     515 520 525
Tyr Tyr Val Ser Ile Arg Asp Arg Asn Leu Asn Arg Asp Leu Thr Gly
 530 535 540
Asp Pro Trp Gly Gly Arg Thr Leu Glu Trp Ser Thr Ser Ser Pro Pro
545 550 555 560
Pro Phe Tyr Asn Phe Ala Val Val Pro His Ile His Glu Arg Asp Ala
      565 570 575
Phe Trp Glu Met Lys Glu Lys Gly Glu Ala Tyr Lys Gln Pro Glu His
580 585 590
Tyr Glu Glu Ile His Met Pro Lys Asn Ser Gly Ala Gly Ile Val Ile 595 \hspace{1.5cm} 600 \hspace{1.5cm} 605
Ala Ala Phe Ala Thr Val Phe Gly Phe Ala Met Ile Trp His Ile Trp 610 615 620
Trp Met Ala Ile Val Gly Phe Ala Gly Ile Val Ile Ser Trp Ile Val 625 630 635
Lys Ser Phe Asp Glu Asp Val Asp Tyr Tyr Val Pro Val Arg Glu Val
 645 650 655
Glu Lys Leu Glu Asn Gln His Phe Asp Glu Ile Ser Lys Ala Gly Leu
660
Lys Asn Gly Asn
   675
```

<210> 7580 <211> 141

<212> PRT <213> Enterobacter cloacae

<400> 7580

Pro Tyr Pro Tyr Tyr Val Pro Glu Pro Val Leu Ala Leu Pro Gly Arg 10 15 Gly Met Asp Leu Cys Val Leu Cys Cys Leu Ser Asp Gly Gly Asp Val 20 25 30 Met Ser His Ser Asn Asp His Gly Ala Ser His Gly Ser Val Lys Thr 35 40 Tyr Met Thr Gly Phe Ile Leu Ser Ile Ile Leu Thr Val Ile Pro Phe <sup>\*</sup> 50 - 55 60 Trp Met Val Met Asn Gly Ser Ala Ser Lys Pro Val Ile Leu Gly Ala 65 70 7.5 Ile Leu Val Thr Ala Val Ile Gln Ile Leu Val His Leu Val Cys Phe 85 90 95 Leu His Met Asn Thr Lys Ser Asp Glu Gly Trp Asn Met Thr Ala Phe 100 105 110 Ile Phe Thr Val Ile Ile Ile Ala Ile Leu Val Val Gly Ser Ile Trp \$115\$Ile Met Trp Asn Leu Asn Tyr Asn Met Met Val His

140

```
135
<210> 7581
<211> 307
<212> PRT
<213> Enterobacter cloacae
<400> 7581
Gly Gly Thr Met Lys Val Thr Val Leu Gly Cvs Gly Ala Leu Gly Gln
Leu Trp Leu Thr Ala Leu Cys Lys Gln Gly His Asp Val Gln Gly Trp
                       25
Leu Arg Ile Pro Gln Pro Tyr Cys Ser Val Asn Val Met Gly Thr Asp
                    40
    3.5
Gly Ser Ile Phe Asn Glu Ser Leu Thr Ala Asn Asp Pro Glu Phe Leu
      55
                                60
Ala Thr Ser Asp Leu Leu Leu Val Thr Leu Lys Ala Trp Gln Val Ser
        70
                             7.5
Asp Ala Val Lys Ser Leu Ala Ala Gln Leu Pro Glu Ser Thr Pro Ile
         85 90
                                        9.5
Leu Leu Ile His Asn Gly Met Gly Thr Ile Glu Glu Leu Lys Ser Val
100 105 110
Arg Gln Pro Leu Leu Met Gly Thr Thr Thr His Ala Ala Arg Arg Asp
115
                    120 125
Gly Asn Val Ile Ile His Val Ala Ser Gly Ile Thr His Ile Gly Pro
130 135 140
Ala Arg Glu Gln Pro Gly Asp Tyr Ser Tyr Leu Ala Asp Thr Leu Gln
145 150 155 160
Ser Thr Leu Pro Asp Val Ala Trp His Asn Asn Ile Arg Ala Glu Leu
 165 170 175
Trp Arg Lys Leu Ala Val Asn Cys Ala Ile Asn Pro Leu Thr Ala Leu
        180 185 190
Leu Asp Cys Pro Asn Gly Glu Leu Arg Gln His Pro Asp Arg Val Ala
195 200 205
Leu Ile Cys Arg Glu Val Ala Ala Val Ile Glu Arg Glu Gly Tyr His
210 215 220
Thr Ser Glu Ser Asp Leu Arg Tyr Tyr Val Asp Gln Val Ile Glu Ser
             230 235 240
225
Thr Ala Glu Asn Ile Ser Ser Met Leu Gln Asp Ile Arg Ala Met Arg
           245
                          250 255
His Thr Glu Ile Asp Tyr Ile Thr Gly Tyr Leu Leu Lys Arg Ala Arg
        260 265 270
Ala His Gly Ile Thr Val Ala Glu Asn Ser Arg Leu Phe Glu Leu Val
    275 280 285
Lys Arg Lys Glu Ser Glu Tyr Glu Arg Ile Gly Thr Gly Met Pro Arg
                 295
Pro Trp
<210> 7582
<211> 335
```

<212> PRT <213> Enterobacter cloacae

<400> 7582

Thr Tyr Cys Leu Asn Ser Arg Ser Gly Thr Met Gln Tyr Thr Thr Leu 10 15 Gly Lys Thr Asp Leu Lys Val Ser Arg Leu Cys Leu Gly Cys Met Thr 20 25 30 Phe Gly Glu Pro Asp Arg Gly Asn His Ala Trp Thr Leu Pro Glu Glu 3.5 4.0

```
Ser Ser Arg Pro Ile Ile Lys Arg Ala Ile Asp Gly Gly Ile Asn Phe
                  55
Phe Asp Thr Ala Asn Ser Tyr Ser Asp Gly Ser Ser Glu Glu Ile Val
               7.0
Gly Arg Ala Leu Arg Asp Phe Ala Arg Arg Asp Asp Val Val Val Ala
                           90
Thr Lys Val Tyr Tyr Pro Ser Gly Asp Leu Ala Glu Gly Leu Ser Arg
         100
                        105
Ala Gin Ile Leu Arg Ser Ile Asp Asp Ser Leu Arg Arg Leu Asn Met
                    120
Asp Tyr Val Asp Leu Leu Gln Ile His Arg Trp Asp Tyr Asn Thr Pro
         135
                                 140
Ile Glu Glu Thr Leu Glu Ala Leu Asn Asp Val Val Lys Ala Gly Lys
             150 155
Ala Arg Tyr Ile Gly Ala Ser Ser Met His Ala Ser Gln Phe Ala Gln
           165 170 175
Ala Leu Asp Leu Gln Ala Gln His Gly Trp Ala Arg Phe Val Thr Met
        180
                        185
                             190
Gln Asp His Tyr Asn Leu Ile Tyr Arg Glu Glu Glu Arg Glu Met Leu
 195
                    200 205
Pro Leu Cys Tyr Gln Glu Gly Val Ala Val Ile Pro Trp Ser Pro Leu
 210
      215
                                 220
Ala Arg Gly Arg Leu Thr Arg Pro Trp Gly Glu Thr Thr Ala Arg Leu
225 230
                              235
Val Ser Asp Glu Val Gly Lys Asn Leu Tyr Asp Asp Thr Glu Thr Ser
      245 250 255
Asp Ala Leu Ile Ala Glu Arg Leu Ala Gly Ile Ala Asp Asp Ile Gly
  260 265 270
Ala Thr Arg Ala Gln Val Ala Leu Ala Trp Leu Leu Ser Lys Arg Gly
275 280 285
Val Ala Ala Pro Ile Val Gly Thr Ser Arg Glu Glu Gln Leu Asp Glu
290 295 300
Leu Leu Ser Ala Val Asp Leu Ser Leu Thr Pro Glu Gln Ile Ala Glu
305 310 315
Leu Glu Thr Pro Tyr Gln Gln His Pro Val Val Gly Phe Lys
    325
                          330
```

<210> 7583 <211> 206 <212> PRT

<213> Enterobacter cloacae

<400> 7583

Lys Met Ala Thr Asp Thr Leu Ala His Ser Thr Ala His Ala His Glu 10 His Ala His His Asp Thr Gly Pro Thr Lys Val Phe Gly Phe Trp Ile 25 Tyr Leu Met Ser Asp Cys Ile Leu Phe Cys Cys Leu Phe Ala Thr Tyr 35 40 Ala Val Leu Val Asn Gly Thr Ala Gly Gly Pro Thr Gly Lys Asp Ile 5.5 Phe Glu Leu Pro Phe Val Leu Val Glu Thr Ala Leu Leu Leu Phe Ser 70 75 Ser Ile Thr Tyr Gly Met Ala Ala Ile Ala Met Tyr Lys Asn Asn Lys 90 Ser Gln Val Val Ser Trp Leu Ala Leu Thr Trp Leu Phe Gly Ala Gly 110 100 Phe Ile Gly Met Glu Ile Tyr Glu Phe His His Leu Ile Met Glu Gly 115 120 125 Phe Gly Pro Asp Arg Ser Gly Phe Leu Ser Ala Phe Phe Ala Leu Val 135

```
Gly Thr His Gly Leu His Val Thr Ser Gly Leu Ile Trp Met Ala Val
                                          160
                                 155
145
            150
Leu Met Phe Gln Ile Ser Arg Arg Gly Leu Thr Ser Thr Asn Arg Thr
                             170
            165
Arg Ile Met Cys Leu Ser Leu Phe Trp His Phe Leu Asp Val Val Trp
        180 185 190
Ile Cys Val Phe Ser Val Val Tyr Leu Met Gly Ala Met
                      200
<210> 7584
<211> 203
<212> PRT
<213> Enterobacter cloacae
<400> 7584
Asn Glu Arg Arg Val Ser Met Ser Ala Ser Ala Leu Val Cys Leu Ala
Pro Gly Ser Glu Glu Thr Glu Ala Val Thr Thr Ile Asp Leu Leu Val
                   25
          20
Arg Gly Gly Ile Lys Val Thr Thr Ala Ser Val Ala Ser Asp Gly Ser
                     40
                                       4.5
Leu Ala Ile Thr Cys Ser Arg Gly Val Lys Ile Leu Ala Asp Ala Pro
                 55
                                    60
Leu Val Gln Val Ala Asp Gly Asp Tyr Asp Ile Ile Val Leu Pro Gly
                70
                      75
Gly Leu Lys Gly Ala Glu Cys Phe Arg Asp Ser Pro Leu Leu Val Glu
                        90
                                            95
             85
Thr Val Arg Gln Phe His Leu Ser Gly Arg Ile Val Ala Ala Ile Cys
                        105
         100
Ala Ala Ala Gly Thr Val Leu Val Pro His Asp Ile Phe Pro Ile Gly
 115
                       120
                                       125
Asn Met Thr Gly Phe Pro Gly Leu Lys Asp Thr Ile Pro Glu Asp Gln
                  135 140
 130
Trp Val Asp Lys Arg Val Val Trp Asp Pro Arg Val Asn Leu Leu Thr
                150 155
145
Ser Gln Gly Pro Gly Thr Ala Ile Asp Phe Gly Leu Lys Ile Ile Asp
             165 170
```

<210> 7585 <211> 83 <212> PRT <213> Enterobacter cloacae

195

180

Met Ala Ala Gly Ile Tyr Asn Tyr Tyr Glu

<400> 7585

Phe Thr Met Pro Lys Lys Asn Asp Ala Pro Ala Ser Phe Glu Thr Ala 10 Leu Ser Glu Leu Glu Gln Ile Val Thr Arg Leu Glu Ser Gly Asp Leu 25 20 Pro Leu Glu Asp Ala Leu Asn Glu Phe Glu Arg Gly Val Gln Leu Ala 45 35 40 Arg Gln Gly Gln Val Lys Leu Gln Gln Ala Glu Gln Arg Val Gln Ile 5.5 60 Leu Leu Ser Asp Ser Glu Asp Ala Lys Thr Thr Pro Phe Thr Pro Asp 7.0 65 Ala Glu

Leu Leu Val Gly Arg Glu Lys Ala Tyr Glu Val Ala Ser Ser Leu Val 185

```
<210> 7586
<211> 300
<212> PRT
<213> Enterobacter cloacae
<400> 7586
Met Asp Phe Ser Asn Ala Leu Gln Ala Arg Val Ile Arg Ala Asn Asp
                              10
Ala Leu Arg Arg Phe Ile Glu Pro Gln Pro Phe Gln Asn Thr Pro Leu
    20
                          25
Val Glu Ala Met His Tyr Gly Ala Leu Leu Gly Gly Lys Arg Leu Arg
                      4.0
Pro Phe Leu Val Tyr Ala Thr Gly Asn Met Phe Gly Ile Ser Asp Asn
 50 55
                                    60
Thr Leu Asp Ala Pro Ala Ala Ala Val Glu Cys Ile His Ala Tyr Ser
                                 75
              70
Leu Ile His Asp Asp Leu Pro Ala Met Asp Asp Asp Leu Arg Arg
            8.5
                  90
Gly Gln Pro Thr Cys His Ile Lys Phe Gly Glu Ala Asn Ala Ile Leu
          100
              105
                                110
Ala Gly Asp Ala Leu Gln Thr Leu Ala Phe Ser Ile Leu Ser Asp Ala
              120
                                       125
 115
Pro Met Val Glu Val Ser Asp Arg Asp Arg Leu Ala Met Val Ser Glu
                         140
 130
                    135
Leu Ala Met Ala Ser Gly Val Ala Gly Met Cys Gly Gly Gln Ala Leu
                 150 155
145
Asp Leu Glu Ala Glu Gly Arg Gln Val Thr Leu Glu Gln Leu Glu Arg
                     170 175
             165
Ile His Arg His Lys Thr Gly Ala Leu Ile Arg Ala Ala Val Arg Leu
                          185 190
         180
Gly Ala Leu Ser Ala Gly Glu Arg Gly Arg Lys Ala Leu Pro Ile Leu
                            205
                       200
      195
Asp Arg Tyr Ala Glu Ser Ile Gly Leu Ala Phe Gln Val Gln Asp Asp
                    215
                                    220
 210
Ile Leu Asp Val Val Gly Asp Thr Ala Thr Leu Gly Lys Arg Gln Gly
                 230 235
225
Ala Asp Gln Gln Leu Gly Lys Ser Thr Tyr Pro Ala Leu Leu Gly Leu
                              250 255
             245
Glu His Ala Gln Arg Lys Ala Arg Asp Leu Ile Asp Asp Ala Arg Gln
                               270
                           265
          260
Ser Leu Asn Glu Leu Ala Ala Gln Ser Leu Asp Thr Ser Ala Leu Glu
     275
                        280
Ala Leu Ala Asp Tyr Ile Ile Gln Arg Asp Lys
    290
                    295
<210> 7587
<211> 629
<212> PRT
<213> Enterobacter cloacae
<400> 7587
Thr Ile Asn Leu Asp Glu Pro Leu Met Ser Phe Asp Ile Ala Lys Tyr
Pro Thr Leu Ala Leu Val Asp Ser Thr Gln Glu Leu Arg Leu Leu Pro
                           25
Lys Glu Ser Leu Pro Lys Leu Cys Asp Glu Leu Arg Arg Tyr Leu Leu
       35
                        40
                                      4.5
Asp Ser Val Ser Arg Ser Ser Gly His Phe Ala Ser Gly Leu Gly Thr
                    55
```

Val Glu Leu Thr Val Ala Leu His Tyr Val Tyr Asn Thr Pro Phe Asp

7.0

```
Gln Leu Ile Trp Asp Val Gly His Gln Ala Tyr Pro His Lys Ile Leu
                           90
Thr Gly Arg Arg Asp Lys Ile Gly Thr Ile Arg Gln Lys Gly Gly Leu
                        105
        100
His Pro Phe Pro Trp Arg Gly Glu Ser Glu Tyr Asp Val Leu Ser Val
                     120
   115
Gly His Ser Ser Thr Ser Ile Ser Ala Gly Ile Gly Ile Ala Val Ala
                 135
                                 140
Ala Glu Lys Glu Asn Lys Gln Arg Arg Thr Val Cys Val Ile Gly Asp
145 150 155
Gly Ala Ile Thr Ala Gly Met Ala Phe Glu Ala Met Asn His Ala Gly
      165
                          170 175
Asp Ile Lys Pro Asp Met Leu Val Ile Leu Asn Asp Asn Glu Met Ser
            185 190
     180
Ile Ser Glu Asn Val Gly Ala Leu Asn Asn His Leu Ala Gln Leu Leu
     195 200 205
Ser Gly Lys Leu Tyr Ser Ser Leu Arg Glu Gly Gly Lys Lys Val Phe
      215 220
Ser Gly Val Pro Pro Ile Lys Glu Leu Leu Lys Arg Thr Glu Glu His
225 230 235
Ile Lys Gly Met Val Val Pro Gly Thr Leu Phe Glu Glu Leu Gly Phe
         245 250 255
Asn Tyr Ile Gly Pro Val Asp Gly His Asp Val Leu Gly Leu Val Thr
             265 270
        260
Thr Leu Lys Asn Met Arg Asp Leu Lys Gly Pro Gln Phe Leu His Ile
 275 280 285
Met Thr Lys Lys Gly Arg Gly Tyr Glu Pro Ala Glu Lys Asp Pro Ile
               295
                      300
 290
Thr Phe His Ala Val Pro Lys Phe Asp His Thr Ser Gly Cys Leu Pro
              310 315 320
Lys Ser Ser Gly Gly Met Pro Ser Tyr Ser Lys Ile Phe Gly Asp Trp
            325 330 335
Leu Cys Glu Thr Ala Ala Lys Asp Asn Met Leu Met Ala Val Thr Pro
        340 345 350
Ala Met Arg Glu Gly Ser Gly Met Val Glu Phe Ser Lys Lys Tyr Pro
      355 360 365
Asp Gln Tyr Phe Asp Val Ala Ile Ala Glu Gln His Ala Val Thr Phe
                  375
                                 380
Ala Ala Gly Leu Ala Ile Gly Gly Tyr Lys Pro Val Val Ala Ile Tyr
               390
                            395 400
385
Ser Thr Phe Leu Gln Arg Ala Tyr Asp Gln Val Ile His Asp Val Ala
                           410 415
           405
Ile Gln Lys Leu Pro Val Leu Phe Ala Ile Asp Arg Ala Gly Ile Val
                      425 430
        420
Gly Ala Asp Gly Gln Thr His Gln Gly Ala Phe Asp Leu Ser Phe Leu
      435
                     440
Arg Cys Ile Pro Asp Met Val Ile Met Thr Pro Ser Asp Glu Asn Glu
                                 460
  450
                  455
Cys Arg Gln Met Leu Tyr Thr Gly Tyr His Tyr Gln Asp Gly Pro Cys
                              475
               470
465
Ala Val Arg Tyr Pro Arg Gly Asn Ala Leu Gly Val Glu Leu Gln Pro
                           490 495
            485
Leu Glu Lys Leu Asp Ile Gly Lys Ala Leu Val Lys Arg Arg Gly Glu
                        505 510
         500
Lys Val Ala Ile Leu Asn Phe Gly Thr Leu Met Pro Glu Ala Ala Lys
      515 520
                           525
Val Ala Glu Asn Leu Asn Ala Thr Leu Val Asp Met Arg Phe Val Lys
   530 535
                                 540
Pro Leu Asp Glu Ser Leu Ile Leu Ser Met Ala Glu Ser His Asp Val
                            555
    550
Leu Val Thr Leu Glu Glu Asn Ala Ile Met Gly Gly Ala Gly Ser Gly
```

570 Val Asn Glu Val Leu Met Ala Asn Arg Lys Ala Val Pro Val Leu Asn 585 580 590 Leu Gly Leu Pro Asp His Phe Ile Pro Gln Gly Thr Gln Asp Glu Ala 595 600 Arg Ala Asp Ile Gly Leu Asp Ala Ala Gly Ile Glu Ala Lys Ile Arg 610 615 Thr Trp Leu Ala 625 <210> 7588 <211> 403 <212> PRT <213> Enterobacter cloacae <400> 7588 Lys Ser Ser Ile Lys Ser Pro Ile Ser Ala Leu Pro Pro Phe Thr Ala 10 Ala Ser Lys Thr Ser Lys Ser Leu Ala Lys Arg Ser Pro Ala Tyr Arg 25 3.0 Ile Lys Thr Met His Asp Glu Met Tyr Met Ala Arg Ala Met Lys Leu 40 Ala Gln Arg Gly Arg Phe Thr Thr His Pro Asn Pro Asn Val Gly Cys 60 55 Val Ile Val Lys Asp Gly Glu Ile Val Gly Glu Gly Phe His Tyr Arg 7.5 70 Ala Gly Glu Pro His Ala Glu Val His Ala Leu Arg Met Ala Gly Glu 90 95 Lys Ala Arg Gly Ala Thr Ala Tyr Val Thr Leu Glu Pro Cys Ser His 105 110 100 His Gly Arg Thr Pro Pro Cys Cys Glu Ala Leu Ile Ala Ala Gly Val 115 120 125 Ser Arg Val Val Ala Ala Met Gln Asp Pro Asn Pro Gln Val Ala Gly 130 135 140 Arg Gly Leu Tyr Arg Leu Gln Gln Glu Gly Ile Asp Val Ser His Gly 145 150 155 160 Leu Met Met Gln Asp Ala Glu Ala Leu Asn Lys Gly Phe Leu Lys Arg 165 170 175 Met Arg Thr Gly Phe Pro Phe Ile Gln Leu Lys Leu Gly Ala Ser Leu 180 185 190 Asp Gly Arg Thr Ala Met Ala Asn Gly Glu Ser Gln Trp Ile Thr Ser 195 200 205 Pro Gln Ala Arg Arg Asp Val Gln Arg Leu Arg Ala Gln Ser His Ala 210 215 Ile Leu Thr Ser Ser Glu Thr Val Leu Ala Asp Asp Pro Ala Met Thr 230 235 240 Val Arg Trp Glu Glu Leu Asn Ala Asp Thr Gln Ala Leu Tyr Pro Gln 245 250 255 Glu Asn Leu Arg Gln Pro Leu Arg Ile Ile Ile Asp Ser Gln Asn Arg 260 265 Val Thr Pro Glu His Arg Ile Val Gln Gln Pro Gly Glu Thr Trp Ile 280 285 Ala Arg Thr Lys Glu Asp Thr Arg Glu Trp Pro Gln Gly Val Arg Ser 300 295 Ile Thr Val Pro Glu His Asn Gly His Leu Asp Leu Val Val Leu Met 310 315 305 Met Leu Leu Gly Lys Gln Gln Val Asn Ser Ile Trp Val Glu Ala Gly 325 330 Pro Thr Leu Ala Gly Ala Leu Leu Gln Ala Gly Leu Val Asp Glu Leu 345 340 Leu Val Tyr Val Ala Pro Lys Leu Leu Gly Asn Asp Ala Arg Gly Leu

Lys Lys 145

3529 360 Phe Val Leu Pro Gly Leu Glu Lys Leu Ala Asp Ala Pro Gln Leu Ser 375 380 Phe Ser Glu Ile Arg Pro Val Gly Pro Asp Val Cys Leu His Leu Thr 390 395 385 Thr Ala <210> 7589 <211> 160 <212> PRT <213> Enterobacter cloacae <400> 7589 Arg Lys Ser Met Asn Ile Ile Glu Ala Ala Val Ala Thr Pro Asp Ala 10 Arg Val Ala Ile Thr Ile Ala Arg Phe Asn Asn Phe Ile Asn Asp Ser 20 25 3.0 Leu Leu Glu Gly Ala Val Asp Ala Leu Lys Arg Ile Gly Gln Val Lys 35 40 4.5 Asp Asp Asn Ile Thr Val Val Trp Val Pro Gly Ala Tyr Glu Leu Pro 50 55 Leu Ala Ala Gly Ala Leu Ala Lys Thr Gly Lys Tyr Asp Ala Val Ile 70 75 Ala Leu Gly Thr Val Ile Arg Gly Gly Thr Ala His Phe Glu Tyr Val 85 90 95 Ala Gly Gly Ala Ser Asn Gly Leu Ala His Val Ala Gln Asp Ala Glu 100 105 110 Ile Pro Val Ala Phe Gly Val Leu Thr Thr Glu Ser Ile Glu Gln Ala 115 120 125 Ile Glu Arg Ala Gly Thr Lys Ala Gly Asn Lys Gly Ala Glu Ala Ala 130 135 140 Leu Thr Ala Leu Glu Met Ile Asn Val Leu Lys Ala Ile Lys Ala 155 <210> 7590 <211> 147 <212> PRT <213> Enterobacter cloacae <400> 7590 Phe Phe Cys Lys Gly Asn Ser Val Lys Pro Ala Ala Arg Arg Arg Ala 10 Arg Glu Cys Ala Val Gln Ala Leu Tyr Ser Trp Gln Leu Ser Gln Asn Asp Ile Ala Asp Val Glu Tyr Gln Phe Leu Ser Glu Gln Asp Val Lys 40 Asp Val Asp Val Leu Tyr Phe Arg Glu Leu Leu Ser Gly Val Ala Thr Asn Ser Ala Tyr Leu Asp Gly Leu Met Lys Pro Tyr Leu Ser Arg Leu 70 75 Leu Glu Glu Leu Gly Gln Val Glu Lys Ala Val Leu Arg Ile Ala Leu 85 90 Phe Glu Leu Ser Lys Arg Asp Asp Val Pro Tyr Lys Val Ala Ile Asn 105 1.00 110 Glu Ala Ile Glu Leu Ala Lys Thr Phe Gly Ala Glu Asp Ser His Lys 115 120 Phe Val Asn Gly Val Leu Asp Lys Ala Ala Pro Ala Ile Arg Pro His 130 135 140

(3

```
<210> 7591
<211> 185
<212> PRT
<213> Enterobacter cloacae
<400> 7591
Ala Ser Arg Tyr Ala Ser Leu Arg Val Leu Cys Asn Ala Thr Lys Met
Lys Gly Glu Glu Lys Met Pro Ser Phe Asp Ile Val Ser Glu Val Asp
                           25
Leu Gln Glu Ala Arg Asn Gly Val Glu Asn Ala Val Arg Glu Val Glu
      35
                       40
Ser Arg Phe Asp Phe Arg Gly Val Glu Ala Thr Ile Glu Leu Asn Asp
                    5.5
Ala Asn Lys Thr Ile Lys Val Leu Ser Glu Ser Asp Phe Gln Val Asn
              70
                         75
Gln Leu Leu Asp Ile Leu Arg Ala Lys Leu Leu Lys Arg Gly Ile Glu
            8.5
                       90
Gly Thr Ser Leu Asp Val Pro Glu Asp Phe Val His Ser Gly Lys Thr
      100 105 110
Trp Phe Val Glu Ala Lys Leu Lys Gln Gly Ile Glu Ser Ala Val Gln
115 120 125
Lys Lys Ile Val Lys Leu Ile Lys Asp Ser Lys Leu Lys Val Gln Ala
130 135 140
Gln Ile Gln Gly Glu Glu Ile Arg Val Tnr Gly Lys Ser Arg Asp Asp
145 150 155
Leu Gln Ser Val Met Ala Leu Val Arg Gly Gly Asp Leu Gly Gln Pro
                             170
          165
Phe Gln Phe Lys Asn Phe Arg Asp
         180
<210> 7592
<211> 154
<212> PRT
<213> Enterobacter cloacae
<400> 7592
Gln Gly His Arg Met His Cys Pro Phe Cys Ser Ala Val Asp Thr Lys
                             10
Val Ile Asp Ser Arg Leu Val Gly Glu Gly Ser Ser Val Arg Arg Arg
                           25
Arg Gln Cys Leu Val Cys Asn Glu Arg Phe Thr Thr Phe Glu Val Ala
                    40
Glu Leu Val Met Pro Arg Val Val Lys Ser Asn Asp Val Arg Glu Pro
                    5.5
Phe Asn Glu Glu Lys Leu Arg Ser Gly Met Leu Lys Ala Leu Glu Lys
                                  7.5
Arg Pro Val Ser Ser Asp Asp Val Glu Met Ala Leu Asn His Ile Lys
                             90
Ser Tyr Leu Arg Gly Leu Gly Glu Arg Glu Val Pro Ser Lys Met Ile
      100
                          105 110
Gly Asn Leu Val Met Glu Gln Leu Lys Lys Leu Asp Lys Val Ala Tyr
    115
                       120
                                        125
Ile Arg Phe Ala Ser Val Tyr Arg Ser Phe Glu Asp Ile Lys Glu Phe
                 135
                                     140
Gly Glu Glu Ile Ala Arg Leu Gln Asp
```

<210> 7593 <211> 325 150

```
<212> PRT
<213> Enterobacter cloacae
<400> 7593
Arg Met Ala Cys Gly Glu Phe Ser Leu Ile Ala Arg Tyr Phe Asp Arg
Val Arg Thr Ser Arg Leu Asp Val Glu Thr Gly Ile Gly Asp Asp Cys
                         25
Ala Leu Leu Asn Ile Pro Glu Lys Gln Thr Leu Ala Ile Ser Thr Asp
                      40
Thr Leu Val Cys Gly Arg His Phe Leu Pro Asp Ile Asp Pro Ala Asp
                  55
                                  60
Leu Ala Tyr Lys Ala Leu Ala Val Asn Val Ser Asp Leu Ala Ala Met
          70
                    75
Gly Ala Asp Pro Ala Trp Leu Thr Leu Ala Leu Thr Leu Pro Glu Val
          8.5
                      90
Asp Glu Ala Trp Leu Glu Ala Phe Ser Asp Ala Leu Phe Glu Gln Leu
         100 105 110
Asn Tyr Tyr Asp Met Gln Leu Ile Gly Gly Asp Thr Thr Ala Gly Pro
 115 120 125
Leu Ser Met Thr Leu Ala Ile His Gly Tyr Val Pro Ala Gly Arg Ala
 130 135 140
Leu Lys Arg Ser Gly Ala Lys Pro Gly Asp Trp Ile Tyr Val Thr Gly
145 150 155
Thr Pro Gly Asp Ser Ala Ala Gly Leu Ala Ile Leu Gln Asn Arg Leu 165 170 175
Thr Val Glu Asp Ala Asp Asp Ala Ala Tyr Leu Val Lys Arg His Leu
 180 185
Arg Pro Thr Pro Arg Ile Leu His Gly Gln Ala Leu Arg Glu Arg Ala
195 200 205
Ser Ser Ala Ile Asp Leu Ser Asp Gly Leu Ile Ser Asp Leu Gly His
210 215
                                  220
Ile Leu Lys Ala Ser Gly Val Gly Ala Arg Ile Asp Leu Asp Leu Phe
225 230 235
Pro Leu Ser Glu Pro Leu Arg Arg His Ala Glu Pro Glu Gln Ala Leu
     245 250 255
Arg Trp Ala Leu Ser Gly Gly Glu Asp Tyr Glu Leu Cys Phe Thr Val
        260
                       265
Pro Glu Leu Asn Arg Gly Thr Leu Asp Val Ala Leu Ala His Leu Gly
     275
                      280
Ala Lys Phe Thr Cys Ile Gly Gln Val Met Pro Glu Ser Glu Gly Leu
                  295 300
Leu Phe Val Arg Asp Gly Ala Pro Val Thr Leu Asp Trp Lys Gly Tyr
               310
Asp His Phe Ala
<210> 7594
<211> 491
<212> PRT
<213> Enterobacter cloacae
<400> 7594
Ala Cys Leu Arg Asn Ile Ala Ala Met Lys Phe Ile Ile Lys Leu Phe
Pro Glu Ile Thr Ile Lys Ser Gln Ser Val Arg Leu Arg Phe Ile Lys
                         25
        20
                                         30
```

Ile Leu Thr Gly Asn Ile Arg Asn Val Leu Lys His Tyr Asp Glu Thr 35 Leu Ala Val Val Arg His Trp Asp His Val Glu Val Arg Ala Lys Asp

```
Glu Ser Lys Arg Leu Asp Ile Arg Asp Ala Leu Thr Arg Ile Pro Gly
              7.0
Ile His His Ile Leu Glu Val Glu Asp Val Pro Phe Ser Asp Met His
                          90
Asp Ile Phe Glu Lys Ala Leu Val Gln Tyr Arg Asp Gln Ile Glu Gly
        100
                       105
Lys Thr Phe Cys Val Arg Val Lys Arg Arg Gly Lys His Glu Phe Ser
                         125
     115
Ser Ile Glu Val Glu Arg Tyr Val Gly Gly Gly Leu Asn Gln His Val
130 135 140
Glu Thr Ala Arg Val Arg Leu Thr Asn Pro Asp Val Thr Val Asn Leu
    150 155 160
Glu Ile Glu Asn Asp Arg Leu Leu Leu Val Lys Gly Arg Tyr Glu Gly
       165 170 175
Ile Gly Gly Phe Pro Ile Gly Thr Gln Glu Asp Val Leu Ser Leu Ile
        180 185 190
Ser Gly Gly Phe Asp Ser Gly Val Ser Ser Tyr Met Leu Met Arg Arg
   195 200 205
Gly Cys Arg Val His Tyr Cys Phe Phe Asn Leu Gly Gly Ala Ala His
 210 215 220
Glu Ile Gly Val Arg Gln Val Ala His Tyr Leu Trp Asn Arg Phe Gly
225 230 235 240
Ser Ser His Arg Val Arg Phe Val Ala Ile Asn Phe Glu Pro Val Val
   245 250 255
Gly Glu Ile Leu Glu Lys Val Asp Asp Gly Gln Met Gly Val Val Leu
 260 265 270
Lys Arg Met Met Val Arg Ala Ala Ser Lys Val Ala Glu Arg Tyr Gly 275 280 285
Val Gln Ala Leu Val Thr Gly Glu Ala Leu Gly Gln Val Ser Ser Gln
290 295 300
Thr Leu Thr Asn Leu Arg Leu Ile Asp Asn Val Ser Asp Thr Leu Ile
305 310 315
Leu Arg Pro Leu Ile Ser His Asp Lys Glu His Ile Ile Asp Leu Ala
  325 330 335
Arg Lys Ile Gly Thr Glu Asp Phe Ala Arg Thr Met Pro Glu Tyr Cys
 340 345 350
Gly Val Ile Ser Lys Ser Pro Thr Ile Lys Ala Val Lys Ala Lys Ile
   355 360 365
Glu Ala Glu Glu Glu Asn Phe Asp Phe Ser Ile Leu Glu Lys Val Val
                 375
                                380
Ala Glu Ala Ser Asn Ile Asp Ile Arg Glu Ile Ala Gln Gln Thr Glu
385 390 395 400
Gln Glu Val Val Glu Val Glu Thr Val Ser Gly Phe Gly Ala Asn Asp
           405 410 415
Thr Ile Leu Asp Ile Arg Ser Val Asp Glu Gln Asp Asp Lys Pro Leu
        420 425 430
Gln Val Glu Gly Val Glu Val Val Ser Leu Pro Phe Tyr Lys Leu Ser
     435 440 445
Thr Gln Phe Gly Asp Leu Asp Gln Ser Lys Thr Tyr Leu Leu Trp Cys
 450 455
                                460
Glu Arg Gly Val Met Ser Arg Leu Gln Ala Leu Tyr Leu Arg Glu Gln
465 470 475
Gly Phe Ala Asn Val Lys Val Tyr Arg Pro
           485
                          490
```

<sup>&</sup>lt;210> 7595 <211> 720

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Arg Ser Glu Arg Ile Leu Ala Thr Thr Thr Ala Glu Arg Val Ile Gln 10 Ala Thr Pro Asp Tyr His Ala Leu Asn Ala Met Leu Asn Leu Tyr Asp 25 Arg Glu Gly Arg Ile Gln Phe Asp Lys Asp Arg Glu Ala Val Asp Ala 40 Phe Phe Ala Ala His Val Arg Pro Asn Ser Ile Val Phe Gly Ser Gln 5.5 60 Gln Glu Arg Leu Asp Trp Leu Val Lys Glu Gly Tyr Tyr Glu Glu Arg 75 Val Leu Thr Arg Tyr Asp Arg Ala Phe Val Val Ala Leu Phe Glu Arg 85 90 Ala His Ala Ser Gly Phe Arg Phe Gln Thr Phe Leu Gly Ala Trp Lys 100 105 110 Tyr Tyr Thr Ser Tyr Thr Leu Lys Thr Phe Asp Gly Lys Arg Tyr Leu 125 120 Glu Ser Phe Glu Asp Arg Val Val Met Val Ala Leu Thr Leu Ala Gln 130 135 140 Gly Asp Glu Val Leu Ala Glu Ser Leu Thr Glu Glu Ile Leu Ser Gly 150 155 160 Arg Phe Gln Pro Ala Thr Pro Thr Phe Leu Asn Cys Gly Lys Ala Gln 165 170 175 Arg Gly Glu Leu Val Ser Cys Phe Leu Leu Arg Ile Glu Asp Asn Met 180 185 190 Glu Ser Ile Gly Arg Ala Val Asn Ser Ala Leu Gln Leu Ser Lys Arg 195 200 205 Gly Gly Gly Val Ala Phe Leu Leu Ser Asn Leu Arg Glu Ala Gly Ala 210 215 220 Pro Ile Lys Arg Ile Glu Asn Gln Ser Ser Gly Val Ile Pro Val Met 230 235 Lys Met Leu Glu Asp Ala Phe Ser Tyr Ala Asn Gln Leu Gly Ala Arg 245 250 255 Gln Gly Ala Gly Ala Val Tyr Leu His Ala His His Pro Asp Ile Leu 260 265 270 Arg Phe Leu Asp Thr Lys Arg Glu Asn Ala Asp Glu Lys Ile Arg Ile 275 280 285 Lys Thr Leu Ser Leu Gly Val Val Ile Pro Asp Ile Thr Phe Lys Leu 290 295 300 Ala Lys Glu Asn Ala Asp Met Ala Leu Phe Ser Pro Tyr Asp Val Glu 305 310 315 320 Arg Ile Tyr Gly Lys Ala Phe Gly Asp Val Ala Ile Ser Glu Leu Tyr 325 330 Asp Glu Leu Val Ala Asp Asp Arg Ile Arg Lys Lys Thr Ile Asn Ala 345 350 Arg Asp Phe Phe Gln Thr Leu Ala Glu Ile Gln Phe Glu Ser Gly Tyr 360 365 Pro Tyr Ile Met Tyr Glu Asp Thr Val Asn Arg Ala Asn Pro Ile Gly 375 380 Gly Arg Ile Asn Met Ser Asn Leu Cys Ser Glu Ile Leu Gln Val Asn 390 395 Ser Ala Ser Ser Tyr Asp Glu Asn Leu Asp Tyr Ala Asp Val Gly Lys 405 410 415 Asp Ile Ser Cys Asn Leu Gly Ser Leu Asn Ile Ala His Thr Met Asp 420 425 Ser Pro Asp Phe Gly Arg Thr Val Glu Thr Ala Ile Arg Gly Leu Thr 435 440 445 Ala Val Ser Asp Met Ser His Ile Arq Ser Val Pro Ser Ile Glu Ala 455 460 Gly Asn Ala Ala Ser His Ala Ile Gly Leu Gly Gln Met Asn Leu His 470 475 Gly Tyr Leu Ala Arg Glu Gly Ile Ala Tyr Gly Ser Pro Glu Gly Leu

```
485
                          490
Asp Phe Thr Asn Leu Tyr Pne Tyr Thr Val Thr Trp His Ala Val His
      500
                      505
Thr Ser Met Met Leu Ala Arg Glu Arg His Gln Arg Phe Ala Gly Phe
                    520
Glu Gln Ser Arg Tyr Ala Ser Gly Glu Tyr Phe Ser Gln Tyr Leu Glu
                 535
                                540
Gly Asp Trp Gln Pro Lys Thr Glu Lys Val Arg Ala Leu Phe Ala Arg
                    555
      550
Ala Gly Ile Thr Leu Pro Thr Arg Glu Met Trp Gln Gln Leu Arg Glu
         565
                 570
Glu Val Met Arg Tyr Gly Ile Tyr Asn Gln Asn Leu Gln Ala Val Pro
        580
                     585
Pro Thr Gly Ser Ile Ser Tyr Ile Asn His Ala Thr Ser Ser Ile His
     595
         600
Pro Ile Val Ser Lys Ile Glu Ile Arg Lys Glu Gly Lys Thr Gly Arg
      615 620
Val Tyr Tyr Pro Ala Pro Phe Met Thr Asn Glu Asn Leu Ala Leu Tyr
625 630 635 640
Gln Asp Ala Tyr Glu Ile Gly Pro Glu Lys Ile Ile Asp Thr Tyr Ala
      645
               650 655
Glu Ala Thr Lys His Val Asp Gln Gly Leu Ser Leu Thr Leu Phe Phe
 660 665 670
Pro Asp Thr Ala Thr Thr Arg Asp Ile Asn Lys Ala Gln Ile Tyr Ala
675 680 685
Trp Lys Lys Gly Ile Lys Thr Leu Tyr Tyr Ile Arg Leu Arg Gln Leu
690 695 700
Ala Leu Glu Gly Thr Glu Ile Glu Gly Cys Val Ser Cys Ala Leu
<210> 7596
<211> 323
<212> PRT
<213> Enterobacter cloacae
<400> 7596
Gly Glu Trp Met Lys Leu Ser Arg Val Ser Ala Val Asn Trp Asn Lys
        5
                       10 15
Ile Gln Asp Asp Lys Asp Leu Glu Val Trp Asn Arg Leu Thr Ser Asn
        20
                 25
Phe Trp Leu Pro Glu Lys Val Pro Leu Ser Asn Asp Ile Pro Ala Trp
35 40
Gln Thr Leu Ser His Ala Glu Gln Gln Leu Thr Ile Arg Val Phe Thr
 50 55 60
Gly Leu Thr Leu Leu Asp Thr Ile Gln Asn Thr Val Gly Ala Pro Ala
65 70 75
Leu Met Ser Asp Ala Leu Thr Pro His Glu Glu Ala Val Met Ser Asn
          85
                         90 95
Ile Ser Phe Met Glu Ala Val His Ala Arg Ser Tyr Ser Ser Ile Phe
   100 105 110
Ser Thr Leu Cys Gln Thr Arg Asp Val Asp Ala Ala Tyr Ala Trp Ser
                    120 125
Glu Glu Ser Ala Ser Leu Gln Arg Lys Ala Asp Leu Val Leu Glu Tyr
 130 135 140
Tyr Arg Ala Asp Glu Pro Leu Lys Lys Lys Ile Ala Ser Val Phe Leu
145 150
                           155 160
Glu Ser Phe Leu Phe Tyr Ser Gly Phe Trp Leu Pro Met Tyr Trp Ser
      165 170 175
Ser Arg Gly Lys Leu Thr Asn Thr Ala Asp Leu Ile Arg Leu Ile Ile
        180 185
```

Arg Asp Glu Ala Val His Gly Tyr Tyr Ile Gly Tyr Lys Tyr Gln Lys

```
Gly Leu Glu Lys Val Ile Pro Glu Lys Arg Glu Glu Leu Lys Gly Phe
                  215
                                   220
Ala Leu Asp Leu Leu Met Asp Leu Tyr Asp Asn Glu Leu Ser Tyr Thr
             230
                               235
Glu Glu Leu Tyr Ala Gly Thr Gly Trp Glu Glu Asp Val Lys Ala Phe
           245
                    250
Leu Cys Tyr Asn Ala Asn Lys Ala Leu Met Asn Leu Gly Tyr Glu Ala
       260 265 270
Leu Phe Pro Pro Glu Met Ala Glu Val Asn Pro Ala Ile Leu Ala Ala
   275 280 285
Leu Ser Pro Asn Ala Asp Glu Asn His Asp Phe Phe Ser Gly Ser Gly
290 295 300
Ser Ser Tyr Val Met Gly Lys Ala Val Glu Thr Gln Asp Glu Asp Trp
305
              310
                               315
Asp Phe
<210> 7597
<211> 407
<212> PRT
<213> Enterobacter cloacae
<400> 7597
Gln Asp Thr Leu Tyr Cys Met Ala Ile Lys Leu Glu Val Lys Asn Leu
                  10
Tyr Lys Val Phe Gly Glu His Pro Gln Arg Ala Phe Lys Tyr Ile Glu
                      2.5
Lys Gly Leu Ser Lys Glu Gln Ile Leu Glu Lys Thr Gly Leu Ser Leu
                     40
Gly Val Lys Asp Ala Ser Leu Ala Ile Glu Glu Gly Glu Ile Phe Val
         55 60
Ile Met Gly Leu Ser Gly Ser Gly Lys Ser Thr Met Val Arg Leu Leu 65 70 75 80
Asn Arg Leu Ile Glu Pro Thr Arg Gly Gln Val Leu Ile Asp Gly Val
                            90
Asp Ile Ala Arg Ile Ser Asp Ala Glu Leu Arg Glu Val Arg Arg Lys
        100 105
                                         110
Lys Ile Ala Met Val Phe Gln Ser Phe Ala Leu Met Pro His Met Thr
     115 120 125
Val Leu Asp Asn Thr Ala Phe Gly Met Glu Leu Ala Gly Ile Pro Ala
                  135
                                   140
Gln Glu Arg Gln Glu Lys Ala Leu Asp Ala Leu Arg Gln Val Gly Leu
              150 155
Glu Asn Tyr Ala His Ala Tyr Pro Asp Glu Leu Ser Gly Gly Met Arg
            165 170 175
Gln Arg Val Gly Leu Ala Arg Ala Leu Ala Ile Asn Pro Asp Ile Leu
        180
                          185
                                          190
Leu Met Asp Glu Ala Phe Ser Ala Leu Asp Pro Leu Ile Arg Thr Glu
                     200 205
      195
Met Gln Asp Glu Leu Val Lys Leu Gln Ala Lys His Gln Arg Thr Ile
 210
                  215
                                    220
Val Phe Ile Ser His Asp Leu Asp Glu Ala Met Arg Ile Gly Asp Arg
                230
                                235
Ile Ala Ile Met Gln Asn Gly Glu Val Val Gln Val Gly Thr Pro Asp
            245
                             250
                                             255
Glu Ile Leu Asn Asn Pro Ala Asn Asp Tyr Val Arg Thr Phe Phe Arg
        260
                         265
Gly Val Asp Ile Ser His Val Phe Ser Ala Lys Asp Ile Ala Arg Arg
                      280
```

Thr Pro Asn Gly Ile Ile Arg Lys Thr Pro Gly Phe Gly Pro Arg Ser

```
295
Ala Leu Lys Leu Gln Asp Glu Asp Arg Glu Tyr Gly Tyr Leu Val 305 310 315
Glu Arg Gly Asn Lys Phe Val Gly Val Val Ser Ile Asp Ser Leu Lys
          325
                            330
Thr Ala Leu Ser Glu Asn Gln Gly Ile Asp Ala Ala Leu Ile Asp Ala 340 \hspace{1.5cm} 345 \hspace{1.5cm} 350 \hspace{1.5cm}
Pro Leu Ala Val Asp Ala Glu Thr Pro Leu Ser Glu Leu Leu Ser His
     355
          360
                         365
Val Gly Gln Ala Pro Cys Ala Val Pro Val Val Gly Glu Glu Gln Gln 370 $375$
Tyr Val Gly Ile Ile Ser Lys Arg Met Leu Leu Gln Ala Leu Asp Arg
385 390 395
Glu Gly Thr Asn Asn Gly
           405
<210> 7598
<211> 404
<212> PRT
<213> Enterobacter cloacae
<400> 7598
Ser Leu Asn Ser Arg Phe Leu Lys Leu Met Thr Lys Thr Thr Gln Gly
1 5
                  10
Leu Ser Pro Ala Leu Ile Leu Leu Met Ser Val Ala Thr Gly Leu Ala
20 25
Val Ala Ser Asn Tyr Tyr Ala Gln Pro Leu Leu Asp Thr Ile Ala Arg
                4.0
Ala Phe Asp Leu Ser Ala Ser Ser Ala Gly Phe Ile Val Thr Ala Ala
50 55
                                 60
Gln Leu Gly Tyr Ala Ala Gly Leu Leu Phe Leu Val Pro Leu Gly Asp
65 70 75
Met Phe Glu Arg Arg Met Leu Ile Val Ser Met Thr Leu Leu Ala Ala
     85 90 95
Gly Gly Met Leu Ile Thr Ala Ser Ser Gln Ser Leu Thr Met Met Ile
   100 105 110
Ile Gly Thr Ala Leu Thr Gly Leu Phe Ser Val Val Ala Gln Ile Leu
    115 120
                                     125
Val Pro Leu Ala Ala Thr Leu Ala Ser Pro Glu Lys Arg Gly Lys Val
 130 135
                                 140
Val Gly Thr Ile Met Ser Gly Leu Leu Gly Ile Leu Leu Ala Arg
145 150 155 160
Thr Val Ala Gly Leu Leu Ala Ser Leu Gly Gly Trp Arg Thr Val Tyr
           165 170 175
Trp Val Ala Ser Val Leu Met Leu Ile Met Ala Leu Ala Leu Trp Arg
    180 185 190
Gly Leu Pro Lys Val Lys Gln Glu Asn His Leu Asn Tyr Pro Gln Leu
    195 200
                         205
Leu Ala Ser Val Phe Ser Leu Phe Thr Arg Asp Lys Leu Leu Arg Thr
                  215 220
Arg Ala Ile Leu Gly Cys Leu Thr Phe Ala Asn Phe Ser Ile Leu Trp 225 230 235
Thr Ser Met Ala Phe Leu Leu Ala Ala Pro Pro Phe Asn Tyr Ser Glu
            245
                            250
Gly Val Ile Gly Leu Phe Gly Leu Ala Gly Ala Ala Gly Ala Leu Gly
                        265
         260
Ala Arg Pro Ala Gly Gly Leu Ala Asp Lys Gly Lys Ser His Met Thr
```

280 285 Thr Ser Ala Gly Leu Val Leu Leu Leu Ser Trp Ala Ala Ile Trp 295

Tyr Gly His Val Ser Val Leu Ala Leu Ile Val Gly Ile Leu Val Leu

310 315 Asp Leu Thr Val Gln Gly Val His Ile Thr Asn Gln Thr Val Ile Tyr 325 330 Arg Met Lys Pro Asp Ala Arg Asn Arg Leu Thr Ala Gly Tyr Met Thr 340 345 Ser Tyr Phe Ile Gly Gly Ala Ala Gly Ser Leu Ile Ser Ala Ser Ala 355 360 Trp Gln His Ala Gly Trp Thr Gly Val Cys Ala Ile Gly Ala Ile Val 375 380 Ala Ala Ile Asn Leu Leu Val Trp Trp Arg Gly Tyr His Arg Gln Glu Ala Ile His

<210> 7599 <211> 408 <212> PRT

<213> Enterobacter cloacae

<400> 7599 Gln Gln Val Gly Ser Ala Asp Val Lys Ile Lys Arg Ser Trp Arg Thr 5 10 Thr Met Ser Ala Asn Ala Glu Asn Thr Pro Pro Gln Gln Pro Val Asn 20 25 Lys Lys Gly Lys Arg Lys Ser Ala Leu Ile Leu Leu Thr Leu Leu Phe 35 40 4.5 Ile Ile Ile Ala Val Ala Tyr Gly Ile Tyr Trp Phe Leu Val Leu Arg 55 His Val Glu Glu Thr Asp Asp Ala Tyr Val Ala Gly Asn Gln Val Gln 70 75 Ile Met Ala Gln Val Ser Gly Ser Val Thr Lys Val Trp Ala Asp Asn 85 90 Thr Asp Phe Val Lys Lys Ser Asp Val Leu Val Thr Leu Asp Pro Thr 100 105 Asp Ala Gln Gln Ala Phe Glu Lys Ala Gln Thr Ala Leu Ala Ser Ser 115 120 125 Val Arg Gln Thr Arg Gln Leu Met Ile Asn Ser Lys Gln Leu Gln Ala 130 135 140 Asn Ile Asp Val Gln Lys Thr Ala Leu Ala Gln Ala Gln Ser Asp Leu 145 150 155 Asn Arg Arg Val Pro Leu Gly Thr Ala Asn Leu Ile Gly Arg Glu Glu 165 170 Leu Gln His Ala Arg Asp Ala Val Ala Ser Ala Gln Ala Gln Leu Asp 185 190 Val Ala Ile Gln Gln Tyr Asn Ala Asn Gln Ala Met Val Leu Gly Thr 195 200 Ser Leu Glu Asn Gln Pro Ala Val Lys Gln Ala Ala Thr Glu Val Arg 215 220 Asn Ala Trp Leu Ala Leu Gln Arg Thr Lys Ile Val Ser Pro Met Thr 230 235 Gly Tyr Val Ser Arg Arg Ser Val Gln Pro Gly Ala Gln Ile Ser Thr 245 250 Thr Thr Pro Leu Met Ala Val Val Pro Ala Asn Asn Leu Trp Val Asp 260 265 270 Ala Asn Phe Lys Glu Thr Gln Leu Ala His Met Arg Ile Gly Gln Thr 280 Ala Thr Val Val Ser Asp Ile Tyr Gly Asp Asp Ile Lys Tyr Thr Gly 295 300 Lys Val Val Gly Leu Asp Met Gly Thr Gly Ser Ala Phe Ser Leu Leu 310 315 Pro Ala Gln Asn Ala Thr Gly Asn Trp Ile Lys Val Val Gln Arg Leu

325 330 Pro Val Arg Ile Glu Leu Asp Pro Lys Gln Leu Ala Asp His Pro Leu 345 340 350 Arg Ile Gly Leu Ser Thr Leu Val Thr Val Asp Thr Ala Asn Arg Asp 360 355 365 Gly Gln Ile Leu Ala Ser Gln Val Arg Ser Thr Pro Ala Tyr Glu Ser 370 375 380 Asn Ala Arg Glu Ile Ser Leu Asp Pro Val Asn Lys Leu Ile Asp Asp 390 395 Ile Val Lys Ala Asn Ala Gly

<210> 7600 <211> 162 <212> PRT

<213> Enterobacter cloacae

<400> 7600

145

Ala

Asn Ala Thr Phe Leu Ser Cys Ser Arg Ser Ser Asp Met Phe Ser Pro 1.0 Gln Ser Arg Leu Arg His Ala Val Ala Asp Thr Phe Ala Met Val Val 20 25 30 Tyr Cys Ser Val Val Asn Met Leu Ile Glu Ile Phe Leu Ser Gly Met 35 40 45 Ser Phe Glu Gln Ser Leu Ser Ser Arg Leu Val Ala Ile Pro Val Asn 50 55 Ile Met Ile Ala Trp Pro Tyr Gly Leu Tyr Arg Asp Ala Val Met Arg 70 75 Leu Ala Arg Arg Ile Ser Pro Ala Gly Trp Val Lys Asn Leu Ala Asp 85 90 Val Leu Ala Tyr Val Thr Phe Gln Ser Pro Val Tyr Val Phe Ile Leu 100 105 110 Leu Thr Val Gly Ala Asp Trp His Gln Ile Ala Ala Ala Val Ser Ser 115 120 Asn Ile Val Val Ser Met Leu Met Gly Ala Val Tyr Gly Tyr Phe Leu 130 135 140

Asp Tyr Cys Arg Arg Leu Phe Lys Val Ser Pro Tyr Ser Gln Ala Lys

160

<210> 7601 <211> 182 <212> PRT <213> Enterobacter cloacae

150

<400> 7601 Ser Gly Ala Arg Arg Gly Arg His Pro Ala Gly Ala Gly Phe Pro Ser 1.0 1.5 Ala Ser Gly Cys Gly Cys Arg Arg His Gln Leu Val Trp Leu Pro Ser 25 30 Gly His Asp Gln Pro Pro Cys Arg Ser Gly Arg Gln Cys Met Ser Thr 40 4.5 Leu Val Tyr Phe Ser Ser Ser Ser Glu Asn Thr Leu Arg Phe Met Glu 5.5 60 Arg Leu Gly Leu Pro Ala Ile Arg Ile Pro Leu Asn Glu Arg Glu Arg 7.0 75 Ile Gln Val Asp Glu Pro Tyr Ile Leu Val Val Pro Ser Tyr Gly Gly 8.5 90 Gly Gly Thr Ala Gly Ala Val Pro Arg Gln Val Ile Arg Phe Leu Asn

100 105 110 Arg Gin Val IIe Arg Phe L

Asp Pro His Asn Arg Gln Leu Ile Arg Gly Val Ile Ala Ala Gly Asn 115 120 Arg Asn Phe Gly Glu Ala Phe Ala Arg Ala Gly Asp Val Ile Ser Gln 135 140 Gin Asp Val Glu Asn Val Arg Lys Gly Val Asn Glu Phe Trp Gln Arg 170 165 Gln Pro Gln Ser Ala 180 <210> 7602

<211> 361 <212> PRT <213> Enterobacter cloacae

<400> 7602 Ile Ala Arg Gly Gln Thr Met Ala Asp Gln Ser Asn Pro Trp Gly Thr Thr Glu Ala Ala Asp Ser Ala Ala Gln Ser Ala Asp Ala Trp Gly Ser 20 25 Thr Pro Ala Pro Ala Asp Gly Gly Gly Ala Ala Asp Trp Leu Asn Ser 40 4.5 Ala Pro Ala Pro Ala Pro Glu His Phe Asn Ile Met Asp Pro Phe His 50 55 60 Lys Thr Leu Ile Pro Leu Asp Ser Trp Val Thr Glu Gly Ile Asp Trp 65 70 75 Val Val Thr His Phe Arg Pro Val Phe Gln Gly Ile Arg Ile Pro Val 8.5 90 Asp Tyr Ile Leu Asn Gly Phe Gln Gln Leu Met Leu Gly Met Pro Ala 100 105 110 Pro Val Ala Ile Ile Leu Phe Ser Leu Ile Ala Trp Gln Phe Gly Ser 115 120 125 Ala Gly Met Gly Ile Ala Thr Leu Ile Ser Leu Ile Ala Ile Gly Ala 130 135 Ile Gly Ala Trp Ser Gln Ala Met Ile Thr Leu Ala Leu Val Leu Thr 145 150 155 Ala Leu Leu Phe Cys Val Val Ile Gly Leu Pro Met Gly Ile Trp Leu 165 170 Ala Arg Ser Pro Arg Ala Ala Lys Ile Ile Arg Pro Leu Leu Asp Ala 185 190 Met Gln Thr Thr Pro Ala Phe Val Tyr Leu Val Pro Ile Val Met Leu 195 200 205 Phe Gly Ile Gly Asn Val Pro Gly Val Val Val Thr Ile Ile Phe Ala 215 Leu Pro Pro Ile Ile Arg Leu Thr Ile Leu Gly Ile Asn Gln Val Pro 230 235 Ala Asp Leu Ile Glu Ala Ser Arg Ser Phe Gly Ala Ser Pro Arg Gln 245 250 255 Met Leu Phe Lys Val Gln Leu Pro Leu Ala Met Pro Thr Ile Met Ala 260 265 270 Gly Val Asn Gln Thr Leu Met Leu Ala Leu Ser Met Val Val Ile Ala 280 285 Ser Met Ile Ala Val Gly Gly Leu Gly Gln Met Val Leu Arg Gly Ile 295 300 Gly Arg Leu Asp Met Gly Leu Ala Thr Val Gly Gly Val Gly Ile Val 310 315 Ile Leu Ala Ile Ile Leu Asp Arg Leu Thr Gln Ala Val Gly Arg Asp 325 330 Ser Arg Ser Arg Gly Asn Arg Arg Trp Tyr Thr Thr Gly Pro Val Gly 340 345

3540 Leu Leu Thr Arg Pro Phe Thr Lys 355 <210> 7603 <211> 335 <212> PRT <213> Enterobacter cloacae <400> 7603 Gly Thr Thr Met Arg His Asn Val Leu Phe Ala Thr Ala Phe Ala Thr 10 Leu Val Ser Thr Ser Ala Val Ala Ala Asp Leu Pro Gly Lys Gly Ile 20 25 30 Thr Val Gln Pro Val Gln Ser Thr Ile Ser Glu Glu Ser Phe Gln Thr 35 40 45 Gln Ile Val Ser Arg Ala Leu Glu Lys Leu Gly Tyr Thr Val Asn Thr 50 55 60 Ala Ser Glu Val Asp Tyr Asn Val Gly Tyr Thr Ser Ile Ala Ser Gly 65 70 75 80 Asp Ala Thr Phe Thr Ala Val Asn Trp Gln Pro Leu His Asp Asp Met 85 90 95 Tyr Ala Ala Ala Gly Gly Asp Lys Lys Phe Tyr Arg Glu Gly Thr Phe 100 105 110 Val Thr Gly Ala Ala Gln Gly Tyr Leu Ile Asp Lys Lys Thr Ala Asp 115 120 125 Lys Tyr His Ile Thr Asn Ile Glu Gln Leu Lys Asp Pro Lys Ile Ala 130 135 140 Lys Leu Phe Asp Thr Asn Gly Asp Gly Lys Ala Asp Met Met Gly Cys 145 150 155 160 Ser Pro Gly Trp Gly Cys Glu Ala Val Ile Asn His Gln Asn Lys Ala 165 170 175Phe Asp Leu Ala Lys Thr Val Asp Val Ser His Gly Asn Tyr Ser Ala 180 185 190 Met Met Ala Asp Thr Ile Ala Arg Phe Lys Glu Gly Lys Pro Val Ile 195 200 205 Tyr Tyr Thr Trp Thr Pro Tyr Trp Val Ser Asp Val Leu Lys Pro Gly 210 215 220 Lys Asp Val Val Trp Leu Gln Val Pro Phe Ser Ser Leu Pro Gly Glu 225 230 235 240 Gln Lys Asp Ile Asp Thr Lys Leu Pro Asn Gly Met Asn Tyr Gly Phe 245 250 255 Pro Val Asn Thr Met His Ile Val Ala Asn Lys Ala Trp Ala Glu Lys 260 265 270 Asn Pro Ala Ala Ala Lys Leu Phe Ser Val Met Lys Leu Pro Leu Ala 275 280 Asp Ile Asn Ala Gln Asn Ala Met Met His Ala Gly Lys Ser Ser Glu 300 290 295 Ala Asp Ile Lys Gly His Val Asp Gly Trp Ile Lys Ala His Gln Gln 310 315 Gln Phe Asp Gly Trp Val Lys Glu Ala Leu Glu Ala Gln Lys 325 330 <210> 7604 <211> 527

<400> 7604

Arg Gln Thr Pro Val Lys Pro Lys Val Ser Val Met Gln Gln Lys 5 10 15 Pro Gln Lys Pro Leu Glu Gly Ala Gln Leu Val Ile Met Thr Ile Ala

<sup>&</sup>lt;212> PRT <213> Enterobacter cloacae

Leu Ser Leu Ala Thr Phe Met Gln Val Leu Asp Ser Thr Ile Ala Asn 40 Val Ala Ile Pro Thr Ile Ala Gly Asn Leu Gly Ser Ser Leu Ser Gln 55 Gly Thr Trp Val Ile Thr Ser Phe Gly Val Ala Asn Ala Ile Ser Ile 70 75 Pro Ile Thr Gly Trp Leu Ala Lys Arg Val Gly Glu Val Lys Leu Phe 85 90 Leu Trp Ser Thr Ile Leu Phe Val Leu Ala Ser Trp Ala Cys Gly Met 100 105 Ser Ser Ser Leu Thr Met Leu Ile Phe Phe Arg Val Ile Gln Gly Ile 120 115 Val Ala Gly Pro Leu Ile Pro Leu Ser Gln Ser Leu Leu Leu Asn Asn 130 135 140 Tyr Pro Pro Ala Lys Arg Ser Ile Ala Leu Ala Leu Trp Ser Met Thr 145 150 155 160 Val Ile Val Ala Pro Ile Cys Gly Pro Ile Leu Gly Gly Tyr Ile Ser 165 170 175 Asp Asn Tyr His Trp Gly Trp Ile Phe Phe Ile Asn Val Pro Ile Gly 180 185 190 Ala Leu Val Val Leu Met Thr Leu Gln Ser Leu Arg Gly Arg Glu Thr 195 200 205 Arg Thr Glu Gln Arg Arg Ile Asp Gly Ile Gly Leu Ala Leu Leu Val 210 215 220 Val Gly Ile Gly Ser Leu Gln Ile Met Leu Asp Arg Gly Lys Glu Leu 225 230 235 240 Asp Trp Phe Ala Ser Thr Glu Ile Ile Val Leu Thr Val Val Ala Val 245 250 255 Val Ala Ile Ser Phe Leu Ile Val Trp Glu Leu Thr Asp Asp Asn Pro 260 265 270 Ile Val Asp Leu Ser Leu Phe Lys Ser Arg Asn Phe Thr Ile Gly Cys 275 280 285 Leu Cys Ile Ser Leu Ala Tyr Met Leu Tyr Phe Gly Ala Ile Val Leu 290 295 300 Leu Pro Gln Leu Leu Gln Glu Val Tyr Gly Tyr Thr Ala Thr Trp Ala 305 310 315 Gly Leu Ala Ser Ala Pro Val Gly Leu Ile Pro Val Leu Leu Ser Pro 325 330 335 Ile Ile Gly Arg Phe Ala His Lys Leu Asp Met Arg Arg Leu Val Thr 340 345 350 Phe Ser Phe Ile Met Tyr Ala Val Cys Phe Tyr Trp Arg Ala Tyr Thr 355 360 Phe Glu Pro Gly Met Asp Phe Gly Ala Ser Ala Trp Pro Gln Phe Ile 370 375 380 Gln Gly Phe Ala Val Ala Cys Phe Phe Met Pro Leu Thr Thr Ile Thr 385 390 395 Leu Ser Gly Leu Pro Pro Glu Arg Met Ala Ala Ala Ser Ser Leu Ser 405 410 415 Asn Phe Thr Arg Thr Leu Ala Gly Ser Ile Gly Thr Ser Ile Thr Thr 420 425 430 Thr Leu Trp Thr Asn Arg Glu Ser Met His His Ala Gln Leu Thr Glu 435 440 445 Ala Val Asn Pro Phe Asn Pro Asn Ala Gln Gln Met Tyr Ser Gln Leu 450 455 460 Glu Gly Met Gly Met Thr Glu Glr Gln Ala Ser Gly Trp Leu Ala Gln 465 470 475 Gln Ile Thr Asn Gln Gly Leu Ile Ile Ser Ala Asn Glu Ile Phe Trp 485 490 Ile Ser Ala Gly Ile Phe Ile Val Leu Leu Gly Leu Val Trp Phe Ala 505

```
Lys Pro Pro Phe Gly Ala Gly Ser Gly Gly Gly Ala His
                          520
<210> 7605
<211> 118
<212> PRT
<213> Enterobacter cloacae
<400> 7605
Thr Gly Thr Gln Ile Met Glu Asp Arg Met Phe Asn Arg Pro Asn Arg
                                  10
Asn Asp Ile Asn Asp Asp Thr Gln Asp Ile Arg Asn Asp Val Ser Gln
                              25
                                                 30
Leu Ala Asp Thr Leu Glu Ala Val Leu Lys Ser Trp Gly Ser Asp Ala
                           4.0
                                             45
Lys Asp Glu Ala Asp Ala Ala Lys Arg Lys Ala Gln Ser Leu Leu Arg
                                       60
Glu Thr Arg Ala Arg Met Asn Gly Arg Ser Arg Thr Thr Gln Ala Ala
                  70
                                   75
Cys Asp Met Ala Ser Cys Ala Thr Thr Phe Val Arg Glu Lys Pro Leu
            8.5
                               90
Cys Thr Leu Gly Thr Val Ala Ala Val Gly Ile Phe Val Gly Ala Leu
       100
                             105
Leu Ser Leu Arg Lys
  115
<210> 7606
<211> 85
<212> PRT
<213> Enterobacter cloacae
<400> 7606
Met Glu Met Arg Ile Met Ser Ile Ile Ile Tyr Thr Arg Asn Asp Cys
                                  1.0
Val Gln Cys His Ala Thr Lys Arg Ala Met Glu Ser Arg Gly Val Ala
 20
                              25
Phe Glu Met Val Asn Ile Asp Gln Val Pro Asp Ala Ala Asp Thr Leu
      35
                          4.0
                                             4.5
Arg Ala Gln Gly Phe Arg Gln Leu Pro Val Val Val Ala Gly Asp Thr
                      55
                                         60
Ser Trp Ser Gly Phe Arg Pro Asp Met Ile Asn Arg Leu Ala Ala Gln
Gly Val Ser Ala
<210> 7607
<211> 209
<212> PRT
<213> Enterobacter cloacae
<400> 7607
His Thr Phe Gly Gly Tyr Asn Arg Thr Asn Asn Ser Phe Thr Leu Phe
                               10
Val Thr Val Val Thr Ile Ser Ala Val Ile Asn Glu Val Met Pro Lys
                              25
                                                 30
Met Asp Ser Ser Phe Thr Pro Ile Glu Gln Met Leu Lys Phe Arg Ala
   3.5
                        4.0
                                          4.5
Ser Arg His Glu Asp Phe Pro Tyr Gln Glu Ile Leu Leu Thr Arg Leu
Cys Met His Met Gln Gly Lys Leu Leu Glu Asn Arg Asn Lys Met Leu
```

Lys Ala Gln Gly Ile Asn Glu Thr Leu Phe Met Ala Leu Ile Thr Leu 8.5 90 Glu Ser Gln Glu Asn His Ser Ile Gln Pro Ser Glu Leu Ser Cys Ala 100 105 Leu Gly Ser Ser Arg Thr Asn Ala Thr Arg Ile Ala Asp Glu Leu Glu 115 120 Lys Arg Gly Trp Ile Glu Arg Arg Glu Ser Asp Asn Asp Arg Arg Cys 135 Leu His Leu Gln Leu Thr Glu Lys Gly His Glu Phe Leu Arg Glu Val 150 155 Leu Pro Pro Gln His Asn Cys Leu His Gln Leu Trp Ser Ala Leu Ser 165 170 175 Thr Ala Glu Arg Asp Gln Leu Glu His Ile Thr Arg Lys Leu Leu Thr 180 185 190 Arg Leu Asp Gln Met Asp Glu Asp Gly Val Ile Leu Glu Ala Leu Arg 195 200

<210> 7608 <211> 565 <212> PRT <213> Enterobacter cloacae

<400> 7608

Asn Arg Phe Thr Ile Val Lys Arg Gln Glu Arg Thr Met Leu Asn 10 Thr Pro Ala Asp Lys Tyr Gln Pro Tyr Pro Thr Leu Ser Leu Pro Asp 25 20 Arg Arg Trp Pro Glu Gln Ile Ile Thr Cys Ala Pro Arg Trp Leu Ser 35 40 45 Thr Asp Leu Arg Asp Gly Asn Gln Ala Leu Ala Glu Pro Met Asp Ser 50 55 60 Ala Arg Lys Leu Gln Phe Trp Asp Leu Leu Leu Thr Cys Gly Phe Lys 65 70 75 80 Glu Ile Glu Val Ala Phe Pro Ser Ala Ser Gln Thr Asp Phe Asn Phe 85 90 95 Val Arg Gln Leu Ile Glu Glu Asn Arg Ile Pro Asp Asp Val Thr Ile 100 105 110 Ser Leu Arg Gly Ala Lys Gln Ala Thr Val His Leu Tyr Asn Ala Thr 130 135 140 Ala Pro Leu Phe Arg Arg Leu Val Phe Gly Met Glu Lys Ala Gln Ile 145 150 155 160 Val Glu Leu Ala Thr Arg Ala Thr Arg Leu Ile Arg Gln Leu Cys Glu 165 170 175 Glu Asn Pro Asp Thr Arg Trp Gln Tyr Glu Tyr Ser Pro Glu Thr Phe 180 185 190 Cys Phe Thr Glu Pro Glu Phe Ala Leu Glu Ile Cys Glu Ala Val Ala 195 200 205 Glu Ile Trp Gln Pro Cys Ala Ala Arg Pro Met Ile Val Asn Leu Pro 210 215 220 Ala Thr Val Glu Val Ser Thr Pro Asn Val Tyr Ala Asp Gln Ile Glu 225 230 235 Tyr Phe Cys Arg His Phe Ser Arg Arg Ser Asp Val Cys Ile Ser Val 245 250 His Pro His Asn Asp Arg Gly Thr Gly Val Ala Ser Ala Glu Leu Ala 260 265 270 Val Met Ala Gly Ala Asp Arg Val Glu Gly Cys Leu Phe Gly Asn Gly

```
Glu Arg Thr Gly Asn Val Cys Leu Val Thr Leu Ala Met Asn Leu Tyr
           295
 290
                       300
Ser Gln Gly Ile Ser Pro Asn Leu Asp Phe Ser Asp Met Asn Arg Val
              310
                          315
Val Glu Thr Val Glu Thr Cys Asn Gln Leu Pro Val His Pro Arg His
               330
           325
                                        335
Pro Trp Ala Gly Arg Leu Ala Tyr Thr Ala Phe Ser Gly Ser His Gln
        340
                     345
                                     350
Asp Ala Ile Lys Lys Gly Phe Asp Ala Arg Lys Pro Gly Glu Arg Trp
          360
                                  365
Glu Met Pro Tyr Leu Pro Val Asp Pro Gln Asp Ile Gly Cys Thr Tyr
                375
                               380
Glu Ala Val Ile Arg Val Asn Ser Gln Ser Gly Lys Ser Gly Ser Ala
             390 395 400
Trp Leu Ile Glu Gln Asn His Gly Leu Lys Leu Pro Arg Ala Leu Gln
      405 410 415
Gln Asp Phe Ser Gln His Val Gln Gln Glu Thr Asp Asn His Gly Lys
  420 425 430
Glu Met Thr Gln Asn Ala Leu Trp Gln Leu Phe Arg Ala Arg Tyr Gly
435 440 445
Leu Val Ala Ser Pro Pro Leu Ala Leu Gln Ser Tyr Arg Ser Asp Ser
450 455 460
Gln Gln Asp Gly Gln Leu Arg Leu Thr Ala Ser Val Ala Thr His Gly
465 470 475 480
Gly Thr Arg Gln Leu Glu Gly Gln Gly Asn Gly Leu Leu Ser Ala Ala
        485 490 495
Ala His Gly Leu Ser Arg Trp Ile Asn Ala Ser Phe Val Ile Lys Asp
       500 505 510
Tyr His Glu His Thr Leu Gly Glu Arg Ser Asp Ser Arg Ser Val Ala
515 520 525
Tyr Ile Arg Cys Leu Phe Gln Asp Gly Thr Ser Arg Trp Gly Val Gly
530 535 540
Ile Asp Ser Asp Val Ala Arg Ala Ser Ile Gln Ala Leu Phe Asn Ala
             550
Val Ser Arg Ser
```

.....

<210> 7609 <211> 145

<212> PRT

<213> Enterobacter cloacae

<400> 7609

Ser Phe Ser Glu Ser Thr Met Tyr Ala Gln Tyr Asp Gly Leu Ile Phe 10 Asp Met Asp Gly Thr Leu Leu Asp Thr Glu Pro Thr His Arg Gln Ala 20 25 Trp Thr Glu Val Leu Gly Arg Tyr Gly Met Arg Phe Asp Leu Gln Ala 40 Met Ile Ala Leu Asn Gly Ser Pro Thr Trp Arg Ile Ala Gln Ala Val 55 Ile Glu Leu Asn Gln Ala Asp Leu Asp Pro His Gln Leu Ala Arg Glu 65 70 Lys Thr Asp Ala Val Lys Ala Met Leu Leu Asp Thr Val Gln Pro Leu 8.5 90 Pro Leu Ile Asp Val Val Lys Glu Trp His Gly Arg Arg Pro Met Ser 100 105 110 Val Gly Thr Gly Ser Glu Ser Ala Ile Ala Glu Ala Leu Leu Asn His 115 120 125 Leu Gly Pro Ala Pro Leu Phe Phe Cys Arg Arg Cys Arg Arg Ser Cys 135 140

145 <210> 7610 <211> 154 <212> PRT <213> Enterobacter cloacae <400> 7610 Cys Arg Asn Gly Gly Gly Gly Arg Ser Leu Thr Val Ser Asp Ala Leu Ser Leu Ala Ser Leu Phe Ala Ser Ser Phe Leu Ser Ser Thr Leu Leu 20 25 30 Pro Gly Asn Ser Glu Val Val Leu Val Ala Met Leu Leu Ser Gly Val 40 45 Ser Gln Pro Trp Leu Leu Val Leu Ile Ala Thr Met Gly Asn Ser Leu 5.0 55 60 Gly Gly Leu Thr Asn Val Ile Leu Gly Arg Phe Phe Pro Leu Arg Glu 70 75 Lys Ser Arg Trp Gln Glu Lys Ala Val Gly Trp Leu Lys Arg Tyr Gly 85 90 Ala Ala Thr Leu Leu Ser Trp Met Pro Val Ile Gly Asp Leu Leu 100 105 110 Cys Leu Leu Ala Gly Trp Met Arg Ile Ser Trp Gly Pro Val Leu Phe 115 120 125 Phe Leu Cys Leu Gly Lys Ala Leu Arg Tyr Val Leu Leu Ala Trp Val 130 135 Thr Leu Gln Gly Ile Thr Trp Trp His <210> 7611 <211> 295 <212> PRT <213> Enterobacter cloacae <400> 7611 Cys Ser Cys Lys Gln Gln Arg Arg Ala Gly Pro Ala Lys Arg Lys Thr 10 Ser Gly Thr Ala His Leu Val Ser Cys Leu Trp Met Pro Gly Gly Ala 25 Ser Leu Thr Gly Pro Thr Ile Leu Met Thr Thr Thr Thr Thr Phe Ser 40 Phe Thr His Arg Pro Leu Val Pro Phe Ser His Asp Tyr Ala His Gly 5.5 60 Asp Ser Glu Pro Trp His Gln His Asp Cys Ala Gln Leu Leu His Ser 70 75 Leu Thr Gly Val Val Arg Val Asp Thr Ala Ser Gly Cys Trp Val Val 85 90 Pro Pro Gly Arg Gly Val Trp Leu Pro Ala Gly Thr Gln His Ala Leu 105 110 Arg Ile Thr Gly Asn Val Ala Ala Arg Thr Leu Phe Ile Asp Pro Leu 120 125 Ala Arg Ala Asp Leu Pro Ala Thr Cys Gln Ile Val Gln Ile Ser Pro 135 140 Leu Leu Arg Glu Leu Ile Leu Thr Ser Leu Thr Leu Pro Glu Ser Tyr 150 155 160 Ala Pro Gly Ser Arg Asp Glu Arg Val Tyr Glu Leu Ile Leu Asp Glu 165 170 175 Ile Arg Leu Met Pro Val Leu Pro Phe His Leu Pro Glu Pro Glu Ser 185 190

Glu Ala Leu Arg His Leu Cys Gln Gln Ile Arg Met Ala Pro Gly Glu

<212> PRT

```
200
Ser Trp Ser Ser Ala Gln Ala Ala Gly Ile Val Gly Met Ser Glu Arg
                                  220
              215
Thr Leu Asn Arg His Phe Gln Gln Gln Thr Gly Leu Ser Tyr Gly Glu
                230
                                 235
Trp Val Arg Arg Ala Arg Leu Leu Glu Ala Leu Val Arg Leu Ala Gln
             245 250
Gly Gln Pro Val Leu Arg Val Ala Leu Asp Leu Gly Tyr Gly Ser His
       260 265
                               270
Ser Ala Phe Thr Ala Met Phe Arg Arg Val Met Gly Leu Ser Pro Ser
    275 280
Asp Tyr Phe Arg Asn Asp
   290
<210> 7612
<211> 118
<212> PRT
<213> Enterobacter cloacae
<400> 7612
Gly Lys Asp Met Tyr Leu Arg Pro Asp Glu Val Ala Arg Val Leu Glu
                             10
Lys Glu Gly Phe Thr Met Asp Glu Val Thr Ser Lys Ala Tyr Gly Tyr
 20 25
Arg Arg Gly Glu Asn Tyr Val Tyr Val Asn Arg Glu Ala Arg Met Gly
35
                    40
                                        4.5
Arg Thr Ala Leu Ile Ile His Pro Thr Leu Lys Asp Arg Ser Leu Ser
50 55 60
Phe Ala Glu Pro Ala Ser Asp Ile Lys Thr Cys Asp His Tyr Gln Gln
65 70 75
Phe Pro Leu Tyr Leu Gly Gly Glu Thr His Glu His Tyr Gly Ile Pro
           85
                            90
His Gly Phe Ser Ser Arg Met Ala Leu Glu Arg Phe Leu Lys Gly Leu
 100
                          105
Phe Gly Asp Val Gln
<210> 7613
<211> 105
<212> PRT
<213> Enterobacter cloacae
<400> 7613
Thr Pro Cys Ser Leu Tyr His Ser Leu Thr Ser Ser Arg Ser Gly Thr
Ala Val Val Leu Cys Leu Ser Val Arg Ala Ala Arg Ala Arg Leu Leu
                          25
Lys Arg Tyr Ser Ile Thr Leu Gly Leu Arg His Tyr Phe Ser Ala Val
                     4.0
Val Ala Ala Asp His Val Lys His His Lys Pro Ala Pro Asp Thr Phe
                   55
Leu Leu Cys Ala Glu Leu Met Gly Val Pro Pro Ala Lys Cys Val Val
                                 75
                7.0
Phe Glu Asp Ala Asp Phe Gly Ile Gln Pro Ala Arg Asp Ala Gly Met
           8.5
Ala Ala Val Asp Val Arg Leu Leu
<210> 7614
<211> 173
```

## <213> Enterobacter cloacae

<400> 7614 Arg Met Pro Leu Leu Asp Ser Phe Thr Val Asp His Thr Arg Met Glu 10 Ala Pro Ala Val Arg Val Ala Lys Thr Met Asn Thr Pro His Gly Asp 20 25 Thr Ile Thr Val Phe Asp Leu Arg Phe Cys Val Pro Asn Lys Glu Val 35 4.0 4.5 Met Pro Glu Lys Gly Ile His Thr Leu Glu His Leu Phe Ala Gly Phe 55 Met Arg Asp His Leu Asn Gly Asn Gly Val Glu Ile Ile Asp Ile Ser 70 75 Pro Met Gly Cys Arg Thr Gly Phe Tyr Met Ser Leu Ile Gly Gln Pro 85 90 Glu Glu Lys Arg Val Ala Asp Ala Trp Lys Ala Ala Met Glu Asp Val 100 105 110 Leu Lys Val Lys Glu Gln Asn Gln Ile Pro Glu Leu Asn Val Tyr Gln 115 120 125 Cys Gly Thr Tyr Gln Met His Ser Leu Glu Glu Ala Gln Glu Ile Ala 130 135 140 Arg His Ile Ile Glu Arg Asp Val Arg Val Asn Ser Asn Asp Glu Leu 145 150 155 Ala Leu Pro Lys Glu Lys Leu Glr Glu Leu His Ile

<210> 7615 <211> 524 <212> PRT

<213> Enterobacter cloacae

## <400> 7615

Gln Phe Phe Asp Arg Arg Glu Val Lys Leu Ile Pro Asp Val Ser Gln 1.0 Ala Leu Ala Trp Leu Glu Asn His Pro Gln Ala Leu Lys Gly Ile Gln 20 25 Arg Gly Leu Glu Arg Glu Thr Leu Arg Val Asn Ala Asp Gly Ser Leu 40 Ala Thr Thr Gly His Pro Lys Ala Leu Gly Ser Ala Leu Thr His Lys 5.5 Trp Ile Thr Thr Asp Phe Ala Glu Ala Leu Leu Glu Phe Ile Thr Pro 70 Val Asp Gly Asp Ile Asp His Met Leu Thr Ile Met Arg Asp Val His 90 Arg Phe Thr Ala Arg Asn Leu Gly Asp Glu Arg Met Trp Pro Leu Ser 100 105 110 Met Pro Cys Tyr Ile Glu Gln Gly Gln Asp Ile Glu Leu Ala Gln Tyr 115 120 Gly Thr Ser Asn Ile Gly Arg Leu Lys Thr Leu Tyr Arg Glu Gly Leu 130 135 140 Lys Asn Arg Tyr Gly Ala Leu Met Gln Thr Ile Ser Gly Val His Tyr 145 150 155 160 Asn Phe Ser Leu Pro Met Ala Phe Trp Gln Ala Lys Cys Gly Glu Thr 170 165 Asp Lys Glu Ala Ile Ser Ala Gly Tyr Phe Arg Leu Ile Arg Asn Tyr 180 185 190 Tyr Arg Phe Gly Trp Val Ile Pro Tyr Leu Phe Gly Ala Ser Pro Ala 200 205 Ile Cys Ser Ser Phe Leu Gln Gly Lys Pro Thr Thr Leu Pro Phe Glu 215 220 Lys Thr Glu Cys Gly Met Tyr Tyr Leu Pro Tyr Ala Thr Ser Leu Arg

Ser Thr Arg Gly Arg Arg 115

```
230
Leu Ser Asp Leu Gly Tyr Thr Asn Lys Ser Gln Ser Asn Leu Gly Ile
         245
                          250
Thr Phe Asn Asp Leu His Glu Tyr Val Ala Gly Leu Lys Arg Ala Ile
        260
                        265
Lys Thr Pro Ser Glu Glu Tyr Glu Lys Ile Gly Leu Glu Lys Asp Gly
   275
            280
Lys Arg Leu Gln Ile Asn Thr Asn Val Leu Gln Ile Glu Asn Glu Leu
      295 300
Tyr Ala Pro Ile Arg Pro Lys Arg Val Thr Arg Ser Gly Glu Thr Pro
305 310
                            315
Ser Asp Ala Leu Gln Arg Gly Gly Ile Glu Tyr Ile Glu Val Arg Ser
       325 330
Leu Asp Ile Asn Pro Phe Ser Pro Ile Gly Val Asp Glu Gln Gln Val
     340 345 350
Arg Phe Leu Asp Leu Phe Met Val Trp Cys Val Leu Ala Asp Ala Pro
 355 360 365
Glu Met Ser Ser Asp Glu Leu Leu Cys Thr Arg Ala Asn Trp Asn Arg
370 375 380
Val Ile Leu Glu Gly Arg Lys Pro Gly Leu Thr Leu Gly Ile Gly Cys
385 390 395
Glu Thr Ala Gln Phe Pro Leu Ser Lys Val Gly Lys Asp Leu Phe His
      405 410 415
Asp Leu Lys Arg Val Ala Gln Thr Leu Asp Ser Val Tyr Gly Glu
 420 425
Ala Tyr Gln Lys Val Cys Asp Glu Leu Val Glu Ser Phe Asp Asn Pro
435 440 445
Glu Leu Thr Phe Ser Ala Arg Ile Leu Arg Ser Met Ile Glu Gln Gly
 450 455 460
Ile Gly Gly Thr Gly Arg Ser Leu Ser Ala Glu Tyr Arg Glu Met Leu
465 470 475
Met Gln Glu Pro Leu Glu Ile Leu Ser Glu Ala Asp Phe Val Ala Glu
   485 490 495
Arg Asp Ala Ser Val Val Arg Gln Lys Glu Val Glu Ala Ala Asp Thr
      500 505
Glu Ser Phe Glu Ala Phe Leu Ala Lys Gln Ala
<210> 7616
<211> 119
<212> PRT
<213> Enterobacter cloacae
<400> 7616
Pro Thr Glu Lys Arg Cys Gly Glu Thr Gly Leu Ile Val Pro Ala Cys
                           1.0
Phe Thr Leu Lys Pro Pro His Gln Glu Ala Ser Ala Met Ala Thr Pro
             25
Arg Leu Thr Gln Lys Asp Met Thr Glu Ala Glu Gln Arg Glu Leu Lys
                   4.0
Thr Leu Leu Asp Arg Ala Arg Ile Ala His Gly Arg Thr Leu Thr Asn
 50 55
                                 60
Ala Glu Thr Asn Gln Val Lys Lys Glu Tyr Ile Asp Lys Leu Met Ala
              7.0
Gln Arg Glu Ala Ala Ala Lys Lys Ala Arg Lys Leu Lys Lys Glu Gln
                           90
           8.5
Ala Tyr Lys Pro Asp Ala Glu Ala Tnr Phe Ser Trp Ser Ala Asn Thr
        100
                        105
                                       110
```

```
<210> 7617
<211> 454
<212> PRT
<213> Enterobacter cloacae
<400> 7617
His Glu Val Val Met Thr Ser Phe Val Val Ala Lys Phe Gly Gly Thr
                      10
Ser Val Ala Asp Tyr Asp Ala Met Asn Arg Ser Ala Asp Val Val Leu
      20
                        2.5
                                       3.0
Ala Asp Pro Asn Thr Arg Leu Val Val Leu Ser Ala Ser Ala Gly Val
 35 40
                            4.5
Thr Asn Leu Leu Val Ser Leu Ser Glu Gly Leu Glu Ala Thr Glu Arg
50 55 60
Phe Val Lys Leu Asp Ala Leu Arg Lys Ile Gln Phe Asp Ile Leu Glu
              70 75 80
Arg Leu Gln Asn Pro Asn Val Ile Arg Glu Glu Val Glu Arg Leu Leu
       85
                           90
Glu Asn Ile Thr Thr Leu Ala Glu Ala Ala Ser Leu Ala Thr Ser Thr
  100 105 110
Ala Leu Thr Asp Glu Leu Val Ser His Gly Glu Leu Met Ser Thr Leu
115 120 125
Leu Phe Val Glu Ile Met Arg Glu Arg Asn Ile Gln Ala Gln Trp Phe
130 135 140
Asp Val Arg Lys Val Met Arg Thr Ser Asp Arg Phe Gly Arg Ala Glu
145 150 155 160
Pro Asp Val Glu Val Leu Ala Glu Leu Thr Asn Gln Gln Leu Ala Pro
          165 170 175
Arg Leu Asp Glu Gly Ile Val Ile Thr Gln Gly Phe Ile Gly Ser Glu
                      185 190
Ala Lys Gly Arg Thr Thr Thr Leu Gly Arg Gly Gly Ser Asp Tyr Thr
 195 200
                                  205
Ala Ala Leu Leu Gly Glu Ala Leu His Ala Thr Arg Val Asp Ile Trp
210 215 220
Thr Asp Val Pro Gly Ile Tyr Thr Thr Asp Pro Arg Val Val Ser Ala
225 230 235 240
Ala Lys Arg Ile Asp Val Ile Ala Phe Glu Glu Ala Ala Glu Met Ala
           245 250 255
Thr Phe Gly Ala Lys Val Leu His Pro Ala Thr Leu Leu Pro Ala Val 260 \hspace{1cm} 265 \hspace{1cm} 270 \hspace{1cm}
Arg Ser Asp Ile Pro Val Phe Val Gly Ser Ser Lys Asp Pro Lys Ala
     275 280 285
Gly Gly Thr Leu Val Cys Lys Lys Thr Glu Asn Pro Pro Leu Phe Arg
 290 295
                                 300
Ala Leu Ala Leu Arg Arg Lys Gln Thr Leu Val Thr Leu His Ser His
              310 315
Asn Met Leu His Ser Arg Gly Phe Leu Ala Glu Val Phe Gly Ile Leu
           325
                           330
Ala Arg His Asn Ile Ser Val Asp Leu Ile Thr Thr Ser Glu Val Ser
        340
                       345
                                       350
Ile Ala Leu Thr Leu Asp Thr Thr Gly Ser Thr Ser Thr Gly Asp Thr
     355
                     360
                                    365
Leu Leu Thr Gln Ser Leu Leu Ile Glu Leu Ser Glu Leu Cys Arg Val
               375
                                  380
Glu Val Glu Glu Asp Leu Ala Leu Val Ala Ile Ile Gly Asn Lys Leu
              390
                              395
                                              400
Ser Arg Ala Cys Gly Val Gly Lys Glu Val Phe Gly Val Leu Asp Pro
```

405

420

Phe Asn Ile Arg Met Ile Cys Tyr Gly Ala Ser Ser Tyr Asn Leu Cys 425

Phe Leu Val Pro Ala Asp Gln Ala Glu Gln Val Val Gln Lys Leu His

410

```
435
                     440
                                    445
Gln Asn Leu Phe Glu
  450
<210> 7618
<211> 340
<212> PRT
<213> Enterobacter cloacae
<400> 7618
Thr Ile Ser Ile Ser Arg Ala Gln Thr Arg Leu Phe Tyr Asn Lys Thr
                     10
Thr Arg Gln Tyr Cys Lys Glu Phe Thr Met Leu Ser Ala Ile Thr Arg
 20
                25
                                       30
Leu Phe Pro Leu Trp Ala Leu Leu Leu Ser Val Leu Ala Tyr Tyr Thr
 35
                    40 45
Pro Ala Thr Phe Thr Gly Ile Gly Pro Trp Val Thr Thr Leu Leu Met
                 55
                       60
Leu Ile Met Phe Gly Met Gly Val His Leu Lys Ile Asp Asp Phe Lys
65 70 75
Arg Val Leu Ser Arg Pro Ala Pro Val Ala Ala Gly Ile Phe Leu His
      85 90 95
Tyr Leu Val Met Pro Leu Ala Ala Trp Leu Leu Ala Met Ala Phe Lys
 100 105 110
Met Pro Pro Asp Leu Ser Ala Glv Met Val Leu Val Glv Ser Val Ala
115 120 125
Ser Gly Thr Ala Ser Asn Val Met Ile Tyr Leu Ala Lys Gly Asp Val
130 135 140
Ala Leu Ser Val Thr Ile Ser Ser Val Ser Thr Leu Val Gly Val Ile
145 150 150 160
Ala Thr Pro Leu Leu Thr Arg Leu Tyr Val Asp Ala His Ile Gln Val
      165 170 175
Asp Val Met Gly Met Leu Leu Ser Ile Leu Gln Ile Val Val Ile Pro
   180 185 190
Ile Ala Leu Gly Leu Val Ile His His Leu Phe Pro Arg Val Val Lys
  195 200 205
Ala Val Glu Pro Tyr Leu Pro Ala Phe Ser Met Ile Cys Ile Leu Ala
                215 220
Ile Ile Ser Ala Val Val Ala Gly Ser Ala Ser His Ile Ala Ser Val
              230
                             235
Gly Phe Val Val Ile Val Ala Val Val Leu His Asn Thr Ile Gly Leu
           245
                           250 255
Leu Gly Gly Tyr Trp Gly Gly Lys Leu Phe Gly Phe Asp Glu Ser Thr
         260
                        265 270
Cys Arg Thr Leu Ala Ile Glu Val Gly Met Gln Asn Ser Gly Leu Ala
                     280 285
Ala Ala Leu Gly Lys Ile Tyr Phe Ser Pro Leu Ala Ala Leu Pro Gly
                  295
                                 300
Ala Leu Phe Ser Val Trp His Asn Leu Ser Gly Ser Leu Leu Ala Gly
               310
                              315 320
Tyr Trp Ser Gly Lys Pro Ile Asp Asp Gln Pro Lys Lys Asp Ala Val
            325
                           330
Lys Gln Gly
<210> 7619
<211> 311
<212> PRT
<213> Enterobacter cloacae
<400> 7619
```

```
His Glu Thr Cys Ser Leu Ser Leu Leu Arg Ser Val Arg Lys Ala Val
Ala Lys Pro Pro Asn Lys Thr Lys Met Ile Ser Thr Ile Gln Lys Lys
         20
                          25
Glu Phe Val Met Val Thr Thr Val Pro Ala Lys Arg Gly Arg Lys Pro
      35
                       40
Ala Ala Thr Thr Ala Ala Gln Pro Gly Gly Gln Val Gln Ser Leu Thr
                   55
                                    60
Arg Gly Leu Lys Leu Leu Glu Trp Ile Ala Glu Ser His Gly Ser Val
             70
                                 75
Ala Leu Thr Glu Leu Ala Gln Gln Ala Gly Leu Pro Asn Ser Thr Thr
          85
                             90
                                            9.5
His Arg Leu Leu Thr Thr Met Gln Gln Leu Gly Phe Val Arg Gln Val
        100
                       105 110
Gly Glu Leu Gly His Trp Ala Val Gly Ala His Ala Phe Ile Val Gly
     115
            120
Ser Ser Phe Leu Gln Ser Arg Asn Leu Leu Ala Ile Val His Pro Ile
 130 135 140
Leu Arg Lys Leu Met Glu Glu Ser Gly Glu Thr Val Asn Leu Ala Val
       150 155 160
Leu Asp Gln Ser Asp His Gln Ala Ile Ile Ile Asp Gln Val Gln Cys
      165 170 175
Thr Gln Leu Met Arg Met Ser Ala Pro Ile Gly Gly Lys Leu Pro Met
         180
                          185
His Ala Ser Gly Ala Gly Lys Ala Phe Leu Ser Gln Leu Ser Glu Glu
                       200 205
Gln Val Thr Gly Leu Leu His Arg Lys Gly Leu His Ala Tyr Thr His
                 215
Ala Thr Leu Val Ser Pro Val His Leu Lys Glu Asp Leu Ala Leu Thr
               230
                               235
Arg Lys Arg Gly Tyr Ser Phe Asp Asp Glu Glu His Ala Leu Gly Leu
          245 250 255
Arg Cys Leu Ala Ser Cys Ile Phe Asp Glu His Arg Glu Pro Phe Ala
         260 265 270
Ala Ile Ser Ile Ser Gly Pro Ile Ser Arg Met Thr Asp Asp Arg Val
                      280 285
Thr Glu Leu Gly Ala Met Val Ile Lys Ala Ala Lys Glu Val Thr Leu
 290 295
Ala Tyr Gly Gly Ile Arg
<210> 7620
<211> 106
<212> PRT
<213> Enterobacter cloacae
<400> 7620
Ile Thr Gly Ser Asn Met Lys Glu Ile Val Gln Thr Glu Ser Phe Arg
                             1.0
Arg Trp Glu Gln Asn Leu Lys Asp Arg Arg Ala Lys Thr Ile Ile Ala
          20
                          25
                                           3.0
Ser Arg Leu Phe Arg Leu Ala Asn Gly Leu Ala Gly Asp Ile Arg Pro
      35
                       4.0
Val Gly Glu Gly Ile Ser Glu Leu Arg Ile His Phe Gly Pro Gly Tyr
 50
                   55
Arg Val Tyr Phe Lys Asp Gln Gly Asn Cys Ile Ile Val Leu Leu Cys
                70
Gly Gly Asp Lys Ser Ser Gln Ala Arg Asp Ile Leu Met Ala Lys Met
            85
                             90
                                              95
```

Leu Ser Asn Val Ser Gln Trp Gln Glu

```
<210> 7621
<211> 98
<212> PRT
<213> Enterobacter cloacae
<400> 7621
Met Ser Met His Lys Leu Thr Pro Tyr Asp Pro Ala Asn Ala Leu Val
                             10
Asp Asp Glu Glu Ile Ala Val Phe Met Ala Asp Ala Leu Glu Thr Gly
        20
                       25
Asp Ser Ala Tyr Ile Ala Lys Ala Leu Gly Val Ile Ala Arg Ala Lys
     3.5
                     4.0
                                      4.5
Gly Met Ser Thr Ile Ser Gln Gln Thr Gly Leu Ser Arg Glu Gln Leu
                 55
Tyr Arg Ser Phe Ser Asp Lys Gly Asn Pro Thr Leu Lys Thr Thr Leu
65 70 75
Ala Val Met Lys Ala Leu Gly Leu Gly Leu Thr Ile Lys Pro Ser Gly
Asp
<210> 7622
<211> 314
<213> Enterobacter cloacae
<400> 7622
Gly Phe Lys Val Met Pro Ile Arg Val Gln Asp Glu Leu Pro Ala Val
                            10
Asn Phe Leu Arg Glu Glu Asn Val Phe Val Met Thr Thr Ser Arg Ala
 20
                          25
Ser Gly Gln Glu Ile Arg Pro Leu Lys Val Leu Ile Leu Asn Leu Met
                    40
Pro Lys Lys Ile Glu Thr Glu Asn Gln Phe Leu Arg Leu Leu Ser Asn
       55 60
Ser Pro Leu Gln Val Asp Ile Gln Leu Leu Arg Ile Asp Ala Arg Glu
                70
                               75
Ser Arg Asn Thr Pro Ala Glu His Leu Asn Asn Phe Tyr Cys Asn Phe
            85
                             90
Glu Asp Ile Arg Asp Glu Asn Phe Asp Gly Leu Ile Val Thr Gly Ala
         100 105 110
Pro Leu Gly Leu Val Glu Phe Asn Asp Val Ala Tyr Trp Pro Gln Ile
      115 120
                                        125
Arg Gln Val Leu Glu Trp Ala Lys Asp His Val Thr Ser Thr Leu Phe
                   1.35
                                     140
Val Cys Trp Ala Val Gln Ala Ala Leu Asn Ile Leu Tyr Gly Ile Pro
                150
                                 155
Lys Gln Thr Arg Ser Asp Lys Leu Ser Gly Val Tyr Glu His His Ile
             165
                              170
Leu His Pro His Ala Leu Leu Thr Arg Gly Phe Asp Asp Thr Phe Leu
         180 185
                                            190
Ala Pro His Ser Arg Tyr Ala Asp Phe Pro Ala Gln Leu Ile Arg Asp
                       200
                                        205
Tyr Thr Asp Leu Glu Ile Leu Ala Glu Thr Glu Asp Gly Asp Ala Tyr
                    215
                                     220
Leu Phe Ala Ser Lys Asp Lys Arg Ile Ala Phe Val Thr Gly His Pro
               230
                                 235
Glu Tyr Asp Pro His Thr Leu Ala Ala Glu Tyr Phe Arg Asp Val Glu
            245
                              250
```

Ala Gly Leu Asn Pro Asp Val Pro Tyr Asn Tyr Phe Pro Lys Asn Asp

260 265 Pro Gln Asn Thr Pro Arg Ala Thr Trp Arg Ser His Gly Asn Leu Leu 275 280 285 Phe Thr Asn Trp Leu Asn Tyr Tyr Val Tyr Gln Ile Thr Pro Tyr Asp 290 295 Leu Arg His Met Asn Pro Thr Leu Glu 310 <210> 7623 <211> 455 <212> PRT <213> Enterobacter cloacae <400> 7623 Pro Cys Arg Ala Thr Ala Ser Trp Arg Asn Ser Pro His Asn Asn Met 10 Glu His Leu His Met Lys Thr Arg Thr Gln Gln Ile Glu Glu Leu Gln 20 2.5 Lys Glu Trp Thr Gln Pro Arg Trp Glu Gly Ile Arg Arg Pro Tyr Ser 35 40 Ala Glu Glu Val Val Lys Leu Arg Gly Ser Val Asn Pro Glu Cys Thr 5.5 Leu Ala Gln Asn Gly Ala Ala Lys Met Trp Asp Leu Leu His Gly Gly 70 75 Ala Lys Lys Gly Tyr Ile Asn Ser Leu Gly Ala Leu Thr Gly Gly Gln 85 90 95 Ala Leu Gln Gln Ala Lys Ala Gly Ile Glu Ala Ile Tyr Leu Ser Gly 100 105 110 Trp Gln Val Ala Ala Asp Ala Asn Leu Ala Ser Ser Met Tyr Pro Asp 115 120 125 Gln Ser Leu Tyr Pro Ala Asn Ser Val Pro Ser Val Val Asp Arg Ile 130 135 140 Asn Asn Thr Phe Arg Arg Ala Asp Gln Ile Gln Trp Ala Ala Gly Ile 145 150 155 160 Glu Pro His Asp Pro Arg Phe Ile Asp Tyr Phe Leu Pro Ile Val Ala 165 170 175 Asp Ala Glu Ala Gly Phe Gly Gly Val Leu Asn Ala Phe Glu Leu Met 180 185 190 Lys Ser Met Ile Glu Ala Gly Ala Ala Ala Val His Phe Glu Asp Gln 195 200 205 Leu Ala Ser Val Lys Lys Cys Gly His Met Gly Gly Lys Val Leu Val 210 215 220 Pro Thr Gln Glu Ala Ile Gln Lys Leu Val Ala Ala Arg Leu Ala Ala 230 235 Asp Val Leu Gly Val Pro Thr Leu Val Ile Ala Arg Thr Asp Ala Asp 245 250 255 Ala Ala Asp Leu Ile Thr Ser Asp Cys Asp Pro Tyr Asp Ser Glu Phe 260 265 Ile Thr Gly Glu Arg Thr Ser Glu Gly Phe Tyr Arg Thr His Ala Gly 275 280 Ile Glu Gln Ala Ile Ser Arg Gly Leu Ala Tyr Ala Pro Tyr Ala Asp 295 300 Leu Val Trp Cys Glu Thr Ser Thr Pro Asp Leu Ala Leu Ala Lys Arg 305 310 315 Phe Ala Asp Ala Ile His Ala Lys Tyr Pro Gly Lys Leu Leu Ala Tyr 325 330 335 Asn Cys Ser Pro Ser Phe Asn Trp Gln Lys Asn Leu Asp Asp Thr Thr 340 345 350 Ile Ala Ser Phe Gln Gln Gln Leu Ser Asp Met Gly Tyr Lys Tyr Gln 360 Phe Ile Thr Leu Ala Gly Ile His Ser Met Trp Phe Asn Met Phe Asp

375 Leu Ala His Ala Tyr Ala Gln Gly Glu Gly Met Lys His Tyr Val Glu 390 395 Lys Val Gln Gln Pro Glu Phe Ala Ala Gly Lys Glu Gly Tyr Thr Phe 405 410 Val Ser His Gln Glu Val Gly Thr Gly Tyr Phe Asp Asn Val Thr 420 425 430 Thr Ile Ile Gln Gly Gly Ala Ser Ser Val Thr Ala Leu Thr Gly Ser 435 440 Thr Glu Glu Ala Gln Phe 450 <210> 7624 <211> 601 <212> PRT <213> Enterobacter cloacae <400> 7624 Ser Phe Pro Pro Leu Pro Pro Arg Gly Glu Gly Trp Gly Glu Gly Glu 5 1.0 Tyr Met Ser Arg Gly Leu Glu Leu Leu Ile Ala Gln Thr Ile Leu Gln 20 25 Gly Phe Asp Ala Gln Tyr Gly Arg Phe Leu Glu Val Thr Ser Gly Ala 35 40 4.5 Gln Gln Arg Phe Glu His Ala Asp Trp His Ala Val Gln Gln Ala Met 55 60 Lys Gln Arg Ile His Leu Tyr Asp His His Val Gly Leu Val Val Glu 65 70 75 Gln Leu Arg Cys Ile Thr Asp Gly Lys Ser Pro Asp Ala Asp Phe Leu 85 90 95 Leu Arg Val Lys Glu His Tyr Thr His Leu Leu Pro Asp Tyr Pro Arg 100 105 110 Phe Glu Ile Ala Glu Ser Phe Phe Asn Ser Val Tyr Cys Arg Leu Phe 115 120 125 Asp His Arg Ser Leu Ser Pro Glu Arg Leu Phe Ile Phe Ser Ser Gln 130 135 140 Pro Glu Arg Arg Phe Arg Thr Ile Pro Arg Pro Leu Ala Lys Asp Phe 145 150 155 160 Phe Pro Asp Arg Gly Trp Glu Lys Leu Leu His Arg Val Leu Thr Asp 165 170 175 Leu Pro Leu Arg Leu Pro Trp Glu Asn Lys Pro Arg Asp Ile Gly Tyr 180 185 Ile His Ala Tyr Leu Ser Glu Thr Phe Gly Glu Glu Val Leu Ser Arg 195 200 205 Ser His Leu Gln Val Ala Asn Glu Leu Phe Tyr Arg Asn Lys Ala Ala 210 215 220 Trp Leu Val Gly Lys Leu Val Thr Pro Thr Ala Ile Val Pro Phe Leu 225 230 235 240 Leu Pro Ile His Arg Thr Asp Asp Gly Glu Leu Phe Val Asp Thr Cys 245 250 255 Leu Thr Thr Ser Ala Glu Ala Ser Ile Val Phe Gly Phe Ala Arg Ser 260 265 270 Tyr Phe Met Val Tyr Ala Pro Leu Pro Ala Ala Leu Val Glu Trp Leu

280

325

Arg Glu Ile Leu Pro Gly Lys Thr Thr Ala Glu Leu Tyr Met Ala Ile 295

Gly Cys Gln Lys His Ala Lys Thr Glu Ser Tyr Arg Glu Tyr Leu Arg 310

Tyr Val Thr Thr Ala Asp Glu Gln Phe Ile Glu Ala Pro Gly Ile Arg

Gly Met Val Met Leu Val Phe Thr Leu Pro Gly Phe Asp Arg Val Phe

285

335

300

315

330

```
340
                        345
Lys Val Ile Lys Asp Lys Phe Ala Pro Gln Lys Glu Met Ser Ala Ala
      355
                     360
                                    365
His Val Arg Ala Cys Tyr Gln Leu Val Lys Glu His Asp Arg Val Gly
                 375
                                 380
Arg Met Ala Asp Thr Gln Glu Phe Glu Asn Phe Val Leu Asp Lys Gln
      390
                    395
Gln Ile Asp Pro Ser Leu Val Ser Leu Leu Met Gln Glu Ala Pro Thr
        405 410 415
Lys Ile Thr Asp Leu Gly Asp Lys Ile Ala Ile Ser His Leu Tyr Ile
       420
            425 430
Glu Arg Arg Met Val Pro Leu Asn Ile Trp Leu Glu Gln Ser Glu Gly
     435 440 445
Gln Ala Leu Arg Asp Ala Ile Glu Glu Tyr Gly Asn Ala Ile Arg Gln
 450 455 460
Leu Ala Ala Ala Asn Ile Phe Pro Gly Asp Met Leu Phe Lys Asn Phe
465 470 475 480
Gly Val Thr Arg His Gly Arg Val Val Phe Tyr Asp Tyr Asp Glu Ile
           485 490 495
Cys Tyr Met Thr Glu Val Asn Phe Arg Asp Ile Pro Pro Pro Arg Tyr
        500 505 510
Pro Glu Asp Glu Leu Ser Ser Glu Pro Trp Tyr Ser Val Ser Pro Gly
515 520 525
Asp Val Phe Pro Glu Glu Phe Arg His Trp Leu Cys Ala Asp Pro Arg
 530 535 540
Ile Gly Pro Leu Phe Glu Glu Met His Ala Asp Leu Phe Arg Ala Ser
545 550 555
Tyr Trp Arg Gly Leu Gln Thr Arg Ile Lys Asn Gly His Val Glu Asp
           565 570
Val Tyr Ala Tyr Arg Arg Lys Gln Arg Phe Cys Ile Arg Phe Ser Pro
         580 585
Ser Pro Cys Gly Arg Gly Pro Gly
     595
<210> 7625
<211> 1234
<212> PRT
<213> Enterobacter cloacae
<400> 7625
Ala Leu Ser Gly Ala Ser Val Ser Ser Lys Val Glu Gln Leu Arg Ala
                           1.0
Gln Leu Asn Glu Arg Ile Leu Val Leu Asp Gly Gly Met Gly Thr Met
 20
                        25
                                        30
Ile Gln Gly Tyr Arg Leu Cys Glu Asp Asp Phe Arg Gly Glu Arg Phe
    35
                    4.0
Ala Asp Trp Pro Cys Asp Leu Lys Gly Asn Asn Asp Leu Leu Val Leu
                  55
 50
                                 60
Ser Lys Pro Ser Val Ile Arg Asp Ile His Asn Ala Tyr Phe Glu Ala
               70
                              75
```

Gly Ala Asp Ile Val Glu Thr Asn Thr Phe Asn Ser Thr Thr Ile Ala 85 90 Met Ala Asp Tyr Gln Met Glu Ser Leu Ser Ala Glu Ile Asn Phe Glu 100 105 Ala Ala Lys Leu Ala Arg Ala Cys Ala Asp Glu Trp Thr Ala Arg Thr 115 120 125 Pro Asp Lys Pro Arg Tyr Val Ala Gly Val Leu Gly Pro Thr Asn Arg 130 135 140 Thr Ala Ser Ile Ser Pro Asp Val Asn Asp Pro Ala Phe Arg Asn Ile 150 155 Thr Phe Asp Gln Leu Val Ala Ala Tyr Arg Glu Ser Thr Lys Ala Leu

```
165
                         170
Val Glu Gly Gly Ser Asp Leu Ile Leu Ile Glu Thr Val Phe Asp Thr
                    185
        180
                                   190
Leu Asn Ala Lys Ala Ala Ile Tyr Ala Val Lys Glu Glu Phe Glu Ser
     195
                  200
Leu Gly Val Asp Leu Pro Ile Met Ile Ser Gly Thr Ile Thr Asp Ala
        215
                      220
Ser Gly Arg Thr Leu Ser Gly Gln Thr Thr Glu Ala Phe Tyr Asn Ser
225 230 235
Leu Arg His Ala Glu Ala Leu Ser Phe Gly Leu Asn Cys Ala Leu Gly
        245 250 255
Pro Asp Glu Leu Arg Gln Tyr Val Gln Glu Leu Ser Arg Ile Ala Glu
   260 265 270
Cys Tyr Val Thr Ala His Pro Asn Ala Gly Leu Pro Asn Ala Phe Gly
 275 280 285
Glu Tyr Asp Leu Asp Ala Asp Thr Met Ala Ala Gln Ile Arg Glu Trp
290 295 300
Ala Glu Ser Gly Phe Leu Asn Ile Val Gly Gly Cys Cys Gly Thr Thr
305 310 315 320
Pro Glu His Ile Ala Ala Met Ser Asn Ala Val Ala Gly Leu Pro Pro
    325 330 335
Arg Lys Leu Pro Glu Leu Pro Val Ala Cys Arg Leu Ser Gly Leu Glu
 340 345 350
Pro Leu Thr Ile Gly Asp Asp Ser Leu Phe Val Asn Val Gly Glu Arg
355 360 365
Thr Asn Val Thr Gly Ser Ala Lys Phe Lys Arg Leu Ile Lys Glu Glu
370 375 380
Lys Tyr Ser Glu Ala Leu Asp Val Ala Arg Gln Gln Val Glu Ser Gly
   390 395
Ala Gln Ile Ile Asp Ile Asn Met Asp Glu Gly Met Leu Asp Ala Glu
      405 410 415
Ala Ala Met Val Arg Phe Leu Asn Leu Ile Ala Gly Glu Pro Asp Ile
 420 425 430
Ala Arg Val Pro Ile Met Ile Asp Ser Ser Lys Trp Asp Val Ile Glu
    435 440
Lys Gly Leu Lys Cys Ile Gln Gly Lys Gly Ile Val Asn Ser Ile Ser
450 455 460
Met Lys Glu Gly Val Asp Thr Phe Ile His His Ala Lys Leu Val Arg
   1 470 475 480
Arg Tyr Gly Ala Ala Val Val Wet Ala Phe Asp Glu Val Gly Gln
          485 490 495
Ala Asp Thr Arg Glu Arg Lys Ile Glu Ile Cys Arg Arg Ala Tyr Lys
       500 505 510
Ile Leu Thr Glu Glu Val Gly Phe Pro Pro Glu Asp Ile Ile Phe Asp
   515 520 525
Pro Asn Ile Phe Ala Val Ala Thr Gly Ile Glu Glu His Asn Asn Tyr
 530 535
                    540
Ala Gln Asp Phe Ile Gly Ala Cys Glu Asp Ile Lys Arg Glu Leu Pro
545 550 555
His Ala Leu Ile Ser Gly Gly Val Ser Asn Val Ser Phe Ser Phe Arg
          565 570 575
Gly Asn Asp Pro Val Arg Glu Ala Ile His Ala Val Phe Leu Tyr Tyr
        580 585
                         590
Ala Ile Arg Asn Gly Met Asp Met Gly Ile Val Asn Ala Gly Gln Leu
                  600 605
Ala Ile Tyr Asp Asp Leu Pro Ala Glu Leu Arg Asp Ala Val Glu Asp
      615 620
610
Val Ile Leu Asn Arg Arg Asp Asp Ala Thr Glu Arg Met Leu Asp Leu
             630
                         635
Ala Glu Lys Tyr Arg Gly Ser Lys Ser Asp Glu Ser Ala Asn Val Gln
           645
                        650
```

Gln Ala Glu Trp Arg Ser Trp Asp Val Asn Lys Arg Leu Glu Tyr Ser 665 660 Leu Val Lys Gly Ile Thr Glu Phe Ile Glu Gln Asp Thr Glu Glu Ala 680 Arg Gln Gln Ala Ala Arg Pro Ile Glu Val Ile Glu Gly Pro Leu Met 695 700 Asp Gly Met Asn Val Val Gly Asp Leu Phe Gly Glu Gly Lys Met Phe 705 710 715 Leu Pro Gln Val Val Lys Ser Ala Arg Val Met Lys Gln Ala Val Ala 725 730 735 Tyr Leu Glu Pro Phe Ile Glu Ala Ser Lys Glu Lys Gly Ser Ser Asn 740 745 750 Gly Lys Met Val Ile Ala Thr Val Lys Gly Asp Val His Asp Ile Gly 755 760 765 Lys Asn Ile Val Gly Val Val Leu Gln Cys Asn Asn Tyr Glu Ile Ile 770 775 780 Asp Leu Gly Val Met Val Pro Ala Asp Lys Ile Leu Arg Thr Ala Arg 790 795 800 Glu Val Asn Ala Asp Leu Ile Gly Leu Ser Gly Leu Ile Thr Pro Ser 805 810 815 Leu Asp Glu Met Val Asn Val Ala Lys Glu Met Glu Arg Gln Gly Phe 820 825 830 Thr Ile Pro Leu Leu Ile Gly Gly Ala Thr Thr Ser Lys Ala His Thr 835 840 845 Ala Val Lys Ile Glu Gln Asn Tyr Ser Gly Pro Thr Val Tyr Val Gln 855 860 Asn Ala Ser Arg Thr Val Gly Val Val Ser Ala Leu Leu Ser Asp Thr 870 875 Gln Arg Asp Asp Phe Val Ala Arg Thr Arg Lys Glu Tyr Glu Thr Val 885 890 895 Arg Ile Gln His Gly Arg Lys Lys Pro Arg Thr Pro Pro Val Ser Leu 900 905 910 Gln Ala Ala Arq Glu Asn Asp Leu Ala Phe Asp Trp Ser Ser Tyr Thr 920 925 Pro Pro Val Ala His Arg Leu Gly Val Gln Asp Val Thr Ala Ser Ile 935 940 Glu Thr Leu Arg Asn Tyr Ile Asp Trp Thr Pro Phe Phe Met Thr Trp 950 955 Ser Leu Ala Gly Lys Tyr Pro Arg Ile Leu Glu Asp Glu Val Val Gly 965 970 Glu Glu Ala Lys Arg Leu Phe Lys Asp Ala Asn Asp Met Leu Asp Arg 980 985 990 Leu Ser Ala Glu Lys Ala Leu Asn Pro Arg Gly Val Val Gly Leu Phe 1000 Pro Ala Asn Arg Val Gly Asp Asp Val Glu Ile Tyr Arg Asp Glu Thr 1010 1015 Arg Thr His Val Leu Ala Val Ser His His Leu Arg Gln Gln Thr Glu 1030 1035 1040 Lys Val Gly Phe Ala Asn Tyr Cys Leu Ala Asp Phe Val Ala Pro Lys 1045 1050 1055 Leu Ser Gly Lys Ala Asp Tyr Ile Gly Ala Phe Ala Val Thr Gly Gly 1060 1065 1070 Leu Glu Glu Asp Ala Leu Ala Asp Ala Tyr Asp Ala Gln His Asp Asp 1075 1080 1085 Tyr Asn Lys Ile Met Val Lys Ala Ile Ala Asp Arg Leu Ala Glu Ala 1090 1095 1100 Phe Ala Glu Tyr Leu His Glu Arg Val Arg Lys Val His Trp Gly Tyr 1105 1110 1115 Ala Ala Asn Glu Asn Leu Ser Asn Glu Glu Leu Ile Arg Glu Asn Tyr 1125 1130 1135 Gln Gly Ile Arg Pro Ala Pro Gly Tyr Pro Ala Cys Pro Glu His Thr

1140 1145 Glu Lys Gly Thr Ile Trp Lys Leu Leu Asp Val Glu Ala His Thr Gly 1155 1160 1165 Met Lys Leu Thr Glu Ser Phe Ala Met Trp Pro Gly Ala Ser Val Ser 1170 1175 1180 Gly Trp Tyr Phe Ser His Pro Asp Ser Lys Tyr Phe Ala Val Ala Gln 1190 1195 1200 Leu Gln Arg Asp Gln Ite Glu Asp Tyr Ala Leu Arg Lys Gly Met Ser 1205 1210 1215 Val Ser Glu Val Glu Arg Trp Leu Ala Pro Asn Leu Gly Tyr Asp Ala 1220 1225 Asp

<210> 7626 <211> 318 <212> PRT

<213> Enterobacter cloacae

<400> 7626 Lys Thr Arg Leu Ser Asn Arg Arg Leu Ile Phe Phe Ser Ser Pro Asn 5 10 Leu Arg Tyr Ile Ser Pro Phe Thr Gly Glu Thr Met Leu Pro Thr Gln 20 25 Ser Thr Arg Leu Asn Lys Tyr Ile Ser Glu Ser Gly Ile Cys Ser Arg 35 40 4.5 Arg Glu Ala Asp Arg Tyr Ile Glu Gln Gly Asn Val Phe Leu Asn Gly 50 55 60 Lys Arg Ala Thr Ile Gly Asp Gln Val Val Pro Gly Asp Val Val Lys 65 70 75 80 Val Asn Gly Gln Val Ile Glu Pro Arg Asp Ala Glu Asp Leu Val Phe 85 90 95 Ile Ala Leu Asn Lys Pro Val Gly Ile Val Ser Thr Thr Glu Asp Gly 100 105 110 Glu Arg Asp Asn Ile Val Asp Phe Val Asn His Ser Ser Arg Ile Phe 115 120 125 Pro Ile Gly Arg Leu Asp Lys Asp Ser Gln Gly Leu Ile Phe Leu Thr 130 135 140 Asn His Gly Asp Leu Val Asn Lys Ile Leu Arg Ala Gly Asn Asp His 145 150 155 Glu Lys Glu Tyr Ile Val Thr Val Asn Lys Pro Val Thr Asp Glu Phe 165 170 175 Ile Arg Gly Met Gly Ala Gly Val Pro Ile Leu Gly Thr Val Thr Lys 180 185 190 Lys Cys Lys Val Arg Lys Glu Ala Pro Phe Ala Phe Arg Ile Thr Leu 195 200 205 Val Gln Gly Leu Asn Arg Gln Ile Arg Arg Met Cys Glu Tyr Phe Gly 215 220 Tyr Glu Val Thr Lys Leu Glu Arg Thr Arg Ile Met Asn Val Ser Leu 225 230 235 Ser Gly Ile Pro Leu Gly Glu Trp Arg Asp Leu Thr Asp Asp Glu Leu 245 250 255 Ile Glu Leu Phe Lys Leu Ile Glu Asn Ser Ser Ser Glu Ala Lys Pro 260 265 270 Lys Ala Lys Ala Lys Pro Lys Thr Gln Thr Ile Lys Arg Pro Val Val 275 280 285 Lys Ala Pro Gln Ala Glu Glu Lys Gly Arg Gly Lys Pro Gly Asn Gly 290 295 300 Lys Arg Phe Thr Gln Pro Gly Arg Lys Lys Gly Arg

315

```
<210> 7627
<211> 75
<212> PRT
<213> Enterobacter cloacae
<400> 7627
Lys Ser Ile Thr Pro Ile Cys Tyr Pro Thr Thr Arg Ala Ser Arg Leu
                          1.0
Arg Arg Ala Phe Ser Thr Pro Ser Ile Ala Gly Tyr Leu Thr Thr Ala
His Tyr Leu Leu Ser Gly Tyr Leu Ser Ser Ala Pro Ser Arg Ser Ala
                   40
                         4.5
Ala Ser Val Pro Phe Arg Val Arg Trp Arg Lys Ile Ser Phe Pro Ile
50 55
Ala Ala Gly Lys Ser Ser Cys Thr Val Ser
<210> 7628
<211> 543
<212> PRT
<213> Enterobacter cloacae
<400> 7628
Phe Gly Ser Leu Met Arg Ser Arg Thr Met Thr Gln Gln Ala Thr Thr
                  10
Val Asp Glu Leu Thr Phe Thr Gln Pro Asn Gly Glu Gln Glu Gln Gln
                                    30
      20 25
Val Leu Thr Ala Glu Ala Val Glu Phe Leu Thr Glu Leu Val Thr Arg
35 40 45
Phe Thr Pro Gln Arq Asn Lys Leu Leu Ala Ala Arg Ile His Gln Gln
50 55 60
Gln Gly Ile Asp Asn Gly Lys Leu Pro Gly Phe Ile Ser Glu Thr Ala
           7.0
                   75 80
Ser Ile Arg His Gly Asp Trp Lys Ile Arg Gly Ile Pro Glu Asp Leu
                  90 95
        85
Gln Asp Arg Arg Val Glu Ile Thr Gly Pro Val Glu Arg Lys Met Val
       100
                      105
Ile Asn Ala Met Asn Ala Asn Val Lys Val Phe Met Ala Asp Phe Glu
 115 120 125
Asp Ser Leu Ala Pro Asp Trp Gln Lys Val Ile Asp Gly Gln Ile Asn
 130 135 140
Leu Arg Asp Ala Val Asn Gly Thr Ile Ser Tyr Thr Asn Glu Ala Gly
    150 155 160
Lys Ile Tyr Gln Leu Lys Pro Asn Pro Ala Val Leu Ile Cys Arg Val
           165 170 175
Arg Gly Leu His Leu Pro Glu Lys His Val Thr Trp Arg Gly Glu Ala
      180 185
Ile Pro Gly Ser Leu Phe Asp Phe Ala Leu Tyr Phe Phe His Asn His
     195 200 205
Lys Asn Leu Leu Ala Lys Gly Ser Gly Pro Tyr Phe Tyr Leu Pro Lys
               215 220
Thr Gln Ser Trp Gln Glu Ala Ala Trp Trp Ser Glu Val Phe Ser Tyr
225 230
                              235
Ala Glu Asp Arg Phe Ser Leu Pro Arg Gly Thr Ile Lys Ala Thr Leu
           245
                          250
Leu Ile Glu Thr Leu Pro Ala Val Phe Gln Met His Glu Ile Leu His
        260
                       265
                                       270
Ala Leu Arg Asp His Ile Val Gly Leu Asn Cys Gly Arg Trp Asp Tyr
                     280
                                    285
Ile Phe Ser Tyr Ile Lys Thr Leu Lys Asn His Ala Asp Arg Val Leu
```

295

```
Pro Asp Arg Gln Val Val Thr Met Asp Lys Pro Phe Leu Ser Ala Tyr
              310
                              315
Ser Arg Leu Leu Ile Lys Thr Cys His Lys Arg Gly Ala Phe Ala Met
                           330
Gly Gly Met Ala Ala Phe Ile Pro Ser Lys Asp Ala Glu Arg Asn Asn
                        345
         340
His Val Leu Asn Lys Val Lys Ala Asp Lys Glu Leu Glu Ala Arg Asn
                     360
                                    365
Gly His Asp Gly Thr Trp Ile Ala His Pro Gly Leu Ala Asp Thr Ala
                 375
Met Glu Val Phe Asn Arg Val Leu Gly Asp Asn Lys Asn Gln Leu Phe
385 390 395
Val Thr Arg Glu Asp Asp Ala Pro Ile Ala Glu Glu Gln Leu Leu Ala
       405
                           410 415
Pro Cys Ala Gly Glu Arg Thr Glu Glu Gly Met Arg Ala Asn Ile Arg
      420 425 430
Val Ala Val Gln Tyr Ile Glu Ala Trp Ile Ser Gly Asn Gly Cys Val
 435
                    440 445
Pro Ile Tyr Gly Leu Met Glu Asp Ala Ala Thr Ala Glu Ile Ser Arg
450 455 460
Thr Ser Ile Trp Gln Trp Ile His His Gln Lys Thr Leu Ser Asn Gly
465 470 475 480
Lys Pro Val Thr Lys Ala Leu Phe Arg Gln Met Leu Ala Glu Glu Met $485$
Arg Val Ile Gln Asp Glu Leu Gly Glu His Arg Phe Ser Ser Gly Arg
        500 505 510
Phe Asp Asp Ala Ala Arg Leu Met Glu Gln Ile Thr Thr Ser Asp Asp
515 520 525
Leu Ile Asp Phe Leu Thr Leu Pro Gly Tyr Arg Phe Leu Ala
 530
         535
```

<210> 7629 <211> 549 <212> PRT

<213> Enterobacter cloacae

<400> 7629

Gly Gly Met Pro Thr Val Leu Thr Leu Leu His Leu Leu Ser Ala Val 10 Ala Leu Leu Val Trp Gly Thr His Ile Val Arg Thr Gly Val Met Arg 25 Val Phe Gly Ala Arg Leu Arg Thr Val Leu Ser Gly Ser Val Glu Lys 4.0 4.5 Lys Pro Leu Ala Phe Cys Ala Gly Ile Gly Val Thr Ala Leu Val Gln 55 Ser Ser Asn Ala Thr Thr Met Leu Val Thr Ser Phe Val Ala Gln Asp 75 70 Leu Val Ala Leu Ala Pro Ala Leu Val Ile Val Leu Gly Ala Asp Val 8.5 Gly Thr Ala Leu Met Ala Arg Ile Leu Thr Phe Asp Leu Ser Trp Leu 100 105 Ser Pro Leu Leu Ile Phe Ile Gly Val Ile Phe Phe Leu Gly Arg Lys Gin Ser Arg Ala Gly Gin Leu Gly Arg Val Gly Ile Gly Leu Gly Leu 135 140 Ile Leu Leu Ala Leu Glu Leu Ile Val Gln Ala Val Thr Pro Ile Thr 145 150 155 Gln Ala Asn Gly Val Gln Val Ile Phe Ala Ser Leu Thr Gly Asp Ile 165 170 Met Leu Asp Ala Leu Ile Gly Ala Val Phe Ala Ile Val Ser Tyr Ser 180 185

```
Ser Leu Ala Ala Val Leu Leu Thr Ala Thr Leu Thr Ala Ala Gly Val
     195
                  200
Ile Ser Phe Pro Val Ala Leu Cys Leu Val Ile Gly Ala Asn Leu Gly
                215
                               220
Ser Gly Leu Leu Ala Met Leu Asn Asn Ser Ala Ala Asn Ala Ala Ala
225
             230
                            235
Arg Arg Val Ala Leu Gly Ser Leu Leu Phe Lys Leu Val Gly Ser Leu
               250
          245
Ile Ile Leu Pro Phe Val His Pro Leu Ala Asn Leu Met Asp Asn Leu
        260 265 270
Ser Leu Pro Lys Ala Glu Leu Val Ile Tyr Phe His Val Phe Tyr Asn
    275 280 285
Leu Val Arg Cys Leu Ala Met Val Pro Phe Ala Ala Pro Met Ala Arg
 290 295 300
Phe Cys Glu Arg Leu Ile Arg Asp Glu Pro Glu Leu Asp Ala Arg Leu
305 310 315
Lys Pro Lys His Leu Asp Thr Ser Val Leu Asp Thr Pro Ala Leu Ala
      325 330 335
Ile Ala Asn Ala Ala Arg Glu Thr Leu Arg Met Gly Asp Ala Met Glu
 340 345 350
Thr Met Leu Glu Gly Leu Gln Lys Val Met His Gly Glu Pro Arg Glu
355 360 365
Glu Lys Glu Leu Arg Arg Leu Ala Asp Asp Ile Asn Val Leu Tyr Thr
370 375
                               380
Ala Ile Lys Leu Tyr Leu Ala Arg Ile Pro Gin Asp Glu Leu Ala Glu
    390 395 400
Glu Glu Ser Arg Arg Trp Ala Glu Ile Ile Glu Met Ser Leu Asn Leu
          405 410 415
Glu Gln Ala Ser Asp Ile Val Glu Arg Met Gly Ser Glu Ile Ala Asp
       420 425
                                     430
Lys Ser Leu Ala Ala Arg Arg Ala Phe Ser Val Glu Gly Leu Lys Glu
435 440 445
Leu Glu Ala Leu His Glu Gln Leu Val Ser Asn Leu Lys Leu Ala Met
450 455 460
Ser Val Phe Phe Ser Ser Asp Val Pro Ser Ala Arg Arg Leu Arg Arg
465 470 475
Asn Lys His Arg Phe Arg Ile Leu Asn Arg Arg Tyr Ser His Ala His
          485 490
Val Glu Arg Leu His Gln Gln Asn Val Gln Ser Ile Glu Thr Ser Ser
        500 505 510
Leu His Leu Gly Leu Leu Gly Asp Met Lys Arg Leu Asn Ser Leu Phe 515 520 525
Cys Ala Val Ala Tyr Ser Val Met Glu Gln Pro Asp Glu Asp Asp Glu
             535
Arg Asp Glu Tyr
```

<210> 7630 <211> 144 <212> PRT <213> Enterobacter cloacae

<400> 7630

Ala Pro Phe Leu Ser Gly Glu Phe Ile Met Ala Lys Glu Phe Gly Arg
1 5 10 15
Pro Gln Arg Val Ala Gln Glu Met Gln Lys Glu Ile Ala Leu Ile Leu
20 25 30
Gln Arg Glu Ile Lys Asp Pro Arg Val Gly Met Met Thr Thr Val Ser
35 40 45
Gly Val Glu Met Ser Arg Asp Leu Ala Tyr Ala Lys Val Phe Val Thr

```
Phe Leu Asn Asp Gln Asp Glu Asp Ala Val Lys Asn Gly Ile Lys Ala
Leu Gln Glu Ala Ser Gly Phe Ile Arg Ser Leu Leu Gly Lys Ala Met
              85
                                90
Arg Leu Arg Ile Val Pro Glu Leu Thr Phe Phe Tyr Asp Asn Ser Leu
          100
               105
Val Glu Gly Met Arg Met Ser Asn Leu Val Thr Ser Val Val Lys His
                   120
    115
                                           125
Asp Asp Glu Arg Arg Val Asn Pro Ala Asp Asp Ser Lys Glu Asp
  130 135
<210> 7631
<211> 175
<212> PRT
<213> Enterobacter cloacae
<400> 7631
Arg Lys Val Thr Lys Gly Asn Ser Ser Val Trp Ala Lys Trp Thr Ala
                              10
Lys Gly Val Trp Arg Arg Val Val Trp Ser Ser Asn Ile Arg Ser Lys
                            25
                                               30
          20
Arg Asp Gly Asp Asn Ala Leu Pro Cys Asp Lys Gln Gly Arg Arg Val
                      40
Glu Tyr Arg Arg Leu Thr Pro Gly Lys Leu Phe Asn Asn Leu Arg Gly
                   5.5
Val His Gly Ile Ala Glu Leu Glu Ile Gly Ile Leu Thr Phe Phe Ile
                                   75 80
                 7.0
Leu Trp Ser Leu Lys Met Ser Leu Ser Val Glu Ala Lys Ala Lys Ile
              85
                                90
Val Ser Glu Phe Gly Arg Gly Thr Asn Asp Ser Gly Ser Thr Glu Val
          100
                          105
Gln Val Ala Leu Leu Thr Ala Gln Ile Asn His Leu Gln Gly His Phe
                         120
Ala Glu His Lys Lys Asp His His Ser Arg Arg Gly Leu Leu Arg Met
                  135
                                       140
Val Ser Gln Arg Arg Lys Leu Leu Asp Tyr Leu Lys Arg Lys Asp Val
                150 155
Ala Arg Tyr Thr Ala Leu Ile Glu Arg Leu Gly Leu Arg Arg
              165
<210> 7632
<211> 185
<212> PRT
<213> Enterobacter cloacae
<400> 7632
Gln Asp Tyr Ser Tyr Gln Gly Val Lys Leu Val Leu Asp Lys Leu Arg
                                 10
Ser Arg Leu Val Gln Phe Gly Pro Ser Met Leu Ser Val Pro Val Lys
                             25
                                                30
Leu Ala Pro Phe Ala Leu Lys Arg Gln Val Leu Glu Gln Val Leu Ser
       35
                         4.0
                                           4.5
Trp Gln Phe Arg Gln Ala Leu Gln Asp Gly Glu Leu Glu Phe Leu Glu
                      55
                                        60
Gly Arg Trp Leu Lys Ile Glu Val Arg Asp Ile Gly Leu Arg Trp Phe
                  70
                                    7.5
Thr Ser Val Glu Asn Asp Arg Leu Ile Val Arg Glu Thr Ala Glu Ala
              8.5
                                90
                                                   95
Asp Val Ser Phe Ser Ala Asp Ala Ser Asp Leu Leu Met Ile Ala Ala
```

105 Arg Lys Gln Asp Pro Asp Thr Leu Phe Phe Gln Arg Arg Leu Val Ile

100

```
120
Glu Gly Asp Thr Glu Leu Gly Leu Tyr Val Lys Asn Leu Met Asp Ala
                                      140
                 135
Ile Glu Leu Glu Gln Met Pro Lys Ala Leu Arg Met Met Leu Met Gln
145 150
                                155
Met Ala Asp Phe Val Glu Ala Gly Leu Lys Thr Pro Pro Asp Ser Lys
          165 170
His Thr Ser Val Gly Glu Pro Cys
          180
                           185
<210> 7633
<211> 164
<212> PRT
<213> Enterobacter cloacae
<400> 7633
Leu Gly Phe Thr Pro Phe Phe Tyr Val Leu Gly Val Gly Leu Ser Thr
                               10
Leu Glu Gln Lys Leu Thr Glu Met Ile Thr Ala Pro Val Glu Ala Leu
 20
                            25
                                             3.0
Gly Tyr Glu Leu Val Gly Ile Glu Phe Val Arg Gly Arg Thr Ser Thr
                      4.0
                                         4.5
    35
Leu Arg Ile Tyr Ile Asp Ser Glu Asp Gly Ile Asn Val Asp Asp Cys
                    55
                                      60
 50
Ala Asp Val Ser His Gln Val Ser Ala Val Leu Asp Val Glu Asp Pro
                 7.0
                                  75
Ile Thr Val Ala Tyr Asn Leu Glu Val Ser Ser Pro Gly Leu Asp Arg
            85 90 95
Pro Met Phe Thr Ala Glu His Tyr Val Arg Phe Thr Gly Glu Glu Val
 100
                           105
Ala Leu Val Leu Arg Met Ala Val Gln Asn Arg Arg Lys Trp Gln Gly
 115
                                          125
Ile Ile Lys Ala Val Asp Gly Glu Met Ile Thr Val Thr Val Glu Gly
 130 135 140
Lys Asp Glu Val Phe Ala Leu Ser Asn Ile Gln Lys Ala Asn Leu Val
145
                 150
Pro His Phe
<210> 7634
<211> 337
<212> PRT
<213> Enterobacter cloacae
<400> 7634
Thr Ala Arg Arg Val Arg Leu Pro Phe Ala Leu Arg Ala Gly Gly Gly
                             10
Leu Ile Ile Arg Gln Asp Ala Leu Leu Ser Arg Arg Gly Thr Gly Arg
                            25
          20
                                            3.0
Ser Ser Asn Ser Cys Leu Arg Glu Trp Glu Met Lys Pro Phe Leu Arg
                                          4.5
                        40
Trp Cys Phe Val Ala Thr Ala Leu Thr Leu Ala Gly Cys Ser Asn Ser
   50
                     55
Ala Trp Arg Lys Ser Glu Val Leu Ala Val Pro Leu Gln Pro Thr Leu
                  70
                                   75
Gln Gln Glu Val Ile Leu Ala Arg Met Glu Gln Ile Leu Ala Ser Arg
                                90
Ala Leu Thr Asp Asp Glu Arg Ala Gln Leu Leu Tyr Glu Arg Gly Val
           100
                         105
                                             110
Leu Tyr Asp Ser Leu Gly Leu Arg Ala Leu Ala Arg Asn Asp Phe Ser
       115
                        120
```

Gln Ala Leu Ala Ile Arg Pro Asp Met Pro Glu Val Phe Asn Tyr Leu 140 135 Gly Ile Tyr Leu Thr Gln Ala Gly Asn Phe Asp Ala Ala Tyr Glu Ala 155 150 Phe Asp Ser Val Leu Glu Leu Asp Pro Thr Tyr Asn Tyr Ala His Leu 170 165 Asn Arg Gly Ile Ala Leu Tyr Tyr Gly Gly Arg Asp Lys Leu Ala Gln 190 185 Asp Asp Leu Leu Ala Phe Tyr Gln Asp Asp Pro Asn Asp Pro Phe Arg 195 200 Ser Leu Trp Leu Tyr Ile Val Glu Gln Lys Leu Asp Glu Lys Gln Ala 210 215 220 Lys Glu Ala Leu Lys Gln Arg Phe Glu Lys Ser Asp Lys Glu Gln Trp 225 230 235 Gly Trp Asn Ile Val Glu Phe Tyr Leu Gly Asn Ile Ser Glu Ala Thr 245 250 255 Leu Met Glu Arg Leu Lys Ala Asp Ala Thr Asp Asn Thr Ser Leu Ala 260 265 270 Glu His Leu Ser Glu Thr Asn Phe Tyr Leu Gly Lys Tyr Tyr Leu Ser 275 280 285 Leu Gly Asp Met Asp Ser Ala Thr Ala Leu Phe Lys Leu Ala Val Ala 290 295 300 Asn Asn Val His Asn Phe Val Glu His Arg Tyr Ala Leu Leu Glu Leu 305 310 315 320 Ser Leu Leu Gly Gln Glu Gln Asp Asp Leu Ala Glu Ser Asp Gln Gln

330

<210> 7635 <211> 645 <212> PRT

<213> Enterobacter cloacae

<400> 7635

Val Asp Trp Pro Pro Leu Ile Ser Arg His Leu Tyr Tyr Met Ala Glu 1.0 Phe Glu Thr Thr Phe Ala Asp Leu Gly Leu Lys Ala Pro Ile Leu Glu 25 30 Ala Leu Asn Asp Leu Gly Tyr Glu Lys Pro Ser Pro Ile Gln Ala Glu 40 45 Cys Ile Pro His Leu Leu Ser Gly Arg Asp Val Leu Gly Met Ala Gln 5.5 Thr Gly Ser Gly Lys Thr Ala Ala Phe Ser Leu Pro Leu Leu Asn Asn 70 75 Ile Asp Pro Asp Leu Arg Ala Pro Gln Ile Leu Val Leu Ala Pro Thr 90 8.5 Arg Glu Leu Ala Val Gln Val Ala Glu Ala Met Thr Glu Phe Ser Lys 105 110 100 His Met Arg Gly Val Asn Val Val Ala Leu Tyr Gly Gly Gln Arg Tyr 120 125 115 Asp Val Gln Leu Arg Ala Leu Arg Gln Gly Pro Gln Ile Val Val Gly 135 140 130 Thr Pro Gly Arg Leu Leu Asp His Leu Lys Arg Gly Thr Leu Asp Leu 150 155 145 Ser Lys Leu Ser Gly Leu Val Leu Asp Glu Ala Asp Glu Met Leu Arg 165 170 175 Met Gly Phe Ile Glu Asp Val Glu Thr Ile Met Ala Gln Ile Pro Glu 185 190 180 Gly His Gln Thr Ala Leu Phe Ser Ala Thr Met Pro Glu Ala Ile Arg

```
Arg Ile Thr Arg Arg Phe Met Lys Glu Pro Gln Glu Val Arg Ile Gln
           215 220
Ser Ser Val Thr Thr Arg Pro Asp Ile Ser Gln Ser Tyr Trp Ser Val
             230
                               235
Tyr Gly Met Arg Lys Asn Glu Ala Leu Val Arg Phe Leu Glu Ala Glu
                 250 255
            245
Asp Phe Asp Ala Ala Ile Ile Phe Val Arg Thr Lys Asn Ala Thr Leu
      260 265 270
Glu Val Ala Glu Ala Leu Glu Arg Ser Gly Tyr Asn Ser Ala Ala Leu
275 280 285
Asn Gly Asp Met Asn Gln Ala Leu Arg Glu Gln Thr Leu Glu Arg Leu
                                  300
290 295
Lys Asp Gly Arg Leu Asp Ile Leu Ile Ala Thr Asp Val Ala Ala Arg
    310 315
Gly Leu Asp Val Glu Arg Ile Ser Leu Val Val Asn Tyr Asp Ile Pro
           325 330
                                           335
Met Asp Ser Glu Ser Tyr Ile His Arg Ile Gly Arg Thr Gly Arg Ala
         340 345 350
Gly Arg Ala Gly Arg Ala Leu Leu Phe Val Glu Asn Arg Glu Arg Arg
 355 360 365
Leu Leu Arg Asn Ile Glu Arg Ser Met Lys Leu Thr Ile Pro Glu Ala
370 375 380
Glu Leu Pro Asn Ala Lys Leu Leu Gly Lys Arg Arg Leu Glu Lys Phe 385 390 395 400
Ala Ala Arg Val Gln Gln Gln Leu Glu Ser Ile Asp Leu Asp Gln Tyr
           405 410 415
Arg Ala Leu Leu Ser Gln Ile Gln Pro Val Ala Glu Gly Glu Glu Leu
        420 425 430
Asp Met Glu Thr Leu Ala Ala Ala Leu Leu Lys Met Ala Gln Gly Glu
435 440 445
Arg Ser Leu Ile Val Pro Pro Asp Ala Pro Met Arg Pro Lys Arg Glu
 450 455 460
Phe Arg Asp Arg Asp Asp Arg Phe Glu Arg Arg Gly Asp Arg Asn Asp
               470 475 480
Arg Gly Pro Arg Gly Asp Arg Pro Glu Arg Gly Glu Asp Arg Pro
           485 490 495
Arg Arg Glu Arg Arg Asp Ala Glu Glu Met Glu Leu Tyr Arg Ile Glu 500 \  \  \, 505 \  \  \, 510
Val Gly Arg Asp Asp Gly Val Glu Val Arg His Ile Val Gly Ala Ile
    515 520
                                     525
Ala Asn Glu Gly Asp Ile Ser Ser Arg Tyr Ile Gly Asn Ile Lys Leu
               535
                                  540
Phe Gly Ser His Ser Thr Ile Glu Leu Pro Lys Gly Met Pro Gly Glu 545 550 555 560
Val Leu Gln His Phe Thr Arg Thr Arg Ile Leu Asn Lys Pro Met Asn
            565 570 575
Met Gln Leu Leu Gly Asp Ala Gln Pro Arg Pro Asp Arg Gly Gly Glu
                        585 590
Arg Arg Gly Gly Arg Gly Phe Gly Glu Arg Arg Glu Gly Gly
                      600 605
Arg Ser Glu Gly Arg Gly Glu Gly Arg Arg Phe Ser Gly Glu Arg
                  615 620
Arg Glu Asn Arg Gly Pro Arg Arg Glu Glu Gly Ala Ser Arg Arg Arg
              630
                              635
Phe Gly Asp Ala
```

<210> 7636

<sup>&</sup>lt;211> 241

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 7636 Ile Leu Thr Gly Asn Arg Leu Leu Ser Val Val Glu Gln Ala Gln Asn 10 Ala Asn Gly Gln Phe Cys Lys Gly Asp Lys Met Ser Gln Val Leu Ile 30 Thr Gly Ala Thr Gly Leu Val Gly Gly His Leu Leu Arg Leu Leu Ile 45 40 Gln Asp Arg His Ile Asn Tyr Ile Ala Ala Pro Thr Arg Arg Pro Leu 50 55 60 Leu Asp Ile Thr Gly Val Tyr Asn Pro His Asp Pro Gln Leu Thr Asp 70 7.5 65 Ala Leu Ala Gln Val Gln Asp Pro Ile Asp Ile Ala Phe Cys Cys Leu 85 90 Gly Thr Thr Arg Arg Glu Ala Gly Ser Lys Glu Ala Phe Val His Ala 100 105 110 Asp Tyr Thr Leu Val Val Asp Thr Ala Leu Thr Ala Lys Lys Leu Gly 115 120 125 Ala Lys His Phe Leu Val Val Ser Ala His Gly Ala Asn Ala Gly Ser 130 135 140 Pro Phe Phe Tyr Asn Gln Val Lys Gly Lys Met Glu Glu Ala Leu Ile 145 150 155 160 Ala Gln Lys Trp Glu Arg Leu Thr Ile Ala Arg Pro Ser Met Leu Met 165 170 175 Gly His Arg Asp Glu Arg Arg Phe Asn Glu Ser Phe Phe Ala Pro Leu  $180 \hspace{1cm} 185 \hspace{1cm} 185 \hspace{1cm} 190 \hspace{1cm}$ Phe Arg Ile Leu Pro Gly Asn Trp Lys Ser Ile Glu Ala Arg Asp Val 195 200 205 Ala Leu Ala Met Leu Lys Glu Ala Leu Ala Pro Ser Gln Glu Gly Val 210 215 220 Asn Ile Ile Pro Ser Ala Lys Leu Arg Glu Ile Ala Gln Gly Glu Ala 230 235

<210> 7637 <211> 506 <212> PRT

<213> Enterobacter cloacae

<400> 7637

Gly Glu Lys Pro Ala Met Asn Lys Glu Ile Leu Ala Val Val Glu Ala 10 Val Ser Asn Glu Lys Ser Leu Pro Arg Glu Lys Ile Phe Glu Ala Leu 25 20 Glu Ser Ala Leu Ala Thr Ala Thr Lys Lys Lys Tyr Glu Gln Glu Ile 4.5 35 40 Asp Val Arg Val Glu Ile Asp Arg Lys Ser Gly Asp Phe Asp Thr Phe 50 55 Arg Arg Trp Val Ile Val Glu Glu Val Thr Gln Pro Thr Lys Glu Ile 70 75 65 Thr Leu Glu Ala Ala Arg Phe Glu Asp Glu Ser Leu Asn Val Gly Asp 90 8.5 Tyr Val Glu Asp Gln Ile Glu Ser Val Thr Phe Asp Arg Ile Thr Thr 100 105 110 Gln Thr Ala Lys Gln Val Ile Val Gln Lys Val Arg Glu Ala Glu Arg 125 115 120 Ala Leu Val Val Asp Gln Phe Arg Asp Gln Glu Gly Glu Ile Ile Thr 135 140 Gly Val Val Lys Lys Val Asn Arg Asp Asn Ile Ser Leu Glu Ile Lys 145 150 155 160

```
Ser Glu Gly Leu Pro Gly Asn Ala Glu Ala Val Ile Leu Arg Glu Asp
                          170
Met Leu Pro Arg Glu Asn Phe Arg Pro Gly Asp Arg Ile Arg Gly Val
                                      190
        180
                       185
Leu Tyr Ala Val Arg Pro Glu Ala Arg Gly Ala Gln Leu Phe Val Thr
 195
                    200
Arg Ser Lys Pro Glu Met Leu Val Glu Leu Phe Arg Ile Glu Val Pro
                                220
  210
      215
Glu Ile Gly Glu Glu Val Ile Glu Ile Lys Ala Ala Ala Arg Asp Pro
225 230
                             235
Gly Ser Arg Ala Lys Ile Ala Val Lys Thr Asn Asp Lys Arg Ile Asp
         245 250
                                         255
Pro Val Gly Ala Cys Val Gly Met Arg Gly Ala Arg Val Gln Ala Val
            265
        260
Ser Thr Glu Leu Gly Gly Glu Arg Ile Asp Ile Val Leu Trp Asp Asp
                         285
     275 280
Asn Pro Ala Gln Phe Val Ile Asn Ala Met Ala Pro Ala Asp Val Ala
 290 295 300
Ser Ile Val Val Asp Glu Asp Lys His Thr Met Asp Ile Ala Val Glu
305 310 315
Ala Gly Asn Leu Ala Gln Ala Ile Gly Arg Asn Gly Gln Asn Val Arg
           325 330 335
Leu Ala Ser Gln Leu Ser Gly Trp Glu Leu Asn Val Met Thr Val Asp
        340 345 350
Asp Leu Gln Ala Lys His Gln Ala Glu Ala His Ala Ala Ile Asp Thr
                    360 365
 355
Phe Thr Lys Tyr Leu Asp Ile Asp Glu Asp Phe Ala Thr Val Leu Val
                 375
                                380
Glu Glu Gly Phe Ser Thr Leu Glu Glu Leu Ala Tyr Val Pro Met Lys
              390 395
Glu Leu Leu Glu Ile Asp Gly Leu Asp Glu Pro Thr Val Glu Ala Leu
           405 410 415
Arg Glu Arg Ala Lys Asn Ala Leu Thr Thr Leu Ala Leu Ala Gln Glu
        420 425 430
Glu Ser Leu Gly Asp Lys Lys Pro Ala Asp Asp Leu Leu Asn Leu Glu
                    440 445
      435
Gly Leu Asp Arg Ala Ile Ala Phe Lys Leu Ala Ala Arg Gly Val Cys
                 455 460
  450
Thr Leu Glu Asp Leu Ala Glu Gln Gly Val Asp Asp Leu Ala Asp Ile
              470
                             475
Glu Gly Leu Thr Asp Glu Lys Ala Gly Glu Leu Ile Met Ala Ala Arg
           485 490
Asn Ile Cys Trp Phe Gly Asp Glu Ala
         500
```

```
<210> 7638
<211> 903
```

<400> 7638

Thr Val Ala Gly Arg Asn Ser Met Thr Asp Val Thr Val Lys Ser Leu 1 5 10 15 16 Ala Ala Glu Ile Gln Thr Ser Val Asp Arg Leu Val Gln Gln Phe Ala 20 25 30 Asp Ala Gly Ile Pro Lys Ser Ala Asp Asp Ser Val Thr Ala Gln Glu 35 40 45 Lys Gln Thr Leu Leu Ala His Leu Asn Arg Glu His Gly Ser Thr Pro 50 66 55 66 Asp Lys Leu Thr Leu Gln Arg Lys Thr Arg Ser Thr Leu Asn Ile Pro Asp Lys Leu Thr Leu Gln Arg Lys Thr Arg Ser Thr Leu Asn Ile Pro Asp Lys Leu Thr Leu Gln Arg Lys Thr Arg Ser Thr Leu Asn Ile Pro Asp Lys Leu Thr Leu Gln Arg Lys Thr Arg Ser Thr Leu Asn Ile Pro Asp Lys Leu Thr Leu Gln Arg Lys Thr Arg Ser Thr Leu Asn Ile Pro Asp Lys Leu Thr Leu Gln Arg Lys Thr Arg Ser Thr Leu Asn Ile Pro Asp Lys Leu Thr Leu Gln Arg Lys Thr Arg Ser Thr Leu Asn Ile Pro Asp Lys Leu Thr Leu Gln Arg Lys Thr Arg Ser Thr Leu Asn Ile Pro Asp Lys Leu Thr Leu Gln Arg Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr Leu Asn Ile Pro Lys Thr Arg Ser Thr

<sup>&</sup>lt;212> PRT <213> Enterobacter cloacae

Gly Thr Gly Gly Lys Ser Lys Ser Val Gln Ile Glu Val Arg Lys Thr Arg Thr Phe Val Lys Arg Asp Pro Gln Glu Ala Glu Arg Leu Ala Ala 100 105 Glu Glu Gln Ala Gln Arg Glu Ala Glu Glu Gln Ala Gln Arg Glu Ala 120 125 Glu Ala Thr Ala Lys Arg Glu Ala Glu Leu Lys Ala Glu Arg Glu Ala 135 140 Ala Glu Lys Ala Lys Arg Asp Ala Gly Glu Lys Ala Lys Arg Asp Ala 150 155 Ala Glu Lys Asp Lys Val Ser Asn Gln Gln Thr Asp Glu Met Thr Lys 165 170 175 Thr Ala Gln Ala Glu Lys Ala Arg Arg Glu Asn Glu Ala Ala Glu Leu 180 185 190 Lys Arg Lys Ala Glu Glu Glu Ala Arg Arg Lys Leu Glu Glu Glu Ala 195 200 205 Arg Arg Val Ala Glu Glu Ala Arg Arg Met Ala Glu Glu Asn Glu Lys 210 215 220 Asn Gly Val Asn Thr Ala Glu Pro Thr Glu Asp Thr Ser Asp Tyr His 230 235 240 Val Thr Thr Ser Gln His Ala Arg Gln Ala Glu Asp Asp Asn Asp Arg 245 250 255 Glu Val Glu Gly Gly Arg Gly Arg Thr Arg Ser Ala Lys Ala Ala Arg 260 265 270 Pro Ala Lys Lys Gly Asn Lys His Ala Glu Ser Lys Ala Asp Arg Glu 275 280 Glu Ala Arg Ala Ala Val Arg Gly Gly Lys Gly Gly Lys Arg Lys Gly 290 295 300 Ser Ala Leu Gln Gln Gly Phe Gln Lys Pro Ala Gln Ala Val Asn Arg 310 315 320 Asp Val Val Ile Gly Glu Thr Ile Thr Val Gly Glu Leu Ala Asn Lys 325 330 Met Ala Val Lys Gly Ser Gln Val Ile Lys Ala Met Met Lys Leu Gly 340 345 350 Ala Met Ala Thr Ile Asn Gln Val Ile Asp Gln Glu Thr Ala Gln Leu 360 365 355 Val Ala Glu Glu Met Gly His Lys Val Ile Leu Arg Arg Glu Asn Glu 370 375 380 Leu Glu Glu Ala Val Met Ser Asp Arg Asp Thr Gly Ala Ala Ala Glu 390 395 Pro Arg Ala Pro Val Val Thr Ile Met Gly His Val Asp His Gly Lys 410 415 405 Thr Ser Leu Leu Asp Tyr Ile Arg Ser Thr Lys Val Ala Ser Gly Glu 420 425 430 Ala Gly Gly Ile Thr Gln His Ile Gly Ala Tyr His Val Glu Thr Glu 440 435 445 Asn Gly Met Ile Thr Phe Leu Asp Thr Pro Gly His Ala Ala Phe Thr 450 455 460 Ser Met Arg Ala Arg Gly Ala Gln Ala Thr Asp Ile Val Val Leu Val 470 475 Val Ala Ala Asp Asp Gly Val Met Pro Gln Thr Ile Glu Ala Ile Gln 485 490 His Ala Lys Ala Ala Gln Val Pro Leu Val Val Ala Val Asn Lys Ile 500 505 510 Asp Lys Pro Glu Ala Asp Met Asp Arg Val Lys Asn Glu Leu Ser Gln 515 520 525 Tyr Gly Val Met Pro Glu Glu Trp Gly Gly Glu Ala Gln Phe Ile Pro 540 530 535 Val Ser Ala Lys Ala Gly Thr Gly Ile Asp Asp Leu Leu Asn Ala Ile 550 555 Leu Leu Gln Ala Glu Val Leu Glu Leu Lys Ala Val Arg Lys Gly Met

```
570
Ala Ser Gly Ala Val Ile Glu Ser Phe Leu Asp Lys Gly Arg Gly Pro
                       585
                                      590
         580
Val Ala Thr Val Leu Val Arg Glu Gly Thr Leu His Lys Gly Asp Ile
     595
                    600
Val Leu Cys Gly Phe Glu Tyr Gly Arg Val Arg Ala Met Arg Asn Glu
  610 615
                                620
Leu Gly Gln Glu Val Leu Glu Ala Gly Pro Ser Ile Pro Val Glu Ile
      630 635
Leu Gly Leu Ser Gly Val Pro Ala Ala Gly Asp Glu Val Thr Val Val
         645 650 655
Arg Asp Glu Lys Lys Ala Arg Glu Val Ala Leu Tyr Arg Gln Gly Lys
       660 665 670
Phe Arg Glu Val Lys Leu Ala Arg Gln Gln Lys Ser Lys Leu Glu Asn
     675 680 685
Met Phe Ala Asn Met Thr Glu Gly Glu Val His Glu Val Asn Val Val
690 695 700
Leu Lys Ala Asp Val Gln Gly Ser Val Glu Ala Ile Ser Asp Ser Leu
705 710 715
Leu Lys Leu Ser Thr Asp Glu Val Lys Val Lys Ile Ile Gly Ser Gly
        725 730 735
Val Gly Gly Ile Thr Glu Thr Asp Ala Thr Leu Ala Ala Ala Ser Asn
         740 745 750
Ala Ile Leu Val Gly Phe Asn Val Arg Ala Asp Ala Ser Ala Arg Lys
          760 765
     755
Val Ile Asp Ala Glu Ser Leu Asp Leu Arg Tyr Tyr Ser Val Ile Tyr
770 775 780
Asn Leu Ile Asp Glu Val Lys Ala Ala Met Ser Gly Met Leu Ser Pro 785 790 795 800
Glu Leu Lys Gln Gln Ile Ile Gly Leu Ala Glu Val Arg Asp Val Phe
          805 810 815
Lys Ser Pro Lys Phe Gly Ala Ile Ala Gly Cys Met Val Thr Glu Gly
      820 825 830
Thr Ile Lys Arg His Asn Pro Ile Arg Val Leu Arg Asp Asn Val Val
   835 840
                         845
Ile Tyr Glu Gly Glu Leu Glu Ser Leu Arg Arg Phe Lys Asp Asp Val
 850 855
Asn Glu Val Arg Asn Gly Met Glu Cys Gly Ile Gly Val Lys Asn Tyr
             870 875 880
Asn Asp Val Arg Val Gly Asp Met Ile Glu Val Phe Glu Ile Ile Glu
            885
                          890
Ile Gln Arg Thr Ile Ala
         900
<210> 7639
<211> 326
<212> PRT
<213> Enterobacter cloacae
```

<400> 7639

Pro Gly Gly Arg Gln Gln Gly Gly Leu Met Ser Arg Pro Arg Arg Arg 1.0 Gly Arg Asp Val His Gly Val Leu Leu Leu Asp Lys Pro Gln Gly Ala 25 20 Ser Ser Asn Asp Val Leu Gln Lys Val Lys Arg Ile Tyr Asn Ala Asn 35 40 Arg Ala Gly His Thr Gly Ala Leu Asp Pro Leu Ala Thr Gly Met Leu 55 60 Pro Ile Cys Leu Gly Glu Ala Thr Lys Phe Ser Gln Tyr Leu Leu Asp 75 7.0 Ser Asp Lys Arg Tyr Arg Val Ile Ala Lys Leu Gly Gln Arg Thr Asp

9.0 Thr Ser Asp Ala Asp Gly Gln Val Val Glu Glu Arg Pro Val Thr Phe 105 100 Ser Ala Glu Gln Leu Asp Ala Ala Leu Asp Ser Phe Arg Gly Asp Thr 115 120 Leu Gln Val Pro Ser Met Tyr Ser Ala Leu Lys Tyr Gln Gly Lys Lys 135 140 Leu Tyr Glu Tyr Ala Arg Gln Gly Ile Glu Val Pro Arg Glu Ala Arg 155 145 150 Pro Ile Thr Val Tyr Glu Leu Leu Phe Ile Arg His Glu Gly Asp Glu 165 170 Leu Glu Leu Glu Val His Cys Ser Lys Gly Thr Tyr Ile Arg Thr Ile 180 185 190 Ile Asp Asp Leu Gly Glu Lys Leu Gly Cys Gly Ala His Val Ile Tyr 205 195 200 Leu Arg Arg Leu Ala Val Ser Lys Tyr Pro Val Glu Arg Met Val Thr 210 215 220 Leu Glu His Leu His Ala Leu Ile Glu Gln Ala Gln Ala Gln Gly Val 225 230 235 Ala Pro Ala Asp Leu Leu Asp Pro Leu Leu Met Pro Met Asp Ser Pro 245 250 255 Ala Val Asp Phe Pro Val Val Asn Leu Pro Leu Thr Ser Ser Val Tyr 260 265 270 Phe Lys Asn Gly Asn Pro Val Arg Thr Thr Gly Ala Pro Leu Glu Gly 275 280 285 Leu Val Arg Val Thr Glu Gly Asp Glu Gly Lys Phe Ile Gly Met Gly 290 295 300 Glu Met Asp Gly Glu Gly Arg Val Ala Pro Arg Arg Leu Val Val Glu Tyr Pro Val Glu Ala

<210> 7640 <211> 740 <212> PRT <213> Enterobacter cloacae

<400> 7640 Ser Arg Gly Cys Glu Glu Gly Arg Val Lys Ser Ser Ala His Leu Arg Cys Ala Phe Lys His Leu Arg Lys Asp Arg Thr Leu Leu Asn Pro Ile 25 30 20 Val Arg Lys Phe Gln Tyr Gly Gln His Thr Val Thr Leu Glu Thr Gly 35 40 45 Met Met Ala Arg Gln Ala Thr Ala Ala Val Met Val Ser Met Asp Asp 50 55 60 Thr Ala Val Phe Val Thr Val Val Gly Gln Lys Lys Ala Lys Pro Gly 65 70 75 Gln Asp Phe Phe Pro Leu Thr Val Asn Tyr Gln Glu Arg Thr Tyr Ala 85 90 95 Ala Gly Lys Ile Pro Gly Gly Phe Phe Arg Arg Glu Gly Arg Pro Ser 100 105 110 Glu Gly Glu Thr Leu Ile Ala Arg Leu Ile Asp Arg Pro Val Arg Pro 115 120 125 Leu Phe Pro Glu Gly Phe Val Asn Glu Val Gln Val Ile Ala Thr Val 135 140 130 Val Ser Val Asn Pro Gln Val Asn Pro Asp Ile Val Ala Met Ile Gly 145 150 155 160 Ala Ser Ala Ala Leu Ser Leu Ser Gly Ile Pro Phe Asn Gly Pro Ile 165 170 Gly Ala Ala Arg Val Gly Tyr Ile Asn Asp Gln Tyr Val Leu Asn Pro

```
185
        180
Thr Gln Glu Glu Leu Lys Glu Ser Lys Leu Asp Leu Val Val Ala Gly
 195
                          205
           200
Thr Glu Ala Ala Val Leu Met Val Glu Ser Glu Ala Glu Leu Leu Ser
 210 215
                       220
Glu Asp Gln Met Leu Gly Ala Val Val Phe Gly His Asp Gln Gln Gln
    230
                          235
Val Val Ile Gln Asn Ile Asn Asp Leu Val Lys Glu Ala Gly Lys Pro
      245 250 255
Arg Trp Asp Trp Gln Pro Glu Ala Ala Asn Asp Ala Leu Asn Ala Arg
     260 265 270
Val Ala Ala Leu Ala Glu Ser Arg Leu Ser Asp Ala Tyr Arg Ile Thr
     275 280 285
Asp Lys Gln Glu Arg Tyr Ala Gln Val Asp Val Ile Lys Ser Glu Val
 290 295 300
Thr Ala Thr Leu Val Ala Glu Asp Glu Thr Leu Asp Ala Asn Glu Ile
305 310 315 320
Gly Glu Ile Leu His Ala Ile Glu Lys Asn Val Val Arg Ser Arg Val
         325 330 335
Leu Ala Gly Glu Pro Arg Ile Asp Gly Arg Glu Lys Asp Met Ile Arg
       340 345 350
Gly Leu Asp Val Arg Thr Gly Val Leu Pro Arg Thr His Gly Ser Ala
 355 360 365
Leu Phe Thr Arg Gly Glu Thr Gln Ala Leu Val Thr Ala Thr Leu Gly
370 375 380
Thr Ala Arg Asp Ala Gln Ile Ile Asp Glu Leu Met Gly Glu Arg Thr
385 390 395 400
Asp Ser Phe Leu Phe His Tyr Asn Phe Pro Pro Tyr Ser Val Gly Glu
         405 410 415
Thr Gly Met Val Gly Ser Pro Lys Arg Arg Glu Ile Gly His Gly Arg
     420 425 430
Leu Ala Lys Arg Gly Val Leu Ala Val Met Pro Glu Ala Asp Lys Phe
 435 440 445
Pro Tyr Thr Val Arg Val Val Ser Glu Ile Thr Glu Ser Asn Gly Ser
 450 455 460
Ser Ser Met Ala Ser Val Cys Gly Ala Ser Leu Ala Leu Met Asp Ala
                  475 480
              470
Gly Val Pro Ile Lys Ala Ala Val Ala Gly Ile Ala Met Gly Leu Val
          485
                        490
Lys Glu Gly Asp Asn Tyr Val Val Leu Ser Asp Ile Leu Gly Asp Glu
        500 505 510
Asp His Leu Gly Asp Met Asp Phe Lys Val Ala Gly Ser Arg Asp Gly
 515 520 525
Ile Ser Ala Leu Gln Met Asp Ile Lys Ile Glu Gly Ile Thr Lys Glu
                 535
Ile Met Gln Val Ala Leu Asn Gln Ala Lys Gly Ala Arg Leu His Ile
              550 555 560
Leu Gly Val Met Glu Gln Ala Ile Asn Ala Pro Arg Gly Asp Ile Ser
               570 575
            565
Glu Phe Ala Pro Arg Ile His Thr Ile Lys Ile Asn Pro Asp Lys Ile
        580
                       585
Lys Asp Val Ile Gly Lys Gly Gly Ser Val Ile Arg Ala Leu Thr Glu
                    600 605
Glu Thr Gly Thr Thr Ile Glu Ile Glu Asp Asp Gly Thr Val Lys Ile
                     620
                 615
Ala Ala Thr Asp Gly Glu Lys Ala Lys Tyr Ala Ile Arg Arg Ile Glu
              630 635
Glu Ile Thr Ala Glu Ile Glu Val Gly Arg Ile Tyr Asn Gly Lys Val
                          650
Thr Arg Ile Val Asp Phe Gly Ala Phe Val Ala Ile Gly Gly Gly Lys
                       665
```

```
Glu Gly Leu Val His Ile Ser Gln Ile Ala Asp Lys Arg Val Glu Lys
                       680
                                     685
 675
Val Thr Asp Tyr Leu Gln Met Gly Gln Glu Val Pro Val Lys Val Leu
 690
                   695
                                     700
Glu Val Asp Arg Gln Gly Arg Ile Arg Leu Ser Ile Lys Glu Ala Thr
705 710
                                 715
Glu Gln Ser Gln Pro Ala Ala Ala Pro Glu Ala Pro Ala Ala Glu Gln
Gln Gly Glu
         740
<210> 7641
<211> 417
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(387)
<400> 7641
Gly Arg Met Ala Thr Leu Thr Thr Thr Gln Thr Ser Pro Ser Leu Leu
                              10
Gly Gly Val Val Ile Ile Gly Gly Thr Ile Ile Gly Ala Gly Met Phe
       2.0
                           25
                                           3.0
Ser Leu Pro Val Val Met Ser Gly Ala Trp Phe Phe Trp Ser Leu Ala
                               4.5
 35
                       40
Ala Leu Val Phe Thr Trp Phe Cys Met Leu His Ser Gly Leu Met Ile
50
                    55
Leu Glu Ala Asn Leu Asn Tyr Arg Ile Gly Ser Ser Phe Asp Thr Leu
                7.0
                     75
Thr Arg Asp Leu Leu Gly Lys Gly Trp Asn Leu Val Asn Gly Leu Ser
             85
Ile Ala Phe Val Leu Tyr Ile Leu Thr Tyr Ala Tyr Ile Ser Ala Ser
                          105
          100
Gly Ser Ile Leu His His Thr Phe Ser Glu Met Ser Leu Asn Val Pro
                       120 125
       115
Ala Arg Leu Ala Gly Leu Cys Phe Ala Leu Gly Val Ala Phe Ile Val
                   135 140
 130
Trp Met Ser Thr Lys Ala Val Ser Arg Met Thr Ala Ile Val Leu Gly
              - 150 155 160
Ala Lys Val Ile Thr Phe Phe Leu Thr Phe Gly Ser Leu Leu Gly His
              165 170
                                             175
Val Thr Pro Ala Thr Leu Phe Asn Val Ala Glu Thr Asn Thr Ser Tyr
                           185 190
          180
Thr Pro Tyr Leu Leu Met Thr Leu Pro Phe Cys Leu Ala Ser Phe Gly
                        200
       195
Tyr His Gly Asn Val Pro Ser Leu Met Lys Tyr Tyr Gly Lys Asp Pro
                    215
                                     220
Arg Thr Ile Val Lys Cys Leu Val Tyr Gly Thr Leu Leu Ala Leu Ala
                 230
                                  235
Leu Tyr Val Ile Trp Leu Leu Gly Thr Met Gly Asn Ile Pro Arg Pro
              245
                               250 255
Glu Phe Ile Gly Ile Ala Gln Lys Gly Gly Asn Ile Asp Val Leu Val
                           265
Gln Ala Leu Gly Gly Val Leu Asn Ser His Ser Leu Asp Leu Leu
    275
                        280
Val Val Phe Ser Asn Phe Ala Val Ala Ser Ser Phe Leu Gly Val Thr
               295
                                     300
Leu Gly Leu Phe Asp Tyr Leu Ala Asp Leu Phe Gly Phe Asp Asp Ser
                 310
                                  315
```

Ala Thr Gly Arg Phe Lys Thr Ala Leu Leu Thr Phe Leu Pro Pro Ile 330 335 325 Val Gly Gly Leu Leu Trp Pro Asn Gly Phe Leu Tyr Ala Ile Gly Tyr 350 340 345 Ala Gly Leu Ala Ala Thr Ile Trp Ala Ala Ile Val Pro Ala Leu Leu 355 360 365 Ala Arg Lys Ser Arg Lys Arg Phe Gly Ser Pro Lys Phe Arg Val Trp 375 380 Gly Gly Xaa Pro Met Ile Ala Leu Ile Leu Val Phe Gly Ile Gly Asn 390 395 Ala Val Val His Val Leu Ser Ser Phe Asn Leu Leu Pro Val Tyr Gln 405 410

```
<210> 7642
<211> 169
<212> PRT
<213> Enterobacter cloacae
```

<400> 7642 Thr Met Leu Ile Arg Val Glu Ile Gly Ile Asp Ala Pro Gly Ile Asp 10 Ala Leu Leu Arg Arg Ser Phe Ala Gly Asp Ala Glu Ala Gln Leu Val 25 3.0 2.0 His Asp Leu Arg Glu Asp Gly Leu Ile Thr Leu Gly Leu Val Ala Thr 4.5 35 40 Asp Asp Glu Gly Gln Val Val Gly Tyr Val Ala Phe Ser Pro Val Ile 50 55 60 Val Gln Gly Glu Glu Leu Gln Trp Val Gly Met Ala Pro Leu Ala Val 70 75 Asp Glu Asn Tyr Arg Gly Gln Gly Leu Ala Arg Gln Leu Val Tyr Glu 95 85 90 Gly Leu Asp Ser Leu Asn Glu Phe Gly Tyr Ala Ala Val Val Leu 100 105 Gly Asp Pro Ala Phe Tyr Glu Arg Leu Gly Phe Glu Pro Ala Ser Arg 120 125 115 Tyr Asp Leu Arg Cys His Trp Pro Gly Thr Glu Thr Ser Phe Gln Val 135 140 130 His Pro Leu Ala Asp Asp Ala Leu Asp Gly Val Thr Gly Leu Val Glu 155 145 150

<210> 7643 <211> 149 <212> PRT <213> Enterobacter cloacae

Tyr His Asp His Phe Asn Arg Phe 165

<400> 7643 Glu Arg Ala Lys Met Glu Thr Leu Ala Ala Ile Asn Arg Trp Leu Ala 10 Lys Gln His Val Val Thr Trp Cys Val Cys Lys Asp Glu Glu Met Trp 25 30 Cys Ala Asn Ala Phe Tyr Tyr Tyr Asp Pro Glu Arg Val Ala Phe Tyr 35 40 45 Val Met Ser Glu Asp Lys Thr Arg His Ala Gln Met Thr Gly Gln Gln 5.5 60 50 Ala Lys Val Ala Gly Thr Val Asn Gly Gln Pro Lys Thr Val Ala Leu 70 7.5 Ile Arg Gly Val Gln Phe Lys Gly Glu Ile Arg Arg Leu Glu Gly Glu

```
90
Glu Ser Asp Ala Gln Arg Lys Arg Tyr Thr Arg Arg Phe Pro Val Ala
                          105
         100
Ala Ala Leu Lys Ala Pro Val Trp Glu Ile Arg Leu Asp Glu Leu Lys
                        120
     115
Phe Thr Asp Asn Thr Leu Gly Phe Gly Lys Lys Leu His Trp Leu Arg
 130
                 135
Ala Glu Gln Ala
145
<210> 7644
<211> 246
<212> PRT
<213> Enterobacter cloacae
<400> 7644
His Leu Pro Gly Asn Gly Met Thr Gly Gln Ser Ser Ser Gln Ala Ala
Thr Pro Val Gln Trp Trp Lys Pro Ala Leu Phe Phe Leu Val Val Ile
                           25
Ile Gly Leu Trp Tyr Val Lys Trp Gln Pro Tyr Tyr Gly Lys Ala Phe
                                         4.5
     35
                       40
Thr Ala Ala Asp Thr His Ser Ile Gly Lys Ser Ile Leu Ala Gln Ala
                 55
                                     60
Asp Ser Ser Pro Leu Arg Ala Ala Trp Asp Tyr Ala Met Val Tyr Phe
                                  75
                7.0
Leu Ala Val Trp Lys Ala Ala Val Leu Gly Val Leu Leu Gly Ser Leu
             85
                  90
Ile Gln Val Leu Ile Pro Arg Asn Trp Leu Val Lys Thr Leu Gly Gln
                                      110
         100 105
Pro Arg Leu Gln Gly Thr Leu Leu Gly Thr Ile Phe Ser Leu Pro Gly
 115 120
                                        125
Met Met Cys Ser Cys Cys Ala Ala Pro Val Ala Ala Gly Met Arg Arg
                   135
                                     140
Gln Arg Val Ser Met Gly Gly Ala Leu Ala Phe Trp Met Gly Asn Pro
                150 155 160
Leu Leu Asn Pro Ala Thr Leu Val Phe Met Gly Phe Val Leu Gly Trp
             165 170 175
His Phe Ala Phe Ile Arg Leu Ala Ala Gly Leu Leu Thr Val Val Leu
                                190
                           185
Val Ala Thr Leu Val Gln His Leu Val Lys Asp Asn Glu Ala Gly Ser
                            205
                        200
Ala Ser Val Glu Leu Asp Val Ser Glu Pro Gln Gly Ser Phe Phe Ala
                    215 220
  210
Arg Trp Gly Lys Ala Leu Trp Gln Leu Phe Leu Glu His His Ser Gly
225
              230
Leu Tyr Pro Gly Phe
              245
<210> 7645
<211> 121
<212> PRT
<213> Enterobacter cloacae
<400> 7645
Trp Arg Pro Val Phe Pro Phe Ser Leu Ser Leu Met Leu Trp Cys Val
                             10
His Leu Asn Ile Leu Asn Leu Phe Thr Val Cys Trp Phe Leu Tyr Leu
                           25
     2.0
Val Arg Thr Ala Asp Asn Ala Leu Tyr Thr Gly Ile Thr Thr Asp Val
```

```
Ala Arg Arg Phe Leu Gln His Gln Thr Gly Lys Gly Ala Lys Ala Leu
Arg Gly Lys Gly Glu Leu Gln Leu Ala Phe Ser Ala Ala Val Gly Asp
                              75
             70
Arg Ser Leu Ala Leu Arg Leu Glu Tyr Arg Ile Lys Gln Leu Thr Lys
                           90
           85
Arg Gln Lys Glu Arg Leu Val Asn Gly Asp Gly Ser Phe Glu Ala Leu
      100 105
Leu Glu Ser Leu Leu Lys Asn Asp
<210> 7646
<211> 346
<212> PRT
<213> Enterobacter cloacae
<400> 7646
Ala Arg Trp Gln Arg Cys Gly Val Arg Pro Ser Thr Ala Ala Trp Arg
                           1.0
Thr Arg Lys Thr Thr Leu Arg Arg Arg His Gly Trp Arg Arg Ser Ala
                  25
Arg Cys Pro Lys Ala Pro Lys Pro Arg Ser Ala Arg Ile Thr Val Asn
               40
Gly Ser Glu Ile Ile Met Lys Tyr Ser Leu Gly Pro Val Leu Tyr Tyr
                 55
                        60
Trp Pro Lys Glu Thr Leu Glu Asp Pne Tyr Gln Gln Ala Ala Asn Ser
             70 75
Ser Ala Asp Val Ile Tyr Leu Gly Glu Ala Val Cys Ser Lys Arg Arg
                90
Ala Thr Lys Val Gly Asp Trp Leu Asp Met Ala Lys Ser Leu Ala Gly
        100 105 110
Ser Gly Lys Gln Val Val Leu Ser Thr Leu Ala Leu Val Gln Ala Ser
 115 120 125
Ser Glu Leu Gly Glu Leu Lys Arg Tyr Val Glu Asn Gly Glu Phe Leu
 130 135 140
Leu Glu Ala Ser Asp Leu Gly Val Val Asn Met Cys Ala Glu Arg Lys
             150 155
Leu Pro Phe Val Ala Gly His Ala Leu Asn Cys Tyr Asn Ala Val Thr
          165 170 175
Leu Arg Leu Leu Lys Gln Gly Met Thr Arg Trp Cys Met Pro Val
      180 185 190
Glu Leu Ser Arg Asp Trp Leu Ala Asn Leu Leu Thr Gln Cys Glu Glu
                     200 205
      195
Leu Gly Ile Arg Asn Lys Phe Glu Val Glu Val Leu Ser Tyr Gly His
                  215
                                 220
 210
Leu Pro Leu Ala Tyr Ser Ala Arg Cys Phe Thr Ala Arg Ser Glu Asp
              230 235 240
Arg Pro Lys Asp Glu Cys Glu Thr Cys Cys Ile Lys Tyr Pro Asn Gly
                250 255
            245
Arg Ser Met Leu Ser Gln Glu Asn Gln Gln Val Phe Val Leu Asn Gly
             265 270
         260
Ile Gln Thr Met Ser Gly Tyr Val Tyr Asn Leu Gly Asn Glu Leu Ala 275 280 285
Ser Met His Gly Leu Val Asp Met Val Arg Leu Ser Pro Leu Asp Thr
                   295 300
Gly Val Phe Ala Met Leu Asp Ala Phe Arg Ala Asn Glu Asn Gly Ala
                310 315
305
Ala Pro Leu Pro Leu Thr Ala Asn Ser Asp Cys Asn Gly Tyr Trp Arg
                            330
            325
Arg Leu Ala Gly Leu Glu Leu Gln Ala
```

```
<210> 7647
<211> 338
<212> PRT
<213> Enterobacter cloacae
<400> 7647
Ala Val Met Thr Asp Lys Thr Ile Pro Phe Ser Val Leu Asp Leu Ala
Pro Ile Pro Gln Gly Ser Ser Ala Arg Glu Ala Phe Thr His Ser Leu
       20
                       25
Asp Leu Ala Gln Leu Ala Glu Lys Arg Gly Tyr His Arg Tyr Trp Leu
                   40
Ala Glu His His Asn Met Val Gly Ile Ala Ser Ala Ala Thr Ser Val
           55
                                60
Leu Ile Gly Tyr Leu Ala Ala Asn Thr Thr Thr Leu His Leu Gly Ser
         70
                          75
Gly Gly Val Met Leu Pro Asn His Ala Pro Leu Val Ile Ala Glu Gln
          85 90 95
Phe Gly Thr Leu Asn Thr Leu Tyr Pro Gly Arg Ile Asp Leu Gly Leu
     100 105 110
Gly Arg Ala Pro Gly Ser Asp Gln Pro Thr Met Arg Ala Leu Arg Arg
115 120 125
His Met Ser Gly Asp Ile Asp Asn Phe Pro Arg Asp Val Ala Glu Leu
130 135 140
Val Gly Trp Phe Asp Ala Arg Asp Pro Asn Pro His Val Arg Pro Val
145 150 155 160
Pro Gly Tyr Gly Glu Lys Ile Pro Val Trp Leu Leu Gly Ser Ser Leu
         165 170 175
Tyr Ser Ala Gln Leu Ala Ala Gln Leu Gly Leu Pro Phe Ala Phe Ala
      180 185 190
Ser His Phe Ala Pro Asp Met Leu His Gln Ala Leu His Leu Tyr Arg
195 200 205
Thr His Phe Lys Pro Ser Glu Arg Leu Glu Lys Pro Tyr Ala Met Val
210 215 220
Cys Ile Asn Ile Ile Ala Ala Asp Ser Asn Arg Asp Ala Glu Phe Leu
225 230 235 240
Phe Thr Ser Met Gln Gln Ala Phe Val Lys Leu Arg Arg Gly Glu Thr
         245 250 255
Gly Gln Leu Pro Pro Pro Val Glu Asn Met His Gln Leu Trp Ser Ala
       260 265 270
Ser Glu Gln Tyr Gly Val Gln Gln Ala Leu Ser Met Ser Leu Val Gly
     275 280 285
Asp Lys Ala Lys Val Arg His Gly Leu Glu Ser Val Leu Arg Glu Thr
 290 295 300
Gln Ala Asp Glu Ile Met Val Asn Gly Gln Ile Phe Asp His Gln Ala
305 310 315 320
Arg Leu His Ser Phe Asp Leu Ala Met Gln Val Lys Glu Glu Leu Val
                          330
Glv
<210> 7648
<211> 152
<212> PRT
<213> Enterobacter cloacae
<400> 7648
```

Thr Gly Met Val Leu Gln Lys Lys Leu Pro Gln Arg Phe Ala Pro Ala 1 5 10 10 10 Ser Lys Glu Thr Ala Leu Arg Leu Ala Asp Val Gln Leu Asn Gly Ser

25 Arg Ser Gly Leu Val Val Phe His Gln Val Leu His Gln Arg Ser Asp 40 Lys His His Arg Gln Gln Ala Ser Arg Gln Thr Asp Lys Arg Glu Met Pro Ala Glu Asn Glu Ala His Lys His Gln Arg Cys Arg Val Gln Gln 70 75 Trp Val Thr His Pro Glu Gly Lys Arg Ala Ala His Arg His Ala Leu 8.5 90 Ser Ala His Thr Arg Arg His Arg Cys Gly Ala Ala Gly Thr His His 100 105 Ala Arg Gln Gly Glu Asn Arg Pro Gln Gln Arg Ala Leu Gln Ala Arg 115 120 125 Leu Ser Gln Gly Phe His Gln Pro Val Thr Arg Asp Lys Tyr Leu Asn 135 Gln Arg Ala Gln Gln Tyr Ala <210> 7649 <211> 180 <212> PRT <213> Enterobacter cloacae <400> 7649 Ser Glu Asn Asn Gly Gly Ser Met Gly Lys Lys Ile Ala Val Leu Ile 10 Thr Asp Glu Phe Glu Asp Ser Glu Phe Thr Ser Pro Ala Glu Ala Phe 25 30 Arg Lys Ala Gly His Glu Val Val Thr Ile Glu Lys Glu Ala Gly Lys 3.5 40 45 Thr Val Lys Gly His Lys Gly Glu Ala Ser Val Thr Ile Asp Glu Ser 50 55 60 Ile Asp Asn Val Ser Pro Ser Asp Phe Asp Ala Leu Leu Leu Pro Gly 7.0 7.5 Gly His Ser Pro Asp Ser Leu Arg Gly Asp Glu Arg Phe Val Thr Phe 90 85 Thr Arg Asp Phe Val Gly Thr Gly Lys Pro Val Phe Ala Ile Cys His 105 110 100 Gly Pro Gln Leu Leu Ile Ser Ala Glu Val Val Arg Gly Arg Lys Leu 115 120 125 Thr Ala Val Lys Ser Ile Val Ile Asp Leu Lys Asn Ala Gly Ala Glu 130 135 140 Phe Tyr Asp Gln Glu Val Val Asn Asp Asn Asp Gln Leu Ile Thr Ser 150 155 160 Arg Thr Pro Asp Asp Leu Pro Ala Phe Asn Arg Glu Ala Leu Arg Leu 165 170 Leu Gly Ala

<210> 7650 <211> 375 <212> PRT

<213> Enterobacter cloacae

<400> 7650

Ala Ala Gly Pro Arg Lys Gly Leu Pro Arg Ser Gln Cys Gly Ala Phe 1.0 His Asn Thr Thr Gly Gly Leu Thr Tyr Phe Asn Thr Thr Pro Leu Gly 25 Arg Ala Val Thr Gly Thr Met Leu Val Ala Ala Met Lys Glu Asp Gly 35 4.0

```
Val Asn Ile Trp Gly Asp Gly Ser Thr Tyr Lys Gly Asn Asp Ile Glu
                 55
Arg Phe Tyr Arg Tyr Gly Leu Leu Thr Asn Ala Glu Leu Gln Ile Tyr
              7.0
Lys Pro Trp Leu Asp Thr Asp Phe Ile Asp Glu Leu Gly Gly Arg His
           85
Glu Met Ser Glu Phe Met Ile Ala Cys Gly Phe Asp Tyr Lys Met Ser
                       105
        100
Val Glu Lys Ala Tyr Ser Thr Asp Ser Asn Met Leu Gly Ala Thr His
     115
                    120
Glu Ala Lys Asp Leu Glu Phe Leu Asn Ser Ser Val Lys Ile Val Asn
 130 135
                     140
Pro Ile Met Gly Val Lys Phe Trp Asp Glu Asn Val Lys Ile Pro Ala
145
    150 155
Glu Glu Val Thr Val Arg Phe Glu Arg Gly His Pro Val Ala Leu Asn
      165 170
                                        175
Gly Lys Thr Phe Ser Asp Asp Val Glu Leu Met Leu Glu Ala Asn Arg
   180 185
                                     190
Ile Gly Gly Arg His Gly Leu Gly Met Ser Asp Gln Ile Glu Asn Arg
 195 200 205
Ile Ile Glu Ala Lys Ser Arg Gly Ile Tyr Glu Ala Pro Gly Met Ala
210 215 220
Leu Leu His Ile Ala Tyr Glu Arg Leu Leu Thr Gly Ile His Asn Glu
225 230 235
Asp Thr Ile Glu Gln Tyr His Ala His Asp Arg Gln Leu Gly Lys Leu
           245 250 255
Leu Tyr Gln Gly Arg Trp Phe Asp Pro Gln Ala Leu Met Leu Arg Asp
        260 265 270
Ala Met Gln Arg Trp Val Ala Ser Ala Ile Thr Gly Glu Val Thr Leu
275 280 285
Glu Leu Arg Arg Gly Asn Glu Tyr Ser Ile Leu Asn Thr Val Ser Asp
290 295 300
Asn Leu Thr Tyr Lys Ala Glu Arg Leu Thr Met Glu Lys Gly Glu Ser
305 310 315 320
Val Phe Ser Pro Asp Asp Arg Ile Gly Gln Leu Thr Met Arg Asn Leu
     325 330 335
Asp Ile Thr Asp Thr Arg Glu Lys Leu Phe Asn Tyr Val Glu Asn Gly
        340 345 350
Leu Leu Ser Ala Asn Ser Gly Asn Gly Leu Pro Gln Val Glu Asn Leu
                    360
Glu His Ser Asp Lys Lys
```

<210> 7651 <211> 333 <212> PRT

370

<213> Enterobacter cloacae

```
Asp Leu Ala Met Leu Glu Tyr Ala Ala Glu Arg Tyr Pro His Ile Glu
            105
                           110
        100
Arg His Val Ser Val Gln Ala Ser Ala Thr Asn Glu Glu Ala Val Arg
                                  125
                    120
Phe Tyr His Arg His Phe Asp Val Ala Arg Val Val Leu Pro Arg Val
       135
                                140
Leu Ser Ile His Gln Val Lys Gln Leu Ala Arg Val Thr Pro Val Pro
                             155
145
              150
Leu Glu Val Phe Ala Phe Gly Ser Leu Cys Ile Met Ala Glu Gly Arg
      165
                          170
                                         175
Cys Tyr Leu Ser Ser Tyr Leu Thr Gly Glu Ser Pro Asn Thr Val Gly
                           190
     180
                       185
Ala Cys Ser Pro Ala Arg Phe Val Arg Trp Gln Gln Thr Pro Gln Gly
    195 200
                        205
Leu Glu Ser Arg Leu Asn Asp Val Leu Ile Asp Arg Tyr Gln Asp Gly
210 215
                                220
Glu Asn Ala Gly Tyr Pro Thr Leu Cys Lys Gly Arg Tyr Leu Val Asp
225 230 235
Gly Glu Arg Tyr His Ala Leu Glu Glu Pro Thr Ser Leu Asn Thr Leu
         245 250 255
Glu Leu Leu Pro Glu Leu Leu Ala Ala Asn Ile Ala Ser Val Lys Ile
  260 265 270
Glu Gly Arg Gln Arg Ser Pro Ala Tyr Val Ser Gln Val Ala Lys Val
 275 280 285
Trp Arg Gln Ala Ile Asp Arg Cys Met Ala Asp Pro Gln Asn Tyr Ala
290 295 300
Pro Gln Ala Ala Trp Met Glu Thr Leu Gly Ala Met Ser Glu Gly Thr
305 310 315
Gln Thr Thr Leu Gly Ala Tyr His Arg Lys Trp Gln
           325
```

<210> 7652 <211> 107

<212> PRT

<213> Enterobacter cloacae

<400> 7652

Ser Val Asn Gln Ala Gly Phe Tyr Tyr Met Thr Thr Ile Leu Lys His 10 Leu Pro Val Gly Gln Arg Ile Gly Ile Ala Phe Ser Gly Gly Leu Asp 25 Thr Ser Ala Ala Leu Leu Trp Met Arg Gln Lys Gly Ala Val Pro Tyr 45 4.0 Ala Tyr Thr Ala Asn Leu Gly Gln Pro Asp Glu Glu Asp Tyr Asp Ala 5.5 Ile Pro Arg Arg Ala Met Glu Tyr Gly Ala Glu Asn Ala Arg Leu Ile 75 Asp Cys Arg Lys Gln Leu Val Pro Gly Arg Asp Cys Arg Asp Pro Ser 85 Ala Val Leu Ser Ile Thr Leu Pro Ala Ala 100

<210> 7653

<211> 158

<212> PRT

<213> Enterobacter cloacae

<400> 7653

Thr Val Ile Ala Met Ala Ala Arg Lys Ser Ile Ile Phe Ile Cys Ile 10 Cys Trp Val Asp Val His Trp Asp Arg Cys Trp His Ile Lys Val Phe Asn Met Leu Thr Gly Arg Ile Ala Ala Leu Ile Val Thr Leu Val Met 40 45 Val Gly Cys Ser Ala Arg Pro Ala Ile Pro Val Ser Glu Glu Gln Thr 55 60 Leu Val Met Glu Ser Ser Val Leu Ala Ala Gly Ile Thr Ala Glu Lys 70 75 Pro Ser Leu Thr Ile Ser Glu Ile Gln Ser Ser Ala Ser Ser Thr Leu 8.5 90 Tyr Asn Glu Arg Gln Glu Pro Val Thr Val His Tyr Arg Phe Tyr Trp 100 105 Tyr Asp Val Arg Gly Leu Glu Met His Pro Leu Glu Ala Pro Arg Ser 115 120 125 Val Thr Ile Pro Ala Arg Ser Ser Val Thr Leu Tyr Gly Ser Ala Ser 135 140 Tyr Leu Gly Ala His Lys Val Arg Leu Tyr Leu Tyr Leu 145

<210> 7654

<211> 90 <212> PRT

<213> Enterobacter cloacae

<400> 7654

Arg Tyr Lys Ile Met Lys Asn Val Lys Thr Leu Ile Ala Ala Ala Val 1.0 Leu Ser Ser Leu Ser Phe Ala Ser Phe Ala Ala Val Glu Val Gln Ser 25 3.0 Thr Pro Ala Asp Gln Gln Lys Val Gly Thr Ile Ser Ala Thr Ala Gly 3.5 40 4.5 Thr Asn Leu Gly Ser Leu Glu Asp Gln Leu Ala Gln Lys Ala Asp Glu 5.5 60 Met Gly Ala Lys Ser Phe Arg Ile Thr Ser Val Thr Gly Pro Asn Thr 7.0

Leu His Gly Thr Ala Val Ile Tyr Lys

<210> 7655 <211> 423

<212> PRT <213> Enterobacter cloacae

<400> 7655

Thr Asp Ala Asp Gly Ser Gly Val Met Ala Ser Pro Leu Ser Leu Leu 10 Ile Gly Leu Arg Phe Ser Arg Gly Arg Arg Arg Ser Gly Met Val Ser 25 20 Leu Ile Ser Val Ile Ser Thr Ile Gly Ile Ala Leu Gly Val Ala Val 35 40 Leu Ile Val Gly Leu Ser Ala Met Asn Gly Phe Glu Arg Glu Leu Asn 55 Asn Arg Ile Leu Ala Val Val Pro His Gly Glu Ile Glu Pro Val Asn 75 65 Gln Pro Trp Ser Asn Trp Gln Asp Ser Leu Asn Lys Val Glu Lys Val 90 85 Pro Gly Ile Ala Ala Ala Pro Tyr Ile Asn Phe Thr Gly Leu Val 105 110 100 Glu Ser Gly Val Asn Leu Arg Ala Ile Gln Val Lys Gly Val Asn Pro 125 115 120 Arg Gln Glu Glu Arg Leu Ser Ala Leu Pro Arg Tyr Val Gln Asn Gly

130 135

```
Ala Trp Ala Asn Phe Lys Ala Gly Glu Gln Gln Ile Ile Met Gly Lys
                           155
145
              150
Gly Val Ala Asp Ala Leu Lys Val Lys Gln Gly Asp Trp Val Ser Ile
                          170
           165
Met Ile Pro Asn Ala Ser Ala Asp His Lys Leu Gln Gln Pro Lys Arg
        180
                        185
                                       190
Val Arg Leu His Val Thr Gly Ile Leu Gln Leu Ser Gly Gln Leu Asp
                                    205
     195
                    200
His Ser Phe Ala Met Val Pro Leu Glu Asp Ala Arg Gln Tyr Leu Asp
                 215
                      220
Met Ser Asp Ser Val Thr Gly Ile Ala Ile Lys Val Asn Asp Val Phe
225 230
                              235
Asn Ala Asn Lys Leu Val Arg Asp Ala Gly Ser Val Thr Asn Asn Tyr
          245 250
Val Tyr Ile Lys Ser Trp Ile Gly Thr Tyr Gly Tyr Met Tyr Arg Asp
        260 265
                                       270
Ile Gln Met Ile Arg Ala Ile Met Tyr Leu Ala Met Val Leu Val Ile
     275 280 285
Gly Val Ala Cys Phe Asn Ile Val Ser Thr Leu Val Met Ala Val Lys
 290 295 300
Asp Lys Ser Gly Asp Ile Ala Val Leu Arg Thr Leu Gly Ala Lys Asp
305 310 315 320
Gly Leu Ile Arg Ala Ile Phe Val Trp Tyr Gly Leu Leu Ala Gly Leu
           325 330 335
Phe Gly Ser Leu Cys Gly Val Ala Ile Gly Val Val Val Ser Leu Gln
                       345 350
Leu Thr Pro Ile Ile Asn Gly Ile Glu Ala Leu Ile Gly His Gln Phe
                    360 365
     355
Leu Ser Gly Asp Ile Tyr Phe Ile Asp Phe Leu Pro Ser Glu Leu His
                 375 380
 370
Trp Leu Asp Val Ile Tyr Val Leu Val Thr Ala Leu Leu Leu Ser Leu
              390 395 400
Leu Ala Ser Trp Tyr Pro Ala Arg Arg Ala Ser Arg Ile Asp Pro Ala
         405
                   410
Arg Val Leu Ser Gly Gln
         420
```

<210> 7656 <211> 322 <212> PRT

<213> Enterobacter cloacae

<400> 7656 Phe Arg His Gly Leu Ala Val Phe Trp Pro Leu Asn Gln Thr Glu Glu 10 Cys Ile Met Tyr Tyr Gly Phe Asp Ile Gly Gly Thr Lys Ile Ala Leu 25 20 Gly Val Phe Asp Lys Asp Leu Lys Leu Gln Trp Glu Thr Arg Val Pro 35 4.0 Thr Pro Arg Glu Ser Tyr Asp Glu Phe Leu Thr Ala Ile Ala Ala Leu 55 Val Ala Gln Ala Asp Glu Arg Phe Gly Val Lys Gly Ser Val Gly Ile 70 75 65 Gly Ile Pro Gly Met Pro Glu Thr Asp Asp Gly Thr Leu Tyr Ala Ala 90 85 Asn Val Pro Ala Ala Ser Gly Lys Pro Leu Arg Ala Asp Leu Ser Ala 105 110 100 Leu Leu Glu Arg Asp Val Arg Leu Asp Asn Asp Ala Asn Cys Phe Ala 125 115 120 Leu Ser Glu Ala Trp Asp Asp Glu Phe Arg Arg Phe Pro Leu Val Met 130 135

```
Gly Leu Ile Leu Gly Thr Gly Val Gly Gly Gly Ile Val Ile Asn Gly
          150
                              155
Lys Pro Ile Thr Gly Arg Ser Tyr Ile Thr Gly Glu Phe Gly His Ile
                           170
            165
Arg Leu Pro Val Asp Ala Leu Glu Val Val Gly Arg Asp Phe Pro Leu
             185
                           190
        180
Thr Arg Cys Gly Cys Gly Gln His Gly Cys Ile Glu Asn Tyr Leu Ser
          200
                                    205
     195
Gly Arg Gly Phe Ala Trp Leu Tyr Glu His Phe Tyr His Gln Lys Leu
                                 220
Glu Ala Pro Gln Ile Ile Thr Leu Trp Glu Gln Gly Asp Ala Gln Ala
225 230 235
Arg Glu His Val Glu Arg Tyr Leu Asp Leu Leu Ala Val Cys Leu Gly
     245 250
                                          255
Asn Ile Leu Thr Ile Val Asp Pro Asp Leu Leu Val Ile Gly Gly
     260 265
                                       270
Leu Ser Asn Phe Thr Ala Ile Thr Glu Gln Leu Ser Gly Arg Leu Thr
     275 280 285
Arg His Leu Leu Pro Val Ala Arg Val Pro Arg Ile Glu Arg Ala Arg
290 295 300
His Gly Asp Ala Gly Gly Met Arg Gly Ala Ala Phe Leu His Leu Thr
              310
                     315
Asp
```

<210> 7657 <211> 217 <212> PRT <213> Enterobacter cloacae

<400> 7657

Thr Leu Ile Lys Thr Met Ser Arg Tyr Ala Leu Leu Ser Ala Phe Ala 15 10 Leu Phe Leu Ala Gly Cys Val Thr Arg Thr Glu Glu Pro Ala Pro Val 20 25 30 Asp Gln Ala Lys Pro Gly Thr Glu Gln Pro Thr Thr Pro Ala Gln Pro 40 45 Val Pro Thr Val Pro Ser Val Pro Thr Ile Pro Ala Gln Pro Gly Pro 55 60 Ile Glu His Pro Asp Asp Thr Ala Gln Pro Ala Pro Arg Val Arg His 70 75 Tyr Asp Trp Asn Gly Ala Met Gln Pro Met Val Gly Lys Met Leu Gln 90 95 85 Ala Gln Gly Val Thr Pro Gly Ser Val Leu Leu Val Asp Ser Val Asn 100 105 Asn Arg Thr Asn Gly Ser Leu Asn Ala Gly Glu Ala Thr Glu Thr Leu 120 125 115 Arg Asn Ala Leu Ala Asn Asn Gly Lys Phe Thr Leu Val Ser Ala Gln 135 140 Gln Leu Ala Val Ala Lys Gln Gln Leu Gly Leu Ser Pro Gln Asp Ser 150 155 160 145 Leu Gly Ser Arg Ser Lys Ala Ile Gly Ile Ala Arg Asn Val Gly Ala 165 170 175 Gln Tyr Val Leu Tyr Ser Asn Ala Thr Gly Asn Val Asn Thr Pro Ser 185 190 180 Leu Gln Met Gln Leu Met Leu Val Gln Thr Gly Glu Ile Ile Trp Ser 195 200 Gly Lys Gly Ala Val Thr Gln Gln 210 215

```
<211> 356
<212> PRT
<213> Enterobacter cloacae
<400> 7658
Cys Leu Ala Ser Val Thr Asn Glu Arg Ile Arg Glu Val Gly Val Gly
Pro Val Met Leu Asp Val Glu Gly Phe Glu Leu Asp Ala Glu Glu Arg
        20
                          2.5
                                          30
Glu Ile Leu Ala His Pro Leu Val Gly Gly Leu Ile Leu Phe Thr Arg
                      40
Asn Tyr His Asp Pro Glu Gln Leu Arg Glu Leu Val Arg Gln Ile Arg
           55
                                   60
Ala Ala Ser Arg Asn His Leu Val Val Ala Val Asp Gln Glu Gly Gly
                               75
             70
Arg Val Gln Arg Phe Arg Glu Gly Phe Thr Arg Leu Pro Ala Ala Gln
                  90
            8.5
Ser Phe Ala Ala Leu Leu Gly Ile Glu Glu Gly Gly Gln Leu Ala Gln
                         105
                               110
         100
Asp Ala Gly Trp Leu Met Ala Ser Glu Met Ile Ala Met Asp Ile Asp
                           125
   115 120
Ile Ser Phe Ala Pro Val Leu Asp Val Gly His Ile Ser Ala Ala Ile
 130 135 140
Gly Glu Arg Ser Tyr His Asp Asp Pro Arg Ile Ala Leu Ala Met Ala
             150 155 160
145
Thr Arg Phe Ile Asp Gly Met His Ala Ala Gly Met Lys Thr Thr Gly
                 170 175
             165
Lys His Phe Pro Gly His Gly Ala Val Thr Ala Asp Ser His Lys Glu
         180
                       185 190
Thr Pro Arg Asp Pro Arg Pro Glu Ala Asp Ile Arg Ala Lys Asp Met
 195
                      200 205
Ser Val Phe Arg Ser Leu Ile Ala Asp Asn Lys Leu Asp Ala Ile Met
                  215
Pro Ala His Val Ile Tyr Ser Glu Val Asp Pro Arg Pro Ala Ser Gly
                230 235
Ser Pro His Trp Leu Lys Thr Val Leu Arg Gln Glu Leu Gly Phe Asn
             245 250 255
Gly Val Ile Phe Ser Asp Asp Leu Ser Met Glu Gly Ala Ala Ile Met
              265 270
          260
Gly Ser Tyr Ala Glu Arg Gly Gln Ala Ser Leu Asp Ala Gly Cys Asp
          280
       275
Met Ile Leu Val Cys Asn Asn Arg Lys Gly Ala Val Ser Val Leu Asp
                   295
   290
Asn Leu Ser Pro Ile Asn Ala Glu Arg Val Thr Gln Leu Tyr His Lys
                                315
305
Gly Ser Phe Ser Arg Gln Glu Leu Met Asp Ser Ala Arg Trp Lys Thr
             325
                             330
Val Asn Ala Arg Leu Glu Ala Leu Asn Glu Arg Trp Gln Ala His Lys
                          345
Ala Ala Leu
       355
<210> 7659
<211> 440
<212> PRT
<213> Enterobacter cloacae
<400> 7659
Phe Glu Gly Val Thr Leu Thr Thr Pro Leu Lys Lys Ile Val Ile Val
                             1.0
```

Gly Gly Gly Ala Gly Gly Leu Glu Leu Ala Thr Gln Leu Gly Lys Lys

```
Leu Gly Arg Gly Lys Lys Ala Lys Ile Thr Leu Val Asp Arg Asn His
Ser His Leu Trp Lys Pro Leu Leu His Glu Val Ala Thr Gly Ser Leu
                 55
Asp Glu Gly Val Asp Ala Leu Ser Tyr Leu Ala His Ala Arg Asn His
              70
His Phe Gln Phe Gln Leu Gly Ser Val Val Asp Ile Asn Arg Glu Asn
         8.5
                          90
Lys Thr Ile Thr Leu Ala Glu Leu Arg Asp Asp Lys Gly Glu Leu Leu
       100 105
Val Pro Glu Arg Lys Leu Ala Tyr Asp Thr Leu Val Met Ala Leu Gly
 115 120
                                  125
Ser Thr Ser Asn Asp Phe Asn Thr Pro Gly Val Lys Glu His Cys Ile
130 135 140
Phe Leu Asp Asn Pro His Gln Ala Arg Arg Phe His Gln Glu Met Leu
145 150 155
Asn Leu Phe Leu Lys Tyr Thr Asn Asn Met Gly Ala Asn Gly Lys Val
      165 170 175
Asn Ile Ala Ile Val Gly Gly Gly Ala Thr Gly Val Glu Leu Ser Ala
   180 185
                           190
Glu Leu His Asn Ala Val Lys Gln Leu His Ser Tyr Gly Tyr Lys Gly
195 200 205
Leu Thr Asn Glu Ala Leu Asn Val Thr Leu Val Glu Ala Gly Glu Arg
210 215 220
Ile Leu Pro Ala Leu Pro Pro Arg Ile Ser Gly Ala Ala His Asn Glu
            230 235 240
Leu Thr Lys Leu Gly Val Arg Val Leu Thr Gln Thr Met Val Thr Ser
           245 250 255
Ala Asp Glu Gly Gly Leu His Thr Lys Asp Gly Glu Tyr Ile Gln Ala
      260 265 270
Asp Leu Met Val Trp Ala Ala Gly Ile Lys Ala Pro Asp Phe Met Lys
 275 280
                        285
Asp Ile Gly Gly Leu Glu Thr Asn Arg Ile Asn Gln Leu Val Thr Glu
      295 300
Pro Thr Leu Gln Thr Thr Arg Asp Pro Asp Ile Phe Ala Ile Gly Asp
305 310 315 320
Cys Ala Ser Cys Ala Arg Pro Glu Gly Gly Phe Val Pro Pro Arg Ala
           325 330
Gln Ala Ala His Gln Met Ala Ser Leu Val Leu His Asn Ile Leu Ala
        340 345 350
Gln Ile Lys Gly Lys Pro Met Lys Ala Tyr Val Tyr Lys Asp His Gly
     355 360 365
Ser Leu Val Ser Leu Ser Asn Phe Ser Thr Val Gly Ser Leu Met Gly
      375 380
 370
Asn Leu Met Arg Gly Ser Met Met Val Glu Gly Arg Ile Ala Arg Phe
            390 395
Val Tyr Ile Ser Leu Tyr Arg Met His Gln Ile Ala Leu His Gly Tyr
           405 410 415
Phe Lys Thr Gly Leu Met Met Leu Val Gly Arg Ile Asn Arg Val Ile
        420
                       425
Arg Pro Arg Leu Lys Leu His
     435
```

<210> 7660 <211> 648 <212> PRT

<213> Enterobacter cloacae

(220>

<221>UNSUR

<222>(355)

<400> 7660 Arg Ile Arg Leu Tyr Thr Arg Gly Ser Ala Ile Ser Lys Gln Thr Asp Phe Met Tyr Gln Pro Val Ala Leu Phe Ile Gly Leu Arg Tyr Met Arg 20 2.5 Gly Arg Ala Ala Asp Arg Phe Gly Arg Phe Val Ser Trp Leu Ser Thr 40 45 Ile Gly Ile Thr Leu Gly Val Met Ala Leu Val Thr Val Leu Ser Val 50 55 Met Asn Gly Phe Glu Arg Glu Leu Gln Asn Asn Ile Leu Gly Leu Met 70 7.5 Pro Gln Ala Val Leu Ser Ser Thr Gln Gly Ser Val Asn Pro Gln Gln 90 85 Leu Pro Glu Ser Ala Val Lys Leu Gln Gly Val Thr Arg Val Ala Pro 100 105 110 Leu Thr Thr Gly Asp Val Val Leu Gln Ser Ala Arg Ser Val Ala Val 115 120 125 Gly Val Met Leu Gly Ile Asp Pro Ala Gln Lys Asp Pro Leu Thr Pro 135 140 Phe Leu Val Asn Val Lys Gln Thr Asp Leu Glu Ala Gly Lys Tyr Asn 150 155 160 Val Ile Leu Gly Glu Gln Leu Ala Gly Gln Leu Gly Val Asn Arg Gly 165 170 175 Asp Gln Leu Arg Val Met Val Pro Ser Ala Ser Gln Phe Thr Pro Met 180 185 190 Gly Arg Leu Pro Ser Gln Arg Leu Phe Asn Val Ile Gly Thr Phe Ala 195 200 205 Ala Asn Ser Glu Val Asp Gly Tyr Gln Met Leu Val Asn Ile Gln Asp 210 215 220 Ala Ser Arg Leu Met Arg Tyr Pro Ala Gly Asn Ile Thr Gly Trp Arg 225 230 235 Leu Trp Leu Asp Ala Pro Leu Lys Val Asp Thr Leu Ser Gln Gln Thr 245 250 255 Leu Pro Glu Gly Thr Lys Trp Gln Asp Trp Arg Asp Arg Lys Gly Glu 265 270 260 Leu Phe Gln Ala Val Arg Met Glu Lys Asn Met Met Gly Leu Leu 280 285 Ser Leu Ile Val Ala Val Ala Ala Phe Asn Ile Ile Thr Ser Leu Gly 295 300 Leu Met Val Met Glu Lys Gln Gly Glu Val Ala Ile Leu Gln Thr Gln 310 315 320 Gly Leu Thr Pro Arg Gln Ile Met Ala Val Phe Met Val His Gly Ala 330 335 325 Ser Ala Gly Ile Ile Gly Ala Leu Leu Gly Ala Ala Leu Gly Ala Leu 345 350 340 Leu Ala Xaa Gln Leu Asn Asn Leu Met Pro Ile Ile Arg Ala Leu Leu 360 365 355 Asp Gly Ala Ala Leu Pro Val Ala Ile Glu Pro Leu Lys Trp Ser Val 370 375 Leu Arg Trp Pro Arg Trp Pro Met Arg Cys Leu Leu Arg Phe Ile Leu 390 395 400 385 Pro Gly Gly Leu Pro Pro Leu Asn Pro Leu Arg Leu Tyr Val Met Asn 405 410 415 Lys Ile Leu Leu Gln Cys Asp Asn Leu Ser Lys Arg Tyr Gln Glu Gly 425 420 Thr Val Gln Thr Asp Val Leu His Asn Val Ser Phe Ser Val Gly Glu 440 445 Gly Glu Met Met Ala Ile Val Gly Ser Ser Gly Ser Gly Lys Ser Thr 450 455

```
Leu Leu His Leu Leu Gly Gly Leu Asp Thr Pro Thr Glu Gly Asp Val
        470
                              475
 Ile Phe Ser Gly Gln Pro Leu Ser Lys Met Ser Ser Thr Ala Lys Ala
                                           495
                             490
           485
 Glu Leu Arg Asn Arg Glu Leu Gly Phe Ile Tyr Gln Phe His His Leu
                              510
                          505
          500
 Leu Pro Asp Phe Thr Ala Leu Glu Asn Val Ala Met Pro Leu Leu Ile
                           525
       515 520
 Gly Lys Lys Lys Pro Ala Glu Ile Asn Ala Arg Ala Ser Asp Met Leu
                                    540
   530
        535
 Lys Ala Val Gly Leu Gly His Arg Gly Asn His Arg Pro Ser Glu Leu
 545 550 555 560
 Ser Gly Gly Glu Arg Gln Arg Val Ala Ile Ala Arg Ala Leu Val Asn
          565
                             570
                                           575
 Asn Pro Arg Leu Val Leu Ala Asp Glu Pro Thr Gly Asn Leu Asp Ala
          580 585
 Arg Asn Ala Asp Ser Ile Phe Gln Leu Leu Gly Glu Leu Asn Ala Ala
  595 600
                           605
 Gln Gly Thr Ala Phe Leu Val Val Thr His Asp Leu Gln Leu Ala Lys
  610 615 620
 Arg Met Gly Arg Gln Leu Glu Met Arg Asp Gly Arg Leu Asn Ala Glu
 625 630 635
 Leu Thr Leu Met Gly Ala Glu
          645
 <210> 7661
 <211> 124
 <212> PRT
 <213> Enterobacter cloacae
 <400> 7661
 Lys Glu Lys Val Met Ala Glu Glu Thr Ile Phe Ser Lys Ile Ile Arg
 1 5
                           10
 Arg Glu Ile Pro Ser Asp Ile Val Tyr Gln Asp Glu Leu Val Thr Ala
         20
                          25
                                       30
 Phe Arg Asp Ile Ser Pro Gln Ala Pro Thr His Ile Leu Ile Ile Pro
                    40
                                 4.5
 Asn Ile Leu Ile Pro Thr Val Asn Asp Val Lys Thr Glu His Glu Val
                   55
                                 60
 Ala Leu Gly Arg Met Leu Thr Val Ala Ala Lys Ile Ala Glu Gln Glu
                 70 75 80
 Gly Ile Ala Glu Asp Gly Tyr Arg Leu Ile Met Asn Cys Asn Arg His
                          90 95
 Gly Gly Gln Glu Val Tyr His Ile His Met His Leu Leu Gly Gly Arg
         100 105
 Pro Leu Gly Pro Met Leu Ala His Lys Gly Leu
                       120
       115
 <210> 7662
 <211> 288
 <212> PRT
 <213> Enterobacter cloacae
<400> 7662
 Cys Trp Phe Arg Pro Ala Lys Leu Ser Gly Gln Val Lys Val Pro Leu
                             10
 Arg Asn Asn Lys Arg Thr Arg His Asp Val Leu Thr Arg Tyr Phe Pro
     20
                          25
 Gln Tyr His Val Ile Ala Pro Gln Ala Pro Ala Gly Leu Gly Gly Ala
                       4.0
```

Ser Cys Ile Ile Glu His Gly Asp His Arg Leu Val Leu Arg Gln His

His Asp Ala Ala Ala Pro Ala Ser His Phe Arg Arg Gln Phe Arg Ala 70 7.5 Leu Lys Arg Leu Pro Ala Asp Leu Ala Pro Gln Pro His Leu Phe Ile 90 Arg Asp Trp Met Ala Val Ala Phe Ile Ala Gly Glu Ile Lys Ser Glu 110 100 105 Leu Pro Asp Thr Pro Ala Leu Thr Ala Met Leu Tyr His Leu His Arg 115 120 Gln Pro Arg Leu Gly Trp Arg Val Thr Leu Leu Pro Leu Leu Asp His 135 140 Tyr Trp Gln Gln Ala Ala Pro Gly Arg Arg Thr Pro Tyr Trp Leu Ala 145 150 155 Gln Leu Lys Arg Leu Arg Lys Ala Gly Glu Pro Gln Ala Leu Arg Leu 165 175 Ala Pro Leu His Met Asp Val His Ala Gly Asn Ile Val His Thr Thr 180 185 190 Ala Gly Glu Lys Leu Ile Asp Trp Glu Tyr Ala Gly Asp Gly Asp Val 205 195 200 Ala Leu Glu Leu Ala Ala Val Trp Met Pro Asp Glu Ala Ser Arg Lys 210 215 220 Gln Leu Ile Thr Ala Tyr Ala Arg Asn Ala Asn Ile Asn Ala Leu Thr 225 230 235 Leu Ala Arg Gln Val Ala Arg Trp Arg Pro Trp Val Leu Met Leu Met 245 250 255 Ala Gly Trp Phe Glu Met Arg Leu Gln Gln Thr Gly Asp Lys Gln Phe 260 265 270 Ile Ala Leu Ala Asn Asp Ala Trp Arg Gln Leu Gln Thr Lys Gly

<210> 7663 <211> 185 <212> PRT

<213> Enterobacter cloacae

<400> 7663 Arg Gly Glu Thr Met Ile Ile Tyr Leu His Gly Phe Asp Ser Asn Ser 10 Pro Gly Asn His Glu Lys Val Leu Gln Leu Gln Phe Ile Asp Pro Asp 25 30 Val Arg Leu Ile Ser Tyr Ser Thr Arg His Pro Lys His Asp Met Gln 45 40 His Leu Leu Lys Glu Val Asp Lys Met Leu Gln Leu Asn Ile Asp Asp 55 Arg Pro Leu Ile Cys Gly Val Gly Leu Gly Gly Tyr Trp Ala Glu Arg 7.0 7.5 Ile Gly Phe Leu Cys Asp Ile Arg Gln Val Ile Phe Asn Pro Asn Leu 85 90 Phe Pro Asn Glu Asn Met Glu Gly Lys Ile Asp Arg Pro Glu Glu Tyr 100 105 Ala Asp Ile Ala Thr Lys Cys Val Ser Asn Phe Arg Glu Lys Asn Arg 115 120 125 Asp Arg Cys Leu Val Ile Leu Ser Arg Asn Asp Glu Ala Leu Asn Ser 135 140 130 Ser Arg Ala Ala Glu Leu Leu His His Tyr Tyr Glu Ile Val Trp Asp 150 155 Glu Glu Gln Thr His Lys Phe Lys Asn Ile Ser Pro His Leu Gln Arg 165 Ile Lys Ala Phe Lys Thr Leu Gly 180

```
<210> 7664
<211> 204
<212> PRT
<213> Enterobacter cloacae
<400> 7664
Ser Phe Ile Leu Leu Ala Lys Arg Leu Leu Arg Cys Lys Ile Ala Thr
Asn Cys Asn Lys Gly Gly Ser Pro Val Asn Lys Ser Met Leu Ala Gly
       2.0
                            25
Ile Gly Ile Gly Val Ala Ala Ala Leu Gly Val Ala Ala Val Ala Ser
                        40
                                           4.5
Leu Asn Val Leu Asp Arg Gly Pro Gln Tyr Ala Gln Val Val Ser Ala
                    55
                                       60
Thr Pro Ile Lys Glu Thr Val Lys Thr Pro Arg Gln Glu Cys Arg Asn
                                   75
              70
Val Ser Val Thr His Arg Arg Pro Val Gln Asp Glu Asn Arg Ile Ala
             8.5
                                90
Gly Ser Val Leu Gly Ala Val Ala Gly Gly Val Ile Gly His Gln Phe
          100 105
                                              110
Gly Gly Gly Arg Gly Lys Asp Val Ala Thr Val Val Gly Ala Leu Gly
                   120 125
     115
Gly Gly Tyr Ala Gly Asn Gln Val Gln Gly Ala Met Gln Glu Asn Asp
   130
                     135 140
```

Thr Tyr Thr Thr Thr Gln Gln Arg Cys Lys Thr Val Tyr Asp Lys Ser 150 155 Glu Lys Met Leu Gly Tyr Asp Val Thr Tyr Lys Ile Gly Asp Gln Gln 165 170 175 Gly Lys Ile Arg Met Asp Lys Asp Pro Gly Thr Gln Ile Pro Leu Asp 180 185

Ser Asn Gly Gln Leu Ile Leu Asn Asn Lys Val

195

<210> 7665 <211> 300 <212> PRT

<213> Enterobacter cloacae

165

<400> 7665 Ala Cys Ala Thr Arg Gly Arg Arg Arg His Ala Arg Ser Arg Ile Pro 10 Ser Ser His Arg Leu Val Tyr Glu Val Ile Met Leu Ser Arg Arg Gln 20 25 Gly Arg Leu Ser Arg Phe Arg Lys Asn Lys Arg Arg Leu Arg Glu Arg 35 Leu Arg Gln Arg Ile Phe Phe Arg Asp Arg Met Met Pro Glu Ala Met Asp Lys Pro Arg Val Val Val Leu Thr Gly Ala Gly Ile Ser Ala Glu 7.0 65 Ser Gly Ile Gln Thr Phe Arg Ala Ala Asp Gly Leu Trp Glu Glu His 90 8.5 Arg Val Glu Asp Val Ala Thr Pro Glu Gly Phe Ala Arg Asp Pro Ala 110 105 100 Leu Val Gln Ala Phe Tyr Asn Ala Arg Arg Arg Gln Leu Gln Gln Pro 120 125 115 Glu Ile Ala Pro Asn Ala Ala His Leu Ala Leu Ala Lys Leu Glu Glu 135 140 Ala Leu Gly Asp Arg Phe Leu Leu Val Thr Gln Asn Ile Asp Asn Leu 155 His Glu Arg Ala Gly Asn His Asn Ile Ile His Met His Gly Glu Leu 170

```
Leu Lys Val Arg Cys Ala Trp Ser Gly Gln Val Leu Glu Trp Lys Glu
                             185
          180
Asp Val Leu Asp Glu Asp Arg Cys His Cys Cys Gln Phe Pro Ser Arg
    195
Leu Arg Pro His Val Val Trp Phe Gly Glu Met Pro Leu Gly Met Asp
                      215
 210
Glu Ile Tyr Ser Ala Leu Ala Met Ala Asp Val Phe Ile Ala Ile Gly
                230
Thr Ser Gly His Val Tyr Pro Ala Ala Gly Phe Val His Glu Ala Arg
                                250
              245
Leu Gln Gly Ala His Thr Val Glu Leu Asn Leu Glu Pro Ser Gln Val
          260
                            265
Gly Ser Glu Phe Glu Glu Lys His Tyr Gly Leu Ala Ser Glu Val Val
    275 280
Pro Ala Phe Val Asp Lys Phe Leu Lys Gly Leu
                    295
```

<210> 7666 <211> 93

<212> PRT

<213> Enterobacter cloacae

<400> 7666

Arg Asn Ile Cys Val Leu Leu Leu Asn Asp Asn Val Val Thr Lys Ser 10 Glu Gly Asp Cys Met Asp Lys Leu Leu Glu Arg Phe Leu His Tyr Val 25 3.0 20 Ser Leu Asp Thr Gln Ser Lys Pro Gly Val Arg Gln Val Pro Ser Thr 40 Glu Gly Gln Trp Lys Leu Leu Asn Leu Leu Lys Glu Gln Leu Glu Ala 5.5 60 Met Gly Leu Val Asp Val Thr Leu Ser Glu Lys Ala Thr Gly Leu His 70 75

Ala Arg Thr Gly Arg Ile Arg Ala Tyr Val Cys Ala Pro

<210> 7667 <211> 353

<212> PRT

<213> Enterobacter cloacae

<400> 7667

Asn Lys Ile Ser Gly Asp Thr Glu Met Lys Lys Met Leu Ala Ala Ala 10 Ala Leu Val Leu Gly Met Gly Ala Ala His Ala Asp Asp Ser Lys Thr 20 25 3.0 Leu Tyr Phe Tyr Asn Trp Thr Glu Tyr Val Pro Pro Gly Leu Leu Glu 35 40 4.5 Gln Phe Thr Lys Glu Thr Gly Ile Lys Val Ile Tyr Ser Thr Tyr Glu 55 Ser Asn Glu Thr Met Tyr Ala Lys Leu Lys Thr Tyr Lys Asp Gly Ala 70 75 Tyr Asp Leu Val Val Pro Ser Thr Tyr Phe Val Asp Lys Met Arg Lys 90 85 Glu Gly Met Ile Gln Lys Ile Asp Lys Thr Lys Leu Thr Asn Phe Ser 100 105 Asn Leu Asp Pro Glu Met Leu Asn Lys Pro Phe Asp Pro Asn Asn Asp 115 120 Tyr Ser Ile Pro Tyr Ile Trp Gly Ala Thr Ala Ile Gly Ile Asn Ser

135 Asp Ala Ile Asp Pro Lys Thr Val Ser Ser Trp Ala Asp Leu Trp Lys

155 150 Pro Glu Tyr Lys Ser Ser Leu Leu Leu Thr Asp Asp Ala Arg Glu Val 170 165 Phe Gln Val Ala Leu Arg Lys Leu Gly Tyr Ser Gly Asn Thr Thr Asp 185 190 180 Pro Lys Glu Ile Glu Ala Ala Tyr Asn Glu Leu Lys Lys Leu Met Pro 200 205 195 Asn Val Ala Ala Phe Asn Ser Asp Asn Pro Ala Asn Pro Tyr Met Glu 210 215 220 Gly Glu Val Asn Leu Gly Met Val Trp Asn Gly Ser Ala Phe Val Ala 225 230 235 Arg Gln Ala Gly Thr Pro Leu Glu Val Val Trp Pro Lys Glu Gly Gly 245 250 Ile Phe Trp Met Asp Ser Leu Ala Ile Pro Ala Asn Ala Lys Asn Val 260 265 270 Glu Gly Ala Leu Lys Leu Ile Asn Phe Leu Leu Arg Pro Asp Val Ala 275 280 285 Lys Glu Val Ala Glu Thr Ile Gly Tyr Pro Thr Pro Asn Leu Ala Ala 290 295 300 Arg Lys Leu Leu Ser Pro Glu Val Ala Asn Asp Lys Ser Leu Tyr Pro 305 310 315 Asp Ala Glu Thr Ile Ser Lys Gly Glu Trp Gln Asn Asp Val Gly Asp 325 330 335 Ala Ser Arg Leu Tyr Glu Glu Tyr Tyr Gln Lys Leu Lys Ala Gly Arg 345

<210> 7668 <211> 385 <212> PRT

<213> Enterobacter cloacae

<400> 7668 Tyr Arg Leu Leu Pro Ile Thr Ser Gly Leu His Phe Thr Thr Ile Gly 1.0 Val Ser Phe Met Ala Thr Arg Ser Ser Arg Thr Met Lys Gln Lys Ala 20 25 Leu Trp Ile Asn Gln Ile Lys Gly Leu Cys Ile Cys Leu Val Val Ile 4.0 4.5 Tyr His Ser Val Ile Thr Phe Tyr Pro His Leu Asp Gly Leu Gln His 5.5 60 Pro Leu Ser Gly Leu Leu Ala Lys Cys Trp Val Tyr Phe Asn Leu Tyr 70 75 Leu Ala Pro Phe Arg Met Pro Val Phe Phe Phe Ile Ser Gly Tyr Leu 90 8.5 Ile Arg Arg Tyr Ile Asp Glu Val Asn Trp Arg Thr Ser Leu Asp Lys 100 105 110 Arg Ile Trp Ser Ile Val Trp Val Leu Ala Leu Trp Gly Val Leu Gln
115 120 125 Trp Gln Ala Leu Thr His Leu Asn Ala Trp Leu Ala Pro Glu Arg Glu 130 135 140 Leu Ala Thr Ala Ser Asn Ala Ala Tyr Ala Asp Ser Val Ser Gly Phe 150 155 Val Leu Gly Met Leu Thr Ala Ser Thr Ser Leu Trp Tyr Leu Tyr Ala 165 170 175 Leu Val Val Tyr Phe Thr Leu Cys Lys Leu Leu Ser Arg Trp Lys Leu 180 185 190 180 Pro Met Leu Gly Ile Leu Ala Leu Ala Ser Ile Ala Ile Asn Phe Leu 200 195 205 Pro Leu Pro Trp Trp Gly Met Asn Ser Val Val Arg Asn Met Ile Tyr

215 Tyr Ser Leu Gly Ala Trp Tyr Gly Ala Gin Leu Met Ala Trp Met Lys 230 235 Gly Met Asn Leu Arg Arg Ser Trp Leu Val Leu Leu Ala Ser Gly Ala 245 250 255 Val Ser Val Val Leu Trp Phe Ala Asn Val Pro Leu Pro Leu Ser Leu 260 265 Leu Ser Ile Val Val Ile Met Lys Leu Phe Tyr Ser Phe Glu Gln Arg 275 280 285 Tyr Ala Val His Pro Asn Asn Leu Leu Asn Val Ile Gly Ser Asn Thr 295 300 Ile Ala Ile Tyr Thr Thr His Arg Ile Leu Ile Glu Ala Phe Ser Leu 310 315 Leu Leu Ile Arg Glu Met Asn Ala Ala Tyr Trp Pro Ile Trp Ala Glu 325 330 Leu Thr Leu Ile Leu Val Tyr Pro Phe Ile Ser Leu Leu Val Cys Thr 340 345 350 Leu Val Gly Leu Gly Ala Arg Lys Leu Ser Thr Ala Leu Phe Gly Asp 355 360 365 Leu Phe Phe Ser Pro Pro Ala Arg Leu Ser Pro Gln Thr Ala Thr Arg 375

385

<210> 7669 <211> 404

<212> PRT

<213> Enterobacter cloacae

<400> 7669

Asn Val Arg Pro His Tyr Glu Ser Pro Arg Trp Leu His Thr Asn Pro 10 Ala Ser Val Cys Cys Leu Arg Arg Leu Tyr Gly Thr Ala Arg Lys Leu 25 3.0 20 Asn Thr Gln Pro Arg Ser Leu Ser Pro Leu Val Gln Leu Glu Arg Ile 40 4.5 3.5 Arg Lys Ser Phe Asp Gly Lys Asp Val Ile Ser Asp Leu Asn Leu Thr 55 50 60 Ile Asn Asp Gly Glu Phe Leu Thr Leu Leu Gly Pro Ser Gly Cys Gly 70 7.5 Lys Thr Thr Val Leu Arg Leu Ile Ala Gly Leu Glu Ser Val Asp Asn 8.5 90 Gly His Ile His Leu Glu Asn Gln Asp Ile Thr Gln Val Pro Ala Glu 100 105 Asp Arg His Val Asn Thr Val Phe Gln Ser Tyr Ala Leu Phe Pro His 115 120 125 Met Thr Val Phe Glu Asn Val Ala Phe Gly Leu Arg Met Gln Lys Thr 135 140 1.30 Pro Ala Ser Glu Ile Pro Pro Arg Val Thr Glu Ala Leu Arg Met Val 150 155 145 Gln Leu Glu Ala Phe Ala Gln Arg Lys Pro His Gln Leu Ser Gly Gly 165 170 175 Gln Gln Gln Arg Val Ala Ile Ala Arg Ala Val Val Asn Lys Pro Arg 185 190 180 Leu Leu Leu Asp Glu Ser Leu Ser Ala Leu Asp Tyr Lys Leu Arg 195 200 205 Lys Gln Met Gln Asn Glu Leu Lys Ala Leu Gln Arg Lys Leu Gly Ile 215 220 Thr Phe Val Phe Val Thr His Asp Gln Glu Glu Ala Leu Thr Met Ser 230 235 Asp Arg Ile Val Val Met Arg Asp Gly Lys Ile Glu Gln Asp Gly Thr

250 245 Pro Arg Glu Ile Tyr Glu Glu Pro Lys Asn Leu Phe Val Ala Ser Phe 265 260 Ile Gly Glu Ile Asn Ile Phe Asn Ala Thr Val Ile Glu Arg Leu Asp 285 275 280 Glu Gln Arg Val Arg Ala Asn Val Glu Gly Arg Glu Cys Asn Ile Thr 295 300 Val Asn Phe Ala Val Glu Lys Gly Gln Arg Leu Asn Val Leu Leu Arg 305 310 315 Pro Glu Asp Leu Arg Val Asp Glu Ile His Asp Thr Ala Asp Val Glu 325 330 335 Gly Leu Ile Gly Tyr Val Arg Glu Arg Asn Tyr Lys Gly Met Thr Leu 340 345 350 Glu Ser Val Val Glu Leu Glu Asn Gly Lys Met Val Met Val Ser Glu 355 360 365 Phe Phe Asn Glu Asp Asp Pro Asp Phe Asp His Ser Leu Asp Gln Lys 370 375 380 Met Val Ile Asn Trp Val Glu Ser Trp Glu Val Val Leu Ala Asp Glu 390 395 Glu His Lys

GIU HIS LYS

<210> 7670 <211> 269

<212> PRT <213> Enterobacter cloacae

<400> 7670 Glu Gly Gly Ala Gly Met Ile Gly Arg Leu Leu Pro Ala Gly Phe Met 10 Thr Ala Ile Tyr Ala Tyr Leu Tyr Ile Pro Ile Ile Ile Leu Ile Val 20 2.5 Asn Ser Phe Asn Ser Ser Arg Phe Gly Ile Asn Trp Gln Gly Phe Thr 4.0 4.5 Thr Lys Trp Tyr Gly Leu Leu Met Asn Asn Asp Ser Leu Leu Gln Ala 55 60 Ala Gln His Ser Leu Thr Met Ala Val Phe Ser Ala Thr Phe Ala Thr 75 70 Leu Ile Gly Ser Leu Thr Ala Val Ala Leu Tyr Arg Tyr Arg Phe Arg 85 90 Gly Lys Pro Phe Val Ser Gly Met Leu Phe Val Val Met Met Ser Pro 100 105 110 Asp Ile Val Met Ala Ile Ser Leu Leu Val Leu Phe Met Leu Leu Gly 120 125 115 Val Gln Leu Gly Phe Trp Ser Leu Leu Phe Ser His Ile Thr Phe Cys 135 140 130 Leu Pro Phe Val Val Val Thr Val Tyr Ala Arg Leu Lys Gly Phe Asp 145 150 155 Val Arg Met Leu Glu Ala Ala Lys Asp Leu Gly Ala Ser Glu Met Thr 165 170 175 Ile Leu Arg Lys Ile Ile Leu Pro Leu Ala Met Pro Ala Val Ala Ala 180 185 190 Gly Trp Leu Leu Ser Phe Thr Leu Ser Met Asp Asp Val Val Val Ser 200 205 195 Ser Phe Val Thr Gly Pro Ser Tyr Glu Ile Leu Pro Leu Lys Ile Tyr 210 215 220 Ser Met Val Lys Val Gly Val Ser Pro Glu Val Asn Ala Leu Ala Thr 230 235 Ile Leu Leu Val Leu Ser Leu Val Leu Val Ile Ala Ser Gln Val Ile 245 250 Ala Arg Asp Lys Thr Lys Ser Gln Gly Thr Gln Lys

265

<210> 7671 <211> 1171 <212> PRT <213> Enterobacter cloacae <400> 7671 Arg His Cys Val Ser Val Ile Cys Pro Asn Thr Val Gly Ile Ser Pro 10 Arg Asp Ser Asp Ile Ala Met Pro Glu His Tyr Arg Phe Ser Leu Pro 25 20 Val Lys Ala Gly Asp Gln Arg Gln Leu Gly Glu Leu Thr Gly Ala Ala 35 40 4.5 Cys Ala Thr Leu Val Ala Glu Ile Ala Glu Arg His Pro Gly Pro Val 55 6.0 Val Leu Val Ala Pro Asp Met Gln Asn Ala Leu Arg Leu His Asp Glu 75 80 65 70 Ile Arg Gln Phe Thr Asp Ser Leu Val Phe Ser Leu Ala Asp Trp Glu 85 90 95 Thr Leu Pro Tyr Asp Ser Phe Ser Pro His Gln Glu Ile Ile Ser Ser 100 105 110 Arg Leu Ser Thr Leu Tyr Gln Leu Pro Thr Met Gln Arg Gly Val Leu 115 120 125 Ile Val Pro Val Asn Thr Leu Met Gln Arg Val Cys Pro His Ser Tyr 130 135 140 Leu His Gly His Ala Leu Val Met Lys Lys Gly Gln Arg Leu Ser Arg 145 \$150\$Asp Ala Leu Arg Val Gln Leu Asp Gly Ala Gly Tyr Arg His Val Asp 165 170 175 Gln Val Met Glu His Gly Glu Tyr Ala Thr Arg Gly Ala Leu Leu Asp 180 185 190 Leu Tyr Pro Met Gly Ser Asp Gln Pro Tyr Arg Leu Asp Phe Phe Asp 195 200 205 Asp Glu Ile Asp Ser Leu Arg Val Phe Asp Ala Asp Thr Gln Arg Thr 210 215 220 Leu Glu Glu Val Asp Ser Ile Asn Leu Leu Pro Ala His Glu Phe Pro 225 230 235 240 Thr Asp Lys Thr Ala Ile Glu Leu Phe Arg Ser Gln Trp Arg Asp Arg 245 250 255 Phe Asp Val Lys Arg Asp Ala Glu His Ile Tyr Gln Gln Val Ser Lys 260 265 270 Gly Thr Leu Pro Ala Gly Ile Glu Tyr Trp Gln Pro Leu Phe Phe Asn 275 280 285 Glu Pro Leu Pro Ala Leu Phe Ser Tyr Phe Pro Ala Asn Thr Leu Ile 295 290 300 Val Asn Thr Gly Asp Ile Asp Ala Ser Ala Ser Arg Phe Glu Ser Glu 310 315 Thr Arg Ala Arg Phe Glu Asn Arg Gly Val Asp Pro Met Arg Pro Leu 330 335 325 Leu Pro Pro Glu Met Leu Trp Leu Arg Thr Asp Glu Leu Asn Ala Glu 340 345 Leu Lys Arg Trp Pro Arg Met Gln Leu Lys Thr Asp Ser Leu Ala Asp 360 365 355 Lys Ala Ala Asn Thr Asn Leu Ala Phe Arg Met Leu Pro Asp Leu Ala 375 370 380 Val Gln Ala Gln Gln Lys Ser Pro Leu Asp Asn Leu Arg Lys Phe Leu 390 395

Glu Ser Phe Thr Gly Pro Val Val Phe Ser Val Glu Ser Glu Gly Arg 405 410 Arg Glu Ala Leu Gly Glu Leu Leu Gly Arg Ile Lys Val Ala Pro Lys

425 Arg Ile Leu Arg Leu Ser Glu Ala Thr Gly Asn Gly Arg Tyr Leu Met 440 445 435 Ile Gly Ala Ala Glu His Gly Phe Ile Asp Thr Leu Asn Asn Leu Ala 455 460 Leu Ile Cys Glu Ser Asp Leu Leu Gly Glu Arg Val Ala Arg Arg Arg 475 470 Gln Asp Ser Arg Arg Thr Ile Asn Pro Asp Thr Leu Ile Arg Asn Leu 490 485 Ala Glu Leu His Pro Gly Gln Pro Ile Val His Leu Glu His Gly Val 505 Gly Arg Tyr Gln Gly Met Thr Thr Leu Glu Ala Gly Gly Ile Lys Gly 515 520 Glu Tyr Leu Met Leu Thr Tyr Ala Asn Asp Ala Lys Leu Tyr Val Pro 540 530 535 Val Ser Ser Leu His Leu Ile Ser Arg Tyr Ala Gly Gly Ala Glu Glu 550 555 Asn Ala Pro Leu His Lys Leu Gly Gly Asp Ala Trp Ala Arg Ala Arg 565 570 Gln Lys Ala Ala Glu Lys Val Arg Asp Val Ala Ala Glu Leu Leu Asp 580 585 590 Ile Tyr Ala Gln Arg Ala Ala Lys Glu Gly Tyr Ala Phe Lys His Asp 595 600 605 Lys Glu Gln Tyr Gln Leu Phe Cys Asp Ser Phe Pro Phe Glu Thr Thr 610 615 620 Pro Asp Gln Ala Gln Ala Ile Asn Ala Val Leu Ser Asp Met Cys Gln 630 635 Pro Leu Ala Met Asp Arg Leu Val Cys Gly Asp Val Gly Phe Gly Lys 645 650 655 Thr Glu Val Ala Met Arg Ala Ala Phe Leu Ala Val Glu Asn Asn Lys 660 665 670 Gln Val Ala Val Leu Val Pro Thr Thr Leu Leu Ala Gln Gln His Phe 675 680 685 Asp Asn Phe Arg Asp Arg Phe Ala Asn Trp Pro Val Arg Ile Glu Met 690 695 700 Leu Ser Arg Phe Arg Ser Ala Lys Glu Gln Thr Gln Ile Leu Glu Gln 705 710 715 Ala Ser Glu Gly Lys Ile Asp Ile Leu Ile Gly Thr His Lys Leu Leu 725 730 Gln Ser Asp Val Lys Trp Lys Asp Leu Gly Leu Leu Ile Val Asp Glu 740 745 750 Glu His Arg Phe Gly Val Arg His Lys Glu Arg Ile Lys Ala Met Arg 755 760 765 Ala Asn Val Asp Ile Leu Thr Leu Thr Ala Thr Pro Ile Pro Arg Thr 775 780 Leu Asn Met Ala Met Ser Gly Met Arg Asp Leu Ser Ile Ile Ala Thr 785 790 795 Pro Pro Ala Arg Arg Leu Ala Val Lys Thr Phe Val Arg Glu Tyr Asp 805 810 815 Asn Leu Val Val Arg Glu Ala Ile Leu Arg Glu Val Leu Arg Gly Gly 820 825 830 Gln Val Tyr Tyr Leu Tyr Asn Asp Val Glu Asn Ile Gln Lys Ala Ala 835 840 845 Asp Arg Leu Ala Glu Leu Val Pro Glu Ala Arg Ile Ala Ile Gly His 850 855 Gly Gln Met Arg Glu Arg Glu Leu Glu Arg Val Met Asn Asp Phe His 865 870 875 His Gln Arg Phe Asn Val Leu Val Cys Thr Thr Ile Ile Glu Thr Gly 885 890 Ile Asp Ile Pro Thr Ala Asn Thr Ile Ile Ile Glu Arg Ala Asp His 905

Phe Gly Leu Ala Gln Leu His Gln Leu Arg Gly Arg Val Gly Arg Ser 920 His His Gln Ala Tyr Ala Trp Leu Leu Thr Pro His Pro Lys Ala Met 930 935 940 Thr Thr Asp Ala Gln Lys Arg Leu Glu Ala Ile Ala Ser Leu Glu Asp 945 950 955 Leu Gly Ala Gly Phe Ala Leu Ala Thr His Asp Leu Glu Ile Arg Gly  $965 \hspace{1cm} 970 \hspace{1cm} 975$ Ala Gly Glu Leu Leu Gly Glu Asp Gln Ser Gly Ser Met Glu Thr Ile 980 985 990 Gly Phe Ser Leu Tyr Met Glu Leu Leu Glu Asn Ala Val Asp Ala Leu 995 1000 1005 Lys Ala Gly Arg Glu Pro Ser Leu Glu Asp Leu Thr Ser Gln Gln Thr 1010 1015 1020 Glu Val Glu Leu Arg Met Pro Ser Leu Leu Pro Asp Asp Phe Ile Pro 1025 1030 1035 1040 Asp Val Asn Thr Arg Leu Ser Phe Tyr Lys Arg Ile Ala Ser Ala Lys  $1045 \hspace{1.5cm} 1050 \hspace{1.5cm} 1055$ Ser Glu Gly Glu Leu Glu Glu Ile Lys Val Glu Leu Ile Asp Arg Phe 1060 1065 1070 Gly Ile Leu Pro Asp Ala Ala Arg Asn Leu Leu Asp Ile Ala Arg Leu 1075 1080 1085 Arg Gln Gln Ala Gln Lys Leu Gly Ile Arg Lys Leu Glu Gly Asn Glu 1090 1095 1100 Lys Gly Gly Val Ile Glu Phe Ala Glu Lys Asn His Val Asp Pro Met 1105 1110 1115 1120 Trp Leu Ile Gly Leu Leu Gln Lys Gln Pro Gln His Phe Arg Leu Asp 1125 1130 1135 Gly Pro Thr Arg Leu Lys Phe Thr Gln Asp Leu Thr Glu Arg Lys Thr 1140 1145 1150 Arg Met Asp Trp Val Arg Asn Phe Met Arg Gln Leu Glu Glu Asn Ala 1160 Ile Ala

<210> 7672 <211> 340 <212> PRT

<213> Enterobacter cloacae

<400> 7672 Leu Ser Leu Thr Pro Tyr Lys Thr Ile Thr Leu Ser Phe Val Trp Ile 10 15 Met Ile Met Met Ile Ser Ser Arg Phe Thr Arg Trp Leu Thr Leu Val 20 Ala Leu Ala Ala Thr Val Ala Val Ala Leu Pro Ala Arg Ala Asn Thr 40 Trp Pro Leu Pro Pro Ala Gly Ser Asn Val Val Gly Glu Asn Arg Phe 55 60 His Val Val Glu Asn Asp Gly Gly Ser Leu Glu Ala Ile Ala Lys Lys 75 70 Tyr Asn Val Gly Phe Leu Ala Leu Leu Gln Ala Asn Pro Gly Val Asp 90 85 Pro Tyr Val Pro Arg Ala Gly Ser Val Leu Thr Ile Pro Leu Gln Thr 110 105 Ile Leu Pro Asp Ala Pro Arg Gln Gly Ile Val Ile Asn Leu Ala Glu 125 Leu Arg Leu Tyr Tyr Tyr Pro Pro Gly Lys Asn Glu Val Thr Val Tyr 135 140 Pro Ile Gly Ile Gly Gln Leu Gly Gly Asp Thr Leu Thr Pro Thr Met 150 155

```
Val Thr Thr Val Ser Asp Lys Arg Ala Asn Pro Thr Trp Thr Pro Thr
                 170
         165
Ala Asn Ile Arg Ala Arg Tyr Lys Ala Gln Gly Ile Asp Leu Pro Ala
        180
                     185
Val Val Pro Ala Gly Pro Asp Asn Pro Met Gly His His Ala Ile Arg
                    200
                                   205
Leu Ala Ala Tyr Gly Gly Val Tyr Leu Leu His Gly Thr Asn Ala Asp
 210
      215
                                220
Phe Gly Ile Gly Met Arg Val Ser Ser Gly Cys Ile Arg Leu Arg Asp
225 230 235
Asp Asp Ile Lys Thr Leu Tyr Arg Val Ile Ala Pro Gly Thr Lys Val
        245 250
                                        255
Asn Ile Ile Asn Thr Pro Ile Lys Val Ser Glu Glu Pro Gly Gly Val
       260 265 270
Arg Leu Val Glu Ile His Gln Pro Leu Ser Lys Asn Ile Asn Asp Asp
 275 280 285
Pro Gln Thr Leu Pro Ile Asn Leu Asn Ala Ser Met Val Ser Phe Lys
290 295 300
Thr Asn Ala Asn Thr Asp Gly Ala Val Met Glu Arg Ala Met Glu Ala
305 310 315 320
Arg Ser Gly Met Pro Thr Asp Val Thr Arg His His Glu Val Ala Gln
  325 330 335
Gln Ser Met
        340
<210> 7673
<211> 294
<212> PRT
<213> Enterobacter cloacae
<400> 7673
Lys Ala Gly Arg Leu Tyr Trp Leu Met Lys Asn Thr Ser Lys Phe Gln
                     10
Asn Val Val Ile Ala Thr Ile Val Gly Trp Leu Val Leu Phe Val Phe
                       25
                                3.0
Leu Pro Asn Leu Met Ile Ile Val Thr Ser Phe Leu Thr Arg Asp Asp
                  40
                        45
Ala Asn Phe Val Ala Met Val Phe Thr Leu Asp Asn Tyr Ala Arg Leu
           55 60
Leu Asp Pro Leu Tyr Phe Asp Val Leu Leu His Ser Leu Asn Met Ala
            70 75 80
Leu Ile Ala Thr Leu Ala Cys Leu Val Leu Gly Tyr Pro Phe Ala Trp
                   90
Phe Leu Ala Arg Leu Pro Gln Lys Val Arg Pro Leu Leu Phe Leu
       100 105
Leu Ile Val Pro Phe Trp Thr Asn Ser Leu Ile Arg Ile Tyr Gly Leu
    115 120
                                   125
Lys Ile Phe Leu Ser Thr Lys Gly Tyr Leu Asn Glu Phe Leu Leu Trp
 130 135 140
Leu Gly Val Ile Glu Thr Pro Ile Arg Ile Met Phe Thr Pro Gly Ala
    150
                           155
Val Ile Val Gly Leu Val Tyr Ile Leu Leu Pro Phe Met Val Met Pro
           165 170 175
Leu Tyr Ser Ser Ile Glu Lys Leu Asn Lys Pro Leu Leu Glu Ala Ala
        180 185 190
Lys Asp Leu Gly Ala Ser Lys Leu Gln Thr Phe Val Arg Ile Ile Ile
     195 200 205
Pro Leu Thr Met Pro Gly Ile Ile Ala Gly Cys Leu Leu Val Met Leu
                              220
 210 215
Pro Ala Met Gly Leu Phe Tyr Val Ser Asp Leu Met Gly Gly Ala Lys
              230
                             235
```

```
Asn Leu Leu Ile Gly Asn Val Ile Lys Ser Gln Phe Leu Asn Ile Arg
                              250
             245
Asp Trp Pro Phe Gly Ser Ala Thr Ser Ile Thr Leu Thr Val Val Met
         260
                          265
Gly Leu Met Leu Leu Val Tyr Trp Arg Ala Ser Arg Leu Leu Asn Lys
             280
Lvs Val Glu Leu Glu
  290
<210> 7674
<211> 223
<212> PRT
<213> Enterobacter cloacae
<400> 7674
Leu Phe Asn Lys Thr Thr Glu Asp Gln Arg His Met Thr Thr Asp Val
                              10
Thr Arg Cys Ala Lys Lys Ser Arg Gly Arg Pro Lys Val Phe Asp Arg
        20
                          25
                                            3.0
Asp Ala Ala Leu Asp Lys Ala Met Thr Leu Phe Trp Gln His Gly Tyr
     35
                    40
                                        4.5
Glu Ala Thr Ser Leu Ser Asp Leu Val Glu Ala Thr Gly Ala Lys Ala
                    55
                                    60
Pro Thr Leu Tyr Ala Glu Phe Thr Asn Lys Glu Gly Leu Phe Arg Ala
              70
                     75
Val Leu Asp Arg Tyr Ile Ser Arg Phe Ala Ala Lys His Glu Ala Gln
                          90
             85
Leu Phe Cys Glu Glu Lys Thr Val Glu Gln Ala Leu Gln Asp Tyr Phe
         100
                        105 110
Thr Ala Ile Ala Thr Cys Tyr Thr Ser Lys Asp Thr Pro Ala Gly Cys
115 120
                                      125
Phe Met Ile Asn Thr Ser Ala Thr Leu Ala Ala Ser Ser Lys Glu Ile
130 135 140
Ala Asn Thr Val Lys Ser Arg His Ala Met Gln Glu Glu Thr Leu Ser
145 150 155
Thr Phe Leu Ala Gln Arg Gln Leu Arg Gly Glu Ile Pro Ala His Cys
             165 170 175
Arg Pro Gln Glu Leu Ala Gln Tyr Leu Ser Cys Ile Leu Gln Gly Met
                         185 190
Ser Ile Ser Ala Arg Glu Gly Ala Thr Leu Glu Lys Leu Gln Gly Ile
      195 200 205
Thr His Thr Thr Leu Arg Leu Trp Pro Glu Leu Leu Lys Leu
                    215
<210> 7675
<211> 282
<212> PRT
<213> Enterobacter cloacae
<400> 7675
His Gly Gly Gln Ser Val Gln Arg Leu Thr Lys Arg Ile Gly Arg Lys
                              10
Met Asn Ile Ala Thr Ala Ser Leu Ser Arg Gln Gly Thr Arg Ala Ser
         20
                           2.5
Asn Gln Asp Gln Thr Gly Glu Thr Ile Gly Glu Arg Ser Ala Cys Phe
      35
                        40
Val Val Cys Asp Gly Ile Ala Gly Leu Pro Gly Gly Glu Val Ala Ala
                   5.5
                                     60
Glu Leu Ala Arg Asn Ser Ile Ile Ser Arg Phe Asp Gly Asp Lys His
```

7.0

75

Leu Asn Ala Gln His Ile Arg Asp Tyr Val Gln Thr Ala Asn Arg Thr

```
Ile Leu Ser Glu Gln Gln Ala Val Gln Asp Tyr Arg Arg Met Gly Thr
                     105
                                        110
Thr Leu Val Ser Leu Phe Ile Asp Arg Asp Tyr Arg Leu Ala Tyr Trp
   115
                   120
Ala His Ala Gly Asp Ser Arg Leu Tyr Leu Phe Arg Arg Gly Trp Leu
 130
               135
                                 140
Trp His Val Thr Thr Asp His Ser Leu Val Gln Gln Met Lys Asp Ala
145 150 155
Gly His Gln Thr Asp Asp Leu Asn Ser Asn Leu Leu Tyr Leu Ala Leu
         165 170
Gly Ile Glu Asn Gly Gly Pro Glu Ala Ser Tyr Ser Asp Val Val Gln
      180 185 190
Val Glu Asp Gly Asp Ala Phe Leu Leu Cys Thr Asp Gly Phe Trp His
    195 200 205
Gly Val Ser Glu Glu Gln Met Lys Gln Ser Leu His Met Val Asn Thr
 210 215 220
Pro Gln Glu Trp Leu Thr Leu Met Asn Gln Ile Ile Gln Lys Asn Ala
225 230 235 240
Glu Gln Glu Gly Asn Ala Gln Asp Asn Tyr Thr Ala Val Ala Val Trp
        245 250 255
Met Gly Asn Pro Gln Asp Thr Thr Leu Leu His Thr Leu Ser Asp Ala
     260 265 270
Ala Gln Phe Leu Pro Cys Gly Thr Asp
<210> 7676
<211> 914
<212> PRT
<213> Enterobacter cloacae
<400> 7676
Arg Arg Ala Ile Arg Val Gln His Leu Ala Arg Pro Ser Ala Ser Ala
                         10
Cys Ser Ala Trp Arg Ser Gly Val Ser Arg Arg Ala Ile Ile Leu Pro
        20
                        25
Tyr Thr Glu Ser Leu Leu Met Glu Thr Asn Met Ser Glu Ile Ser Arg
                40
                            4.5
Ala Val Leu Phe Gly Lys Leu Asp Thr Leu Leu Phe Thr Ser Leu Glu
                  55
                          60
Ser Ala Thr Ala Phe Cys Lys Leu Arg Gly Asn Pro Tyr Val Glu Leu
               70
                              75 80
Val His Trp Leu His Gln Leu Met Gln Gln Gln Asp Gly Asp Leu Gln
            85
                           90
Gln Val Ile Arg His Phe Ala Leu Asp Glu Gln Gln Leu Thr Arg Asp
        100
                        105 110
Ile Val Ala Ala Leu Asp Ala Leu Pro Arg Gly Ala Ser Ser Val Ser
      115
                     120 125
Asp Leu Ser Glu His Ile Asp Ser Ala Val Glu Arg Ala Trp Val Tyr
                  135
                                 140
Gly Ser Leu Lys Phe Gly Val Ser Arg Ile Arg Gly Gly His Leu Leu
      150
                              155
145
Ile Gly Ile Leu Lys Thr Trp Asn Leu Ala Asn Val Leu Lys Ser Ile
            165
                           170 175
Ser Ala Gln Phe Thr Arg Leu Asn Val Glu Val Leu Val Glu Gln Phe
```

185

200

205

220

Asp Ala Ile Cys Ala Ser Ser Lys Glu Ser Gln Gln Ala Ala Ala Ala

Ala Asp Ala Pro Ala Gly Ala Val Pro Ala Ala Gln Gly Thr Leu Ala

Gln Tyr Gly Gln Asp Leu Thr Ala Arg Ala Arg Glu Gly Lys Ile Asp

215

180

195